IMPREC EVALUATION, INTERVIEW GUIDES

Formal introduction:

- I have signed an NDA, a non-disclosure agreement. You do not have to worry about telling my anything.
- You are guaranteed anonymity. Everything you say will be anonymous. Only I will know who said what, and I will as a first step anonymize the information.
- You do this interview voluntarily. You can skip answering any question, and you are free to stop the interview at any time.
- The information collected during this interview will be encrypted and securely stored.
- Finally, I would like to ask you if it is ok if I record the interview?
- You will get a transcript of this interview soon. You will then have a chance to remove any information, or clarify yourself.

INITIAL INTERVIEWS

Pre1: Background
Briefly describe your current role and your background as a software engineer.

    a. When did you graduate? When did you join this company?
    b. What other roles have you had? For how many years?
    c. How many years have you worked with this particular system?
    d. Have you worked with different parts of the system? Which parts?

Pre2: Baseline
Describe the current impact analysis work task and how you practically conduct it?

    a. What is your general opinion about the impact analysis work task?
    b. Do you conduct impact analyses daily/weekly/monthly?
    c. How much time do you spend on an individual impact analysis?
       • Does it vary much?
       • Can you express it as minimum-normal-maximum time?
    d. What are the greatest challenges in impact analysis in your daily work?
    e. What kind of support for impact analysis do you currently have?
    f. The system is safety-certified, thus you must maintain traceability. How do you use traceability in the impact analysis work?
    g. How do you seek information?
       • Search in document management system?
       • Browse information structure in document management system?
       • Search in issue tracker?
       • Browse in issue tracker?
       • Read documentation?
       • Consult traceability information?
       • Ask colleagues?

Pre3: Comments on data
We have collected some information from your history of impact analyses. Could you please comment on the numbers?

    a. What can you conclude about your latest impact analyses based on the numbers?
    b. Do the numbers reflect how long time it takes to conduct an impact analysis?
    c. Some impact analyses have been modified. Does this mean they were harder to conduct?

Pre4: Envisioned support
What kind of support would you like to have access to when conducting impact analysis?

Follow-up questions while still not biased.

Pre5: Other comments
Anything else you would like to add before we introduce you to the tool?

POST-INTERVIEWS

Post1: Sanity check
   a. Was the number of impact analysis reports you authored during the study typical?
   b. Did you get a chance to run ImpRec when working on your impact analyses?

Post2: The approach in general
   a. What is your general opinion on assessing decision support from a tool in your work?
   b. What do you think about being presented similar tracker cases as part of the impact analysis?
   c. What are your thoughts on reusing "impact knowledge" from previous engineers?

Post3: Evaluation of recommended impact
Discuss user data collected from specific ImpRec uses. Compare with true answers stored in the issue tracker.

   a. Could you comment on this part of the log?
   b. Did you notice any patterns based on your search strings? When did it work/not work?
   c. Did ImpRec point at any additional side effects? Did you consider them?
   d. Show the QUPER model and the benefit view. Discuss the example of booting a mobile phone. Where do you think the corresponding accuracy breakpoints are for ImpRec? Where would you place the accuracy of your impact analyses today i) before reviews ii) after all reviews have been completed? Where do you think the ImpRec accuracy is at the moment?
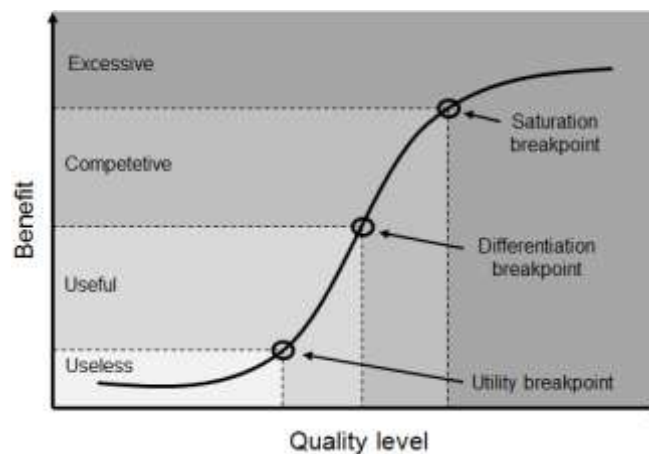

Figure 6: QUPER – The quality performance model.

Post4: Evaluation of the tool itself
   a. How did you find the presentation of related issues and items in ranked lists?
   b. What would you like to see improved in terms of presentation in ImpRec?

Post5: Final comments on the study
Do you have anything to add before we stop collecting data for this study?