

Workflow Modeling Simulation In Second Life: A Case Study

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Introduction

- It is imperative for health informatics students to develop workflow modeling skills
 - Good practice
 - Needed in implementation of EHRs



Introduction

- Workflow modeling
 - Guides the development of health information systems to more closely fit clinicians workflow
 - Increases likelihood of successful implementation



Workflow Definition

“... the sequence of steps, decisions, and handoffs carried out by the process’s actors between the initial event and the final results.”

- Workflow describes
 - Who
 - Does what
 - When
- Describes the flow of work

(Sharp & McDermott, 2009, p175)

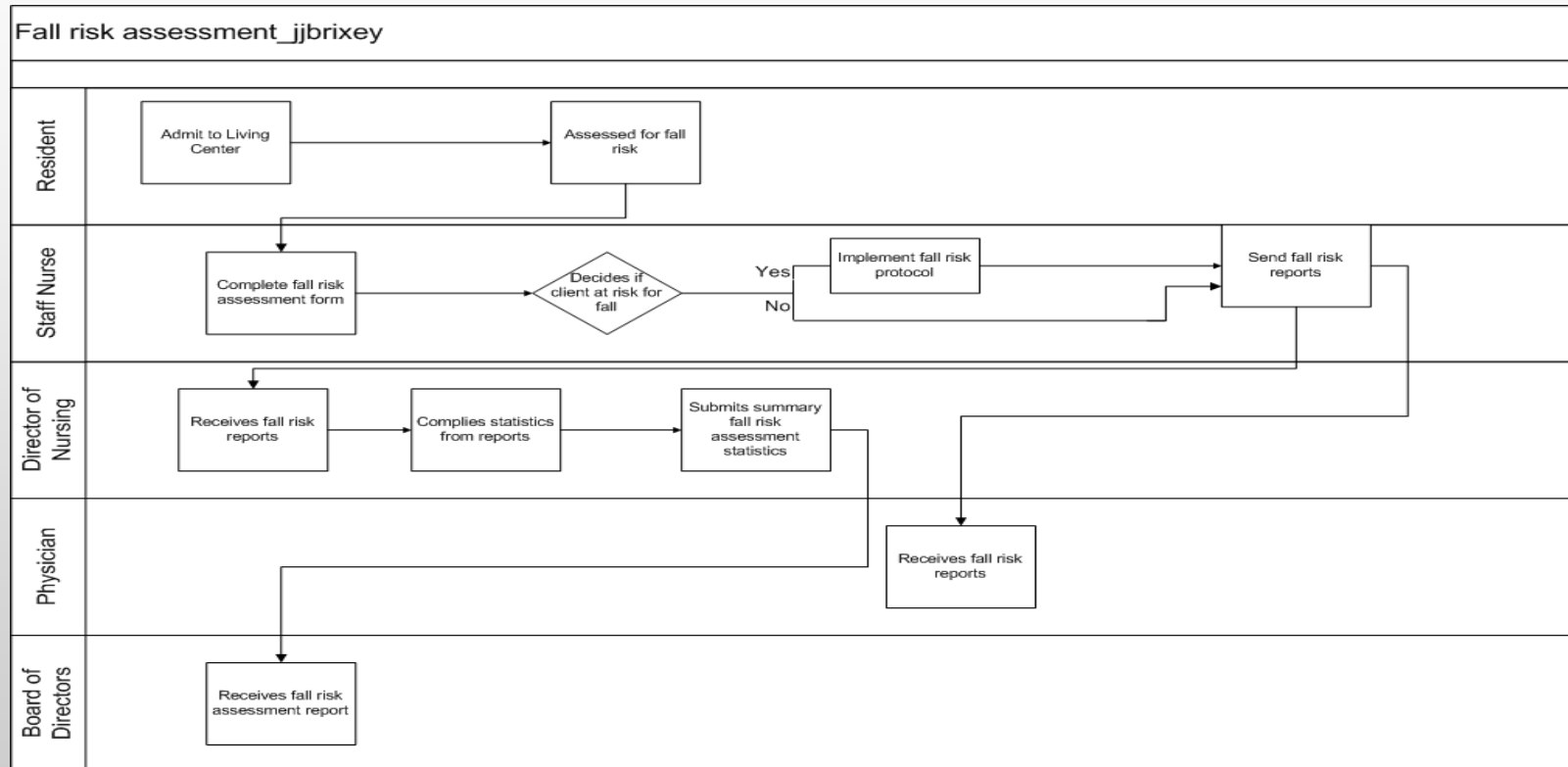


Workflow Modeling Activity

- Collect data about the flow of work
- Often involves direct observation
- Sequence work processes
- Identify persons directly involved in work
- Pinpoint handoffs



Example of Workflow Diagram



Course Assignment: Step 1

- Your team task will be to develop a workflow diagram. This diagram should depict roles (actors), responsibilities, and routes.
 - “Roles are the actors or process performers who participate in the process;
 - Responsibilities are the individual tasks that each actor is responsible for and
 - Routes are the workflows and decisions that connect the task together, and therefore define the path that an individual work item will take through the process”



Course Assignment: Step 2

- Next, describe the workflow model.
 - Model the current process
 - Assess the enablers of the as-is process
 - Record strengths and weaknesses of current as-is process
 - Identify points where improvement is possible
 - Document relevant aspects of the culture, core competencies, and management systems (you may use your own clinical experiences for this part as we don't have a real organization to assess)



Challenges in Modeling

- Challenging activity for student to complete in a fast-paced clinical setting
- Reading a text-based case study
- How to improve the quality of student experience for completing workflow activity?



Second Life

- 3D virtual reality of user created content
- Can be used to simulate a clinical environment
- Removes time pressure and variation among healthcare organizations
- Removes cognitive imagination required to interpret a text description
- Interactive



Methods

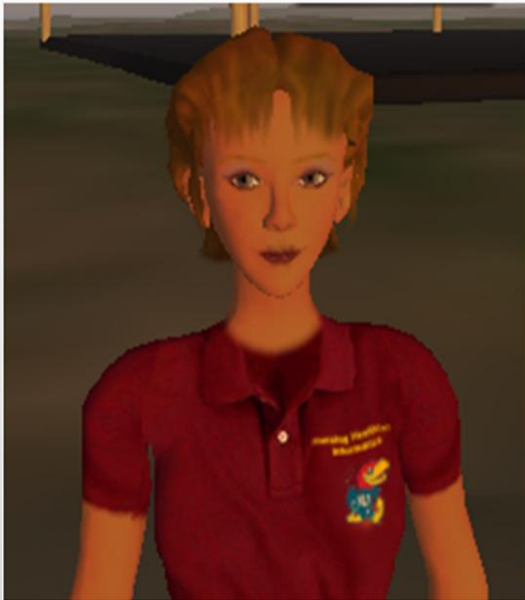
- Second Life
- Camtasia Studio
- Visio
- Develop and test a simulation
- Secure a virtual resident actor



Jayhawk Community Living Center



Cast of Actors



Ellipse Wigglesworth
DON



Windy Howley
Staff Nurse



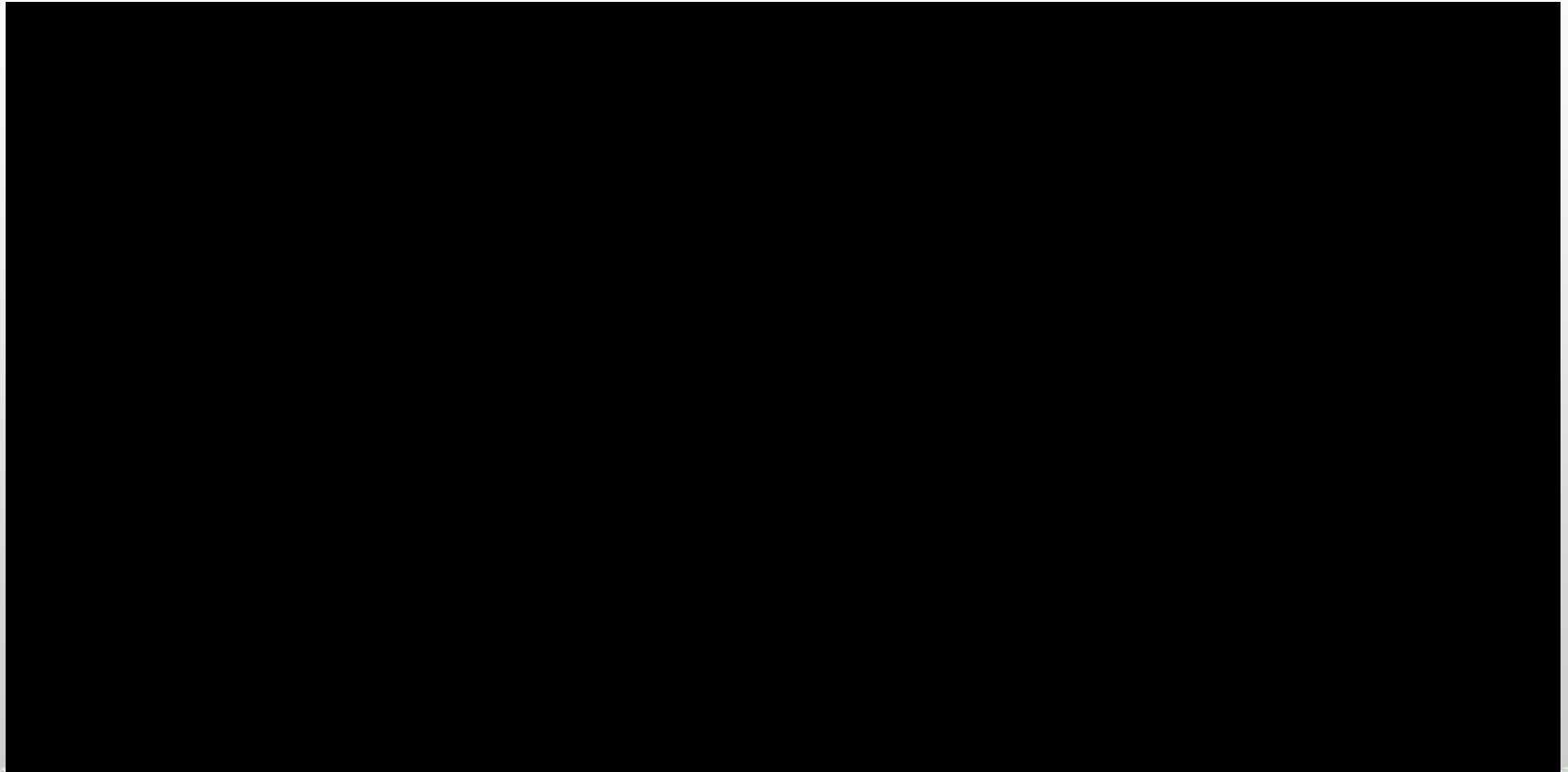
Choctaw Ninetails
New Resident

Workflow Simulation in SL

- Directions to students
 - You will observe Windy Howley, RN conduct a fall risk assessment for a new resident at Jayhawk Community Living Center.
 - You will be given the opportunity to ask questions of both Windy and Ellipse Wrigglesworth, DoN of JCLC.
 - The simulation will be recorded.
 - The recording will be posted in the course management software.



Workflow Video



Conclusions

- Students receive iterative constructive feedback from faculty
- Replicates working with end users
- Improved quality of students depiction of workflow
- Students report the SL simulation as a rich positive learning experience.



Future Work in Second Life

- Continue to develop authentic simulations
- Refine recording skills using Camtasia Studio
- Refine editing and publishing skills using Camtasia Studio
- Implement an evaluation plan to measure the outcomes of the virtual experience



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Questions



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