CPSC 444 Tutorial: Field Studies 2

Description:

- In this tutorial, you will analyse real field data from a video of people constructing a puzzle. In the second half, you will participate in a "shotgun design" exercise based on your data analysis.

Objectives:

- By the end of the tutorial, you will be able to:
  - Understand why interviews are insufficient in capturing activity
  - Understand how to conduct an interaction analysis on workspace work
  - Make an informed choice about what kinds of problems are suited to field methods

Deliverables:

- None, however at the end of the tutorial, groups will have (but don't need to hand in) conducted a rudimentary interaction analysis and produced an affinity diagram about their observations of the 5 min video clip.

Tentative Schedule:

- Quiz + discussion (~15 min)

- TA reviews foci for analysis (see Foci below) (~5 min)

- TA describes activities (see procedure below) (~5 min)

- Interaction Analysis Activity
  - Interaction analysis activity (~25 min)
  - Affinity diagram activity (~25 min)
  - Groups present most interesting observation (~10 min)
  - Discussion about merits/weaknesses of interaction analysis (~5 min)

- Design brainstorm (time permitting) (see below)

Activity Procedure

You are designing a computer-based multiplayer puzzle game for a coffee table company. This game will be embedded inside the coffee tables and sold to families to replace existing puzzle games. Your boss has told you to watch how people work together on a jigsaw puzzle so that you can design a better game. You are to conduct an interaction analysis that captures the essence of collaborative jigsaw gaming.

Interaction Analysis Activity

You can find the video file here: http://www.cs.ubc.ca/~cs444/tutorials/FieldII_Video.wmv
- The video does have sound, but is not necessary to listen to it in order to record your observations
- If you would like to use the sound, please use headphones instead of speakers as to not

disrupt other groups.

- 1. Split your group into two, and view the video silently the first time.
    - Record observations about the activity (between people, between people and the tabletop, between people and the game pieces, etc.) – one observation per Post-It note
    - Keep in mind the foci-of-analysis from the hand out.
    - Your observations can be at any level: how the fingers move, where the pieces are stored, how the pieces are rotated, how the pieces are organized...
    - Record timestamps for events that you think are highly unusual or that you think no one else would have noticed.

- 2. View the video again to see if you spot new things—especially review the spots where you have recorded timestamps.
    - As you review the video, talk to your teammates about what you think is going on – see if they agree with your explanations for your observations. Pause the video as necessary.
    - Repeat this process at least four more times—explore playback speed and feel free to use the pause/stop

Affinity Diagram Activity

- Your task is to organize your observations into manageable chunks for your boss. Construct an affinity diagram that links together your observations in a meaningful and interpretable way.
    - Group observations that seem similar together
    - If you have left-over observations, feel free to re-group the observations as necessary
    - Label the groups and construct the hierarchy and web of ideas on the whiteboard.
    - Select the most interesting observation from your data and write this on the board
    - Select one team member to present your best observation
- Return to the video as needed to review observations and follow up on interesting themes or findings

Design Brainstorm Activity

- 1. Brainstorm 1-2 different design ideas to augment the workspace using computer-based technologies.
    - Each of these design ideas should be supported using the sticky notes from the interaction analysis (i.e. to provide justification for the idea).
    - These design ideas should be drawn out (or outlined with text) using the whiteboards
- 2. Each group shares what they think is their "best idea", and class discussion about ideas

Foci for Analysis

1. Structure of Events

- How are events structured?
- How and when do things chunk?
- What is the real start/end? How is this constructed?
- How do people transition and announce transitions between chunks?
    - a. Beginnings and endings
    - b. Segmentation

2. Temporal Organization of Activity

- How do externally imposed timelines affect work behaviour?
- How does timing of events, the rhythm & periodicity of events affect flow of work?

- How is segmentation achieved?
- How are rhythms perceived?
- How is "sameness" perceived and when does it become different?
  - a. Macro level
  - b. Rhythm and periodicity

3. Turn-taking

- How is turn taking effected (re: verbal, non verbal and TOOLS)?
- What are the conventions?
- When are conventions (rules) broken?
- How are interruptions handled?
- Consider "instrumental interaction" (responding to request with tool manipulation, etc.)

4. Participation Structures

- People's participation in work varies.
- How do they affect these participation roles?
- How do they communicate their desire? (i.e. their desire for/current engagement)
- How do artifacts play a role in this? (in disrupting or facilitating)

5. Trouble and Repair

- Problems provide insight into rules (expectations) about regularity (normalcy).
  - (computers force one-way problem resolutions)

6. Spatial Organization of Activity

- How is information spatially oriented vis-à-vis participants?
- How are participants spatially organized? How does is this a reflection or consequence of the work that is being done?
- How does this spatial organization imply, dictate or free the flow of activity?

7. Artifacts and Documents (special participants)

- What's here dictates what's possible or not.
- What role does an artifact play? How does its trajectory influence this role?
- Some objects' roles may be to imply understanding
- Ownership & territoriality

Revision: r1.8 - 22 Jan 2014 - 01:47 - IdinKaruei

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