

WKU Educational Leadership Doctoral Program

Revised Research Methods Standards

-September 2024-

RESEARCH METHODS STANDARD 1 – IMPROVEMENT SCIENCE: The Ed.D. program candidate effectively uses the principles and practices of improvement science to impact problems of practice in educational contexts.

Performance Indicators
RM 1.1 Define “practitioner-scholar” and describe the value of becoming a practitioner-scholar within the context of your own field or career.
RM 1.2 Describe the principles and processes of improvement science.
RM 1.3 Apply improvement science to problems of practice.
RM 1.4 Clearly describe a problem of practice and the context surrounding it, including variability.
RM 1.5 Describe principles of and conduct root cause analyses.
RM 1.6 Design and implement interventions.
RM 1.7 Identify, create, and describe theories of action.

RESEARCH METHODS STANDARD 2 – PROFESSIONAL SCHOLARSHIP: The Ed.D. program candidate performs rigorous scholarship, accesses sources of data, synthesizes and communicates ideas, and applies acquired knowledge to theoretical and practice issues relevant to the work of scholar-practitioners in education-related fields.

Performance Indicators
RM 2.1 Use library databases to locate peer-reviewed journal articles.
RM 2.2 Conduct a rigorous, analytical review of the literature on a topic.
RM 2.3 Write academic papers in APA format.
RM 2.4 Format tables and figures, and report on statistics, in APA format.
RM 2.5 Write papers using correct grammar, college-level vocabulary, skilled writing style and fluidity, and clear organization.
RM 2.6 Ethically and appropriately use generative artificial intelligence while conducting research activities.

RESEARCH METHODS STANDARD 3 – RESEARCH DESIGN: The Ed.D. program candidate effectively identifies research problems, understands a variety of research methods paradigms and when to use them, and designs appropriate methods to address research questions.

Performance Indicators

RM 3.1 Describe, design, and conduct studies exhibiting ethical research methods.
RM 3.2 Describe the differences between quantitative and qualitative research.
RM 3.3 Define terminology related to quantitative, qualitative, mixed methods, and multi-methods research.
RM 3.4 Describe the main features of common qualitative paradigms and interpret peer-reviewed literature using those paradigms.
RM 3.5 Describe commonly used mixed methods and multi-methods designs and basic principles of mixed and multi-methods research.

RESEARCH METHODS STANDARD 4 – INSTRUMENTATION & DATA COLLECTION: The Ed.D. program candidate develops instruments, research protocols, and data collection strategies to conduct research related to practical research problems.

Performance Indicators
RM 4.1 Design and use metrics and dashboards for tracking progress through improvement science cycles.
RM 4.2 Write surveys and interview protocols.
RM 4.3 Collect quantitative and qualitative data.

RESEARCH METHODS STANDARD 5 – DATA ANALYSIS & REPORTING: The Ed.D. program candidate performs data analysis to support research related to practical research problems.

Performance Indicators
RM 5.1 Calculate statistics and conduct statistical analyses including descriptive statistics, basic graphics, t-tests, chi-square tests of association, one-way ANOVA, and simple linear regression.
RM 5.2 Analyze the reliability of scores and validity of inferences coming from unidimensional and multidimensional psychometric scales.
RM 5.3 Identify common misconceptions and errors made when interpreting research results.
RM 5.4 Interpret the findings from intermediate statistical analyses in peer-reviewed literature, including multiple linear regression, factor analysis, and various ANOVA models.
RM 5.5 Transcribe and code qualitative data using a general or specific qualitative approach.