

Running Head: PROTOTYPE PLANNING

IDT 608 (Instructional Development): Prototype Planning

Submitted in partial fulfillment of the requirements for the degree of
Master of Science in Instructional Design and Technology (MSIDT)

By

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To

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Prototype Description

Overview

The final working prototype of this MSIDT project will be a functioning course. A veterinary clinic will purchase dental radiograph equipment and require positioning training. The clinic signs up for the two-part training on the website. The clinic will have a choice of dates to schedule their face-to-face training and register a group of users. Once each user is registered, they will have access to a link for the online course to be completed before the date of the face-to-face training. The course will be presented in two sections: 1) the online pre-course, and 2) the lesson framework for face-to-face training. The online pre-course prototype will be accessible and reviewable by evaluators. The face-to-face prototype will provide a full lesson plan with reviewable materials.

Online Pre-Course

The online pre-course will need to be completed before the face-to-face training. The course will be moderated by a facilitator to handle course questions and difficulties with course navigation. The course will begin with an orientation to course navigation. Once navigation is complete, the user starts with Unit 1, watch the unit presentations, and their progress will be evaluated after each presentation. The end of the unit will have a quiz to determine if the user has completed the unit successfully. The user has unlimited chances to pass the unit quiz. Once the user has passed Unit 1, they are prompted to move to Unit 2, then Unit 3, and finally Unit 4. Once Unit 4 has been completed, the user will print out a certificate to provide proof of completion.

Face-to-Face Training

A reminder will be sent to the clinic with instructions for preparing for the day of training. For the prototype, a detailed lesson plan will be presented with the steps lined out for each unit. Unit

5 will be a brief review of the lessons learned from the online course. Unit 6 will cover the components of a diagnostic radiograph to prepare for troubleshooting technical and positioning errors. Units 7 and 8 will cover how to correctly place the sensor in the oral cavity and align the tube head over the sensor. The prototype lesson plan for the face-to-face training will have the unit objectives and the manual that will be used. Each unit will have a facilitator training script for each of the unit demonstrations. A rubric for each unit will be designed that the facilitator will use to assess the success of the participant with the learning objectives. An instructional reaction survey will be created to ask how the learning experience was for the participant.

Skill Retention Assessment

Piskurich (2015) discusses the importance of skills evaluation to ascertain if the participant has knowledge mastery and retention. For this project, it would be beneficial to know if the training addressed the requirements of the job. This summative assessment instrument would be done at two levels: 1) at six weeks and 2) at six months after training is completed. The assessment will be designed and presented in the prototype. The first level assessment would be in survey format, listing the skills required to perform dental radiographs. The survey questions would be based on the performance skills that are conducted by the participant on the job site. The participant would rate whether they performed this skill well before the training, do as well currently, or complete the skill better than before the training.

The second level survey will be designed to examine whether the job is being performed at a higher level than immediately after the training is completed. Are the participants competently taking dental radiographs? These evaluations will be sent out six months after the training is completed. What still needs to be decided is if these surveys will have a better return in a digital format sent by email to the user or by regular mail with a postage-paid return

envelope. Further research will examine what would be the best and most cost-effective way to return the on-the-job surveys.

Four Phase Outline

Week 1: Website, Unit 1, Unit 2

- I. Website computer drawing
 - A. Page 1: Course information
 - B. Page 2: Clinic registration form
 - C. Page 3: Clinic registration confirmation and link to the online course
- II. Online Course Navigation Page
 - A. Set up a prototype online course. Check notes on technology evaluation and review what free trials are still available.
 - B. Set up a course shell prototype computer drawing.
 - C. Find course navigation script from a previous assignment and revise as needed.
- III. Unit 1 Section 1 and 2
 - A. Prototype storyboard and computer drawing of Unit 1 Section 1 and 2. Use the previous storyboard as a guide.
 - B. Design CAT assessments – Muddiest Point and Background Knowledge (Angelo, 1993).
 - C. Design Unit 1 quiz format and sample questions. Review the questions used in IDT 604 to see if they are current and relevant. A bank of twenty questions would need to be developed.
- IV. Unit 2 Section 1 and 2

- A. Prototype storyboard and computer drawing of Unit 2 Section 1 and 2. Use the previous storyboard as a guide.
- B. Design CAT assessments – Muddiest Point and Background Knowledge (Angelo, 1993).
- C. Design Unit 2 quiz format and sample questions. Review the questions used in IDT 604 to see if they are current and relevant. A bank of twenty questions would need to be developed.

Week 2: Unit 3, Unit 4, Conformation Certification, Participant Reaction Survey

I. Unit 3

- A. Prototype storyboard and computer drawing of Unit 3. Use the previous draft of the storyboard as a guide.
- B. Design CAT assessments - Muddiest Point and Background Knowledge (Angelo, 1993).
- D. Design Unit 3 quiz format and sample questions. Review the questions used in IDT 604 to see if they are current and relevant. A bank of twenty questions would need to be developed.

II. Unit 4

- A. Prototype storyboard and computer drawing of Unit 4. Use the previous draft of the storyboard as a guide.
- B. Design CAT assessments - Muddiest Point and Background Knowledge (Angelo, 1993).

- E. Design Unit 4 quiz format and sample questions. Review the questions used in IDT 604 to see if they are current and relevant. A bank of twenty questions would need to be developed.
- III. Confirmation of Online Course Completion
 - A. Design certificate of completion
- IV. Participant Reaction Survey
 - A. Design participant reaction survey. Review samples found in Piskurich (2015) for question format and rubric layout.

Week 3: Training Manual, Unit 5, Unit 6

- I. Training Manual
 - A. Design agenda for training
 - B. Add to the current manual with step-by-step instructions for each view. Add page numbers.
- II. Unit 5
 - A. Prototype storyboard and computer drawing of Unit 5. Use the previous draft of the storyboard as a guide.
 - B. Design review guide to be added to the training manual that covers Unit 1-4 from the online course.
 - F. Design Unit 5 review quiz format and sample questions. Review the questions used in IDT 604 to see if they are current and relevant. A bank of twenty questions would need to be developed.
- III. Unit 6

- A. Prototype storyboard and computer drawing of Unit 6. Use the previous draft of the storyboard as a guide.
- B. Design assessment rubric to be used by the facilitator for Unit 6. Review rubric examples found in Piskurich (2015) and Morrison (2012).

Week 4: Unit 7, Unit 8, Participant Reaction Survey, Skill Retention Survey Level One, Skill Retention Survey Level Two

I. Unit 7

- A. Prototype storyboard and computer drawing of Unit 7. Use the previous draft of the storyboard as a guide.
- C. Design assessment rubric to be used by the facilitator for Unit 7. Review rubric examples found in Piskurich (2015) and Morrison (2012).

II. Unit 8

- A. Prototype storyboard and computer drawing of Unit 6. Use the previous draft of the storyboard as a guide.
- D. Design assessment rubric to be used by the facilitator for Unit 7. Review rubric examples found in Piskurich (2015) and Morrison (2012).

III. Participant Reaction Survey

- A. Design participant reaction survey. Review samples found in Piskurich (2015) for question format and rubric layout.

IV. Skill Retention Survey Level One

- A. Design skill retention survey level one. Review samples found in Piskurich (2015) for question format and rubric layout.

V. Skill Retention Survey Level Two

- A. Design skill retention survey level two. Review samples found in Piskurich (2015) for question format and rubric layout.

Pacing Plan

Success in completing this prototype is time management. The tasks listed in the above outline can be accomplished in one to two days. According to an article posted on the Lumitex website (2017), the trick to moving from the idea to the prototype is to keep the process simple, and the prototype itself does not have to be perfect. According to Ries (2013), the goal of prototyping is to produce a Minimum Viable Product (MVP). The MVP contains the minimum set of features that the stakeholders want to see and will engage with and collect their feedback. The challenge is to scale back what the original plan for the MVP to the best features of the plan and present those features. The tactic of the MVP is to decrease any excess that can cause distraction from the main goal of the product. The feedback then allows the opportunity to iterate the product and possibly iterate often.

The best plan for this project is to break the weekly phases into daily goals. This approach lowers the stress of building the prototype by breaking it down into smaller more attainable goals. The goals that are not working for the prototype can be reexamined and revised or removed without causing a large change to the project. A formal project timeline will be updated on Trello. The daily project can be updated and also has an area for keeping a journal. A journal will be kept every day that the project is worked on. The project can be shared with team members. This project will be shared with the course professor and classmates. Online sharing of the project allows questions to be asked and feedback collected. Delays will occur from challenges with technology. In these cases, questions will be shared with the course professor for recommendations.

References

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