Order No. 1/2025

of the Vice-Rector for Educational Affairs of SWPS University

Dated June 12, 2025

on the Establishment of Standards and Recommendations for the Forms of Master's

Theses

in the Field of Psychology at SWPS University

Pursuant to § 23 sections 2a and 4 of the Statute of SWPS University and § 7 section 2 and section 3 pt. 1 of the Organizational Regulations of SWPS University constituting an appendix to Order No. 109/2023 of the Rector of SWPS University dated November 2, 2023, on the amendment of Order No. 79/2023 of the Rector of SWPS University of Social Sciences and Humanities dated September 29, 2023, on the enactment of the Organizational Regulations of SWPS University, I hereby order as follows:

§ 1

- I hereby specify the standards and recommendations for the forms of master's theses in the field of psychology at SWPS University in the wording enclosed herewith as an appendix.
- 2. I hereby require the deans of faculties offering psychology programs at SWPS University to align their internal regulations with the standards and recommendations referred to in Section 1.
- 3. The deans' revision of internal regulations of faculties, as outlined in section 2, must take effect beginning in the 2025/2026 academic year.

§ 2

This Order shall come into force as of the date of signature.

Vice-Rector for Educational Affairs of SWPS University

d hab. Kamila Jankowiak-Siuda, Associate Professor at SWPS University

Standards and Recommendations for the Forms of Master's Theses in the Field of Psychology at SWPS University¹

Master's theses in the field of Psychology at SWPS University pertain to programs with a general academic profile and are therefore required to be empirical in nature, providing scientific results that adhere to formal, substantive, and ethical standards. The aim of the diploma thesis is to verify learning outcomes, including an in-depth knowledge of scientific terminology in the field of psychology, as well as the ability to apply methodology and data analysis in psychological studies for the purpose of formulating and verifying research hypotheses. Students apply their knowledge to interpret and present empirical research findings, recognizing the differences between common knowledge and knowledge based on empirical evidence. They conscientiously identify the limitations of the applied methods, thereby enabling a critical understanding of the complexity of psychological processes and human behavior.

A master's thesis should follow a form recognized in the science of psychology, thereby ensuring the reliability and academic value of the findings. The recommended diploma theses forms are:

- 1. Empirical study: quantitative (e.g., experimental, correlational), qualitative (e.g., a qualitative analysis of collections of data, case studies), or mixed (a combination of both quantitative and qualitative methods);
- 2. Meta-analysis, enabling the integration and critical analysis of existing findings;
- 3. (Re)analysis of existing data with added value that exceeds previous analyses. Analysis of data drawn from large datasets (e.g., CBOS, Statistics Poland) to address specific research questions or reanalysis of available data from prior research is also permissible. These types of papers require the citation of data sources.
- 4. Simulation study, verifying the adequacy of theoretical or analytical models;
- 5. Intervention projects, which include designing and empirically evaluating the efficacy of an intervention.

Regardless of the approach taken, a diploma thesis should build on the theoretical bases and methodologies required and accepted in the respective area of psychology. The thesis should provide a clear rationale for the chosen approach, including references to literature.

¹ Prepared by the following workgroup: on behalf of the Institute of Psychology: Paweł Ostaszewski – Group Coordinator, Wojciech Białaszek, Aleksandra Szymków-Sudziarska; on behalf of the faculties: Wiesław Baryła, Sylwia Bedyńska, Julita Koszur, Elwira Brygoła, Karolina Zalewska-Łunkiewicz, Katarzyna Cantarero, Justyna Ziółkowska.

In the case of quantitative studies, it is recommended to justify the adopted sample size, for instance by including power analyses in the thesis (or applying another appropriate approach). Studies may be conducted through the replication of previously published research. This form requires clearly specifying the replicated study and justifying the need for replication.

Preregistration of research projects as part of the MA seminar—including the theoretical background, research questions and hypotheses, as well as a detailed plan of the methodology and analyses—is also encouraged. As part of the MA seminar, the use of official preregistration portals (such as osf.io or aspredicted.org) is not required but is left to the discretion of the student and their supervisor. In most instances, correspondence between seminar participants and the supervisor will likely suffice.

All theses must comply with the guidelines on research ethics. The ethical aspects of theses are the responsibility of the diploma seminar supervisor. Conducting studies on vulnerable groups or studies that could cause deterioration of the participants' well-being is not recommended as part of the MA seminar. The assessment of students' research applications by faculty research ethics committees is governed by the regulations of the respective committees. In the case of studies conducted as part of a larger scientific project, the project coordinator's permission is required, and the student's contribution must be clearly defined.

Appendix No. 1 outlines the evaluation criteria for theses and the applicable grading scale, while Appendix No. 2 provides basic recommendations for the most common types of empirical theses.

Recommended evaluation criteria for master's theses

Theory

- 1. Correctness of the application of theories and psychological research findings to formulate an original research problem (sources, ability to select conclusions from existing empirical findings).
- 2. Correctness of the formulated research problem and research hypotheses.

Methodology

- 1. Appropriateness of research method selection (sample, measurement, research procedure).
- 2. Ability to conduct analyses and draw research conclusions (statistical analyses / qualitative analyses; interpretation of analyses and discussion of results, including limitations in the student's own research, and final conclusions—with appropriate extrapolation).

Language and form

- 1. Linguistic (academic and professional vocabulary, use of appropriate loanwords) and stylistic correctness.
- 2. Adherence to editorial and structural standards for theses (including the most recent APA standards taught during the program [currently APA 7], chapters, summaries, bibliography, lists of tables and figures).

Grade scales for individual criteria

The evaluation of a master's thesis should be based on the descriptive portion of the review, which must include a justification of the grade with reference to the criteria and identify both the strengths (e.g., an innovative research idea, securing a hard-to-access research sample, a challenging research procedure, application of novel and advanced analytical methods), and weaknesses of the thesis (e.g., errors in the research procedure or conclusions).

Point-based grades are assigned for each criterion using the six point scale:

- 0-The criterion is not met
- 1-The criterion is met to an acceptable degree
- 2
- 3
- 4
- 5–The criterion is met completely

Receiving zero points for any of the criteria results in a failing grade for the thesis.

Conversion of total points to thesis grade:

- 15 or less-2,
- 16 to 18–3,
- 19 to 21–3+,
- 22 to 24–4,

- 25 to 27–4+,
- 28 to 30–5.

Recommendations for the most common types of empirical theses

Experimental research

1. Precise research hypothesis

Before commencing research, precise and specific hypotheses must be formulated, preferably based on a review of literature. The hypotheses should be precisely derived from theory or an exhaustive review of existing research findings. An example hypothesis based on a review of research findings might include hypotheses regarding the moderation of empirical generalizations, such as "The induction of mindfulness weakens compliance under the influence of the foot-in-the-door technique".

2. A robust experimental project

Research project selection (e.g., intergroup, intragroup) should be justified and in line with the research hypothesis. Students should make an informed decision regarding the choice of research plan, understanding the advantages and disadvantages of both intergroup and intragroup plans. Research design complexity should NOT be used as a criterion for assessing the quality of a research project. For example, simple experimental research that addresses important theoretical and/or applied questions is more valuable than complex, low-power research designs that yield only a negligible contribution to knowledge.

3. Accurate operationalization of variables

The use of previously tested and published experimental manipulations and dependent variable measures is preferred. In the case of original (new) manipulations and measures, it is considered good practice to demonstrate their validity and reliability in a pilot study or studies. Good practice also involves measuring the effects of experimental manipulations as part of the main study (unless this is not possible due to the nature of the study, such as in the case of a field experiment).

4. Adequate choice and size of sample

The sample size should be adequate for the expected effect size. In psychology, most non-trivial experimental effects are small, therefore, research samples should be sufficiently large. The sample size should be justified, and the decision-making process that led to the chosen number of participants should be described in the thesis under the subsection "Method / Participants." It is considered good practice to define the sample size prior to the research using available tools (e.g., G*Power). The participant recruitment process must be transparent and in line with ethical standards (informed consent, the right to withdraw without loss of benefit).

5. High experimental control

The study should involve a high level of experimental control. Experiments require randomization (random assignment of participants to groups) and maximum control of confounders. A good practice in experimental research is to define, prior to conducting the study, the methods and criteria for verifying whether a participant followed instructions, and to exclude the results of individuals who did not meet these criteria from the analyses. Before conducting the study, it should be determined whether measures to check attentive participation will be used and whether failure to meet the criteria will lead to exclusion of data from the analyses.

6. Carefully planned data analysis

Statistical testing of research hypotheses should be preceded by careful preparation of the data set (correct coding of responses, correct calculation of indicators, description of variables and their values). Statistical analyses should be in line with the hypotheses and the research plan (e.g., in accordance with the preregistration). All results should be reported in full, even if they are inconsistent with the hypotheses or statistically insignificant. If the description of the results includes analyses that are not applicable to the (registered) hypotheses, this should be clearly stated. In accordance with the current standard, numerical values of statistics should not be presented both in tables and in the text simultaneously—one of these forms is sufficient. It is not required to use figures or tables to illustrate the results of single-factor experiments with two conditions (A/B tests).

7. Appropriate discussion of results

The discussion of results should be in line with the research problems and hypotheses. Conclusions from original research should be referred to conclusions from studies described in the literature and to theory. Conclusions from the original study should be drawn with caution and based on the results of statistical analyses, as well as the limitations of the original study. The limitations and shortcomings of the operationalization used, as well as all problems that arose during the study, must be discussed. The discussion should also include the implications of the described study, which can be divided into implications for theory, implications for the applications of psychology, and implications for future research (a brief description of a study that would be superior to the reported one).

Correlational research

1. Precise research hypothesis or description of the research objective

The starting point for correlational research should be a clear definition of the main theoretical variables in the paper and an indication of the theoretical bases for such a definition. The next step is to formulate research questions, hypotheses, or, at the very least, define the research objective. All these elements should be formulated based on a review of the current literature on the topic, with particular emphasis on works published in recent years (e.g., within the last 10 years). In cases where previous research findings are contradictory or the number of studies in a given area is limited, it is appropriate to pose non-directional questions or to indicate a general objective of the thesis.

It is recommended to formulate precise hypotheses concerning the relationship between the studied variables, based on psychological theories and a review of previous research findings. The hypotheses must clearly indicate that the analysis will focus on the connection, relationship, or correlation between variables. It is a mistake to use the word "influence," which is reserved for experimental research. Hypotheses should be formulated using theoretical terminology, for example: "A negative organizational climate enables the prediction of the level of stress among employees," "A high level of age-based stereotype threat will predict a high level of stress among an organization's employees in the older adult group," "The higher the level of anxiety, the lower the self-assessed level of leadership competencies."

If the project is a replication of research described in literature conducted on a new sample of respondents, the theoretical significance of introducing a new sample should be justified. The theoretical importance of performing such a replication should also be stated.

2. Robust research design

The selection of variables to be analyzed should be based on the research hypotheses/research questions and the theoretical context outlined in the introduction. The measurement and use of controlled extraneous variables in subsequent analyses, which are important for the analyzed relationships between primary variables, should be justified in the same way. The quality of a research project is NOT determined solely by the number of variables included by the student, but by their close relation to the theoretical context. For example, a simple correlation study with a few variables that answers important and/or new theoretical and/or application questions is entirely sufficient for a master's thesis.

3. Accurate operationalization of variables

It is recommended to use previously tested and published methods of measuring theoretical primary and controlled extraneous variables (questionnaires, surveys, metrics). Tools available via open-access repositories, such as www.testarchiv.eu, can also be used. The authors of the original tools, as well as the authors of the Polish language versions or other information allowing for the recognition of copyright must be stated. It is crucial to comply with the copyright of psychological tools and to obtain consent for any modifications or deviations from the original research procedure (e.g., the use of online tools). When presenting information about the tool used, it is necessary to provide the number of statements it contains, the response scale, and to verify its reliability in the original research. The contents of the tools used, which have been adapted to the specific paper, modified, or developed entirely by the author of the master's thesis, should be

presented in the appendices to the thesis. Tools from publishing sources (for example, tools published by the Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego, or tools published in articles, books, on websites) should not be included in their entirety. It is good practice to use inclusive language in all research materials. When developing original tools, it is considered good practice to conduct a pilot study to determine the internal structure, reliability, and accuracy of the tool. In the theoretical introduction, it is necessary to justify the need to create an original tool based on the identified gaps in existing methods of variable measurement.

4. Adequate choice and size of sample

The sample size should be adequate for the expected effect size. In psychology, most relationships between variables are moderate in size, therefore research samples should be sufficiently large. The sample size should be justified, and the decision-making process leading to its determination should be described in the paper in the subsection "Method / Participants." It is considered good practice to determine the sample size before the study using available statistical tools (e.g., G*Power) or research practice based on previous studies. It is considered good practice to provide a detailed account of the number of individuals who participated in the study and how many of them were included in the analysis. If any results have been excluded from the analyses, the exclusion or inclusion criteria should be justified. It is considered good practice to formulate these criteria prior to commencing the study and/or data analysis. Moreover, before conducting the study, it should be determined whether measures to verify attentive participation in the study will be used and, if necessary, whether they will constitute a criterion for exclusion from specific data

The participant recruitment process must be transparent and ethical (informed consent, right to withdraw from the study without loss of benefit, debriefing). This process should be described in as much detail as possible in the "Method" section of the paper.

5. Carefully planned data analysis

Data analysis should be in line with the hypotheses set out in the study – the simplest analyses should be used, taking into account the hypotheses and the method of measuring variables. The statistical programs and their versions used for data analysis should be indicated. Analyzing additional relationships not previously indicated in the hypotheses (preregistration) is possible, but this requires a clear indication that these analyses are exploratory in nature and were performed *ad hoc*.

The first step of the analysis should be to validate the correctness of the data set, prepare variable indicators, and provide their statistical description. It is considered good practice to check the significance of controlled extraneous variables in advance. Statistical tests should then be performed to verify the hypotheses. It is considered good practice to state the rationale for the tests used.

In accordance with the current standard, numerical values of statistics should not be presented both in tables and in the text simultaneously—one of these forms is sufficient. For example, if beta regression coefficients are included in the text, they should not be presented in a table. There is no need to illustrate correlational relationships in the form of scatter plots. The data set should be prepared in a clear and transparent manner. All variable sets should be described using labels and value labels in a format that allows the analyses to be repeated. The database should contain the final variable indicators (sums or averages), not just the raw results as responses to individual questionnaire items.

6. Appropriate discussion of results

The discussion of results should relate the findings to the research problems and hypotheses. Similarities and differences in relation to the results presented in literature on the topic should be stated. Factors that may have influenced the differences in the study should also be discussed. Due to the correlational nature of the relationships, the conclusions drawn from the results should be described precisely in order to avoid drawing unjustified cause-and-effect conclusions. The limitations and shortcomings of the operationalization used, the research design, the method of recruiting participants, and the characteristics of the sample, must be discussed. The discussion should include theoretical and practical implications. It is also advisable to highlight the limitations of the generalizability of the results, as well as suggest directions for future research.

Qualitative research²

Title of the thesis

In the case of qualitative research, the title may include information on the qualitative nature of the research conducted.

Specification of the research objective and research questions

The paper should contain a clearly formulated research objective along with a list of research questions. It is crucial that the research objective is consistent with the chosen qualitative methodology and that the research questions are relevant to the research objective.

Choice of qualitative methodology

The paper should include a rationale for the choice of qualitative research methodology, e.g., in the form of a review of previous studies on the explored phenomenon, indicating the research gap and theoretical context that justifies the choice of qualitative research methods.

Research methods

- Theoretical approach

The paper should include a description of the theoretical framework of the study (e.g., interpretivism, constructivism) and the chosen method of data analyses (e.g., thematic analysis,

²Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology*, 4(1), 2–22. <u>https://doi.org/10.1037/qup0000082</u>

O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic medicine: journal of the Association of American Medical Colleges*, 89(9), 1245–1251. <u>https://doi.org/10.1097/ACM.00000000000388</u>

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International journal for quality in health care : journal of the International Society for Quality in Health Care*, 19(6), 349–357. <u>https://doi.org/10.1093/intqhc/mzm042</u>

grounded theory).

- Sample characteristics

The paper should include information on the sample size, along with the relevant rationale (e.g., data saturation), as well as a description of participants' characteristics that are relevant to the research problem.

The procedure for recruiting study participants and possible difficulties in securing participation
 The paper should include a description of the recruitment process, detailing how participants
 were selected (e.g., purposive sampling, snowball sampling). The paper should include
 information about any difficulties encountered during the recruitment process, e.g., number of
 people who refused to participate in the study and the reasons for refusal.

- Description of the research procedure

The paper should include a description of the conditions and course of the data collection process (e.g., information about the research location and duration, number of meetings, etc.), a detailed description of the research tools (e.g., interview script) and how they were developed, the data recording method (e.g., audio recordings), and information about who collected the data.

- Description of the analytical procedure

The paper should include a description of the analytical procedure in accordance with the chosen method of qualitative data analysis (e.g., data transcription, description of the coding technique, software used for analysis (MAXQDA, NVivo, ATLAS.ti), control strategies). In addition, the paper should include a reflection on how the researchers influenced the data collection and analysis processes.

Research results

When describing the results of qualitative research, care should be taken to ensure consistency of the presented results and conclusions with the research objective and adopted approach, thus ensuring the reliability and transparency of the analyses. The results should be supported by quotations from respondents' statements to allow reviewers direct insight into the source data. In the case of interview data, it is recommended to attach (with the consent of the respondents) a collection of anonymized transcripts. It is important to include contradictory or different examples (so-called "negative cases") in the results, which may shed new light on the interpretation of the results.

Discussion of results

The discussion of results should relate the student's research findings to the study's objectives and the research questions posed.

Conclusions from qualitative studies should be cautious and take into account the limitations of the study, including:

- limitations in qualitative research methodology,
- limitations related to the sample size and type,
- limitations related to the adopted analytical procedure.

Study conclusions should be interpreted in the context of previous studies and theories. In the case of discrepancies with previous findings, it is advisable to propose possible explanations for these differences. It is recommended to indicate possible theoretical and practical implications.

Replication studies

1. Justification for undertaking study replication

If the master's thesis is based on replication, the rationale for undertaking the replication of a specific study will be evaluated. The thesis should present an original scientific problem, which, in this type of paper, may be solved by a well-justified replication of an existing study. A master's thesis should not focus on the replication of a study that has already been replicated numerous times or has been included in one of the replication projects (e.g., ManyLabs), unless the student can provide a reasonable rationale for such a choice.

2. Clear identification of the original research hypothesis

A replication study should precisely reproduce the original hypothesis or research question. Before starting, the original work should be analyzed to fully understand the context, key concepts, and predictions.

3. Accurate study design based on the original research

The replication study design should closely follow the original design, both in terms of methodology and procedures. If some changes are unavoidable (e.g., cultural or temporal differences), they should be clearly described and justified, explaining how and why they may affect the results.

4. Adequate choice and size of sample

The sample size should be adequate for the expected effect size to allow for the verification of hypotheses. The student must ensure that the sample size is large enough to allow for valid conclusions to be drawn from the results obtained. A good practice before starting to write the thesis is to define the sample size prior to the research using available tools (e.g., G*Power). The participant recruitment process must be transparent and ethical, and must include random assignment of participants to groups (unless the nature of the study requires deliberate selection for the samples).

5. High experimental control

Before conducting the study, the student should define whether measures to verify attentive participation in the study will be used and whether they will constitute a criterion for exclusion from specific data analyses. In a replication study, a measure of manipulation effectiveness should be included (unless this is not possible due to the nature of the study, e.g., a field experiment). Efforts should be made to use the same materials as in the original study to minimize differences in methodology that may affect the replicability of the results.

6. Carefully planned data analysis

The analysis should faithfully reproduce the original approach to data analysis, using the same statistical methods and indicators as in the original study. The student should clearly distinguish between the main analyses and any additional or exploratory analyses. The results should be reported reliably and transparently, regardless of whether they are consistent with the original results or not. All possible problems that may have arisen during replication should be taken into account, and any differences in procedures that may have affected the results should be described in detail.

7. Appropriate discussion of results

Conclusions should be drawn cautiously, taking into account any differences between the replication study and the original study. Conclusions from the original study should be related to conclusions from studies described in literature and to theory. Limitations that may have affected the results (e.g., differences in the population, changes over time) should be clearly identified and their potential implications for the interpretation of the results discussed. The discussion should also include the implications of the described study, which can be divided into implications for theory, implications for the applications of psychology, and implications for future research (a brief description of a study that would be superior to the reported one).

Single-case experimental designs³

In studies using a single-case experimental design (a methodology derived mainly from behavior analysis), the following research plans are recommended: the AB (correlational) design, ABA or ABAB designs, designs using multiple baseline measures of behavior, and variable criterion experimental designs.

It is crucial to precisely define the behavior being modified and to provide a detailed description of the intervention being introduced. It is also important to ensure the reliability of the study by calculating the agreement indices between observers (if there are indications of a possible low measurement reliability).

For the analysis of results, it is recommended to use graphical (visual) data analysis techniques from the field of behavior analysis. It is recommended to present the results of the study graphically, along with a presentation of the raw data, if possible. It is particularly important to accurately report the process of graphical data analysis, including the techniques used and the criteria applied.

When reporting study results based on single-case experimental designs, the SCRIBE guidelines may be helpful (see also Kratochwill et al., 2021).

³ Recommended reading:

Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). Applied behavior analysis. Pearson UK.

Kazdin, A. E. (2011). *Single-case research designs: Methods for clinical and applied settings* (2nd ed.). Oxford University Press.

Kratochwill, T. R., Horner, R. H., Levin, J. R., Machalicek, W., Ferron, J., & Johnson, A. (2021). Single-case design standards: An update and proposed upgrades. *Journal of School Psychology*, *89*, 91-105.

Tate, R. L., Perdices, M., Rosenkoetter, U., Shadish, W., Vohra, S., Barlow, D. H., ... & Wilson, B. (2016). The single-case reporting guideline in behavioural interventions (SCRIBE) 2016 statement. *Physical Therapy*, *96*(7), e1-e10.