**Assessment Brief: CW2 Info Vis 2023-24**

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| Module title | Information Visualisation |
| Module code | COMP3736 |
| Assignment title | Coursework 2: Evaluation exercise |
| Assignment type and description | Report |
| Rationale | To learn how to perform and write up a user evaluation of visualizations. |
| Word limit and guidance | The report has a limit of six pages plus the appendix, and should be written single-spaced in an 11 pt font (or larger). |
| Weighting | 50% |
| Submission deadline | 10am, Tuesday 12th Dec 2023 |
| Submission method | Via Minerva |
| Feedback provision | Marks and feedback will be returned via Minerva. |
| Learning outcomes assessed | understand and demonstrate coherent and detailed subject knowledge and professional competencies some of which will be informed by recent research/scholarship in the discipline;  deploy accurately standard techniques of analysis and enquiry within the discipline;  demonstrate a conceptual understanding which enables the development and sustaining of an argument;  describe and comment on particular aspects of recent research and/or scholarship;  make appropriate use of scholarly reviews and primary sources;  apply their knowledge and understanding in order to initiate and carry out an extended piece of work or project |
| Module leader | Roy Ruddle |
| Other Staff contact | n/a |

### 1. Assignment guidance

The objective of this coursework is to assess your ability to perform a user evaluation of visualizations. You need to do this coursework in the groups that are defined on Minerva. A group comprises a maximum of four people.

### 2. Assessment tasks

For this coursework, you must do the following. First, design a laboratory experiment to compare area vs. line charts for showing the number of medals that different countries have won in Olympic Games. You need to choose an experiment task that is relevant, and which participants may answer by clicking on specific parts of a visualization or pressing keys on a keyboard. You may use either a within or between participants design.

Second, develop software to run the experiment. You may use any language and visualization library (e.g., Matplotlib). The software should present 10 trials for each chart type to a participant, blank the screen for 1 second between trials (i.e., remove one chart before the next is displayed), automatically generate the data for each chart (i.e., combine random number generation with appropriate parameters for your experiment task), and record participants’ answers (correct vs. wrong) and response times.

Third, run the experiment with 10 participants. For each trial record, the response time and whether or not the answer was correct. Do not collect any personal data from participants. The example information sheet explains how to gain participants’ consent.

Fourth, use t-tests to analyse the error and response time results (e.g., with Excel).

Fifth, write-up the experiment in a report.

### 3. General guidance and study support

See skills@library

### 4. Assessment criteria and marking process

The report has a limit of six pages plus the appendix, and should be written single-spaced in an 11 pt font (or larger). The report should have the following section headings and content:

* Group members (name & student ID)
* Introduction (the experiment aim, design, task and duration) [4 marks]
  + Method, subdivided into the following sections [15 marks]
  + Participants (the number, informed consent, and no payment)
  + Materials (state the language/libraries used, and describe and illustrate how the software worked)
* Procedure (describe what each participant did, in terms of the overall procedure and each trial)
* Results (report the statistical analysis, illustrate the results and describe the findings) [15 marks]
* Conclusions [3 marks]
* Appendix: Participant information sheet [3 marks]

Clarity of exposition is important throughout and is an aspect of every section’s marks. There will also be 10 marks for presentation, which includes using the correct headings, preserving participants’ anonymity, and correctly captioning/referencing figures and tables.

Do not include a bibliography.

### 5. Presentation and referencing

The quality of written English will be assessed in this work. As a minimum, you must ensure:

* Paragraphs are used
* There are links between and within paragraphs although these may be ineffective at times
* Word choice and grammar do not seriously undermine the meaning and comprehensibility of the argument
* Word choice and grammar are generally appropriate to an academic text

**These are pass/ fail criteria. So irrespective of marks awarded else-where, if you do not meet these criteria you will fail overall.**

### 6. Submission requirements

One person should make the submission on behalf of the group.

Submit a PDF file that contains your report.

*Optionally:* Before the first page of the report, insert a signed copy of the COMP3736 Information Visualization *Group Work Form* for your group. You only need to do that if the group members did not contribute equally to the coursework.

### 7. Academic misconduct and plagiarism

Leeds students are part of an academic community that shares ideas and develops new ones.

You need to learn how to work with others, how to interpret and present other people's ideas, and how to produce your own independent academic work. It is essential that you can distinguish between other people's work and your own, and correctly acknowledge other people's work.

All students new to the University are expected to complete an online [Academic Integrity tutorial and test](https://desystemshelp.leeds.ac.uk/student-guides/assessment/the-academic-integrity-tutorial-and-test/), and all Leeds students should ensure that they are aware of the principles of Academic integrity.

When you submit work for assessment it is expected that it will meet the University’s academic integrity standards.

If you do not understand what these standards are, or how they apply to your work, then please ask the module teaching staff for further guidance.

**By submitting this assignment you are confirming that the work is a true expression of your own work and ideas and that you have given credit to others where their work has contributed to yours.**

### 8. Assessment/ marking criteria grid

For details, see §4.