

Task 05 Online Modeling Training Task
Related Tasking Items for Clinical Workflow Modeling

7 Apr 2020

Human Factors Services

1. Create High-value User Stories

- I want to create a model of a clinical process based on information that I already have, but I'm not sure which notation standard(s) or which tools to use.
- I usually create workflow models using pen/paper or in team meetings on a whiteboard, but I would like to learn about available software that can help me create professional looking models.
- I manage a distributed team of clinical supervisors, and I want to use the information I get in meetings with them to model specific clinical encounters that occur at their respective facilities.
- As the new SSR coordinator at my site, I want to have a basic understanding of workflow modeling that may help me read/analyze models and even draft some basic flow diagrams.
- I want to learn how workflow modeling can address specific project needs (i.e. a program office providing workflow best practices for process or product implementation by site)
- I already know about workflow mapping and how to use Microsoft Visio but I would like a “refresher” on some aspects of workflow modeling such as proper notation, mapping a workflow through interviews, how to use Visio).
- I don't really use workflow modeling skills in my role, but I would like to have a high-level understanding of clinical workflow modeling techniques so I can help my team if needed in the future.
- I am working on a team that is supporting a clinical service in assessing their processes but I am starting from scratch. I would like to learn about the data I need to create a clinical workflow as well as how to collect this information.

2. Identify several education/training sites (such as edX, Coursera, Lynda.com) to inform interaction design

Coursera.org:

- What are common pedagogical components?
 - Modular learning
 - Short lectures via video on demand
 - Homework assignments
 - Community forums for discussion
 - Quizzes and capstone projects
- What are design features or capabilities to consider?
 - Course topics/modules are taught over a 10 week period, nothing the number of videos, reading assignments, homework activities, and quizzes per week, and a suggested time of how long it will take to complete.
 - A video is placed in the center of the screen, alternating between the lecturer speaking and a slide show.

- The left panel of the screen is the course overview with a list of the videos and links to the reading assignments related to the lecture.
- The right panel is reserved for notes. A user can click “Save Note” under the video to capture a screen shot and transcript of a portion of the video.
- There is a “Discuss” link under the video that leads to a community forum that is organized by week.
- There are also download capabilities.

Lynda.com, now LinkedIn Learning (Premium LinkedIn account needed)

- What are common pedagogical components?
 - Short but targeted lessons
 - Videos on demand
 - Modular learning organized by topic area
 - Structured lesson plan with a clear timeline for each lecture and assignment
 - Links to social media forums for discussion
- What are design features or capabilities to consider?
 - High quality video production and slide show graphics
 - Videos are less than 5 minutes each
 - Interactive quizzes embedded within the video at the end of each lesson (chapter quizzes)
 - A rolling queue; the videos progresses without needing to click
 - The video is shown on the left and there is a smaller panel on the right to scroll through an overview as well as other tabs (i.e. contents, Q & A, transcripts, etc.)
 - Users can scroll down to the bottom to start the course exam

EdX:

- What are common pedagogical components?
 - Short video lectures and Interviews
 - Interactive exercises
 - Pre- and post-course surveys
 - Opportunities to interact with the professor and other learners on the page
- What are design features or capabilities to consider?
 - The course is displayed on a website and is conducted as the user scrolls down the page and clicks the “Next” button to proceed to the next topic. The videos are placed on the page at the appropriate segment as the user reads through the course material in order. There is no menu of topics or chapters, which detracts from usability.
 - Videos are organized by topic. At times the page consists only of videos, and at other times, there are reading assignments in between videos. As the user proceeds, they are prompted to take a quiz followed by a course discussion with other members. This discussion may be archived from previous users.

3. Identify the pedagogical components included in the workflow training

This section lists the primary pedagogical components of an online self-paced training course or program, and explains why/when each is used, with a focus on its use for Online (Workflow) Modeling Training (OMT.)

1. Getting Started (or continuing)

- Lesson planner (interactive) and lesson plan (result of using the planner): may consist of interactive self-assessment questions, the result of which is a suggested lesson plan. The lesson plan might be just a list of suggested modules, or may also include a suggested order and even timetable.
- Summary: list of all topics and modules, with information about each module such as objectives, delivery method/format (e.g., didactic slideshow, hands-on, mixed.) The list should provide students the opportunity to click and start a module. It may also allow the student to build a lesson plan by selecting a series of modules to take in a certain order, which will then be played in a row. It is not envisioned that this latter feature (playlist building) would be commonly used by trainees, who probably will not have large blocks of unbroken time to undergo training.

2. Lessons

- Course Overview: Description of the whole course (set of modules) with similar content to the Summary described above.

2A. Basics

- Concepts: theoretic fundamentals of the topic, reasons for needing to learn about it, related concepts that the student may already be familiar with.
- Case studies: specific examples of applications of the topic of the course. For OMT, this may include completed or ongoing projects such as Telestroke or Psychotherapy Tools. The case studies provided in this portion can be tied to vignettes that are used in the hands-on practice (below).

2B. Tool usage

- How to use software (or lower-technology) tools to create the product being taught. For OMT, this will be PowerPoint and Visio, with some allusion to stickies and whiteboarding for the knowledge elicitation stage. Typically these types of modules consist of didactic training followed by (if actual software tools are being covered) hands-on practice.

2C. Methodology

- Concepts and best practices for conducting activities to achieve the goal. For OMT this includes knowledge elicitation (e.g., focus groups, observations) and modeling reading (interpretation, analysis). Primarily didactic training.

2D. Hands-on practice

- Use vignettes/examples of varying levels of detail as a starting point to allow students to conduct the skill being trained. In OMT, this will range from the video, walking step-by-step through the creation of a simple model while the trainee follows along, through presentation of realistic (or real) clinical vignettes from which trainees are instructed to create more advanced models from scratch. Trainer resources permitting, more advanced models may be able to be submitted to trainers for online (in some settings) or offline review and feedback.

3. Knowledge Assessment and Enhancement

- Quizzes: interactive quizzes, with real-time scoring and instructions/links on where in the course to review the content for each question. Useful for self-assessment as well as for training developers/business owners to assess product effectiveness.
- Homework: the aforementioned “hands-on practice” is one example; other formats may include simple exercises that students can perform after completing a module and submit to instructors or to the system for automations scoring and/or other assessment.
- Interaction with trainers: in addition to homework review, the opportunity can be provided for trainees to contact trainers with questions. Links might be provided within the course materials such as embedded in the video player or the videos themselves.
- Links to discussion opportunities and forums, such as other trainees or social media forums. As with interaction with trainers, links may be embedded in the training material.

4. Supplemental Resources

- These can be provided to trainees before starting (in paper form or printable electronic form) or give trainee the option to download. Examples from OMT are key concepts and definitions, compare and contrasts of different modeling notation standards (BPMN, CMMN, etc.,) and templates (e.g., BPMN stencils in PowerPoint, which can be pasted to one’s own PowerPoint file, Visio diagram, etc.)