

Study Guide for MA Comprehensive Examination
Last updated January 20, 2022

Introduction

This list of topics and overview is designed to assist you with preparing for your master's comprehensive examination. It should not be considered a definitive guide, however; you should consult your class notes and required readings from all courses taken. You may also discuss the examination with RMS faculty members.

List of Topics

Qualitative Research

You ought to have some idea about the purpose of qualitative research and how and when it might be utilized. In addition, knowing what qualitative can and cannot do for advancing understanding and knowledge is also important.

Qualitative research has its own ways of assessing whether a study has been done well or not. That said, there are differences among qualitative researchers in regard to matters of validity, etc. You should have some knowledge about this overall topic.

Think through the differences between quantitative and qualitative research methods. Be prepared to know which ones ought to be used in which settings and for what purposes. Also, reflection on the strengths and weaknesses of both qualitative and quantitative methods.

Think through the objectives, strengths and weaknesses of qualitative methods (e.g., ethnography) versus quantitative methods (e.g., survey) in conducting empirical research on educational issues. In comparing the various approaches, be prepared to discuss the affordances and limitations of each for particular research contexts and topics. For example, In what considerations would lead a researcher toward narrative instead of ethnography, etc.

Be prepared to discuss the application of qualitative research methods to a research topic of interest to you.

Program Evaluation

Distinguish between evaluation and research.

Explain and discuss multiple theories of evaluation in terms of methods, use, and values.

Quantitative Research Design

Describe the strategies that can be used to ensure a study's internal and external validity.

Distinguish experimental and single-subject from quasi-experimental designs.

Describe the basic steps to conduct a meta-analysis.

Statistics

Describe the types of errors in statistics. Discuss the factors that affects these types of errors.

Differentiate among (a) Type I error, Type II error, and power. Discuss the implications of making a Type I or Type II error in a research study.

Differentiate between independent samples t tests and multiple regression. Describe the conditions to use each and provide examples.

Explain the statistical assumptions of independent samples t-tests and multiple regression. Discuss the effects on solutions of statistical tests if assumptions are violated.

Measurement

Explain classical test theory.

Describe types of reliability and validity in CTT.

Explain item analysis and factor analysis as being used to define/refine a construct.

Survey Research

Explain major sampling methods in survey research.

Describe ways that the sample design would impact the generalizability of survey results.

Explain Likert scales: what are they and are there any alternatives to them?

Research Ethics

Issues in research ethics related to responsible conduct of research, institutional review boards, ethical theory, mentoring, authorship, quantitative and qualitative research.

Discuss the elements of a research study that are particularly subject to ethical reasoning.

Examination Overview

Format

The examination typically takes place on a Friday in October or April.

- Students answer 3 out of 6 questions over a 5-hour period (9AM-2PM).
- The examination contains two sections:
 - Section A: Quantitative research design, measurement, statistics, survey, ethics
 - Section B: Qualitative research design, program evaluation, survey, ethics
- Students answer at least 1 question from each section.

Evaluation Criteria

1. The response is directed to the question as stated.
2. The response to the question is a complete discussion of it.
3. The response is accurate in all respects.
4. The response is logically organized and developed.
5. The response reflects depth of thought consistent with graduate-level work.
6. Accurate documentation from pertinent primary sources is presented when necessary.
7. The response reflects research methods and statistics as a whole and not fragmented reporting of facts and names.

Grading Procedures

- Students are de-identified for blind grading purpose (each student is assigned a comps identification number).
- Each question is read by 2 RMS professors and awarded a grade of honors, pass, conditional pass, or fail.
- The comprehensive examination receives either Honors, Pass, Conditional Pass, or Fail.
 - Honors = at least 2 questions receive an honors grade and (if applicable) the 3rd question receives a pass.
 - Pass = no more than 1 question receives honors; other questions receive a pass.
 - Conditional pass = 1 or 2 questions have to be rewritten within 3 weeks after consultation with a RMS professor. The question(s) are then regraded.
 - Fail = all 3 questions receive a conditional pass, in which case the student is given one more opportunity to take the examination. If the student doesn't pass the second time, he/she would be advised to transition out of the program.