



Manual: Harnessing the Power of AI Tools to Support Doctoral Dissertation Development

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Purpose and Scope

Artificial intelligence (AI) transforms research, higher education, and professional practice. As AI technologies become increasingly integrated into the modern workforce, AI literacy has emerged as an essential competency for doctoral students and faculty. Developing the knowledge and skills to use AI responsibly enables researchers to enhance productivity, strengthen critical thinking, and support scholarly inquiry while maintaining the highest standards of academic integrity.

This manual provides structured, ethical, and practical guidance for University of Phoenix doctoral students and faculty on the appropriate use of AI tools throughout the dissertation process. Its purpose is to demonstrate how AI can serve as a research assistant that supports, rather than replaces, scholarly work. Regardless of the technologies used, the doctoral researcher retains full responsibility for the originality of the work, intellectual ownership, scholarly judgment, methodological decisions, interpretation of findings, and the overall integrity of the dissertation.

This manual specifically addresses guidelines for AI tools, the foundational principles of ethical and academic integrity in AI usage, strategies for applying AI tools in the key stages of a doctoral dissertation, including topic and problem formation, literature review, data collection and instrument development, data analysis, writing results, and preparing a visual representation of the study. Throughout the manual, readers will find examples of appropriate AI-supported activities, recommended AI tools, and best practices for maintaining transparency, accuracy, and academic integrity. The manual concludes with a practical AI Use Checklist that assists doctoral students in evaluating whether AI has been used appropriately, ethically, and in accordance with University of Phoenix policies and scholarly expectations.

This guidance applies to students completing either the Traditional Dissertation Pathway or the Applied Dissertation Pathway. References to dissertation development or the research process

should be understood to include the pathway-specific scholarly and research deliverables students complete throughout their doctoral program.

By promoting responsible AI literacy and ethical decision-making, this manual aims to empower doctoral researchers to leverage AI as a valuable tool for enhancing research quality, improving efficiency, and supporting scholarly excellence while preserving the critical thinking, originality, and rigor that define doctoral scholarship.

AI Tools Guidelines

University of Phoenix students and faculty have access to Microsoft Copilot through the University's Microsoft 365 suite and ChatGPT Edu. The additional AI tools referenced in this manual are provided as examples to help students, faculty, and staff become familiar with commonly used AI applications and their potential educational uses. Some AI tools referenced in this manual may be free, while others may require a paid subscription or offer limited free access. Users should review each tool's current pricing, terms of use, privacy policy, and data practices before creating an account or uploading content.

As a rule, users should not enter copyrighted, private, confidential, student-identifiable, proprietary, or sensitive University information into public or third-party AI tools unless they are authorized to do so and the tool has been approved for that type of use. Users are responsible for following all applicable University policies, course requirements, copyright guidelines, and data privacy expectations when using AI tools.

Applied dissertation researchers should exercise particular caution when working with organizational information. Employment within or access to an organization does not authorize a researcher to upload internal records, participant information, organizational documents, or other restricted materials to an AI tool. AI use must remain consistent with organizational permissions, IRB requirements, data protection, and the researcher's approved access.

Ethical and Academic Integrity Foundations

Doctoral researchers must comply with institutional policies governing AI use. AI tools should never be used for data fabrication, falsification, or deceptive authorship. Sensitive or confidential data must not be uploaded to public AI systems. Researchers are encouraged to maintain an AI-use log that documents the tools used, their purposes, and the validation steps taken. Researchers should not submit AI-generated output as their own work without citation and disclosure.

Researchers must properly cite any AI tool in accordance with the American Psychological Association (APA) guidelines. Researchers should disclose the extent of AI use when the use has led to content creation or modification. Review the UOPX AI Philosophy Statement and the Academic and ethical guidance for the use of AI at [the Center for AI Resources](#) and additional AI resources at [the AI Research Group](#).

Application of AI Across the Doctoral Research Process

The application of AI, strategies for using AI, and examples of relevant AI tools for each of the following main stages or functions of doctoral research are depicted in Table 1 and described in this manual. AI can support each stage, but the researcher remains responsible for scholarly judgment, ethical use, source verification, and final decisions.

1. Research problem exploration and refinement
2. Research problem and questions
3. Scholarly literature review and synthesis
4. Research design and method development
5. Data collection and instrument development
6. Data analysis
7. Reporting the findings
8. Interpretation, discussion, and implications
9. Editing and product review
10. Visual communication and research dissemination

These stages represent common research functions rather than a required document structure. The specific products in which this work appear vary by dissertation pathway. Applied Dissertation Pathway students should apply the guidance to the corresponding applied dissertation deliverables required at each stage of their program.

Table 1

The Application of AI for the Main Stages of a Dissertation or Research Project

Research Stage / Function	Key Milestones	AI Tools / Supports
1. Research problem exploration and refinement	Explore potential research problems, refine scope, and confirm relevance and feasibility	ChatGPT, Claude, Perplexity, Elicit, Consensus, Semantic Scholar
2. Research problem and questions	Define the research problem, purpose statement, research questions, and alignment	ChatGPT, Claude, Grammarly, ResearchRabbit, Connected Papers
3. Scholarly literature review and synthesis	Search, evaluate, organize, and synthesize literature to establish context, conceptual grounding, gaps, patterns, or unresolved issues	Elicit, Consensus, Semantic Scholar, ResearchRabbit, Connected Papers, Zotero, Mendeley
4. Research design and method development	Develop an aligned research design, data strategy, procedures, and ethical considerations	ChatGPT, Claude, NotebookLM, Scite, Perplexity

5.Data collection and instrument development	Draft surveys, interview protocols, rubrics, or observation tools; review validity and alignment	ChatGPT, Claude, Qualtrics, Google Forms, SurveyMonkey
6.Data analysis	Clean, code, analyze, visualize, and interpret data	ChatGPT Advanced Data Analysis, Python, R, SPSS, NVivo, ATLAS.ti, MAXQDA, Tableau, Power BI
7.Reporting findings	Report findings clearly using appropriate narrative, tables, figures, themes, or statistical results	ChatGPT, Claude, Grammarly, QuillBot, Microsoft Copilot, LaTeX, Overleaf
8.Interpretation, discussion, and implications	Interpret findings, connect results to literature, discuss implications and limitations	ChatGPT, Claude, Elicit, Scite, ResearchRabbit
9.Editing and product review	Improve clarity, APA style, structure, grammar, formatting, and alignment	Grammarly, ChatGPT, Claude, Turnitin Draft Coach, Zotero, Mendeley
10.Visual communication and research dissemination	Create research abstracts, conceptual models, presentation visuals, and other audience-appropriate research communications	Canva, PowerPoint Designer, Napkin AI, Gamma, Beautiful.ai, ChatGPT, DALL-E

Stage 1: Research Problem Exploration and Refinement

AI tools may assist with brainstorming research areas, identifying trends, and narrowing topics. Outputs must be verified through scholarly literature. The final topic selection must be independently justified by the researcher.

Dissertation Consideration. For students in the Applied Dissertation Pathway, topic exploration should remain grounded in a documented problem of practice within a defined professional or organizational context. AI may help researchers examine alternative ways of framing or bounding an observed issue, but it should not be used to invent an organizational problem, infer that a problem exists without evidence, or select a problem simply because it appears researchable.

The objectives are:

- Explore broad research areas.
- Identify gaps, trends, and emerging issues.
- Narrow topics to feasible, original dissertation ideas.

AI can help in following ways:

- Brainstorm potential research areas.
- Summarize current debates and trends.
- Generate alternative framings of a topic.
- Help assess feasibility and scope.
- Test whether a proposed problem of practice is appropriately bounded, evidence-supported, and feasible within the identified context.

Examples AI-Supported activities are:

- Ask AI to list current research trends in a field.
- Request multiple ways to narrow a broad topic.
- Compare theoretical perspectives related to a topic.

Relevant AI tools are:

- ChatGPT Edu, Copilot, Claude, Perplexity, Elicit, Consensus, ResearchRabbit, Semantic Scholars

Required ethical practices and cautions are:

- Cross-check all claims with peer-reviewed sources.
- Use AI outputs as starting points, not final decisions.
- For applied studies, verify claims about the organizational problem using appropriate evidence rather than AI-generated assumptions about the setting.

Stage 2: Research Problem and Questions

AI may help refine the clarity, coherence, and alignment of research problems and questions. AI should not determine scholarly significance. Final formulations must reflect the researcher's intellectual position.

Applied Dissertation Consideration: In the Applied Dissertation Pathway, the research problem is framed as a problem of practice grounded in a specific professional or organizational context. AI may assist with examining clarity, scope, and alignment. Still, the researcher must establish through appropriate evidence that the problem truly exists, warrants systematic investigation, and can be investigated feasibly within the proposed setting.

The objectives are:

- Articulate a clear, researchable problem.
- Develop coherent research questions or hypotheses.
- Align problem, purpose, and questions.

AI can help in following ways:

- Critique the clarity and logic of draft problem statements.
- Suggest alternative phrasings of research questions.
- Check alignment between problem, purpose, and questions.
- Review alignment among the problem of practice, purpose, research questions, organizational context, and proposed applied research design.
- Identify language that unintentionally assumes causality, a predetermined solution, or a broader claim than the proposed study can support.

Example AI-Supported activities are:

- Ask AI to identify ambiguity or scope issues in a problem statement.
- Generate qualitative vs. quantitative versions of research questions.
- Test whether research questions are answerable with the proposed methods.

Relevant AI tools are:

- ChatGPT Edu, Microsoft Copilot, Claude, Elicit, Consensus

Required ethical practices and cautions are:

- AI cannot judge *scholarly significance*; this requires disciplinary expertise.
- Final wording must reflect the student's intellectual position.

Stage 3: Scholarly Literature Review and Synthesis

AI tools may assist with summarizing articles, organizing themes, and drafting synthesis text for revision. AI must not be used to generate citations or identify sources without verification from academic databases.

Applied Dissertation Consideration. For Applied Dissertation Pathway students, literature analysis also serves to position the problem of practice within broader scholarly, professional, and field-level contexts. AI may support thematic organization and synthesis for the Concept Manuscript, but students must distinguish field-level scholarly evidence from local organizational evidence and must not allow AI to transform organizational observations into unsupported scholarly claims.

The objectives are:

- Identify, organize, and synthesize relevant literature.
- Establish theoretical and conceptual frameworks.
- Demonstrate gaps, unresolved issues, patterns, and potential contributions relevant to the research problem.

AI can help in following ways:

- Summarize individual articles (after you read them).
- Compare findings across multiple studies.
- Help cluster literature into themes.
- Suggest conceptual maps or synthesis structures.
- Examine whether literature themes, theoretical or conceptual frameworks, and the problem of practice remain conceptually aligned.

Examples of AI-Supported activities are:

- Paste article notes and ask for thematic grouping.
- Ask AI to contrast theoretical frameworks used in selected studies.
- Generate synthesis paragraph drafts for revision.

Relevant AI Tools are:

- Elicit, Consensus, Scite, Semantic Scholar, ResearchRabbit, Connected Papers, Zotero, Notebook LM

Required ethical practices and cautions are:

- Avoid uploading copyrighted articles to generative AI tools.
- Do not rely on AI for citation discovery or accuracy.
- Always verify references directly from databases (e.g., ProQuest, EBSCOhost, Scopus, Web of Science, ERIC, PubMed).
- AI may hallucinate sources.

The application of various AI tools for reviewing, evaluating, organizing, and synthesizing scholarly literature is depicted in Table 2.

Applied Dissertation Pathway Note. If you are completing an Applied Dissertation, provide the AI tool with a brief context statement before using or adapting the example prompts in this table. Because the Applied Dissertation Pathway and its deliverables differ from conventional dissertation structures, the AI tool may not understand those expectations unless you explain them. Your context statement should identify that your study examines a documented problem of practice within a defined professional or organizational setting and should describe the purpose and expectations of the specific Applied Dissertation deliverable you are developing.

Suggested ADP Context Statement for Stage 3.

I am completing an Applied Dissertation. My study examines a documented problem of practice within a defined professional or organizational setting through systematic, theory-informed research. The study is intended to generate credible, context-specific evidence that can inform professional or organizational understanding and decision-making. It is not designed to test a predetermined solution, and any conclusions or claims must remain within the boundaries supported by the research design, evidence, and study context.

For this stage of my dissertation, I am developing a Concept Manuscript. The Concept Manuscript is a field-facing scholarly manuscript that uses published research and a theoretical or conceptual framework to explain the problem of practice within broader professional, disciplinary, organizational, or system-level contexts. It does not include local organizational data, research methods or procedures, proposed interventions, or recommendations. Use this context when responding to the prompt that follows.

Table 2

The Application of AI Tools for Reviewing and Synthesizing Scholarly Literature

Stage	Tool(s)	Example Use	Example Prompt
Discover	Semantic Scholar / Consensus	Find relevant studies, key authors, and current evidence on a topic.	"Find recent peer-reviewed studies on AI tools in dissertation research and summarize the main findings."
Explore	ResearchRabbit	Map related papers, authors, citation networks, and research clusters.	"Show me papers related to this article and identify major themes, authors, and research gaps."
Screen and Extract	Elicit	Screen abstracts, compare studies, and extract methods, findings, samples, and limitations.	"Extract the research questions, methodology, sample, instruments, and key findings from these articles."
Verify	Scite	Check whether studies are supported, contradicted, or only mentioned by later research.	"Verify whether this claim is supported or challenged in the literature and show the citing evidence."
Organize	Zotero / Reference Manager	Store articles, manage citations, tag themes, and organize references.	"Organize these sources by research theme, conceptual area, methodology, and the parts of my research document they may support."
Synthesize	NotebookLM	Summarize uploaded sources, identify patterns, and draft literature review themes.	"Using these sources, synthesize the major themes, gaps, unresolved issues, relationships, and implications relevant to my research problem."

Stage 4: Research Design and Method Development

AI may help explain research designs, critique alignment, and identify missing methodological details. Methods described must accurately reflect actual research procedures.

Applied Dissertation Consideration: Applied dissertation methodology must account for both methodological fit and the realities of the practice setting. AI may help researchers compare appropriate applied research designs and test alignment among the problem of practice, purpose, research questions, design, and data strategy. However, design decisions must also account for organizational access, feasibility, ethical boundaries, researcher role, and the limits of the claims the study can support.

The objectives are:

- Select an appropriate research design.
- Justify methodological choices.
- Ensure rigor, validity, and transparency.
- Evaluate alignment among the problem, purpose, research questions, research design, and data strategy

AI can help in following ways:

- Explain strengths and limitations of research designs.
- Compare qualitative, quantitative, and mixed-methods approaches.
- Review alignment between research questions and methods.
- Compare applied research designs in relation to the intended inquiry rather than selecting a design based only on methodological category.
- Identify potential mismatches among the proposed design, available data sources, organizational constraints, and intended claims.
- Help researchers examine feasibility questions that require further discussion with faculty, organizational stakeholders, or the IRB.

Example of AI-Supported activities are:

- Ask AI to critique the alignment between questions and design.
- Generate draft descriptions of standard procedures (to be edited).
- Check for missing methodological details.

Relevant AI tools are:

- ChatGPT Edu, Claude, Elicit, Microsoft Copilot

Required ethical practices and cautions are:

- Methods must reflect *actual* research decisions and procedures.
- Supervisory and methodological texts remain primary authorities.
- AI cannot determine whether organizational access, permissions, participant relationships, or researcher-role conditions make a proposed study ethically or practically feasible.

Stage 5: Data Collection and Instrument Development

AI tools can assist in drafting survey items or interview questions, practicing interviewing, and checking for clarity or bias. Validity and reliability must be established through expert review, pilot testing, and appropriate analysis.

The objectives are:

- Develop valid and reliable instruments (e.g., surveys, interview questions and protocols, observation templates, rubrics).
- Ensure ethical and methodological soundness.

AI can help in following ways:

- Draft preliminary survey items or interview questions.
- Check clarity, bias, and alignment with constructs.
- Suggest alternative wording for different populations.
- AI offers an opportunity to practice interviews and prepare for the actual interviews.

Example of AI-Supported activities are:

- Generate multiple items for construct validity.
- Review interview questions for leading language.
- Adapt instruments for pilot testing.

Relevant AI tools are:

- ChatGPT Edu, Claude, Qualtrics AI, Microsoft Copilot

Required ethical practices and cautions are:

- AI cannot establish validity or reliability.
- Expert review, pilot testing, and statistical validation are essential.
- Applied dissertation researchers must also consider how organizational role, supervisory relationships, participant voluntariness, confidentiality, and the research setting may affect instrument wording and administration. AI cannot determine whether these relationships are ethically appropriate or whether proposed procedures meet IRB and organizational requirements.

Stage 6: Data Analysis

In quantitative research, AI can assist with explaining statistical concepts and interpreting outputs. For qualitative research, AI may support code refinement and theme summarization. AI must not independently analyze raw sensitive data.

Applied Dissertation Consideration. Applied dissertation findings are interpreted within a defined professional or organizational context. AI may assist with identifying patterns or organizing analytic outputs, but researchers must determine what those findings mean within the study context and ensure that conclusions remain bounded by the design, data, and setting.

The objectives are:

- Analyze data accurately and rigorously.
- Interpret findings appropriately.

AI can help in following ways:

Quantitative Analysis

- Explain statistical techniques and assumptions.
- Help interpret outputs (e.g., regression or ANOVA tables).
- Assist with result narration drafts.

Qualitative Analysis

- Support coding scheme development.
- Help summarize coded segments.
- Compare themes across datasets.

Example of AI-Supported activities are:

- Ask AI to explain what a statistical result means (conceptually).
- Use AI to refine code definitions.
- Generate theme summaries for researcher validation.

Relevant AI tools are:

- Qualitative Data Analysis: NVivo AI Assistant, ATLAS.ti, MAXQDA AI Assist.
- Quantitative Data Analysis: SPSS with AI Output Assistant, Excel Copilot.
- Qualitative and Quantitative Analysis: Microsoft Copilot based on GPT 5 or higher.

Required ethical practices and cautions are:

- Verify AI outputs with your data and scholarly sources.
- Review for content credibility, accuracy, and bias.

- Maintain data privacy and confidentiality. Do not upload raw sensitive data to public AI tools.
- Do not input copyrighted material owned or created by others, including materials owned by the University, faculty, or other students, into an AI tool without permission.
- Do not input confidential, proprietary, or otherwise sensitive information into AI tools.
- Document your analysis process for transparency and reproducibility.
- Use AI as an assistant, not a replacement for researcher judgment. Do not let AI perform unsupervised analysis.
- Disclose use of AI for data analysis.
- Organizational access does not constitute permission to upload organizational datasets, documents, participant responses, or other restricted evidence into an AI system.

The application of various AI tools for data analysis is depicted in Table 3.

Table 3

AI Tools for Qualitative and Quantitative Analysis

Type of Data Analysis and AI Tool	Primary Purpose	Example AI-Supported Tasks	Typical Outputs
Qualitative Data: NVivo AI Assistant	AI-assisted coding and thematic analysis	• Suggest initial codes • Summarize interview transcripts • Identify recurring themes • Compare participant responses	Themes, coding reports, word frequencies, visualizations, thematic summaries
Qualitative Data: ATLAS.ti	AI-supported qualitative coding and concept analysis	• Generate code suggestions • Identify relationships among concepts • Summarize qualitative data • Build conceptual networks	Codebooks, network diagrams, quotations, thematic maps
Qualitative Data: MAXQDA AI Assist	AI-enhanced qualitative and mixed-method coding	• Summarize documents • Suggest codes • Organize categories • Draft analytic memos	Categories, coding matrices, summaries, visual models
Quantitative Data: SPSS with AI Output Assistant	Statistical analysis with AI-supported interpretation	• Explain statistical output • Interpret regression results • Summarize hypothesis testing • Describe statistical assumptions	Statistical tables, interpretation summaries, charts, APA-ready explanations
Quantitative Data: Excel Copilot	Spreadsheet analysis and visualization	• Generate formulas • Clean data • Create charts • Summarize trends and patterns	Pivot tables, graphs, descriptive statistics, dashboards
Qualitative & Quantitative Data: Microsoft Copilot (GPT-5 or higher)	AI assistant for research workflow across qualitative and quantitative tasks	• Explain statistical results • Summarize qualitative themes • Compare findings • Draft data interpretation • Generate tables and figures • Assist with coding scripts	Integrated summaries, comparison tables, visualizations, narrative interpretations, draft reports

Stage 7: Reporting the Findings

AI may assist with clarity, structure, and consistency in reporting results. Results must not be fabricated, altered, or exaggerated.

Applied Dissertation Consideration. The form in which findings are reported depends on the dissertation pathway and required research product. Applied Dissertation Pathway students report findings in the Results section of the Applied Research Report. Findings should remain clearly connected to the research questions and should be reported without extending into interpretation, recommendations, or organizational action.

The objectives are:

- Report findings clearly and accurately.
- Separate results from interpretation.

AI can help in following ways:

- Improve clarity and structure of result descriptions.
- Ensure consistency between tables and text.
- Help with a neutral academic tone

Relevant AI tools are:

- ChatGPT Edu, Claude, Grammarly, Microsoft Copilot, NVivo/ATLAS.ti/MAXQDA reports, SPSS output tools.

Example of AI-Supported activities are:

- Ask AI to revise for clarity without changing meaning
- Check the logical flow of the result sections
- Identify redundancies or omissions

Stage 8: Interpretation, Discussion, and Implications

AI tools may help compare findings with prior literature and draft implication sections for revision. Scholarly interpretation remains the researcher's responsibility.

Applied Dissertation Consideration. In applied research, interpretation should consider what findings mean within the defined professional or organizational context and what they may imply for practice. AI may help researchers explore alternative interpretations or translate findings for different audiences, but it should not generate unsupported recommendations, prescribe organizational action, or extend conclusions beyond the evidence produced by the study.

The objectives are:

- Interpret findings in relation to literature.
- Explain contributions, implications, and limitations.

AI can help in following ways:

- Compare findings with prior research.
- Draft implication sections for different audiences.
- Check coherence between results and discussion.
- Test whether practice-facing implications remain logically connected to the findings and appropriately bounded by the study.

Example of AI-Supported activities are:

- Ask AI to map findings to theoretical frameworks.
- Generate alternative interpretations for critical reflection.
- Improve academic tone and coherence

Relevant AI tools are:

- ChatGPT Edu, Claude, Elicit, Consensus, Zotero, ResearchRabbit, Grammarly

Required ethical practice and cautions are:

- Interpretation must remain the scholar's intellectual work

Stage 9: Editing and Product Review

AI may be used for language polishing, coherence checks, and formatting support. AI must not replace supervisor or peer review.

Applied Dissertation Consideration. Applied Dissertation Pathway students should also review consistency across the Applied Research Report and other required scholarly and practice-facing products. Audience, level of detail, and form of communication may differ across products, but findings, claims, terminology, and study conclusions must remain consistent.

AI can help in following ways:

- Language polishing and clarity improvement.
- Consistency checks (terminology, tense, voice).
- Formatting assistance (tables, headings).
- For applied dissertation deliverables, check consistency in terminology, findings, claims, and implications across academic and practice-facing products while preserving the intended audience and purpose of each product.

Relevant AI tools are:

- Grammarly, Microsoft Editor, ChatGPT Edu, Claude, Zotero/PowerNotes/Mendeley citation tools

The tasks that should be assigned to AI are:

- Decide on arguments.
- Replace peer or supervisor feedback.
- Generate final text without revision.
- Introduce findings, implications, recommendations, or claims into one deliverable that are not supported by the completed study.

Stage 10: Visual Communication and Research Dissemination

AI may be used to turn findings into a visual abstract, conference graphic, infographic, and polished dissertation defense slides. AI can support researchers but must not replace researchers' work. Depending on the dissertation pathway and intended audience, visual communication may support an oral defense, scholarly presentation, practice-facing communication, publication, or professional dissemination of research findings.

Applied Dissertation Consideration. Applied dissertation researchers may communicate findings to both academic and professional audiences. When AI is used to support visual communication, the level of detail, terminology, and presentation format may be adapted for the intended audience, but the underlying findings, limitations, and meaning must remain consistent with the completed research.

AI can help in following ways:

- AI supports guided presentation building from prompts.
- AI can support refining PowerPoint slide decks.
- AI supports generating the infographic and visual presentation of abstracts.
- AI offers an opportunity to practice a presentation and prepare for the actual presentation.

Relevant AI tools are:

- Canva AI for Presentations, Microsoft Copilot, Adobe Express

Required ethical practices and cautions are:

- Keep the visuals faithful to the data, avoid overstating results, and make sure every chart, icon, and summary matches the dissertation findings exactly.
- Check accessibility, branding, and university slide requirements before finalizing.

AI Use Evaluation Checklist

This checklist supports the evaluation of appropriate AI use across the various stages of a dissertation.

Table 4

Checklist for Evaluating AI Use in a Dissertation

Dissertation Stage	Appropriate AI Use	Inappropriate AI Use	Evaluation Criteria
Research Problem Exploration and Refinement	Brainstorming, trend identification	Choosing a topic without justification	Clear scholarly rationale For applied studies: Evidence-supported problem of practice and appropriate contextual rationale
Research Problem and Questions	Clarity checks, alignment review	Final formulation without review	Logical coherence For applied studies: Alignment among the problem of practice, purpose, questions, context, and intended inquiry
Literature Review and Synthesis	Summarizing the read sources	Generating unverified citations	Verified sources and synthesis For applied studies: Literature appropriately positions the problem of practice within broader scholarly and professional contexts
Research Design and Method Development	Design explanations	Misrepresenting procedures	Methods reflect reality For applied studies: Design and methods also reflect organizational feasibility, access, role, and ethical constraints
Data Collection and Instrument Development	Drafting and bias checks	Claiming validity	Expert review conducted

Data Analysis	Explaining outputs	Unsupervised analysis	Interpretations validated For applied studies: Interpretation remains appropriately bounded to the defined study context
Reporting the Findings	Clarity and structure	Fabrication or alteration	Accurate reporting
Interpretation, Discussion, and Implications	Comparative interpretation	Replacing scholarly judgment	Original interpretation For applied studies: Practice-facing implications remain evidence-based and do not become unsupported prescriptions or solutions
Editing and Product Review	Language refinement	Replacing peer review	Authorial voice preserved For applied studies: Findings, claims, and implications remain consistent across the Applied Research Report and related scholarly and practice-facing products
Visual Communication & Research Dissemination	Visual generation refinement	Misalignment between the visual representation and the study content, and minimal human creativity	Creativity and authenticity preserved For applied studies: Audience adaptation does not alter or overstate the research findings