New Customer Training: Building Confidence to Achieve Success

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New Customer Training: Building Confidence to Achieve Success

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Design & Development Project Report
Instructional Psychology & Technology, Brigham Young University
Purpose

For this project, I worked with Trisha Barth, Director of Professional Services at ParishSOFT. ParishSOFT is a SaaS company that focuses on developing database management solutions targeting the Catholic church. Their primary platform, the ParishSOFT Family Suite, houses member records, contribution data, and other records pertinent to the Catholic church. Their LMS was initially launched in January 2019 and consisted of video tutorials showing new customers how to do many of the most common tasks within the Family Suite.

The purpose of this project was to add interactive content to the existing LMS. Interactive content will be any content that allows learners to practice concepts being taught by performing a task outlined in the learning activity. So far, ParishSOFT has had mostly positive feedback from customers using the LMS, but Trisha was concerned about the learner experience becoming too monotonous for users. She wanted to break up the current learner experience by allowing users to interact with content in a variety of ways, but she did not have a specific direction on what those interactions should be. She was open to exploring whatever ideas or options come up during this project. We talked about ideas such as having draggable fields on sample parish forms that learners will match to fields within the software and using a simple narrative to help learners stay more engaged. The purpose of these kinds of activities is to help learners form connections between their previously-established workflow and how that same workflow is managed within this new software. The narrative was used to show how what they are learning is relevant to their jobs with the intent of encouraging a sense of internal motivation to complete the training.

Since Trisha specifically requested I focus on creating ways for new customers to interact with content, this was the focus for my design. My goal was to create learning experiences that are relevant to the learners’ job but are also interesting and engaging enough to capture the learners’ attention. Learning a new piece of software will likely be overwhelming for some, but incorporating design elements mentioned above can help learners find meaning in and connect to what they’re learning.

The outcomes and goals for this project were:

Student Learning Outcomes:
- Students will be able to independently create and close/commit batches for their weekly contributions
- Students will be able to independently enter contribution data using both methods - detailed entry and quick entry processing
- Students will be able to identify why a batch is not balanced

Project Goals:
- Create content that allows learners to explore based on interest
- Create content that allows learners to interact with content (ex: drag and drop interactions)
- Create content that is relevant to the learner’s job
Project Needs and Constraints

The project needs and constraints listed below include a summary of learner personas, a summary of the environmental analysis, and the timeline and budget constraints as defined by the client.

Summary of Learner Personas

The two personas I created highlighted many of the commonalities among my target learners. Both of the personas I created were female - one in her early thirties (Pavani) and one in her mid-seventies (Sharon). Both were volunteers at the parish office, but one had been volunteering for many years while the other was fairly new. Both were also very actively involved in their parishes. The most significant attribute common in both personas is the low level of confidence with technology. This is significant to this project because training at ParishSOFT happens primarily online through their LMS, and the learners will be working in a software platform that they also access online. Even training that is conducted live still uses an online training database in which learners are practicing content taught.

I also tried to keep in mind some of their differences that may impact their experiences in the parish office. For example, Pavani is also raising children, so much of her time and attention is dedicated to her children. Sharon spends more time at the parish office, but her primary focus is on interactions with other parishioners. While neither is comfortable using technology, the reasoning for each is different. Sharon just assumes that the younger generation is more adept at using technology whereas Pavani is used to her programmer-husband just taking care of everything for her. Neither is unable to learn. They just lack confidence.

These two personas are not reflective of the entire population of learners who will go through the LMS training, but they are representative of an overwhelming majority. Both personas are born out of my own personal experience working as a customer support representative and as a trainer at ParishSOFT. Spending two years interacting with individuals who had to learn a new software really painted a clear picture for me as I was building these lessons. There were often distinct faces or voices that came to mind, real people I had helped along their journey learning how to use the Family Suite. Had I not worked in this capacity before starting this project, I would not have had those faces and voices and stories come to mind. It may have been easier for me to dismiss those personas and develop what I thought was a meaningful learning experience. Instead, I was able to focus on those individuals and remember their stories and our interactions and build what would meet the needs they expressed to me when I was working as a trainer.

The biggest implication I pulled from these personas was the need to make the lessons approachable, relatable, and relevant to the learners’ jobs.

Summary of Environmental Analysis
As mentioned previously, training at ParishSOFT happens primarily online through their PathFINDER LMS. As long as learners have an internet connection, they can access the LMS from pretty much anywhere on any device. The primary implication for my project was the need to make sure what I created was also mobile-friendly. Since Storyline does not offer responsive design, I needed to be aware of things like the size of buttons, drop areas for drag-and-drop interactions, and the size and amount of text on any given page. However, the vast majority of users (about 90%) are accessing the LMS using a laptop or desktop computer.

ParishSOFT chose to use Litmos as their customer-facing LMS primarily because of its ease of use. This was of particular importance because the majority of new customers who would be training through this platform tend to be individuals who struggle to learn a new technology. Litmos offers a pretty basic and straightforward LMS that still offers some flexibility to the administrators. For example, they are able to group courses into tracks that learners can select for their training instead of choosing individual courses. This has helped ParishSOFT guide their learners as those learners sign up for courses relevant to their work at the parish office.

Litmos allows administrators to either build courses within the LMS or import files created outside of the LMS. Because of this, I was able to create these lessons in Storyline and import the zipped files into the LMS with no trouble. The lessons were then situated between the existing tutorials and quizzes to encourage learners to complete the lessons in that order. Within the LMS, learners are given an option to move on to the next lesson without leaving the page they are on.

A significant constraint of the LMS had to do with the types of assessment questions it allows you to ask. There are really only a handful: true/false, multiple choice, keyword (short answer), and hotspot (learner clicks a particular area of an image). This was a challenge for my project because two of the learning objectives were more performance-based, but Litmos does not provide a way for learners to demonstrate their ability to complete a task. While that was built into the lessons in Storyline, I was not able to get specific data from the LMS related to those tasks. This was another constraint of the LMS. It simply identified whether or not a lesson was complete, but no information was available about how far a learner got in an incomplete lesson. There was also no information available about how many times a learner attempted a task before being able to complete that task.

**Timeline and Budget**

Since I was a contracted employee, my project needed to be completed by the time my contract expired at the end of December. I was also budgeted to work for ten hours per week through the end of my contract with ParishSOFT. The schedule (see “Budget and Timeline” in the Appendix) was set up in order to be able to complete this project within that timeframe with some cushioning just in case problems arose.

The initial plan was to have the storyboarding and prototypes completed within a few weeks, but prototyping took longer than I anticipated as I found I needed to find ways to get PowerPoint to work in a way it was not necessarily designed to work. I was not able to get everything to work as I had hoped in the prototype stage. For example, I could not get PowerPoint to do drag-and-drop interactions. However, I was able to get the prototypes close enough to what the actual lesson would feel like and just moved forward the best I could.
The benefit of taking longer with the prototypes was that I felt more prepared as I started building out the final versions of these lessons in Storyline. I had spent so much time trying to figure out the drag-and-drop interactions that I knew how I wanted them to go in the final version. I had a plan for what fields would be hotspots and what information would be included in the draggable boxes. I knew what triggers I wanted to use to make that interaction as smooth as possible for the learner. As a result, the final build did not take as long as I expected it would.

Product Description

The product I created included four short interactive lessons to supplement tutorials already included in the PathFINDER LMS for the Offering Basics lesson. Each lesson provides a very brief review of key content from the tutorials, an opportunity for learners to interact with that content and see why it is important, activities that help them gauge their own understanding of the content, and a simple narrative designed to help the lessons feel more approachable and relevant to the learner.

The lessons open within the LMS just like the tutorials, so learners do not have to navigate away from that platform. Though it is hidden at the start of the lesson, learners are provided with a menu to navigate these lessons so they can go back and review if needed, as shown in the left panel of Figure 1. Each slide of the lesson, except for the activities, also have back arrows in case they need to return to a previous slide, as shown at the bottom of Figure 1. There is also a seekbar available on each page so they can pause, restart, or review a section of the narration on each slide, also shown at the bottom of Figure 1.

![Figure 1: full screenshot of lesson page in the LMS](image)

Trisha specifically requested interactive content for these lessons so each lesson includes a tab interaction where learners can explore content and at least two drag-and-drop interactions where learners can apply concepts being taught. In Figure 2, the blue boxes can be dragged to the fields found at the top of the screen. Learners need to be able to distinguish which boxes need to
be dragged to the corresponding fields. While all of the boxes can be dragged, not all will be used in this example.

![Figure 2: Example of a drag-and-drop interaction](image)

The first lesson also offers learners different learning paths. They can skip an explanation of a key concept if they feel they already understand it, and they are offered an option to hear the difference between two entry methods if they are unsure which will be relevant for their job. Since not every learner is new to this platform, these two paths (shown in Figure 3 as the “Yes..” and “No..” buttons) provide an option for more advanced learners to move on and get what they need while those who are new or not feeling as confident can get the deeper explanations they need.
Since this content was loaded directly into the company LMS, there was no need for any additional instructional guides for Trisha and her team. ParishSOFT has not yet purchased Storyline for their training team, though Trisha requested information about the program and may have her team download a trial version to see if it is something that will benefit their team. Currently, this content is marked as optional in the LMS while Trisha and her team determine whether or not they will continue down this path for their other modules.

Design Process and Evolution

Decisions I made, from what kind of activities to include to how the lessons are structured, came primarily from what I learned about my intended learners. During that initial research, it became apparent that the learning theory that would best support my learners is Social Cognitivism because of its emphasis on self-efficacy. There is more information about why self-efficacy matters in this environment in the Annotated Bibliography portion of the Appendix.

Learners’ lack of confidence in their ability to learn new technologies continued to come out in my interactions with them. One way to combat these low levels of self-efficacy is to create opportunities for learners to have mastery experiences. The activities I designed for these lessons really focused on this. I provided instruction that would give learners the tools to be able to complete the required tasks, and the instruction was tailored to address common problems new users encounter. As a result, I was able to create tasks that were challenging enough that the answers were not necessarily obvious, but these tasks were also small enough that learners would not be overwhelmed. At the end of each lesson, they were given a final task that would apply several of the concepts taught in that lesson so they could see how all of the pieces fit together.
Another key decision I made was including a narrator or guide for the learner. The discussion from van der Meij (2013) pointed to specific benefits learners can gain from having a narrator (agent) within their training, so including that narrator became a primary focus for my lessons. Additionally, I also tried to include encouraging feedback for learners as they submitted their answers in order to again address those low levels of self-efficacy.

There were three primary phases for my project: storyboard, prototype, and final build. Each phase was completed by me and reviewed by Trisha and her team. Recommended changes were addressed and incorporated where possible in the subsequent phase.

**Storyboard Phase**
This phase was comprised of rough drawings. My primary goal for this phase was to map out what information should be included, in what order, and on what slide(s). These drawings were not very detailed and often included notes written below a rough sketch to communicate the major ideas and content to be included on each slide. At this point, I was not concerned with developing a specific design aesthetic. My primary focus was making sure the content was relevant to the learners’ needs, flowed in a logical order, and provided an opportunity for them to practice and apply what they learned in a way that also showed how the content was relevant to their work.

*Figure 4: Storyboards for Detailed Posting lesson*
As I worked through this storyboarding, I often changed the order things were presented. In Figure 4, you can see numbers beside each square - the squares represent the slides and the number represent the order of the slides. The storyboard in Figure 5 was originally intended to be fourth in the sequence for this lesson. It was later bumped to sixth, and you can see that six was scratched out and changed to number seven. The change in order was often the result of fine-tuning the content to be included. Sometimes I found a little more explanation would be beneficial, so a new slide would be needed beyond my original plan. There are two instances in the image above when new slides were added without the square. Instead, numbers three and six have just text with notes on feedback I planned to provide to learners after an activity. In the case of number six, I was not yet sure if that feedback would be a separate slide or a pop-up message. I kept track of the notes and their order so I could experiment with those different options during the prototyping phase to see which would work better.

In addition to laying out content order, the storyboarding phase was also an experiment with the use of a narrative throughout the lessons. Keeping my learners in mind and their purpose for going through this training, I knew the narrative would have to be pretty basic while also being close enough to real life that they could relate. I also would be doing the audio recording entirely on my own, so I found a way to include one person (Shirley) as both the teacher and a fellow learner struggling to understand what was being taught. Shirley-teacher introduced new content to those accessing the lesson, and then Shirley-learner explained a problem she was having relative to what the learners had just heard. It felt like a simple enough story to narrate with only one voice, but it would also be possible to include real-world problems my intended learners would encounter as they started working on their own.

Prototype Phase
There were many things that went very well in this phase, and there were several problems that needed to be worked out as well. The first part of the prototype phase was to take my storyboards and create an audio script. I broke each script up into sections - one section for each slide. I incorporated the notes I had made on or under each square on my storyboards to make sure I stayed on track.

Figure 6: Script for Creating a Batch lesson

However, once I started putting the slides together, I found some of the scripts and storyboards needed to be modified. There were a few instances where I just had too much content on one slide. There were also times when transitions were clumsy. The driving force behind these changes was the learners, specifically the personas I developed previously. If the purpose of this project was to help them to be successful using the Family Suite to enter their weekly contributions, I knew I needed to be careful about my pacing. Remembering key things, such as their low levels of confidence with technology, helped me to slow down and make sure the pace of the lesson would not overwhelm them.

To develop this prototype, I used Microsoft PowerPoint. I chose this tool because it is close enough to a Storyline experience that I could create a fairly authentic experience without investing all of the time it would take to create a Storyline experience. Another problem I encountered during this phase was the inability to create drag-and-drop interactions in PowerPoint. While I found that older versions of this program did have a way to work around this, the version I have did not. So, I ended up temporarily turning those drag-and-drop interactions into click-to-reveal interactions. Some of those activities had to be broken into individual steps since I was unable to find a way to include multiple inputs on one PowerPoint slide. Still, I was able to provide a fairly close experience. This was important to make sure the activities I was developing would be relevant to both the content being taught and the learner’s experience beyond the lesson.

During this phase, I also focused more on the aesthetics of the individual slides. My major focus in the layout and design of each slide was to create a close approximation of what the learner’s work environment might look like. Many of the slides were also just screenshots of the Offering
module where they would be working. I used the actual images to help them get used to the look and feel of the software while also explaining what the different parts were and how to use them.

Figure 7: Prototype of learner path

This is also where I encountered the last significant challenge of the prototyping phase - making sure learners knew what to do on each page. Using Storyline, it is possible to have an entire click-to-reveal interaction on one slide, so no additional navigational instructions are necessary. With PowerPoint, each click takes the learner to a new slide. So, with the click-to-reveal interactions, I had to have a way for them to get back to where they started. I was also unable to prevent learners from moving on - another limitation of PowerPoint. Consequently, there were times I knew the script I had written was not necessarily going to line up with the learner’s expectations when testing this prototype. To address this, I made sure to warn testers ahead of time. I provided written navigational instructions so they would know what to look for when reviewing these lessons since this would only be a temporary issue. I also used “Next” arrows to try to be as obvious as possible about what they should do, just in case they did not read the instructions I sent. It was more important for them to be able to focus on the pace, the flow, and the relevance of the content. Navigation would not be an issue within Storyline.

As mentioned earlier, these two phases (storyboarding and prototyping) also included reviews by Trisha and her team. The changes they had suggested were typically pretty minor, so at Trisha’s request those changes were implemented in the final build phase.

Final Build Phase
The last major phase was my final build. This phase focused on polishing the prototypes and building the lessons users would interact with through the ParishSOFT LMS. During both this phase and the prototyping phase, I really tried to keep in mind those users who would be accessing the LMS on a mobile device. Those users in particular were in the forefront of my mind
as I was designing the size of tabs or buttons, the size or amount of text, or the drop areas for drag-and-drop interactions.

![Figure 8: Prototype of drag-and-drop interaction](image)

The biggest problem I encountered in this phase was the character. I had hoped there would be an obvious way to distinguish between Shirley and narrator and Shirley the learner, such as a different shirt color or hair style. With the trial version of Storyline, I knew I would not find two characters who looked similar enough that they could be the same person. I searched online for suggestions on how to modify the Storyline characters but was unable to find an option that worked. Storyline just does not offer that option, and following the tips for modifying the characters using Photoshop left my character looking much less polished than the original character in Storyline.

To address this concern, I used different poses and facial expressions to distinguish between the characters. For example, Shirley the learner always has her arms folded across her body whereas Shirley the narrator has more open body language. Based on feedback from my testers, I also added a yellow hue to highlight who is speaking when both characters are on screen at the same time. It seemed to help distinguish between who is talking and highlight the difference in speaking style between the two characters.
The fully-licensed version of Storyline does offer a wider variety of characters, including some that look similar enough for this project. I did not gain access to this version of Storyline until just before my project was finalized and uploaded to the LMS. I opted to not change the characters at this point for two reasons: (1) I do not know if Trisha’s team will ever purchase Storyline so it would limit what they can do with characters in a trial version of the program, and (2) the time it would take to change the characters so late in the process seemed greater than the potential benefit to be gained from that investment. During the testing stages, I asked specifically about how confusing it is to have two of the same person on the screen simultaneously. The reviewers all mentioned that the difference in facial expressions and posture were sufficient to communicate who is the learner and who is the narrator.

It was interesting to see how the constraints I came across during this process could actually work to the benefit of the project. For example, limiting myself to using only the characters available in the trial version of Storyline could have been a frustration and hindrance to the project. Instead, I took that limitation and used it to create a unique narrative for the learner and invite her into the story. Through feedback from the various testing phases, I found ways around the potential confusion of having two identical characters on the screen at the same time. By the time the lessons were released to the actual learners, no one mentioned anything problematic about having two identical characters within these lessons. Instead, their comments focused on
the benefit of these lessons to novice users and appreciating opportunities to think about what was being taught and how to apply it. Similarly, the feedback provided when learners had mistakes in the drag-and-drop interactions was fairly generic. It was difficult to create specific feedback depending on what responses were incorrect in a given activity. I opted to simplify and provide generic feedback that something was wrong. The benefit for the learner in this constraint was the requirement that they had to think about their individual answers and find their own mistakes. In the end, these constraints became strengths because they really pushed the learner to get more out of what is being taught.

Product Implementation

The sections below describe both the final testing of the product and its implementation.

Pilot Testing

After the lessons were finalized with Trisha’s team, I did a pilot test with a small group of novice users to make sure there were no major content gaps, unclear instructions, or navigation issues. After gathering their feedback, I reviewed their responses and made any final changes that felt necessary to improve the learner experience. The final lessons were then published through Storyline, the files were zipped, and all four lesson packages were uploaded to the LMS.

Implementation

Implementation for these lessons was pretty straightforward. Since these lessons were designed to be a supplement for content already existing in the PathFINDER LMS, the lessons just needed to be in a format that could be uploaded to the Offering Basics course. To meet this requirement, I used a zip file created when the Storyline lessons were published. Once uploaded, I situated the lessons between the tutorial and quiz that were already in the course.

Since Trisha and her team have opted not to lock down the course, learners are free to complete lessons in any order. Situating the new content between the existing tutorial and the quiz was the best option for ensuring the video is watched before the lessons, but there is no other way to guarantee this happens without locking down the course. However while learners are working through an individual lesson (called a module in the LMS), the LMS shows a “next module” button at the top of the screen so learners do not need to return to a previous page to get to the next lesson.

Assessment and Evaluation

Criteria

Trisha had the greatest interest in the outcomes of this project, and was the only person with whom I worked to develop both the idea and the lessons. Consequently, was the only one to whom I reported evaluation data. Also, she was interested in using the evaluation data to
determine whether or not her team would incorporate this kind of training for other modules in the LMS.

The evaluation data she was most interested in came from the survey I attached to the end of the lessons. This survey captured responders’ experiences with and perceptions of the lessons I created for this project. One of the first concerns she expressed was that the learners would get bored just watching the tutorials and answering quiz questions. Consequently, it felt important to get their reactions to the interactive content so she and her team can decide if there is value in this kind of content for their learners.

This survey asked about the learners’ perception of the pace of the content, how confusing the content was, their overall experience with the lesson, and how confident they felt in working independently doing the things they learned through the lesson and tutorial. Learners answered these questions using a four-point Likert scale. There were two additional optional questions that were open-ended. These questions asked about what the learners liked most about the lesson and what one thing they would change if they could. The questions about confidence and what was most appealing were designed to get at the heart of Trisha’s concern.

Procedures

For this project, I used a combination of developmental, summative, and formative evaluations.

Developmental Evaluation

At each stage of the design process, I sent my project to Trisha and her team to review. In addition to the files, I also sent questions for them to answer. These early questions focused on content to make sure I was not missing steps or key knowledge learners would need to successfully work in the Offering module. I also asked for their overall feedback on their experience either reviewing the storyboards or working through the prototypes. Their expert reviews helped me fine tune the lessons to make sure they would meet the needs of the learners. Since most of the suggested changes did not require any major revisions, each change was applied in the next phase of the design process. This was done at Trisha’s request. I expect that major revisions would have been reviewed again before proceeding to the next step.

I also did a novice review using a similar format. I emailed my prototyped files to a small group of novice users and asked questions very similar to those I asked the experts. My primary focus with the novice users, though, was to have them identify places where they felt they needed more information or did not understand a concept being taught. Once again, the suggested changes were applied to the next phase of the design process.

Lastly, since I was unable to connect with one of the dioceses to get feedback from actual users, I enlisted the help of a few of my personal friends to do a pilot of the final lessons. Those who agreed to participate in the pilot test were sent a link to the lessons along with a link to a survey where they were asked a few specific questions about the content, the flow, and their ability to complete the tasks in the lessons. They were also offered a place to provide their own thoughts and feedback about their experience with each lesson.
Those who agreed to participate in the pilot fell within the expected demographics of the typical ParishSOFT learner, with the exception that none had previously volunteered in a parish office. They were all of different religious background, though none were Catholic specifically. I did let them know this would be software they had never seen before, and that was okay. The only thing they needed was an internet connection. I also had one reviewer who completed the lessons on her phone which was of particular interest so I would have some indication of what a novice user’s experience would be on a mobile device. Another difference between my testers and my typical learners was their level of confidence with technology. My pilot testers tended to be more confident and comfortable using technology.

**Summative Evaluation**

The survey mentioned above was also used as a summative evaluation to capture the experiences of the actual learners interacting with the final lesson content and activities. Once learners completed the lesson, they were given a link to the survey and asked to provide their honest feedback on the same questions asked during the pilot test.

**Formative Evaluation**

Each lesson also had a quiz following the content. This functioned as the formative evaluation to measure whether or not learners were actually understanding the content. Some of these quizzes used multiple choice questions, and some used hot-spot questions designed to measure learners’ understanding of the various elements of the software and how to navigate the pages to be able to accomplish their work.

**Evidence**

The evaluation evidence I collected included survey responses for both novice reviews and learner responses to the final product, quiz data from the LMS, and written responses to expert reviews conducted through email.

The quiz data was not very impactful since the LMS is currently set up to require a score of 100% before learners have “passed” an assessment. This is a setting that Trisha and her team agreed on when the LMS was first set up. Learners are given multiple chances to complete the quizzes, and most who do not get 100% the first time retook the quiz until they did. As a result, for those who take the quizzes more than once, it is hard to know if they passed the quiz because of the lesson content or because of their experience with the quiz.

The most impactful evaluation evidence was the survey completed by the learners through the LMS. Their responses regarding their experience with the interactive content specifically addressed Trisha’s concern about whether or not the existing tutorials will eventually bore the learners. This was the data that helped determine whether or not this project was a success.
Outcomes

Though the evidence provided through the LMS was insufficient to determine whether or not these lessons helped learners accomplish the learning objectives, the survey data collected showed that learners saw value in the lessons. The activities provided an opportunity for learners to think about and apply what they learned, and they responded very favorably to that.

Trisha also had access to the survey and responses, and she monitored the feedback collected through the survey. She was also interested in feedback from those who had previously completed the tutorial lessons, so an email was sent out to all LMS users inviting them to go through this new content and provide their responses as well. Though the content was designed with novice users in mind, even the more advanced users were able to see value in these lessons helping new users become familiar with working in the Offering module. As a result of this feedback from both novice and advanced users, the goals of this project were achieved. Learners were able to complete the tasks and feel confident that they can work independently in the Offering module.

Going forward, Trisha and her team can easily take advantage of the key components of these lessons to create additional lessons like this for the other modules in the Family Suite. The key components include a simple but realistic narrative, real-world problems the learner can solve within the lesson, a chance to think about and apply concepts being taught, and encouraging feedback that reinforces the learners’ thoughts that s/he can be successful using this new technology.

Design Knowledge and Critique

One of the most important things I learned during this project was the importance of consistency, especially with the narrative elements. Knowing my learners really well helped me come up with a simple narrative that would be relevant and approachable, but actually writing the scripts helped me see just how important it would be to stay consistent in that narrative. This included things like the characters’ demeanor, tone of voice, and general way of speaking. It would be so easy to relax those basic elements, but remembering my learners’ low levels of confidence with technology helped me focus on those simple details because it would be easy for them to be distracted if there were inconsistencies in the lessons.

Really knowing my learners also helped me create realistic practice and problem scenarios - things my learners would actually encounter as they began working on their own. Some of these scenarios even came out of trainings I had previously led when working at ParishSOFT. I knew what they would ask and what problems they would face because I had spent so much time with them. The overall result was that the lessons I created could feel authentic.

However, this project was not perfect. For example, though the narrative I used was approachable, it may also have been overly simplistic. Learners may have benefitted from seeing a bit more of the complexity that comes with learning a new software platform.
The testing phases also did not quite go as planned. There may have been additional improvements suggested had I been able to work with actual learners. While I tried to include people who are as close as possible to the actual learners, the pilot testers were friends of mine and may have been overly kind in their reviews. They also lacked some of the cultural understanding that comes with being a regular volunteer in a parish office.

Had there been more or different resources available, I would have liked to include an additional voice actor so there could be more of a difference between the narrator and the learner. It also would have been nice to include some less structured practice examples had I been able to link the LMS to the training site used by Trisha’s team in live trainings.

The most significant thing I learned through this process is that I can succeed. I can create something meaningful that will help others connect to new content and learn what they need to learn to be successful in the work they are doing. I can understand my learners and use that understanding to design what they need. And it does matter that I care about both them and their success. As I am confident in my abilities, I can pass that confidence on to my learners.

With that in mind, I would say this project was successful. Based on the way the LMS was set up by Trisha and her team, any new content I created was not necessarily going to impact the learning objectives. However, my personal goal for this project was to create meaningful learning experiences, help them to really engage with the content, and build their confidence such that they feel like they can be successful while working on their own outside of the LMS lessons and activities. As you will see in the Appendix, that goal was accomplished.

**Conclusion**

In conclusion, the purpose of this project really focused on helping learners to feel more engaged in learning how to work within the Offering module of the Family Suite. To accomplish that goal, I created lessons that would be realistic and approachable. A narrative was used to guide learners through the content they needed to be successful; they were given actual problems users encounter in the real world and were given the necessary information to solve those problems; and they were encouraged along the way through positive feedback. Using the narrative approach and having the characters talking to both the learner and each other was designed to allow the learner to feel like they were part of the problem-solving process and help them to enjoy learning what could otherwise be fairly dull content. Based on survey responses, the learners who went through these lessons had a very positive experience. The pace felt appropriate, and they felt confident they could solve these problems and work independently. The appendix below discusses these findings in greater detail.
Appendix

**Actual Product**

Create New Batch: [Play Course](#)
Detailed Entry: [Play Course](#)
Quick Entry Posting: [Play Course](#)
Troubleshoot & Close Batch: [Play Course](#)

**Product Walkthrough**

[https://www.screencast.com/t/9ZLd1JSQg8cq](https://www.screencast.com/t/9ZLd1JSQg8cq)

**Learner Analysis**

The learners for this project are new customers whose parish or diocese has recently purchased the ParishSOFT Family Suite. Individual parishes purchasing the software are trained primarily using the ParishSOFT PathFINDER LMS (Litmos). Parishes whose diocese has purchased the software will be able to participate in a live training with one of ParishSOFT’s trainers, but they also have the option to use the LMS. Live trainings have limited seating, so not all parish staff will be able to attend.

The personas below describe the typical learners for ParishSOFT. The purpose was to provide a brief glimpse into who they are, why they are learning this new software, and their experience with technology. They are the result of my experiences working and interacting with ParishSOFT learners over the two years I worked as a support representative and trainer at this company. I used primarily my own experiences through email, phone calls, and face-to-face interactions in both the support and trainer positions with the company.

Persona #1: Sharon

Sharon is 75 years old and has been volunteering at her parish office for the last 15 years. Her responsibilities include answering phones, greeting new families, and helping to process weekly contributions. Her Diocese recently purchased the Family Suite for all parishes, and she is not looking forward to learning how to do her job on a computer. So far, she has been able to avoid spending too much time sitting at a desk since she prefers to interact with people face-to-face. She did attend one of the live instructor-led trainings at the Diocese’s offices, but she often felt overwhelmed by the volume of information shared over the two-day training. At one point, early on the first day, the internet window she was working in closed suddenly, but she could not figure out why or how to get back to where she was supposed to be. It was embarrassing for her to ask for help. She would much rather leave the “computer stuff” to the younger generation.
Persona #2: Pavani

Pavani is 32 years old and is fairly new to her area. She started volunteering in the parish office almost two months ago as a way to get to know others at her church. She has two school-aged children, so volunteering in the office also gets her out of the house while her children are at school while allowing her the flexibility to leave if needed. Like Sharon, Pavani has never felt all that comfortable with technology. Her husband is a programmer, and she is content to let him handle all of their technology. She enjoys her smartphone, but does not use it for much beyond the phone and game features. The business manager at Pavani’s parish office decided to purchase the Family Suite for their parish to better manage family and contribution data. Previously, this data was stored in spreadsheets which Pavani never really mastered. Her primary responsibilities until now were limited to counting the weekly donations, but someone else always entered the data in the spreadsheet. With this change to the new software, Pavani has been asked to begin helping with the entering of contributions as well since the woman who had been doing that has decided to retire.

Sharon and Pavani are representative of learners I interacted with on a regular basis as I trained new customers at ParishSOFT during my time there - during both face-to-face classes and virtual classes. One thing so many of these women had in common is they were convinced it would be too hard for them to learn this new software program.

Since launching the LMS in January, 56% of learners registered in the LMS have completed less than half of the courses assigned to them. This posed a concern for my project as I uncertain why this was happening. Once I had a company email set up, my plan was to reach out to 20-30 of those learners who have not completed their courses. I planned to ask them about their role at the parish office, why they chose to sign up for the courses they did, how well the courses met their expectations, and what might be preventing them from completing the courses. By reaching out to so many, my hope was to receive enough responses to identify potential barriers and find ways to help learners get around those barriers. Unfortunately, I was unable to get my company email to function properly and was therefore not able to complete this step as expected.

However, I had previously reviewed learner responses to a survey they can access as they complete the modules in PATHFinder. The survey simply asks learners to rate their experience using the LMS and also offers a place for additional comments:

![Figure 10: Learner ratings of LMS courses](image)
While it appeared most were learning something, there is still room to grow. Several of the individual comments fit within a few themes:
- “It would be more helpful to have hands-on practice problems.”
- “Slower and smaller chunks of information is always good for all learners”
- “I liked that you had different people presenting the modules. Variety of voices help keep my attention. I also liked being able to work at my own pace while being at home, not only in the office.”

Some implications for my design included keeping content simple, providing opportunities to practice, and keeping lessons short enough that learners do not feel overwhelmed.

**Environmental Analysis**

The PATHFinder LMS (powered by Litmos) is the program ParishSOFT purchased to train new customers on the Family Suite. This LMS was chosen primarily because it seemed to be the most user-friendly for learners. Since many of ParishSOFT’s new customers are less comfortable with technology, this was an important consideration when choosing what platform they would use. Another important feature within the Litmos platform is the ability to group courses into tracks or paths that customers can take. The paths are built based on the job the customer has at the parish office. One primary purpose of the learning paths is to bundle courses so learners are able to develop the skills that are most relevant to their jobs at the parish office. This LMS also allows both the business and the learners to select courses or paths. Currently, ParishSOFT’s new customers are given a link to the LMS to register themselves. The only course they are assigned to is the overview of PATHFinder. ParishSOFT does not assign the customers to courses. After new customers review the introductory video, they can navigate to the Courses page and can select a learning path or individual courses.

![ParishSOFT](image)

*Figure 11: PATHFinder LMS tracks*

When they select a learning path, they are able to see what courses make up that learning path before they decide to enroll:
After learners enroll in a course or a learning path, they are able to track their own progress from either their dashboard or their list of courses. Learners are also able to earn certificates (achievements) as they complete courses. If they find they no longer need a course, they have the option to unenroll. However, their progress in that course is not deleted when they unenroll. This is helpful because they will not need to start over in that course should they need to re-enroll.

As far as designing and developing content, Litmos allows designers to either create their content within the LMS or to import files from an external source. The options for creating new content are a bit limited:
So far, this feature has only been used to create the assessments used to check learners’ understanding and host live Q&A sessions where customers can get answers to questions that come up during their training. Since my project focused on developing content with which learners can interact, I used Storyline to develop that content and upload it to PATHFinder since Litmos indicates users can import any file type. The options available through Litmos do not allow for the development of interactive content.

The PATHFinder LMS is accessible on both a standard computer (laptop or desktop) as well as mobile devices (tablets and smartphones). According to the login report available within PATHFinder, the vast majority of customers access the LMS from a standard computer, but there are a handful who complete their modules on either a tablet or smartphone.

![Figure 13: LMS data on devices learners use to access content](image)

This was significant for my project as the designs will need to be accessible for those who are using mobile devices. While it might make sense to design my content using a program like Captivate that has responsiveness built in to the design, the customers for which I designed would most likely be thrown off if their training looks different on a mobile device than on their computer. To not confuse the learners, the designs needed to be simple enough to be usable on either a laptop or smartphone.

**Consulting Products/Precedent**

State Food Safety offers a variety of online training and certification programs for professionals in the food industry. One attractive element of their training is the use of a narrative to teach users about food safety. The trainings are mostly animated with an avatar walking the learner through the course.
Within that narrative, they have built activities for learners to practice or demonstrate their understanding of the content being taught.

Incorporating elements of storytelling in my project showed the relevance of the content to the learners’ jobs and help learners stay more engaged in the training. Providing opportunities to practice what they learned was also intended to help them retain the content longer allowing them to see progress and feel more confident in their work.

While not necessarily related to training, “Something Something Soup Something” really caught my attention when I was first introduced to it - particularly how the choices made in the program can facilitate learning. This activity is more about player choice, but there is still some learning that happens.
The activity includes a simple storyline and limited instructions:

*Figure 16: Instructions from Soup Soup Something Soup*

Instead of the activity doing the teaching, the player does the teaching. The point of this activity is to determine what is soup and what is not. The player is shown different combinations and has to decide whether what is shown can be counted as soup or not:

*Figure 17: Screenshot of potential soup from Soup Soup Something Soup*

At the end of the activity, the player is given a summary - what the computer learned about the player’s definition of “soup”:

*Figure 18: Summary of what the program learned from the player*

Allowing for learner agency can also create a sense of ownership and control over their learning (Orvis, Fisher, & Wasserman, 2009). As mentioned previously, activities can promote engagement while providing learners a chance to practice what they are learning. This practice can also help prevent or clear up misunderstandings so learners are learning the right things.

Two major implications for my project were:
1. Have a clear, simple narrative that is easy to follow, conversational, and shows the relevance of the content to the learner’s job.
2. Create activities that allow learners to interact with the content to practice what is being taught and check their own understanding.

Additionally, the design needed to be clean and not overly cluttered to minimize distractions. I also used a parish office as the setting for my content. I needed to make sure directions were easy to follow and not overwhelming for the learner. They need to know what is expected of them to be successful in each activity/lesson.

**Content or Task Analysis**

The learning objectives for this project tackled one of the most commonly used functions of the Family Suite. Processing weekly contributions is a complicated process and often deviates from what parish volunteers are used to. Sometimes the change is as simple as adjusting their vocabulary. Often, the process is completely different from what they have done in the past. In the Family Suite, there are two different ways users can enter contributions. The flow charts below outline these steps. Several of the areas highlighted in red are related to content that would draw the learner’s attention to places they can check their progress so they’re more likely to catch potential mistakes before they get too far in the process:

**Step 1 - Creating a batch**

![Flowchart for creating a batch](image)
Step 2a - Entering contributions (detailed)

Figure 10: Flowchart for detailed entry
Step 2b - Entering contributions (quick entry)

From Offering, hover over “Posting” and click “Detailed Posting” → Click the radio button beside the batch you created → Click “Launch Quick Entry ...” button to begin posting

Use “enter” or “tab” key to move to the next field. → Put cursor in “Env #” or “Last Name” field to search for family

Family info verified when you move to the next line. → Verify “Batch Information” – updates as you post → When batch is balanced, you will be able to commit (close) the batch and post contributions to families’ info

Figure 21: Flowchart for quick entry
Step 3a - Closing the batch (detailed)

Figure 22: Flowchart for troubleshooting and closing a batch

The method a new user chooses really depends on what they used previously and what their current workflow looks like. Based on initial reports I pulled from the LMS, about 36% of new learners completed the module on the Detailed Posting method and 40% of new learners completed the module on the Quick Entry posting method since the LMS launched in January. Many of these learners completed both modules. However, 5% of learners elected to complete only the Quick Entry module while 1% elected to complete only the Detailed Posting module.

There is great potential for mistakes when entering contributions. Before even logging in, users should be tallying up their donations for the week. This is one place a lot of mistakes are made - starting out with the wrong amount. The next most common place mistakes are made is entering the amounts for each contribution.

Some of the implications for my project included the focus on details and carefully checking work before moving on to the next step. A lot of this checking is again built in to the software including
previews where users can confirm they have entered the correct family info before actually saving their contributions and declining balance fields or transaction count fields that allow them to keep track of what has been posted as they work through their contributions. I also incorporated an explanation of the pros and cons of each method so learners know what to expect as they learn about the different entry options. I also presented that pro/con list as a tool to help learners decide which entry method to learn first while also stressing the importance of learning both.

**Annotated Bibliography**

The literature included in this section focuses a lot on self-regulation, self-efficacy, their effects on learning, and potential strategies to improve these areas. Time spent with ParishSOFT learners kept bringing up the issues of self-efficacy, and studying self-efficacy kept bringing up self-regulation. Since self-efficacy is an area of difficulty for my intended learners, it was important to learn more about it and how to help my learners overcome this challenge so they can learn what they need to know to be successful in their jobs.

**Domain Knowledge**


This source focuses on self-regulated learning and how it applies specifically in software training that happens individually without assistance of a trainer. This article looks specifically at self-regulation strategies, on- and off-task attention, self-efficacy, and how these factors influence each other. They found that self-efficacy and levels of confidence were important factors in determining how well learners persisted through training. Knowing that my learners have lower levels of confidence and self-efficacy when it comes to computers was important in how I designed learning activities as I may need to help build their confidence as they learn.


This study focused on how learner control influences self-efficacy in software training. The environment used was strictly computer-based with no instructor-learner interactions. The program used for the training had “teach me,” “show me,” and “let me try” features. It was found that learners who used all three features together had a greater increase of self-efficacy than those who did not use all three. It is also noteworthy that those with lower levels of software self-efficacy were more likely to use all three features. The significant part for my project was the “teach me” and “let me try” features. The current LMS already offers videos that demonstrate tasks learners should be able to complete independently. This study reinforced the expectation that hands-on practice would help learners be able to use the software independently and with confidence.

This study focused primarily on learner control and its effect on student engagement and learning. They found that learner control can improve learner satisfaction with training and, as a result, improve learning. An important implication for my project was allowing learners to choose what is relevant for them. Forcing them to interact with content that is not relevant or already understood could decrease their satisfaction with the training and therefore negatively impact their learning.


This study looked at the effects of having an agent (simulated tutor) built in to a training tutorial. It was found that agents can have a positive impact on learners: a motivational and control agent positively impacted learner’s retention; a motivational and mixed agent positively impacted learners’ perception of task relevance and levels of self-efficacy after training. Since many of my learners struggle with self-efficacy, it felt important to include some form of this motivation to encourage them and improve their feelings of self-efficacy.


This source also focuses on self-regulated learning - what it is, why it is important, and its effects on training in an e-learning environment within a business setting. Individual factors of self-regulated learning include virtual competence (including virtual self-efficacy) and goal orientation. As my learners received training primarily through the LMS, self-regulated learning was important to my project. While I did not have direct influence over my learners’ behavior or goal-setting, I was already aware of the trend toward lower levels of virtual self-efficacy in many of my learners. This awareness helped drive the design of instruction and focused a bit more on encouraging engagement among learners so they are more willing to persist through the training.

One thing I found lacking in my research was a discussion on how to combat low levels of self-efficacy in learners. Many studies have shown the importance of self-efficacy and its impact on students’ learning, but few addressed what to do when learners have low levels of self-efficacy. Having a pedagogical agent was shown to help with levels of self-efficacy after training, and the agent showed a small positive impact on learner engagement during training, but there seems to be more work to be done in this area. Understanding self-efficacy was important for my project because it is a struggle for most of my learners. Because they are uncomfortable with technology, they are very quick to give up on a task.

**Learning Theories/Instructional Strategies**

This study looked at the effects of training end-users using four knowledge levels: command-based, tool-procedural, business-procedural, and tool-conceptual training. The expectation of training in this way is that it helps end-users develop a more accurate mental model of the program, and that more accurate mental model helps them be more successful using the program than if they were not trained in this way. The valuable discussion for my project centered more on the importance of building on the learner’s prior knowledge. This was key for my learners in helping them make sense of a new environment.


This article was more concerned with the cost of training and finding the most cost-effective strategies for delivering training that would also provide the greatest benefit for the organization. It also included a short discussion of several different learning theories that can be applied to training and reasons for choosing one theory over another. For my project, it was pre-determined that I will be creating content to be added to the already-functioning LMS. Though it discusses many benefits of using an LMS for training, it was also important to remember that training should be focused on the learner and not developing training for the sake of developing training.


The purpose of this study was to compare the effectiveness of web-based and live instruction. It also compared the effectiveness of pedagogical components of both environments. For the purposes of my project, I was primarily interested in the findings for the web-based environments and what pedagogical components were found to be most effective. The results indicated that video and interactivity were important components of successful web-based instruction. However, the use of video and interactive content needs to be connected to learning outcomes and, therefore, have relevance to the instruction. Learners should be able to build their knowledge and understanding of the content being taught through their interactions with that content.


This study looked at the effects of modeling on software trainees’ learning. It was found that modeling helped the learners be able to visualize themselves completing the assigned tasks and influenced learners’ retention of concepts taught. However, the observational model alone was not enough. The researchers added other enhancements - including hands-on practice - that also influenced learners’ motivation and attention. This was important for my project because my learners have already been exposed to this kind of modeling through tutorials that showed them how to effectively use the software. The focus for my project was on the additional support of hands-on interaction that allows them to apply what they learn in the video tutorial.
Overall, it seemed that just one approach - modeling, hands-on practice, cognition - would not be enough to improve levels of self-efficacy, keep learners engaged in the training, and ultimately help them be successful using a new software program. The above resources demonstrate the importance of modeling which my learners need, given their low levels of confidence and discomfort with technology. Since the ParishSOFT LMS already has video tutorials that demonstrate how to effectively use the software, my challenge was to create interactive, hands-on practice that allowed learners to apply what they learned while also deepening that understanding and building their confidence using the software independently.

**Design Approaches**


This article applies Merrill’s First Principles of Instruction to a task-centered approach to instruction in a discussion of the “Pebble in the Pond” method. In this approach, each task is complete but gradually increases in complexity. The tasks should be representative of what learners will encounter in the real world. This was important for my project as I needed to show learners how what they were learning (1) builds on what they already know and (2) is relevant to their daily workflow. The interactive tasks I created also needed to be whole tasks instead of just pieces of a whole. They also needed to increase in complexity until learners were able to complete a guided task that represented of what they will encounter in the real world.


This article provides an overview of how to use storytelling in training - getting beyond the standard checklist and helping learners find meaning in what they’re learning. Since my learners are not the ones who have chosen to move to a new software platform and they are typically not the people in their parish offices who are comfortable with technology, they are already on the reluctant end of the spectrum. This article makes the point that narratives give learners something to connect to. I used a narrative to provide that connection for my learners and help them see the relevance of what they are learning.


This article focuses on storytelling specifically in accounting classes - what elements of storytelling to apply, the most effective applications of these elements, and why they are important in teaching accounting. Aside from the importance of storytelling, my project focuses specifically on processing contributions and, therefore, relates directly to monetary practices.


This article discusses persuasive education systems specifically in the area of computer security. Content was delivered through a comic strip, *Secure Comics*, that is available online. The
researchers acknowledged that computer security is a topic few people find interesting, and they decided to use the comic strip to appeal to learners and help them stay engaged with what was expected to be a dull topic. The comic strip was used to simplify the content and highlight what was most important for learners to understand related to computer security. Simplicity and relatability were important to my project. This study presented one way to approach reluctant learners with content that is approachable and relevant to the real world while also engaging enough to help them persist through content they do not necessarily want to learn.

Overall, these articles painted a picture for me of how to help my learners connect with the content while also helping them find more confidence in their own capacity to succeed. Each article mentioned storytelling as a powerful tool but one that is often underutilized in training. Each article also talked about how storytelling improves learners’ confidence with the content being taught. This was key for my learners as it is an area where they already struggle so much. So many of them are already convinced computers are scary and this new software platform is too hard. The story can help it be more approachable and relatable therefore providing enough incentive for learners to persist through the training and, eventually, allow them to see that they can succeed in learning a new program.

**Design Specifications**

The product I created is a series of four lessons designed to help new customers learn how to use the basic components of the Offering module of the Family Suite. These lessons were created in Storyline and uploaded to the client’s LMS. As they are signed up with the Family Suite, new customers also receive an email inviting them to register for courses within the LMS.

The lessons are situated in the Offering Basics course among already-existing content. Trisha’s team has opted to not lock down the courses meaning learners can access the lessons within a course in any order they choose. These four lessons I created were also marked as optional as she and her team decide whether or not they will build more lessons like these or continue creating tutorials for the LMS.

When a learner clicks on the lesson, it opens just like any other lesson in the LMS. Unlike the tutorials, these lessons are narrative in nature. This was done to more easily present problems for learners to solve, applying new knowledge as they are learning.

Though hidden at first, they can click the menu icon to expand the contents of the lesson and track where they are. Each lesson starts with an introduction that includes objectives for that lesson and outlines what learners should be able to do on their own by the end of the lesson.

Next, there is a click-to-reveal activity where they are able to explore key features on a page of the Offering module. Each lesson has two tabs learners are required to visit as those tabs relate directly to activities they will encounter in the lesson. The other tabs are also important but may be used less frequently, so learners are encouraged to explore based on their interest.

After the click-to-reveal, learners are introduced to a problem that relates to one or both of the tabs they just explored and are asked to provide a solution to that problem. Since they have
access to the menu, they can go back to the previous page if they are unsure of the answer. Each activity has feedback either encouraging the learner to try again or praising them for answering correctly. Where applicable, they may also be provided additional details about why an answer is correct or incorrect.

Depending on the lesson, some include additional activities to help learners check their understanding of key content. Other lessons have a question-answer conversations between characters. These conversations include frequently asked questions new learners have about how and why things function in this module.

Each lesson also ends with tips that highlight key content from that lesson, suggestions on how to move forward, and/or resources learners can use if they have additional questions or would like more practice.

The design of this product provides opportunities for learners to think about and apply what they are learning. Since they get to apply that new knowledge within the LMS, they also have immediate access to answers if they have questions as all of the content they need is presented in a very structured way.

One of Trisha’s initial concerns was that learners would be bored just watching tutorials. These lessons help address that in a few ways. First, all lessons are built around a basic narrative - new learners are helping one of the characters in the story overcome problems she is having while working in this module. Next, by having them help this character, they are immediately applying what they are learning to a real life situation - one they may encounter in their own office. Lastly, the narrative has moments of humor built in to help learners stay engaged. These moments are again directly related to real life situations that may come up in a learner’s office.

Findings from my bibliography strongly encouraged a relevant, meaningful, and engaging approach to instruction. One study in particular talked about using a comic strip to train individuals on an otherwise-dull topic. Several also mentioned using a narrative as a powerful way to help learners connect with the content. I also learned, doing that initial research, that helping learners connect with the content can also help build their confidence. Confidence was such a big part of my focus in creating these lessons. It felt important to show learners that they can be successful, so I wanted to do all I could to communicate that and help them to feel its truth.

Looking at the Food Handlers course and Soup Soup Something Soup helped me focus on two main ideas in my product: a simple and clear narrative with opportunities to practice and preserving learner choice as much as possible.

To accomplish the first, I explored a few different ideas on how to make this training relevant and approachable for my learners. Using a parish office as a setting for the training seemed to be the most obvious choice. The majority of my learners will be training right along with others in their office, so it also made sense to have them work with another peer through the lessons. I chose to use a person who would struggle just as much as my learners so that the activities could help these learners build their confidence. The narrator who knows more could easily solve the problems, but it felt more meaningful for the learners to find those solutions and have that sense of accomplishment.
The learner choice was a bit more difficult. There were some obvious places to include different paths for learners to take, such as indicating whether or not the learner already knows what a batch is. However, as I tried to imagine different learning paths, the lessons quickly became longer and more complex therefore infringing on the approachability. Instead, I opted to include the click-to-reveal activities that allowed learners to go beyond what was strictly necessary to complete learning activities. The option to go deeper was there but not required. My hope was that it would allow them to at least feel like they had a choice in what they learned.

The major constraints I had to consider were the LMS used by ParishSOFT and need for content to be mobile-friendly. Since the LMS allowed me to import zipped folders, creating the content in Storyline was no trouble. Making sure the content was mobile-friendly was a greater concern.

As I built these lessons in Storyline, I frequently took advantage of the feature that shows how a page will look on a mobile device. They provide options for both cell phones and tablets, so I would check each and pay specific attention to how the activities worked on these devices. I also had a tester go through these lessons on an iPhone just to get a clearer picture of the learner experience on mobile devices. I was particularly concerned about the size of buttons and hotspots and made sure to give learners enough room to click a button with a finger or drag an object to another part of their screen. I especially wanted to make sure there was sufficient room between drop areas so there was no mistaking where the learner intended to drop an object.

**Design Representations/Prototypes**

One of the first activities I designed was the click-to-reveal. Figure 23 shows the storyboard representation of this idea. At this stage, I was primarily concerned about what content would be included, what fields learners would need to click, and what optional fields could be included. The drawing shows a rough sketch of the primary components of the actual screen. Not all fields were represented here because I knew not all fields would be included in the activity.
By the time I got to the prototype, I did include an image of the actual screen. The prototypes were done in PowerPoint which provided enough slide space to enlarge the images to the point that a learner would be able to click the actual fields (as noted in the original storyboard idea). The purple squares shown in Figure 24a let the learner know which fields were clickable. A text box would expand beside the box the learner clicked, as shown in Figure 24b. Using PowerPoint for the prototypes meant that I would need to put each field on a separate slide. This would not be the case in Storyline, but in PowerPoint it did require the use of “Next” and “Back” buttons to help learners navigate the interaction.
Building this interaction in Storyline introduced a different challenge. Where PowerPoint provided sufficient slide width to zoom in on the image to create clickable areas that would work on a mobile device, I could not make this work in Storyline. To address this concern, I trimmed the image and zoomed in enough that users would be able to see the location and text for each field.
I then set up tabs at the bottom of the screen. I made those tabs large enough that mobile users would still be able to click them. Triggers were used to change the states of the tabs, the large text box, and the image so users could see the field highlighted on the image in addition to the text description in the larger box (as shown in Figure 25b). Changing the states of the tabs helped them to quickly see which tabs they had already clicked and which was active.
Sometimes the evolution of a design was more subtle. For example, the final page of the Troubleshoot and Close Batch lesson had a couple of small changes. First, in addition to the tips provided, learners were also directed to other lessons they can access for more information.
Next, the storyboard shows only the narrator on this page. The prototype includes both characters and an expanded view of the office area, as shown in Figure 27. By the final draft of this lesson, it became apparent there would not be enough room to include that expanded view of the office. Figure 28 shows the final version still includes both characters, but the additional office details were removed. This was done to make sure the emphasis was still on the content learners would need.
Lastly, I changed the color of the walls in the office. The yellow walls in the prototype contrasted with the characters’ shirt in the final version, and the brightness of both colors was a bit overwhelming. Consequently, I softened the walls so as to not distract or overwhelm the learners.
There were a couple of lessons that had potential ideas included in the storyboard but not the prototype. For example, the Detailed Entry lesson included an idea for a possible “tips” slide at the end of the lesson, as shown in Figure 29. This slide was not included in the prototype because I was not sure how necessary it would be. However, Trisha’s team thought it had enough value that they suggested it be included at the end of both entry lessons as suggested on the storyboard. As a result, the final slide changed from a “next lesson” slide to a “tips” slide for both the Detailed Entry and Quick Entry lessons. The final representation is shown in Figure 30.
Figure 29: Storyboard of final slide for Detailed Entry lesson

- Next lesson
- No trouble sheet
- Close batch
- N

Great job!
- Close batch lesson
- Quick entry

Tips: (Final slide?)
- Order contributes before posting
  - by fund, by payment type, etc.
- Find out what business unit or office unit needs (check, payment type, memo, etc.)
- Double-check batches before closing!
Assessment of the learning goals was done through the LMS. Each lesson is followed by a quiz of no more than four questions. However, Trisha’s team had already set the passmark for the quizzes at 100% when they first launched the LMS. This means that all learners who complete these quizzes must get 100% before the LMS marks their lessons as “Complete.” There is not a bank of questions, so the learners always get the same questions. They are also given as many attempts as needed to take the quizzes. I did review the attempt history for many of the learners to see what kinds of scores they were getting on each attempt. Though there were a few who did get less than 100% on their first attempts, most got the 100% on each attempt they made. The LMS could provide no answer as to why those learners would attempt the quiz multiple times if the learner passed on the first attempt.

The 100% passmark is not a stretch, though, considering that the quizzes have only 1-4 questions; most have only two questions. These questions target the most common mistakes made when learning the software and coincide with things highlighted in the existing tutorials. The implication for my project may be that it is not necessary for learners to be able to work independently in the Offering module.
However, since the learning objectives for my project are more performance-based, the quizzes may not accurately reflect the learners ability to perform the tasks identified in those objectives. Since I am not able to observe the learners working independently, I worked with Trisha to find out if these lessons had any impact on calls to the ParishSOFT support team related to these objectives thinking that if learners are able to perform the tasks independently they would not be calling the support team for additional help. In this request, I learned that the LMS had been selectively rolled out during 2019. It had not been made widely available to all customers until early December 2019, so it is likely too early to tell if these lessons had a significant impact on calls to the support team. Trisha was able to determine that the support team did see a less than 1% decrease in training-related calls to the support team in 2019. That number is across all five modules, though, and my lessons only covered one of the modules. At this time, I was unable to get a report like this specific to the Offering module.

Though I could not measure the performance of the learners and accurately determine whether or not these lessons helped them do the tasks outlined in the objectives, I was able to gather information that more closely aligns with one of Trisha’s other major concerns. When I first approached her about doing this project, she expressed a concern that learners would get bored just watching video tutorials and said she was interested in incorporating more interactive content into the LMS. Since these lessons are unlike anything else in the existing LMS, I attached a survey to the end of the lessons and gathered learner responses. This survey was active from the initial launch on 18 November 2019 through the end of the year. There was also a notice posted on the learners’ dashboards announcing that new content had been added and inviting them to review the new lessons.

The survey itself was made up of seven questions. One question asked learners to identify which lesson they completed, the next five asked them to use a Likert-scale to rate their experience with that lesson, and the last two questions were open-ended questions asking for one thing the reviewer liked and one thing she would change if she could.

At first, the responses to the survey came from new learners. In early December, Trisha’s team sent out an email to all registered LMS users inviting them to review the lessons and provide their feedback on the survey. There was a very obvious shift in the responses after that email. It was clear which responses came from new users and which came from those who had been working in the Offering module for some length of time. Table 1a shows the new-user responses to the lessons, and Table 1b shows the more advanced user responses to the lessons.

<table>
<thead>
<tr>
<th>Which lesson did you complete?</th>
<th>Which of the following best describes the pace of the lesson?</th>
<th>Which best describes the lesson content?</th>
<th>How confident are you that you could independently complete the task(s) taught in this lesson?</th>
<th>What was your overall experience with the lesson?</th>
<th>What did you like most about this lesson?</th>
<th>What is one thing you would change if you could?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>sounded like real experience</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>---------------------------</td>
<td>----------------</td>
<td>---------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Easy to follow, Nothing</td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Interaction, None</td>
<td></td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Hands on, None</td>
<td></td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td>I can take it back if need be.</td>
<td></td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Clear directions, na</td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Would like to practice on a batch. Hands on is the best way to learn.</td>
<td></td>
</tr>
</tbody>
</table>

It gave me a chance to think and actually create the batch with the multiple choice questions. Nothing
| Detailed Entry | Just right | It was somewhat easy to follow | Somewhat confident | Somewhat positive | | | lesson give you the chance to think and process the material in the lesson - better than just reading and listening. |
| Quick Entry | Just right | It was very easy to follow | Very confident | Very positive | | | I would like to work an example immediately after the lesson |
| How to troubleshoot and close a batch | A little fast | It was very easy to follow | Somewhat confident | Very positive | | |
| Detailed Entry | Just right | It was somewhat easy to follow | Somewhat confident | Very positive | | |
| How to troubleshoot and close a batch | Just right | It was very easy to follow | Very confident | Very positive | | |
| How to troubleshoot and close a batch | Just right | It was somewhat easy to follow | Somewhat confident | Somewhat positive | | |
| How to troubleshoot and close a batch | A little slow | It was very easy to follow | Very confident | Somewhat positive | | |
| Quick Entry | Just right | It was somewhat easy to follow | Very confident | Very positive | | |

Table 1a: New user responses to lessons

| Which lesson did you complete? | Which of the following best describes the lesson | Which best describes the lesson | How confident are you that you | What was your overall experience | What did you like most about this | What is one thing you would change |

...
<table>
<thead>
<tr>
<th>How to create a new batch</th>
<th>pace of the lesson?</th>
<th>content?</th>
<th>could independently complete the task(s) taught in this lesson?</th>
<th>with the lesson?</th>
<th>lesson?</th>
<th>if you could?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A little slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>I would have liked these lessons when I first started</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A little slow</td>
<td>It was somewhat easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Way too slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td>This is great for a new learner but too slow for experienced ones.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A little slow</td>
<td>It was somewhat easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td>It's very hard to hear the instructor, even at full volume.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Way too slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td>Great for beginners but too easy for those who are already creating &amp; populating batches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Way too slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>I didn't care for the other person from 3 years ago. I would just rather it stay in the present and just say, now it's your turn or something like that.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love the interactive part with creating the batch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>A little slow</td>
<td>It was very easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td>Click-drag</td>
<td>My sound is not working</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------</td>
<td>----------------------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td>Easy to follow</td>
<td>Nothing comes to mind right now</td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Somewhat confident</td>
<td>Somewhat positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>A little slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td>Visual step by step style.</td>
<td>A little faster.</td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>The interactive feature.</td>
<td>nothing</td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>It was somewhat easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td></td>
<td>presentation</td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>A little slow</td>
<td>It was somewhat easy to follow</td>
<td>Very confident</td>
<td>Somewhat positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>A little slow</td>
<td>It was very easy to follow</td>
<td>Very confident</td>
<td>Very positive</td>
<td>Clear as to where I was at all times</td>
<td>the graphic for the lady having problems -should be different from the person</td>
</tr>
</tbody>
</table>
Trisha had access to this survey and was able to review responses as they came in. She seemed to be quite pleased with the initial responses, but was also interested in how other seasoned users would respond to the content.

Both the novice and advanced user responses showed that the overall goal of these lessons was met. Comments such as “lesson give you the chance to think and process the material in the lesson - better than just reading and listening” and “It gave me a chance to think and actually create the batch with the multiple choice questions” from the novice users suggests that they really started thinking about how to use the module to process their weekly contributions. Even the advanced users’ comments such as “This is great for a new learner but too slow for experienced ones” and “I would have liked these lessons when I first started” suggest that the lessons really are preparing individuals to work independently.

I was also interested in the confidence level of my learners upon leaving these lessons. Of the 40 responses to the survey (both novice and advanced users), 75% indicated they felt “very confident” they would be able to independently complete the tasks they learned about in the lesson. Just looking at novice users, that number goes up to 81% who felt “very confident” they could independently complete the tasks they lessons taught. This suggests that these lessons also helped the learners feel like they could be successful working on their own. Given my learners’ inclination to feel less confident using new technologies, this felt especially important.

**Implementation Instruments**

The only requirement for these lessons to be used successfully is access to the internet and the PathFINDER LMS. The LMS is accessible from a desktop/laptop computer, a tablet, or a smartphone that has an internet connection. Learners create their own username and password when they are invited to register in the LMS.

As for levels of knowledge, again the primary requirement relates to the ability to access the internet. Since learners are emailed an invitation to register for an account in the LMS, it is expected they will know how to return to the LMS to continue their training. There is no prior knowledge they need in order to be successful with the lessons. The LMS targets primarily new ParishSOFT customers, so it is expected they do not have any prior knowledge. Occasionally the new customer has used previous ParishSOFT applications, though they are likely new to the Family Suite. It is also assumed that learners have some basic understanding of lingo typically used among those who volunteer in their parish offices.

The lessons were uploaded to the LMS and placed between the existing tutorial and quiz customers are required to complete when they register for the Offering Basics course. Since the course is not locked down in a specific order, there is no way to ensure learners watch the tutorial prior to accessing these lessons. To address this concern, there are several times the lesson references the tutorials and suggests learners should have watched those before accessing these lessons.
Each of the lessons was reviewed by Trisha and her team at each stage as an expert review before putting the lessons in front of novice users. Since the team and I are spread out over at least three states, these reviews were conducted through email. The lessons were sent along with a list of questions for the reviewers to consider. I reviewed their feedback and made any necessary changes to the lessons before putting anything in front of a novice reviewer.

Since I was unable to connect with a diocese about having some of their staff review this content, I enlisted the help of my own personal friends to do a novice review. The challenge with this option was that my friends are missing some of the basic understanding of lingo that would be familiar to those who volunteer in their parish offices. Just like with the expert review, these were conducted through email. During the prototype phase, I included questions for the reviewer to consider and gathered those responses through email. After the final build, I switched to a google survey for the novice reviewers. With one exception, the novices who reviewed the prototype were different than the novices who reviewed the final product. I chose to do it this way since the content really did not change from the prototype stage to the final build. I felt it would be more beneficial to have feedback from those who did not have any expectation based on previous experience with the prototype.

Once the lessons were finalized and uploaded to the LMS, I added a news alert that users would see once they logged in to the LMS. It simply let users know new content had been added to the Offering Basics course and invited them to complete those new lessons. After almost two weeks, very few people had completed those new lessons, so Trisha asked one of her trainers to send out an email blast to LMS users announcing the new content and extending that same invitation to both new users and those who had previously completed training in the LMS. That email blast elicited survey responses from an additional 19 users who had previously gone through training for this module in the LMS. Since users would access these lessons the same way they access any other lesson in the LMS, there were no additional instructions that needed to be provided.

**Evaluation Instruments**

Trisha was the stakeholder to whom I provided evaluation data. She was most interested in the customers’ responses to the interactive lessons and whether or not they found value in them. During the development stages, she was also interested in the feedback and suggestions made by her team.

**Expert Review of Prototypes (development)**

After completing the storyboards and prototyping one of the lessons, I sent them to Trisha and her team to review. At first, my focus was mostly on the flow of the lessons. I asked them to look for gaps in the content and pay particular attention to concepts that may be distracting to learners. Lastly, I asked if there were concepts they felt I either focused on too much or concepts that did not receive enough attention. I then used their feedback to modify the storyboards before prototyping out the rest of the lessons.
Once I had prototypes of all four lessons, I sent them again to Trisha’s team to review. I let them know ahead of time that navigation in the prototype would be different than in the final product and to not worry too much about those issues. Instead, I asked them once again to pay particular attention to potential gaps in the content and any concepts I may be either over- or under-emphasizing.

Though I had forewarned about the navigation concerns, most of the feedback I got from the expert review had to do with navigation. I did not pay much attention to those concerns because I knew they would be resolved in the final product. The prototypes were done in PowerPoint, and it was not designed to do some of what I was trying to get it to do. This would not be true in Storyline.

Trisha’s team did provide some other very valuable feedback on content, though, that I was able to incorporate into the final lessons. For example, in the “Troubleshoot and Close Batch” lesson, Cristina (one of the trainers) pointed out that I should let learners know they cannot delete closed batches. This is a common question that comes up in training, so her reminder was very valuable as I was developing this lesson. She was also able to help clarify some of the scripts as well so they would more closely reflect the training she currently delivers in person.

**Expert Review of Final Product (development)**

Once I had built the first lesson in Storyline, I sent just that one file to Trisha and her team to review. I did not ask specific questions this time. Instead, I asked them to let me know their general thoughts of their experience with this lesson overall.

Their feedback was very helpful with this first lesson. Much of what they shared was also applicable to the other three lessons I would create for this project. The first thing that came up had to do with navigation. Elaine, one of Trisha’s project managers, mentioned that it was not clear in one of the drag-and-drop activities that she needed to click a checkmark to submit her answer. Trisha mentioned this issue as well. She also asked about how to pause a lesson. When I first built this lesson in Storyline, I did not allow learners any navigational control. They could not see the menu or the seekbar on the video. I limited this control because I did not want them to be able to jump ahead. These questions about navigation caused me to change the way I was thinking about navigation and adjust the lessons to give the learner more control. Still not wanting them to jump ahead, I left the menu hidden when the lesson is launched. However, they now have the option to click the menu icon to open the menu if needed. I also caused the seekbar to show on the screen. Offices can be busy places. If someone is doing this training at work, having the option to pause the lesson when needed will be valuable to the learner.

Another issue Elaine brought up had to do with the tab interaction on this lesson. She mentioned it would be beneficial if I highlighted the section of the Add New Batch screen that coincided with the tab clicked by the learner. I had done this in the prototypes and thought I had set it up in Storyline as well, but Elaine bringing it up showed me that I must have missed some formatting in Storyline. It was also good to bring this to my attention to check for the other lessons as well. I also found her comment encouraging as it let me know there really was value in my design decisions.
One of the changes I made in the final version that had not been included in the prototype had to do with next steps for the learner. Trisha found it valuable that I added a link learners can click to access both the company sandbox where they can practice and the ParishSOFT training site where they can contact the training team with additional questions. I also set those links so they would open in a new tab. Since the learners tend to be less comfortable with technology, I did not want them to worry about how to get back to the LMS.

Lastly, Elaine and Nancy (another project manager) both mentioned that it was difficult at times to tell which character was talking when both were on the screen at the same time. I suspected this would be a concern and had begun thinking of ways to address the issue. By the time all four lessons were completed in Storyline, I had added a “talking” state to the characters that included a yellow highlight behind her to indicate she was talking.

After the rest of the lessons were completely built in Storyline, I sent Trisha and her team a link to all four lessons. This time I did ask them specific questions:

- I added a yellow-ish background to highlight which character is speaking, primarily at times when both are on-screen at the same time. Does this work? Is it distracting? Is there a better way to handle it since I'm unable to change character appearance (clothing, hair, etc)?
- How is the pacing?
- Did I miss instructions for submitting activities? Or are you able to easily submit responses to questions the learner is asked?
- Given what you know about our learners, do you think they'll be able to create a batch, enter contributions using both methods, and close a batch after going through these lessons?

My purpose with these questions was to identify any potential distractions that may confuse learners and detract from their experience. By this point, we had worked out the majority of the concerns related to content, so it seemed beneficial to focus on the learner’s experience.

Much of the feedback I received from Trisha’s team had to do with little details that could potentially interrupt the learner’s experience. For example, Elaine noted that a couple of the lessons had incorrect feedback when she tried to move past the click-to-reveal activities without visiting the required tabs. She pointed out that the fields named in the error message were from a different lesson. She and Trisha both noted a slide with a long pause at the end and recommended I remove that pause. For the two lessons on entry options, Elaine suggested I include a note on the click-to-reveal activity about ParishSOFT’s recommendations for using these two options. After checking with Cristina (the trainer), I learner that her training also includes this recommendation, so a note was added to that activity to maintain training consistency.

Novice Review of Prototypes

Since I was unable to connect with a diocese about reviewing these lessons, my novice reviews were done by a few of my friends. The prototype reviews with friends were done in person. The in-person reviews were especially helpful as I was able to watch how the reviewer interacted with
the lesson and look for moments when she may have been confused. I specifically chose friends who felt less confident with technology in an attempt to get as close as possible to my intended learners.

Just like with the expert reviewers, the primary concern mentioned by novice reviewers had to do with the navigation in PowerPoint. I did not worry too much about this feedback as I knew the navigation would change when I built the final lessons in Storyline. At this stage with the novice reviewers, I again focused primarily on the content. I asked my reviewers to identify places they felt they were missing key information. One reviewer mentioned the click-to-reveal in the first lesson. There was one field that left her wanting to know more. I told her there would be a lesson later that would go more into that topic, so she suggested I include a note that a future lesson would talk about that field in more depth.

The only other specific feedback I got from the novice review of the prototype was that the “learner Shirley” character had a bit of a whiny voice. One reviewer did not like it, but the others did not have that same experience. Another commented that she liked that the voices were a bit different. What one saw as whiny another saw as unsure, so I did not make any changes to the voices of the two characters.

Overall, none of my novice reviewers pointed to any major gaps and all were able to complete the learning activities with no trouble. They did not express much confidence that they could do those same tasks outside of the lesson, but none of them were able to provide suggestions that could help address that issue.

Novice Review of Final Product

For the final review, I again turned to friends since I was not able to connect with a diocese. I purposely chose individuals who had not seen the prototypes so that I could get unbiased reactions to these final lessons. These reviews were not conducted in person, so I used a google survey to record their reactions. There were seven questions on the survey. One asked them to identify which lesson they completed, the next five asked them to use a Likert-scale to rate their experience with that lesson, and the last two questions were open-ended questions asking for one thing the reviewer liked and one thing she would change if she could. This survey was identical to the survey used at the end of the lessons in the LMS. Table 2 shows the questions and the reviewers’ responses.
<table>
<thead>
<tr>
<th>Task</th>
<th>Method</th>
<th>Simplicity</th>
<th>Confidence</th>
<th>Mood</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>Somewhat easy to follow</td>
<td>Not at all confident</td>
<td>Somewhat positive</td>
<td>The instructions were clear and explained step-by-step. Having a question-asker and a guide was an effective way to break up the learning process. I thought it was a bit confusing to have two identical models speaking. Just changing one of them to a different character would make the interaction and user-experience flow better.</td>
</tr>
<tr>
<td>How to create a new batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Somewhat confident</td>
<td>Very positive</td>
<td>I liked that I could go back and click on the different lessons within the lesson to get reminders. The drag the answers/test your knowledge portion was a tad difficult/frustrating on my phone.</td>
</tr>
<tr>
<td>Detailed Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Somewhat confident</td>
<td>Very positive</td>
<td>The tips were nice at the end of the lesson were a nice “main things to remember” from the lesson. Interaction using a iPhone is slightly frustrating, but doable.</td>
</tr>
<tr>
<td>Quick Entry</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Somewhat confident</td>
<td>Very positive</td>
<td>Good explanations of the tasks needed to be done. Using an iPhone during interactions is difficult.</td>
</tr>
<tr>
<td>How to troubleshoot and close a batch</td>
<td>Just right</td>
<td>It was very easy to follow</td>
<td>Somewhat confident</td>
<td>Very positive</td>
<td>Very easy to follow. Clear directions.</td>
</tr>
</tbody>
</table>
It was particularly helpful to have reviewers who used their phones to review these lessons. My experience on my android was okay, but it seemed the experience on the iPhone was different. At least one of the reviewers had an older model of the iPhone which has a smaller screen. She suggested that may have been a reason for her difficulty. Since she was still able to complete the activities, I did not make any revisions to the lessons at this point. I made this decision primarily because such a small percentage of LMS users access the lessons on their phones, but I made a note to watch for similar feedback once the content went live on the LMS.

It was helpful to know that the reviewers felt the pace was good and the content and directions were easy to follow. It is possible they were just being supportive since these reviewers are friends of mine, but there was no real way to know for sure.

The most significant change between the prototype review and the final product review was the level of confidence expressed by the reviewers. Even for this review, I still tried to use individuals who were less comfortable with technology to try to stay as close as possible to my intended learners. That said, it is possible that those who reviewed the final lessons have more confidence in their ability than those who did the prototype review.

I did not report to Trisha any specifics from either of the novice reviews. She was much more interested in getting these lessons in front of the customers as quickly as possible. Since the feedback I got from these reviews did not prompt any major revisions, I opted to make the small adjustments that would bring the most value to the actual learners and upload the final lessons to the LMS.

**Budget and Timeline**

Below is a discussion of the actual budget and timeline for this project compared to the original plan.

**Timeline/Schedule**

The original schedule (Chart 1) and the actual schedule (Chart 2) do have some significant differences. First, the building of prototypes took much longer than anticipated. I had initially planned to do three lessons but quickly learned that I would need to include a separate lesson on closing and troubleshooting batches. Initially, that topic was to be covered in the two lessons on entry options. However, storyboarding out those lessons made it apparent that they would be too long, so the decision was made to separate that content into its own lesson.

Another problem I encountered was trying to get PowerPoint to do drag-and-drop interactions. I spent quite a bit of time trying to figure out how to prototype out those activities. In the end, I
either modified the activity or did not include it in the prototype because I was not able to find a way to get it to work in that platform.

Another major difference from the original schedule was the number of expert reviews. Trisha let me know she would rather do a second review only if there were major content changes that needed to be made. Since the feedback her team provided had to do with minor changes, the second expert review was not done.

In an attempt to streamline their reviews, I gave only one initial prototype or final lesson for them to review and saved the remaining lessons to be reviewed all at once. This seemed to work better for her team and their schedules.

<table>
<thead>
<tr>
<th>Position</th>
<th>Start Date</th>
<th>End Date</th>
<th>Milestone/Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7/1/2019</td>
<td>7/8/2019</td>
<td>Start</td>
</tr>
<tr>
<td>2</td>
<td>7/8/2019</td>
<td>8/12/2019</td>
<td>build storyboards/prototypes</td>
</tr>
<tr>
<td>3</td>
<td>7/22/2019</td>
<td>7/26/2019</td>
<td>1st expert review of storyboards/prototypes</td>
</tr>
<tr>
<td>4</td>
<td>8/5/2019</td>
<td>8/9/2019</td>
<td>2nd expert review of storyboards/prototypes</td>
</tr>
<tr>
<td>5</td>
<td>8/12/2019</td>
<td>9/2/2019</td>
<td>build 1st lesson - intro/open batch</td>
</tr>
<tr>
<td>6</td>
<td>8/26/2019</td>
<td>8/30/2019</td>
<td>expert review; make necessary changes</td>
</tr>
<tr>
<td>7</td>
<td>9/2/2019</td>
<td>9/23/2019</td>
<td>build 2nd lesson - detailed entry</td>
</tr>
<tr>
<td>8</td>
<td>9/16/2019</td>
<td>9/20/2019</td>
<td>expert review; make necessary changes</td>
</tr>
<tr>
<td>9</td>
<td>9/23/2019</td>
<td>10/14/2019</td>
<td>build 3rd lesson - quick entry</td>
</tr>
<tr>
<td>10</td>
<td>10/7/2019</td>
<td>10/11/2019</td>
<td>expert review; make necessary changes</td>
</tr>
<tr>
<td>11</td>
<td>10/14/2019</td>
<td>10/21/2019</td>
<td>Pilot 1 - experts</td>
</tr>
<tr>
<td>12</td>
<td>10/21/2019</td>
<td>10/28/2019</td>
<td>review surveys; make changes</td>
</tr>
<tr>
<td>14</td>
<td>11/4/2019</td>
<td>11/11/2019</td>
<td>review surveys; make changes</td>
</tr>
<tr>
<td>15</td>
<td>11/11/2019</td>
<td>11/18/2019</td>
<td>Upload new content; notify users</td>
</tr>
<tr>
<td>16</td>
<td>11/18/2019</td>
<td>12/2/2019</td>
<td>Gather and analyze evaluation data</td>
</tr>
</tbody>
</table>

Chart 1: Proposed schedule

<table>
<thead>
<tr>
<th>Position</th>
<th>Start Date</th>
<th>End Date</th>
<th>Milestone/Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7/1/2019</td>
<td>7/8/2019</td>
<td>Start</td>
</tr>
<tr>
<td>2</td>
<td>7/8/2019</td>
<td>8/26/2019</td>
<td>build storyboards/prototypes</td>
</tr>
<tr>
<td>3</td>
<td>7/23/2019</td>
<td>7/27/2019</td>
<td>expert review of storyboards/prototype of lesson 1</td>
</tr>
<tr>
<td>4</td>
<td>8/27/2019</td>
<td>8/31/2019</td>
<td>expert review of remaining prototypes</td>
</tr>
<tr>
<td>5</td>
<td>9/1/2019</td>
<td>10/13/2019</td>
<td>build final lessons (all 4)</td>
</tr>
<tr>
<td>6</td>
<td>9/20/2019</td>
<td>10/2/2019</td>
<td>expert review of lesson 1; make necessary changes</td>
</tr>
<tr>
<td>7</td>
<td>10/14/2019</td>
<td>10/21/2019</td>
<td>Pilot 1 - experts</td>
</tr>
<tr>
<td>8</td>
<td>10/21/2019</td>
<td>10/28/2019</td>
<td>review surveys; make changes</td>
</tr>
<tr>
<td>10</td>
<td>11/11/2019</td>
<td>11/18/2019</td>
<td>review surveys; make changes</td>
</tr>
<tr>
<td>11</td>
<td>11/18/2019</td>
<td>11/18/2019</td>
<td>Upload new content; notify users</td>
</tr>
<tr>
<td>12</td>
<td>11/18/2019</td>
<td>12/31/2019</td>
<td>Gather and analyze evaluation data</td>
</tr>
</tbody>
</table>

Chart 2: Actual schedule
Budget

The original budget (Chart 3) included nine hours per week of work billed at $15 per hour for 22 weeks. The actual cost of the project (Chart 4) came in significantly less than that for a couple of reasons. First, I did not bill ParishSOFT for things that were specific to this project, including the various reviews of the lessons. Since she was not particularly interested in the novice reviews, this seemed appropriate. Second, the prototyping ended up being more work than building the lessons in Storyline. It turned out that the prototypes gave me a really solid idea of what to expect once I got to the final stages of the project. They were so close to what the final project would look like that the final build did not take as much time each week as I had expected.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>9 hours per week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$15 per hour</td>
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<td></td>
</tr>
<tr>
<td>22 scheduled weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for project duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$2,970.00 total cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of project</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart 3: Original budget

<table>
<thead>
<tr>
<th>Phase</th>
<th>Actual length</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storyboard/Script</td>
<td>2 weeks</td>
<td>$195</td>
</tr>
<tr>
<td>Prototyping</td>
<td>7 weeks</td>
<td>$578</td>
</tr>
<tr>
<td>Expert Review</td>
<td>1 week</td>
<td></td>
</tr>
<tr>
<td>Novice Review</td>
<td>1 week</td>
<td></td>
</tr>
<tr>
<td>Final Build</td>
<td>6.5 weeks</td>
<td>$608</td>
</tr>
<tr>
<td>Expert Review</td>
<td>1 week</td>
<td></td>
</tr>
<tr>
<td>Novice Review</td>
<td>1 week</td>
<td></td>
</tr>
<tr>
<td>Finalize and Upload to LMS</td>
<td>2 weeks</td>
<td>$94</td>
</tr>
<tr>
<td>Total</td>
<td>19.5 weeks</td>
<td>$1,475</td>
</tr>
</tbody>
</table>

Chart 4: Actual cost