

Spring 2024

**Course Assignments
for
Information Visualization (TNM111)
Spring 2024**

Assignment 5

The deadline for this assignment is Monday, Mar 4th, 2024 (at 23:59).

Task 1 *Evaluation*

In this assignment, you will plan, design, and conduct an evaluation study of the tool you made in Assignment 4 by engaging two students from another group. The group is chosen in cyclical order, so Group 1 will create tasks, and Group 2 needs to solve them by interacting with Group 1's interface. Group 2 will create tasks and let Group 3 solve them, and Group 3 will evaluate Group 2's interface, and so on. Group 9 (the last group) will design tasks and let group 1 solve, group 1 then evaluates group 9's interface, thus completing the cycle.

When planning the evaluation, you should do the following:

- The book chapter "Evaluating Information Visualizations" written by Sheelagh Carpendale provides a decent overview of evaluation techniques that have been already discussed in our lecture but in more detail. Please take a look to get more information on this topic; you find it on Lisam under the course documents (Extended Material -> Evaluation).
- Decide the aim of the study and what usability attribute(s) to investigate. For example, effectiveness, efficiency, satisfaction, learnability, intuitiveness, etc.
- Choose what evaluation method(s) to apply (measurement, interview, think aloud, etc.). Often it is good to combine two or three methods for a good result.
- Decide more precisely how to measure the attributes (accuracy, time spent, attitudes, etc.).

Then, you should plan how to conduct the evaluation:

- Prepare several tasks/scenarios, a questionnaire, an interview guide, etc. For example, arrange a session with 1-2 tasks to be performed with your visualization tool and a short questionnaire.
- Make a plan for the evaluation procedure and prepare any material needed, for example, instruction material, scripts for the moderator, material for recording responses, and other things that you need to conduct the study.
- Optionally but recommended! Make a pilot test to try out the tasks, procedure, material, etc., and make changes if necessary. Note that you should not involve the same group of participants as for the final study, e.g., students from group 1 should not involve group 2 for the pilot, but rather for the final study.
- Perform the evaluation.

When you have performed the evaluation, put together an evaluation report. Include all documents used, describe the motivation, procedure, and outcome of your evaluation, and discuss the results. You will then present your evaluation and the results from it at the assignment seminar as a short presentation.

Please prepare a report (PDF) including your task design and evaluation for the other group, and upload it as a submission to Lisam by the given deadline! If you have questions you can contact your lab assistant, Elias Elmquist (elias.elmquist@liu.se) for class A, or Peilin Yu (peilin.yu@liu.se) for class B.

You will have to present your work on Tuesday, Mar 5th, from 13:15-15:00, KO24 (Class A) and KO25 (Class B).

Note: Any kind of plagiarism is not acceptable!