

## **Group task – conduct an experimental study and write a research paper, autumn 2020**

### **Formulate a question for inquiry that relates to cognitive psychology**

- Read the book, have a look at the chapters in the book to get inspiration for your study.
- An example of a question for inquiry could be "does the use of the PQ4R-technique facilitate learning of text? With facilitation of learning we mean...." (operationalizing the concept of learning).

### **Plan for and conduct an experiment**

- Relate to theory (Anderson and other additional sources you find on your own)
- Think closely about what will count as dependent and independent variables, i.e. which variables you want/need to manipulate to see if these have an impact on the dependent variable. Also, what will count as control variables and what variables you cannot control
- Explicate your hypotheses
- Explicate/account for how you need to design the experiment to answer the research question
- Plan the procedure for the experiment (what do I/we have to do, what do the subjects have to do, in what order, how long will it take to conduct the experiment, etc.)
- Account for research ethical issues and how you plan to handle these

In your planning and writing of the research plan, make a detailed plan of what group members will do.

Similarly, in the final report account for how group members have contributed to the group work; carrying out of the study, analysis of collected data and writing of the final report.

### **Presentation of work in class during a seminar**

- Each group will present and critique/discuss the group work of another group during a final seminar. All group members need to actively take part in this. All present at the final seminar will discuss aspects related to the work conducted including theory, methodology/design, procedure and results. More detailed information regarding this will be posted in iLearn before the final seminars.

### **Written presentation of work**

Each group writes a report on approximately 6-8 pages. The following aspects shall be treated in the report;

- A short summary of theoretical outline and references to studies found in the literature, the research question and hypotheses
- Account for the research design you applied, why this particular research design and how you applied it
- Account for the variables that have been manipulated and kept under control, also account for the variables you have not been able to control (possible sources for error)

- Account for research ethical issues and how you have handled these
- Account for the results from the experiment
- Discuss the results from your study as related to the theoretical outline. Be critical, criticize you own work and suggest possible improvements (planning, procedure, variables, etc.)

**The report is preferably written based on the following sections;**

- Abstract (a short summary of the report)
- An introduction/background (here you shall account for the theoretical outline, from where did you get your inspiration and why?, this section should boil down to the research question and the hypotheses)
- Methodology (here you shall account for the research design, subjects, procedure, material used, variables, ethical issues, etc...)
- Results (here the results are presented in a comprehensive way)
- Discussion (as indicated in the section "Written presentation of work" above)

Of course, you are allowed to add to this general outline of the paper with headings and sub-headings of your own. Important is that the above-mentioned parts are accounted for in the research paper.