

Berlin, November 15, 2017

Guidelines for Master Theses

at the chair Biological Psychology and Neuroergonomics

Requirements

A) All master students have to submit a written exposé about their work to the department's secretariat and/or the supervisor. This should be max. 4 pages and contain the following points:

1. **Title page:** The title page should contain the following information: Name, address, telephone number and email address, provisional title of the thesis, date of writing of the exposé, planned date of the first presentation of the work in the colloquium and a note of whether it is a revised version due to the feedback in the colloquium.
2. **Research Question:** Here you give a summary and brief outline of the central issue as well as a short introduction to the most important publications.
3. **Hypotheses:** The hypothesis is/are explicitly stated; if the current state of research does not allow for a directional hypothesis, you are supposed to formulate a non-directional one.
4. **Method:** Here you should present the study design, the independent and dependent variables, the study sample, and the means of its recruitment. The number of subjects should be justified (e.g. power calculation, reference to previous studies etc.). Furthermore, the equipment used, the experimental procedure and the planned statistical evaluation methods (in each case related to the research question/s) must be described.
5. **Time plan:** Schedule for the preparation, implementation, evaluation and writing the work.

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B) For master students, regular participation in the colloquium is compulsory. Depending on the auditorium, the colloquium will be held in English or German. Each Master student presents his own work twice: Once the design plan before the study conduct, and once again the main results after the implementation. In order to allow sufficient time for a discussion, the pure presentation time should not exceed 45 min. For the purpose of illustration, you are asked to prepare a slide presentation. The according equipment and media (except beamer and presenter) should be brought along by yourself or can be provided by the department given early reservation. Changes to the experimental plan or the experimental setup, due to the suggestions in the colloquium, should be discussed with the supervisors.

Study implementation

Before implementing any experiment, each Master's student should study the ethical principles of human research and take the online ethics course of the Canadian Panel on Research Ethics (<http://tcps2core.ca/welcome>). With this in mind, you are asked to closely examine your own study design again. If not already in place, a review of every experiment by the ethics committee is desirable, and obligatory for a scientific publication.

During the experimental phase, you are asked to keep a test protocol, which notes all special features (e.g. loss of test subjects, date of questionnaires returned, disturbances of the test procedure, etc.). Completed questionnaires and other tests are to be labeled (subject number, date, test section, etc.) and filed.

Important! All files must be backed up regularly!

For laboratory tests: The use of the test rooms, equipment and consumable materials has to be done with the requisite care. After each single test, the collected data must be saved independently from the experimental control computers.

After completing the experiment, all documents must be removed from the test room. Unused questionnaires and other reusable materials should be handed to the secretariat. Data on test control computers and recording computers has to be deleted by the investigator (after the backup!). A backup copy must be submitted to the secretariat.

Data preparation and analysis

All collected data must be transferred to an SPSS file (or alternatively to R/Matlab). Variable names, codes, sequence of data, etc. are to be discussed with the supervisors. You are asked to create a backup of this file. All SPSS syntax and output used for further processing and analysis has to be saved; files with flawed data or incorrect analyzes should be deleted.

Writing the thesis

The written work should correspond to the standards of scientific texts. For formal design, the guidelines for manuscript design of the American Psychological Association (APA) should be consulted. A 1.5-line spacing should be selected.

An appendix to the work should include all questionnaires, instructions, recruitment texts and other materials used, as well as any results and statistical analysis not already contained in the text. For the appendix, a separate table of contents has to be provided. The language of the written work is either German or English and an abstract in the other language must be included in the thesis.

Submission

At the examination office, **three** copies have to be submitted. Furthermore, you have to submit:

1. Folders including all original completed questionnaires and other texts;
2. Additional test material (e.g. video recordings, ...);
3. Two identical CDs with approximately the following contents (in separate directories):
 - all digital raw data (*.xdf, *.bdf, *.set, *.wcq, *.res, ...)
 - digital stimulus material
 - programs used for controlling the experiments
 - files of the used questionnaires, instructions, recruitment texts, ...
 - data matrix (raw data, relevant intermediate steps, and final analysis)
 - text file of the written work including attachments
 - presentation
 - a readme.doc including explanations, which help to navigate within the directories, file names, variable names, and their coding.