University of Glasgow | School of Computing Science

Assessed Coursework

Course Name	**Human-Computer Interaction Design and Evaluation (M)**			
Coursework Number	**2 (of 3) – AE2 – HCI Experiment**			
Deadline	**Time:**	**16.30**	**Date:**	**20 February 2025**
% Contribution to final course mark	**5**		**This should take at most this many hours:**	**5**
Solo or Group	**Solo**		**Group**	✓
Submission Instructions	**Via Moodle – see last page**			

Who Will Mark This?	**Lecturer** ✓	**Tutor**	**Other**
Feedback Type?	**Written** ✓	**Oral**	**Both**
Individual or Generic?	**Generic**	**Individual** ✓	**Both**
Other Feedback Notes			

Code of Assessment Rules for Coursework Submission

Deadlines for the submission of coursework which is to be formally assessed will be published in course documentation, and work which is submitted later than the deadline will be subject to penalty as set out below. The primary grade and secondary band awarded for coursework which is submitted after the published deadline will be calculated as follows:

(i) in respect of work submitted not more than five working days after the deadline
   a. the work will be assessed in the usual way;
   b. the primary grade and secondary band so determined will then be reduced by two secondary bands for each working day (or part of a working day) the work was submitted late.

(ii) work submitted more than five working days after the deadline will be awarded Grade H.

Penalties for late submission of coursework will not be imposed if good cause is established for the late submission. You should submit documents supporting good cause via MyCampus.

Penalty for non-adherence to Submission Instructions is 2 bands

Marking Criteria
See Last Page

Human-Computer Interaction: Design & Evaluation

Lab 4 exercise sheet – Week 5 – AE2

PRODUCT EVALUATION EXPERIMENT - AE2

The goal of AE2 is to conduct HCI experiments to evaluate an interactive system. Last week (Lab 3 – Week 4), you should have planned an experiment to evaluate the product you have selected. This week (Lab 4 – Week 5 – this lab sheet), you will conduct the experiment.

Lab 4 – Running the Evaluation Experiment

This week, **in Lab 4 (Week 5), you will run your evaluation with users**; you will be paired with another project group of your lab slot who will be the participants in your study. In turn, you yourselves will act as participants for their team's evaluation. For Monday's lab, you will take turns to serve as participants for other groups as specified in last week's lab sheet: Group 1 will be participants for Group 2, Group 2 for Group 3, and Group 3 for Group 1. When in doubt, check with your lab tutors.

As experimenters:

If you have not done so already, run a pilot study within your team or with one or two friends. Go through all the steps intended during your evaluation, including setup, tasks, data collection, etc. Assess how long it takes to run your study; fix any part of your evaluation that seems problematic. If you realise after a pilot that your plan last week was not realistic, or that it would take too long, you should scale back the evaluation you conduct. Document as part of your submission if that has happened and outline your revised plan.

When ready, contact your participant team and arrange how your evaluation will be conducted. Depending on the specifics of your experiment plan, you may or may not need to be physically with (or on a live call with) the participant to run the evaluation. If you do need to be present, agree on a time. By default, please use the scheduled lab time for Lab 4 on Week 5 for this, but there might not be enough time to complete everybody during that hour, so try to be flexible and if needed, find another available slot during the week.

Respect participants' time. Arrange the evaluation in plenty of time in advance, and be prepared when your participants come to do your study. For example, it is unreasonable to make first contact with the other team asking for their time the day before the deadline. Do not ask anyone to spend longer than 30 minutes doing your evaluation. Since you are working in a team, you may consider splitting your group to run several participants in parallel, before combining all your results.

As participants:

Please make time to act as participant for a short evaluation of another team's product. You will find that you learn a lot in engaging with another team and project, seeing how they made different choices, and how things look from a participant's perspective.

Be a useful participant! Take tasks you are assigned seriously and give detailed answers where you can (e.g. if you are asked an open-ended question, try to provide a genuine answer). Provide honest opinions; it will not harm others' marks if you don't particularly enjoy their experiment, and it is in nobody's interest for you to answer questions in a way you think is polite or nice rather than honest.

The other team should be flexible around your schedule as far as possible, give you plenty of notice and stick to time. If you find you are waiting because the evaluation is not ready for you at the arranged time, if it is taking longer than 30 minutes or if you get last-minute requests, feel free to decline to participate or to leave.

EXPERIMENT REPORT - AE2

Your AE2 experiment will be marked through a written report. **Working as a group**, produce a PDF document containing:

- Your team ID and team members' names and GUID.
- Product description (~1 paragraph): Describe the product that you are evaluating.
- Evaluation goal (~1-2 paragraphs). The primary research question(s) that you are investigating, and a short explanation of why you think it is important to conduct on this product.
- Evaluation plan (~1 page). This will be different depending on the type of evaluation you have chosen to conduct, but could include:
    - descriptions of how the evaluation is planned to be conducted (e.g. will it be done in person or remotely?),
    - independent/dependent variables (if any), control, random, confounding variables (if any)
    - information on how participants will be briefed and debriefed
    - precise instructions of tasks participants will be asked to perform (if any),
    - descriptions of the type(s) of data being recorded and how data was captured, including questionnaires (if any), observations, or other measures
- Pilot summary (~1-2 paragraphs) Short summary of the pilot. Was any issue uncovered that led you to adjust your experiment plan? What/why?
- Experiment Results (~1-2 pages). Outline the information you captured during your evaluation. Try to present information clearly and effectively. Think how best to present data related to your measures: descriptive statistics or charts of data may help to illustrate your findings. Describe the main themes that emerge from any qualitative data you obtained (if any).
- Discussion (~1-2 paragraphs). Discuss your results and relate them to your research questions. What have you learned about your product? What are your overall conclusions? What implications could these have for the creators of the original product, or for people designing similar systems?
- Reflective summary (~1-2 paragraphs) on how the process of conducting the evaluation went. Did things run smoothly, or were there problems – technical issues, experimental design problems, data analysis issues? Which aspects worked well? What lessons have you learned, and would you try anything different if you were going to do another product evaluation in the future? Be honest – we are interested in your reflections on your evaluation experience: there's no marks deducted if you realise now that things could have been done better.
- As an appendix, provide your completed ethics checklist.

The main content of your report (product description, evaluation goal, evaluation plan, pilot summary, experiment results, discussion, reflective summary) should not exceed 8 pages in total. Note that this is only a maximum – we do not expect reports to necessarily reach that length. A well-designed study and well-written report could be much shorter and obtain the

maximum grade: consider what to include and what not to include, and consider quality over quantity.

Consider including in appendices any relevant questionnaire, table of results, screenshots, tasks or scenarios, or any other material you think is appropriate.

How to submit

One member of the team should submit a pdf document **via the AE2 submission icon in Assessment/Submissions section of the course Moodle page**. Decide or nominate one person to upload the pdf to Moodle, **but make sure that somebody submits**! If you have used any external sources, be sure to acknowledge them in your submission. For reference, the School's plagiarism policy is contained in Appendix A of the Undergraduate Class Guide (available at https://moodle.gla.ac.uk/course/view.php?id=21505).

This work is worth 10% of the overall assessment of the course. You can work on it prior to and during your lab sessions 3 and 4 in weeks 4 and 5 and submit it any time after that. The absolute deadline for submission is Thursday 20 February at 16.30.

Marking Criteria

This exercise is worth 10% of your overall HCIDE grade in total, and is graded based on the following:

Grade	Report structure and clarity (20%)	Experiment Design (40%)	Results presentation and discussion(20%)	Reflection (20%)
A (Excellent)	The report is exceptional, well-structured, clearly written, and easy to follow, with all necessary sections presented in a logical way. The evaluation plan is thorough, with a detailed explanation of variables, participant instructions, and data collection methods, all relevant and justified for the research goals. Results are clearly presented using relevant figures, descriptive statistics, or qualitative data as appropriate. Clear, insightful discussion well-linked to the original research question and acknowledging study limitations. Insightful reflection on the evaluation process addressing challenges and lessons learned, with thoughtful suggestions for improving any future evaluation.			
B (Very Good)	The report is well-structured and clear, though it may have minor issues with organization or clarity. The evaluation plan is solid, including appropriate details on variables and participant instructions, but may lack some depth or completeness in justifying the methodology or explaining the data collection process. Results are clearly presented, but some sections could have been further developed or illustrated. The discussion provides clear conclusions but may benefit from deeper insights into the product or study limitations. The reflection makes good observations, covering some aspects of the evaluation process and offering some lessons learned.			
C (Good)	The report is satisfactory but may lack some clarity or organization. The evaluation plan addresses key elements such as variables and participant tasks, but may be missing some important details or lacking in clear justification for certain decisions. Data presentation is functional, but lacks detailed analysis of key points or isn't illustrated. Results are interpreted correctly but may lack depth or fail to fully connect with the research questions. The discussion is descriptive, with some useful observations, but it may fail to explore study limitations or implications. The reflection is brief and covers only basic aspects of the evaluation process, with limited insights into areas of improvement or challenges faced.			
D (Satisfactory)	The report meets minimum requirements but lacks clarity and polish. The evaluation plan is incomplete or lacks critical details such as clear explanations of variables or data collection methods. Instructions for participants may be vague, and key considerations may be underdeveloped or missing. Results are presented but may be unclear or incomplete, and the analysis is minimal. The discussion provides basic conclusions, but these are underdeveloped or irrelevant to the research questions or limitations of the study. Limited reflection, offering only surface-level observations without evaluation of the process.			

E (Weak)	Poorly structured report consistently lacking clarity, with missing sections or incoherences. Underdeveloped or absent evaluation plan, with missing aspects on how the evaluation was conducted or what variables were considered. Data collection methods and participant instructions are either incomplete or vague. Results are poorly presented, incomplete, or irrelevant, and there is little to no analysis of the data. The discussion is either minimal or absent, with no clear conclusions or analysis. The reflection is brief or missing, offering no meaningful insight into the evaluation process.
F/G (Poor)	The report is severely disorganized, with major sections missing or poorly written. The evaluation plan is fundamentally flawed or non-existent, lacking any description of how the experiment was conducted. Results are either missing or presented in such a disorganized manner that they are unintelligible, with no meaningful analysis of the data. The discussion is completely absent, or if present, it fails to address the research questions or interpret the results. The reflection is either absent or completely irrelevant to the evaluation process.