**Evaluation Information Sheet**

In this session, you will be working with an online worked examples viewer (WEAVE). The main characteristic of worked examples is that their text is revealed gradually as you work through 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 classroom 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 own username, which serves 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**

Instructions on what you are supposed to achieve during interacting with WEAVE 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 group 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 need to choose one or more examples to work on. Note that you don’t need to understand the example(s) as you go through the steps 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 example(s) used in the previous stage. 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(s).

**Comments**

Please note that this is evaluation on how effective the application is in achieving its goals and so you should identify any potential issues preventing you from working with WEAVE in an effective manner. It is not evaluating you or your skills. You may withdraw from the evaluation at any time and any information recorded will be discarded.

**Questions**

**Usability Evaluation**

1. What is your overall impression on the application?

**The overall impression of the application is good – it seems to cover all the bases for the requirements that I gathered from the description provided to me for the evaluation. The interface is simple enough to understand and pretty intuitive. I was able to complete all of the tasks asked of me. So yes, I think overall it is a good application with promise!**

2. Is there anything in particular about which you have a strong opinion - either good or bad?

**The interface is good, I have a good opinion of the interface. I can’t think of anything bad which I have strong opinions of! I think the major issue is the potentially confusing way in which graphs are displayed – the numbers are a bit confusing at first.**

3. Did the prototype provide enough guidance and help on what you needed to do at each stage?

**Pretty much. I understood the major points, such as how to log in, find student IDs for my group, and the like. This all seemed fine – the buttons/links were where I expected them to be. I was able to successfully complete the tasks without major issues.**

**My only problem was identifying on the average time charts what the numbers meant next to the graph points. I had no idea; then I found out when you hover the mouse over a point, you get a popup bubble with some descriptions of the particular step. I found that numbers in the bubble (with a text description accompanying them) matched the numbers in the brackets I had no idea about – so I deduced that those were the same values. It might be good to have a little popup when a graph loads telling the user what the values mean.**

4. Do you think you would need special training on how to use WEAVE? If yes, can you specify what parts of the application should be the focus of such training?

**For students, no. I think students would be able to pick up and use the system pretty easily. Nice one! For teachers, \*maybe\*. I am not totally sure; the actions the teachers have to do is a little more complex since they have administrative work to carry out here. What I would say is that a two or three page guide on how to set up the system from a teacher’s perspective would be very handy for them.**

5. Were there any parts of interaction when you were confused of unsure what you need to do next? If yes:

**Yes – but only one (graphs, trying to figure them out).**

5.1 How did you act to find out what you needed to do?

**I was totally confused at first. After moving the mouse around the screen, I realised that when you hovered over the points on the graph, you got a little popup telling you more about each point. This helped me identify the values on the graph.**

5.2. How difficult was it to find out what you needed to do?

**Pretty difficult because I had no guidance. Some help would have been useful here.**

5.3. How certain you felt that your actions are appropriate?

**Very – because the numbers always matched. So I am confident that I figured out the correct meaning behind each of the values.**

6. Is there anything that could improve your experience?

**I think the data reporting section could be improved a little to make it easier to use and digest. I am aware the previous incarnation of the software had no such functionality; so I feel that what is present is a great first attempt. However, some refinement would go a long way. Some of the graphs don’t seem particularly suitable to be presented as graphs. Maybe just tables, instead?**

**However, the student interface seems to have been well executed. I have no comments on this side of things regarding how that can be improved. Well done!**

7. Do you have any final thoughts or opinion about WEAVE?

**For a Level 4 project, I think WEAVE clearly demonstrates what is required for such a project, plus a lot more. At first, I thought the application was rather simplistic. When I however started to think about the mechanics that must have been implemented to develop such a product, it became much clearer to me that this is much more than a simple web app. It is sophisticated, with great logging functionality, and I am sure that in the years to come, WEAVE and any products spun off from it will aid in the teaching of complex programming activities to students.**