No need for 2 different groups for each interface because there is no danger of the learning effect

**Cognitive Walkthrough**

– – evaluates design on how well it supports user in learning task

usually performed by expert in cognitive psychology

– expert ‘walks though’ design to identify potential problems using psychological principles

Analysis focuses on goals and knowledge: does the design lead the user to generate the correct goals?

**Heuristics Evaluation – David and Leif**

**Laboratory studies Aneta, Paulin, Yuri …**

• user observed performing task • user asked to describe what he is doing and why, what he thinks is happening etc. • Advantages – simplicity - requires little expertise – can provide useful insight – can show how system is actually used • Disadvantages – subjective – selective – act of describing may alter task performance, they are not using the system enough, but rather following instructions, real-world situation is much more complex.

**Field studies- Peter and his students**

distributed cognition ⇒ work studied in context real action is situated action physical and social environment both crucial

**Questionnaires**

• Set of fixed questions given to users • Advantages – quick and reaches large user group – can be analyzed more rigorously • Disadvantages – less flexible – less probing • Much harder to do than you think!

In this session, you will be working with an online worked examples viewer. The main characteristic of worked examples is that their text is revealed gradually as you work through the different steps of the example.

Context

WEAVE is intended to be a new tool which can be used to enhance the teaching process of Computing Science in schools across the UK.

Teachers

WEAVE enables teachers to make use of worked examples created by them or by their colleagues. They will be able to work with their students on selected examples in the class room or set them as homework. The benefit WEAVE brings to them is that they can monitor how their students interact with these worked examples. In order to do so, teachers are encouraged to organise their classes into groups. After selecting the number of students for each group, the tool will generate IDs for each student. The teacher is responsible for passing their username which would serve as a teacher ID, the group ID and the student ID to the students they want to monitor usage data for. WEAVE will enable them to see such data at a class and at an individual level. The data is visualised as graphs and tables for easier analysis.

Students

For students WEAVE serves as a worked examples viewer. They need to identify themselves by the teacher ID, group ID and student ID provided by their teacher in order to be able to view examples. The system also allows access to examples to individuals who are not assigned to any group- they need to identify themselves as anonymous users. When they choose an example to work on, students go through the different steps of the example and read the explanation for the step they are on. Some steps involve questions to check student’s knowledge.

The evaluation

Please note that this is evaluation on how effective the application is in achieving its goals and identify any potential issues preventing you from achieving these goals. It is not evaluating you or your skills. You may withdraw from the evaluation at any time and any information recorded will be discarded. Instructions on what you are supposed to achieve are provided below. These instructions, however, are minimal because one of the aspects of the evaluation is to evaluate how self-explanatory WEAVE is.

The evaluation consists of three stages.

Stage 1

In the first stage you will act as teacher. You need to imagine that you want to monitor the progress for a class as well as the progress of one of your students. Make sure that you create a class for this purpose.

Stage 2

In the second stage you will act as a student. You have received a teacher ID, group ID and a student ID and you choose an example to work on. Note that you don’t need to understand the example as you go through so you should not worry if you don’t. The focus of the evaluation is the user interface.

Stage 3

You act as a teacher again. You want to check how your class worked with the chosen example. You also want to check how the particular student (the one you chose for your second stage of the evaluation) has worked with this example.