

Assignment 1: Evaluation



Worth: 30%

Due date: 11pm Tuesday 26thth August, 2025

Your task is to plan and conduct an evaluation, with and without users, for Sketch.IO's Sketchpad <https://sketch.io/sketchpad/>. This is a free sketching application available online.

Part 1 – Ethics (2 marks)

For this assignment, we have obtained low risk ethical approval to enable you to do the study with participants under the *Massey Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants*.

This means all your assignment work MUST adhere to this code of ethics *and* meet the low risk study criteria. In particular:

- participants must be 16 years or older.
- participants must sign a consent form before the pilot study begins (provided in the assignment documents).
- all data collected must be non-identifying/anonymous
 - use a participant numbering system to label data collected instead of names.
 - you can record screens/voices but not faces.
- Data must be kept private and secure and cannot be shared with anyone other than the teaching team for this course. You cannot under any circumstances upload data collected from participants to generative AI tools e.g. ChatGPT as this would be a breach of ethics.

To complete this part do the following:

- a) Read the *Massey Code of Ethical Conduct* (provided in the assignment documents)
- b) Complete the ethical compliance statement & low risk checklist (provided in the assignment documents) to ensure your evaluation complies with all the low-risk ethics criteria. Please go through this carefully and ask Rachel if you have any questions. This must be completed and signed BEFORE doing Part 3 of the assignment.
- c) Read the information sheet and consent form (provided in the assignment documents). Do not edit these in any way, other than to add your name and email address to the information sheet and consent form in the spaces indicated in red. Ensure that your plan and pilot study conforms to what is stated in the information sheet.

Part 2 – Usability evaluation plan (13 marks)

Write a plan for a usability evaluation of Sketchpad. You are not expected to evaluate everything in this website in your study, you can choose which parts you want to focus on yourself. When you write your plan specify the parts of the system you are choosing to focus on in your goal, questions, and tasks.

Use the following headings as a guide for your plan:

- Goal
- Questions – these are research questions relating to your goal.

- Equipment/Materials/Environment – make a detailed list of equipment/materials (electronic and non-electronic) you will need to conduct this evaluation. Also describe where the evaluation will be conducted - remember you need to meet with participants in person!
- Participants - who would your ideal participants be and why? You do NOT need to find the ideal participants when you run your pilot study in Part 3.
- Tasks – describe the tasks you would ask participants to perform in the evaluation. Include the task sheet of instructions you will be providing to participants. *Do not include any parts of the site that require payment or personal information to be entered into the system.*
- Test procedure – document what you will do in your evaluation step by step from beginning to end for each participant, imagine someone else will use this description to run the evaluations for you. You might want to include a checklist of all the things you need to do during an evaluation session e.g. start/end timer.
- Data to be collected – give details on all the data that will be collected. If you are going to use any questionnaires/interview questions, provide these questions also. As a Massey student you can use Qualtrics for administering online questionnaires if you wish: massey.qualtrics.com. You must include some kind of recording in your data e.g. audio/video and screen.
- Data analysis plan – give details on how you plan to analyse each part of the data collected during the study. Make sure you show how this data analysis plan will help you answer your questions and ultimately, your goal.

Once you have completed the pilot study in Part 3, make the relevant changes to this plan. Submit your final version of your plan that incorporates the changes that you have made once Part 3 has been completed.

There is no word limit for this part, but please keep your plan succinct and to the point.

Part 3 – Usability pilot study (8 marks)

Run a pilot study by carrying out your usability evaluation plan from start to finish. You must pilot your usability study with at least 2 participants in person. If there are still major changes that need to be made to your plan after 2 participants, then keep adding participants until you are happy with the plan.

Note that the pilot sessions must be recorded using either audio/video and screen recording so that we can verify that this has been completed (but do not include the participants face). You may ask friends/family or fellow students from this class to participate in your study if you wish – feel free to use Discord/Stream forum to do so. Remember that you don't have to find your 'ideal' participants for this assignment.

Before any participant begins Part 3 you must:

- i. Give them time to read the information sheet.
- ii. Give them an opportunity to ask any questions *and then*
- iii. Ask them to sign the consent form if they are happy to participate.

All participants MUST complete a consent form before doing the study. All signed consent forms must be submitted as part of your raw data for this assignment.

Write a summary on how the pilot study has progressed; how many participants were part of the pilot study and why. Summarise the changes that were made to the evaluation plan based on the pilot study and why these changes were made. Note that in practice it is very unusual to not make any changes to an evaluation plan after a pilot study. *Maximum word count for this summary is 500 words, this is a limit not a target!*

Submit all the raw data that you have collected from participants during the pilot study, including ethics documentation, recordings, spreadsheets, questionnaires with participants answers, observational notes etc. in a .zip file.

Part 4 – Heuristic evaluation (6 marks)

Perform a heuristic evaluation of this system using Nielsen's usability heuristics. Remember a heuristic evaluation does not involve users, but experts – you are the expert in this case!

Document your heuristic evaluation by discussing your findings for each heuristic. Add pictures/screenshots if you wish. If you find a heuristic is not applicable to this system, then note it as such, and provide justification for this. Finally, include any suggestions you might have for improving the usability of the system based on your evaluation.

Maximum word count of 1200 words, this is a limit not a target!

Submission instructions

Please follow the submission instructions below carefully. Assignments that do not adhere to these instructions will not be marked. **Submit 2 files** to Stream as follows:

1. **Submit one assignment document (.pdf/.doc/.docx)** to Stream using the *Assignment 1 Submission* link. It must include:
 - Low risk checklist
 - Signed ethical compliance statement.
 - Answers to all parts of the assignment.
 - **Do NOT include this document in a .zip file or similar format that is not accepted by turnitin.**
2. **Submit one .zip file** to Stream using the *Assignment 1 Submission* link. It must include:
 - All data collected during the pilot study in Part 3.
 - Copy of all signed consent forms from Part 3.
 - **Your completed Generative AI statement (using the template provided). All students, whether you used Generative AI or not must submit this statement. Assignments without a Generative AI statement will not be marked.**

Important notes:

- Proof read your assignment carefully; marks will be deducted for poor presentation.
- Assignment submissions:
 - **Submissions that do not conform to the above submission instructions will not be marked** e.g. the number of files submitted and type of files submitted.
 - **Ensure that you submit your assignments correctly – draft submissions on Stream that have not been submitted will not be marked.**
 - **The main assignment document will not be marked if it is in a .zip file or in any other format that Turnitin does not accept.**
 - **Submissions without Generative AI statements will not be marked.**
 - Resubmission of assessments after marking will not be accepted.
- Extensions:
 - **Extension requests will require appropriate evidence e.g. doctor's certificates. Poor time management is not a valid reason for extension.**
 - **Assignments submitted after the due date without reason or prior consent will incur a penalty.**

- Originality:
 - Assignments will be checked on Turnitin, so please ensure your work is your own.
 - If you use content from another source (either directly or if you use the ideas), you must reference it appropriately. This includes the use of Gen AI e.g. ChatGPT. If you are unsure see the Massey guidelines here: <https://www.massey.ac.nz/massey/about-massey/university-management/avc-academic/academic-integrity/academic-integrity-students.cfm>
 - Keep your assignment drafts as these may be requested for verification of work during marking.
 - Please see below for guidance on use of Generative AI tools. **Under no circumstances are you allowed to share any data collected from participants with AI tools as it would breach our ethics in terms of keeping participants data private and secure.**
- Marking queries:
 - If you want to query marking of an assignment do this via email, including your full name and ID number. Please be specific by: 1. giving details on which marks in particular you are questioning; 2. indicate which part of the assignment submission relates to this; and 3. say why you think your mark should be changed.

Allowed AI usage:

Massey uses the AI Assessment Scale. This assessment is Level 2 which Massey specifically defines as:

AI PLANNING

You may use AI for planning, idea development and research. Your final submission should show how you have developed and refined these ideas.

The prompts and outputs of any AI used must be provided in an appendix to your submitted assessment. See these guidelines for writing your appendix:

<https://stream.massey.ac.nz/mod/book/view.php?id=5430644&chapterid=1354035>

Find out more about AI at Massey: <https://stream.massey.ac.nz/course/view.php?id=10>

The key to Level 2 is that NO DIRECT AI CONTENT is allowed in the final assessment submission. As a fundamental principle you must make sure that what you submit for your assessment is your own work. What does this mean specifically in the context of this assessment?

You may ask AI to help you in the following ways:

- You may use AI to explain concepts or clarify topics. For example: "Explain what a pilot usability study is."
- You may use AI to provide examples to deepen your understanding. For example: "Can you give me an example of how heuristic evaluation might be used"
- When using AI, make sure to carefully evaluate its responses for accuracy and relevance.

You must NOT use AI in the following ways:

- You must not directly input assessment instructions into an AI bot or software.
- You must not directly copy any content from online sources or generated by AI into your assessments, even if you modify it slightly afterward.
- You must not paraphrase AI-generated content to make it appear as your own work. This means you should not reword or rearrange AI-generated content and present it as your own creation, even if you change some of the wording or structure.
- You must not assume AI outputs are always accurate—always verify information independently.

Still unsure? Ask your lecturer.

Generative AI use statement

You must submit a generative AI use statement for all assessments that includes details on whether or not you have used AI, what AI tools have been used, and all AI prompts and responses. The template for this is provided in the assignment documents on Stream. More general information on AI usage can be found in Massey's AI Essentials course on Stream: <https://stream.massey.ac.nz/course/view.php?id=10>

Marking Schedule

		Marks
Part 1 - Ethics	Have completed the low risk checklist, ethical compliance statement, and participant consent forms satisfactorily, and the study meets all ethical requirements.	2
Part 2 - Usability evaluation plan		13
Completeness	Will the test plan meet the objectives described and deliver a valid result?	
	Goals and questions	1
	Equipment and environment	2
	Participants	1
	Tasks	2
	Test procedure	3
	Data collection	2
	Data analysis	2
Part 3 - Pilot study		8
	Has all the raw data been submitted? Is the data appropriate and of high quality?	3
	Has the pilot study progress and findings been described sufficiently, including suitable justification of the number of pilot study participants?	2
	Have appropriate and justifiable changes been made to the evaluation plan based on the findings of the pilot study?	3
Part 4 – Heuristic evaluation		6
	Have all 10 heuristics been well considered and assessed where applicable?	5
	Have appropriate suggestions been made for improvements to usability based on the heuristic evaluation?	1
Report quality	Is the report well presented, formatted nicely, and with correct spelling and grammar, and references (if relevant)?	1
TOTAL:		30 marks