

School of Education
Guide for the Research Preliminary Exam
Quantitative Rubric

Purpose

The purpose and function of the research preliminary exam is to assess a student’s ability to conceptualize, design, and articulate the critical dimensions of designing original research. After the student has completed 15 of their core research coursework, as agreed upon by their advisor and committee, the student will work independently (open book, open notes) over a 5 week period to complete the preliminary exam.

How to use This Outline

The following outline is not intended to represent every possible research method or study design component. Rather, the reader should use the outline as a general guide in structuring the preliminary exam content using the major headings marked with an asterisk. In addition, for the major elements the evaluation rubric used by the faculty is also provided.

Outline for Preliminary Exam

I. * Introduction and Background

- a. Context of the preliminary exam.
- b. What does the literature suggest about the problems or tensions in this field?
- c. What is the focus of the current literature in this field?
- d. Is this a well studied phenomena or something that is obscure?
- e. What parts of the problem have already been explored?
- f. What is the researcher’s (your) perspective?

Evaluation Rubric:

Introduction/ description	Clearly describes purpose and realistic scope providing basis for research design; sufficiently informed by the literature; clear rationale for focus and/or approach and/or context	Describes purpose, scope lacks clarity in defining study; informed by the literature, rationale under-developed	Unclear purpose and scope of study; partially informed by the literature, rationale under-developed	Unclear, incomplete, and/or tentative basis and scope; not or poorly informed by the literature, no rationale provided	E =Excellent G=Good C=Conditional U=Unacceptable
Context/ scope	Context/scope clearly delineated; adequately supported by the literature; demonstrates knowledge of key issues and debates related to the topic; relevant studies critiqued and used to support study and researcher’s learning	Context/scope defines the study; builds upon the literature; relevant studies reviewed and summarized with relevance to study and learning elaborated	Context/scope lacks clarity and thoroughness; lacks support from the literature; fit of cited studies is questionable; connection to study and learning is unclear	Context/scope sketchy; not supported by the literature; poor choice of studies, with little relationship made to study and learning	E G C U
Researcher’s perspective	Issues of social location identity, worldview, and background are clearly discussed in	Issues of social location, identity, worldview and background are generally discussed,	Issues of social location, identity, worldview and background not adequately	Issues of social location, identity, worldview and background not discussed, or weakly	E G C U

	relation to the focus of the inquiry, methodological approach, and theoretical/conceptual framework and grounded in the literature.	somewhat related to the focus of the inquiry, methodological approach, and theoretical/conceptual framework and grounded in the literature.	discussed, or weakly related to the focus of the inquiry, methodological approach, and theoretical/conceptual framework but are grounded in the literature.	related to the focus of the inquiry, methodological approach, and theoretical/conceptual framework and are not grounded in the literature.	
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II. * Statement of the Problem / Purpose of the Study

- a. What is the problem you wish to investigate?
- b. How would this research add to the field of study?
- c. What is the purpose of this study?

Evaluation Rubric:

Problem/ study statement	Well stated, clear and emanates from introduction and context, suitable for qualitative inquiry, grounded in theory, cont	Adequately stated, fit with introduction and context; suitable for qualitative inquiry, lack cohesion	Statement lacks clarity and/or fit with introduction and context, but is suitable for qualitative inquiry	Difficult to ascertain focus and intent; problem is unclear or inappropriate for study	E G C U
	Well stated, clear and emanates from the literature submitted to justify a quantitative method.	Adequately stated, fits with the introduction and context and is suitable for a quantitative method.	Problem statement lacks clarity and/or fit but appears suitable for quantitative methods.	Difficult to ascertain the focus of the problem and it is unclear if a quantitative method is appropriate for this study.	
Research Questions	Well stated research questions that are in measureable quantifiable terms that make it easy to link to statistical analysis	Some research questions seem clear and measureable, but others are vague and unclear	Many research questions are vague and it is unclear, except for one or two, how quantitative methods would be used to evaluate the questions.	Questions are not worded in a quantifiable manner. It is totally unclear how these questions could be answered from a quantifiable method.	

III. * Research Questions, Focus of Inquiry (or Hypothesis, where appropriate)

IV. * Potential Limitations

V. * Conceptual Framework (hypothesis or theoretical grounding of phenomena to be studied)

Evaluation Rubric:

Conceptual/ theoretical framework/model	Disciplinary, epistemological, and philosophical grounding for the study is clearly explicated, integrated, and evidences familiarity with important theoretical and empirical work; a conceptual framework is constructed, cited, or adapted from the theoretical and empirical literature.	Adequately stated theoretical framework, compatibility of epistemological and theoretical framework not clear, demonstrates understanding of the role of theory in quantitative work, but little conceptual framework developed.	Theoretical and conceptual frameworks are not well developed or one is missing, role of theory in the research is not clearly addressed.	No theoretical or conceptual framework, or not supported by the literature, or role of theory not addressed.	E G C U
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VI. * Method (see Quantitative, Qualitative, and Mixed Design Considerations document)

Theoretical Frame and Grounding of Proposed Methodology.

- a. Rationale and evidence for the selected methodological approach.
- b. Evaluation of the quality/validity of methods they propose for their project/dissertation
- c. Efficacy of proposed methodology to address research questions

Evaluation Rubric:

Research Design and Methodology	Describes the research paradigm including ontological and epistemological assumptions and how these shape the choice of design and methodology; grounds the choice of quantitative methodology in a disciplinary tradition and/or literature, describe its purpose and dimensions; link the choice of methodology to the type of data sought (scale of measurement) and questions asked and nature of the phenomenon under investigation, design incorporates tenets of quantitative research.	Makes a strong case for overall methodology and design; lacks distinct fit with the topic; lacks precise description of methodology, integrates some literature; design incorporates some tenets of quantitative research.	Makes a weak case for identified method, lacking thorough recognition of its applicability to the topic; use of the literature needs to be strengthened; design shows some confusion related to scales of measurement, selection of statistics, and/or understanding differences between the independent and dependent variables.	Identifies the method with little or no fit to the topic; choice of literature for support is weak. The method section is unclear as to why quantitative methods fit this problem and research questions are not written in a way that makes it clear that this study fits a quantitative method framework.	E G C U
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General and Specific research design	The appropriate general and specific research designs are detailed using appropriate quantitative verbiage and models (e.g. quasi-experimental Pre-test, post-test control group design).	The appropriate research design is discussed in general terms, but needs some more specifics to be clear to the reader.	It is unclear what the specific design is. General design information is included, but the specific design is ignored.	Not enough information is provided to understand either the specific or general research design.	
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Sampling (participants, sites, settings)	Sampling process and criteria are clearly stated and grounded in the literature (substantive and methodological), sampling processes are ethical, aligned with the research questions and conceptual or theoretical framework. Participants, sites, and settings are addressed if appropriate.	Sampling process and criteria are generally stated and grounded in the literature (substantive, methodological); are ethical, and are somewhat aligned with research questions and/or theoretical framework. Participants, sites, and settings are addressed if appropriate.	Sampling processes and criteria are generally stated and not well grounded in the literature and are ethical. There is poor alignment of sampling processes and criteria with research questions and/or theoretical framework. Participants, site, and settings are addressed if appropriate.	Sampling processes or criteria are not explained, not grounded in the literature or not ethical or no alignment of sampling and research questions and or theoretical framework or participants, site and settings are not all addressed if appropriate.	E G C U
External Validity	Issues related to external validity are clearly addressed using specific quantitative terminology (e.g. stratified sampling, followed by randomized sampling).	The sampling technique is mentioned, but evaluation of the quality of external validity is not addressed.	The sampling section and issues related to external validity are superficially addressed and lack clarity.	External validity is not addressed and the specifics of the sampling technique are not included.	

Data collection	Data collection methods are clearly explained and detailed, includes rationale for selection of data collection methods aligned with research questions and theoretical/or conceptual framework. Grounded in the literature and attentive to goodness criteria.	Data collection methods are generally explained, rationale for selection of methods somewhat aligned with research questions and or theoretical/conceptual framework. Grounded in the literature and attentive to goodness criteria.	Brief, superficial description of data collection methods, not adequately supported by the methodological literature. Weak description of alignment to research questions and/or theory or conceptual framework. Not attentive to goodness criteria.	Data collection methods are poorly described no discussion or rationale for the selection of data collection methods, no explanation of fit with theory or conceptual framework. Not grounded in literature. Not attentive to goodness criteria.	E G C U
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Measurement validity and reliability	Issues of validity and reliability are clearly discussed, grounded in the literature, integrated with the design and methodology, and aligned with theoretical underpinnings. Data are given on past measures of reliability and validity of instrument or similar instrument.	Issues of validity and reliability are discussed, grounded in the literature, integrated with the design and methodology, and aligned with theoretical underpinnings. Data are not given on past measures of reliability and validity of instrument or similar instrument.	Issues of validity and reliability are mentioned but NOT discussed clearly, grounded in the literature, integrated with the design and methodology, and aligned with theoretical underpinnings is not clear. Data are not given on past measures of reliability and validity of instrument or similar instrument.	Validity and reliability are not discussed. Measurement tools are discussed in a vague manner only. There is NOT a link between the literature, theoretical underpinnings and the reliability and validity of an appropriate instrument for the study.	E G C U
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VII. * Data Analysis and Form of Results

- a. How do you intend to answer your research questions?
- b. What is the data analysis method/s to be used?
- c. What methods will be used to represent and systematically summarize data collected?
- d. Treatment, organization, and fidelity of mixed methods analysis.

Evaluation Rubric:

Data Analysis	Data analyses procedures are clearly explained and detailed, includes rationale for selection of approach(es) to analysis; alignment with research questions and theoretical/conceptual framework. Grounded in the literature and attentive to goodness criteria.	Data analyses procedures are generally explained, rationale for selection of approach(es) to analysis somewhat aligned with research questions and theoretical/conceptual framework. Grounded in the literature and attentive to "goodness" criteria.	Brief, superficial description of data analyses procedures, not adequately supported by methodological literature. Weak alignment with research questions and/or theory or conceptual framework. Not attentive to goodness criteria.	Data analyses procedures are poorly described, no discussion or rationale for the selection of data analysis processes, no explanation of fit with theory or conceptual framework. Not grounded in literature. Not attentive to goodness criteria.	E G C U
Selection of Statistics	Statistics selected seem appropriate for the questions asked and the use of the statistics is explained, and assumptions are addressed such as the use of nonparametric statistics, test for homogeneity of variance, etc.	Statistics seem appropriate, but are not described in detail. Assumptions of the statistics are not addressed.	There is not enough detail to determine if the statistics mentioned are appropriate for this study. More information is needed in order to evaluate.	Statistics are vaguely mentioned using such phrases as "the data will be analyzed using the appropriate statistics". It is unclear what statistics will be used to analyze the data.	

VIII. * Summary

- a. Synthesis of research method and design to address problem state or study focus.
- b. Summary of contribution of research to field of study.
- c. Potential publication.

IX. * References

- a. APA 5th edition editorial style.

Evaluation Rubric:

References	Relevant to the topic, paradigm, method; optimal references; cited and referenced per APA	Mostly relevant to topic, paradigm, and method; adequate references; adequate use of citations per APA.	Relevant to one or two of three—topic, paradigm or method; inadequate references; some miscues in citations and references per APA; inadequate use of citations	Lack of relevance to topic, paradigm, and method; inadequate references; many miscues in citations and references per APA; plagiarism	E G C U
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X. Other Considerations

Evaluation Rubric:

Writing	Well organized, reads well, very few errors in grammar and spelling, judicious use of quotations, coherence, clarity, depth, creativity.	Organization has a few weak points, reads satisfactorily, few errors, judicious use of quotations.	Organization is lacking, difficult to read, some errors, heavy reliance on quotations.	Poorly organized, difficult to read and understand, numerous errors	E G C U
Thoroughness	All components are evident and clearly identifiable	All components are present; weakness in clarity in one or two major components.	Major components are present, some subcomponents missing or weakness in clarity in more than two major components	A major components is missing or seriously lacking in clarity, or numerous subcomponents are missing or lacking in clarity.	E G C U
Academic honesty	Reports findings of published research accurately, preliminary exam represents own writing	Reports findings of published research accurately, preliminary exam represents own writing	Preliminary exam rejected if concerns about academic honesty are raised.	Preliminary exam rejected if concerns about academic honesty are raised.	E G C U
Timeliness	Submits on time	Submits on time	Paper turned in late receive lower ratings		E G C U