Comprehensive Research Structure & Theory Application Matrix
Sixth Annual Emerging and Established African Researchers Training Academy
Module 21 Applying Theory in Research: Understanding How to Use Theory in Your Research and How to Strengthen Your Theoretical Contribution

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Research Paper/Thesis Major Section	Typical Sub-sections	Purpose / Key Content	Role of Theory in this Section	Practical Use of Theory in the Section	Best Practices for Integrating Theory
1. Introduction	- Context & significance - Clear problem statement - Research question(s) / objective(s) - (Optional) Hypotheses - Delimitation of scope - Brief overview of theoretical lens	*Orientate, persuade, and delimit.* - Establish why the topic matters (societal, disciplinary, practical). - Show the research gap and how the study addresses it. - State precise aims so readers know what will—and will not—be covered. - Preview the theoretical stance to signal how evidence will be interpreted.	Provides an initial *anchor*—locates the puzzle in a live theoretical debate and hints at the explanatory framework that follows.	Cite seminal theories sparingly to justify the research gap; use theory-derived concepts to phrase the problem and, where relevant, derive testable hypotheses.	- Keep theory references concise but purposeful. - Ensure terminology in questions/hypotheses matches later theoretical constructs. - Avoid "laundry-list" citations; focus on the key debate you will engage.
2. Literature Review	- Thematic / chronological synthesis - Critical appraisal of sources - Identification of gaps, tensions, under-explored contexts - Transition to chosen theoretical framework	*Demonstrate mastery and position the study.* - Map what is known, contested, and missing. - Situate the study relative to competing explanations. - Narrow progressively from broad field to specific niche. - Justify selection (or development) of a particular theory.	Explores existing theories in depth, compares explanatory power, and reveals where your adopted theory can advance understanding.	- Cluster prior work by theoretical stance, not just topic. - Critically evaluate each theory's assumptions, boundary conditions, and empirical support. - Use synthesis matrices, concept maps, or tabulated comparisons to trace debates.	- Move from description to critique to synthesis. - End with a clear, theory-driven "so-what" that leads logically to your framework. - Keep citations current and diverse (classics + cutting-edge).
3.1 Philosophical Framework	**3.1 Philosophical Framework** - Ontological stance (e.g., realism, constructivism) - Epistemological stance (positivism, interpretivism, critical realism) - Axiological position (researcher values, ethics) - Paradigm label (e.g., post-positivist, pragmatist) - Researcher positionality & reflexivity	*Links worldview to research design.* This meta-layer is common in master's & PhD theses, especially in qualitative traditions, and shows how underlying assumptions shape every methodological choice.	Sets boundary conditions for what counts as valid knowledge and why chosen theories are appropriate.	Explicitly articulate assumptions; connect them to methodological decisions (e.g., case-study logic aligns with a constructivist ontology).	- Declare paradigm early and remain consistent. - Address reflexivity: how your stance may influence interpretation. - Cite paradigm pioneers (e.g., Kuhn, Guba & Lincoln) rather than scattered secondary sources.
3.2 Theoretical Framework	**3.2 Theoretical Framework** - Core theory/ies adopted or adapted - Key constructs & definitions - Propositions / hypotheses - Assumptions & scope conditions - Visual model of relationships	*Provides the explanatory logic that underpins the study.* Essential in almost all research—and a cornerstone of PhD work—because it connects literature review insights to empirical tests or interpretive lenses.	Functions as *blueprint* for explanation: predicts relationships, guides variable operationalisation, and frames analysis.	- Select theory(ies) whose assumptions match your paradigm & context. - Define each construct precisely; cite original theorists. - Translate propositions into measurable hypotheses or thematic codes.	- Justify theory choice (fit, parsimony, prior success). - Adapt, don't force-fit—document any modifications. - Use a clear diagram; arrows must correspond to propositions/hypotheses.
3.3 Conceptual Framework	**3.3 Conceptual Framework** - Operational definitions of variables - Diagram of expected pathways (incl. mediators/moderators) - Linkages to empirical indicators - Boundary of inquiry	*Bridges abstract theory and real-world measurement;* shows how you will recognise, collect, and relate evidence. In some papers it merges with the literature review.	Translates theoretical constructs into observable variables or thematic categories, ensuring analytic coherence.	Build a flow-chart or logic model that labels each variable, data source, and anticipated direction of influence.	- Keep diagrams uncluttered. - Cite empirical precedents for each indicator. - Revisit and refine after pilot data if necessary.
4. Methodology / Methods	4.1 Research design 4.2 Population & sampling 4.3 Data collection procedures 4.4 Variables & measures / operationalization 4.5 Data-analysis techniques 4.6 Ethical considerations	*Enable replication and justify rigour.* Detail *how* the study was conducted, *why* choices are appropriate, and *how* validity, reliability, or trustworthiness are secured.	Ensures *methodological congruence*: design, instruments, and analysis must faithfully capture the theoretical constructs and relationships proposed in the framework.	- Tie each survey item / interview prompt to a construct. - Use theoretical justification when choosing scales or coding schemes. - In sampling, explain how context affects theoretical generalisability.	- Provide an "operationalisation table" mapping constructs → indicators → data source. - Pilot-test measures for construct validity. - Explicitly discuss how theoretical stance shaped analytic strategy (e.g., deductive vs inductive coding).
5. Results / Findings	- Descriptive patterns- Inferential tests / qualitative themes - Tables, figures, quotations	*Present evidence without interpretation.* Organise findings logically, often following the sequence of research questions or hypotheses.	Minimal but *structuring*: headings and table labels reflect theoretical constructs; results are grouped by propositions/hypotheses.	Use theory-derived variable names and code labels, but hold back on "what it means".	- Separate "what" happened (results) from "why" (discussion). - Provide effect sizes/confidence intervals to gauge theoretical relevance. - Use theory-aligned visuals (e.g., grouped bar charts for each construct).
6. Discussion	6.1 Interpretation of findings 6.2 Comparison with prior studies 6.3 Explanations for unexpected results 6.4 Practical / policy implications	*Make sense of the findings.* Show how results answer the research question, advance theory, and matter in the real world.	Core *"sense-making"* role: results are woven back into the theoretical fabric—supporting, refining, or challenging it.	- Evaluate whether each proposition/hypothesis is supported. - Explain anomalies via theoretical reasoning or contextual factors. - Suggest extensions or integrations with rival theories.	- Structure discussion around constructs, not data types. - Balance confirmation with critique—avoid confirmation bias. - Identify clear theoretical contributions (extension, boundary, integration).
7. Limitations	- Methodological constraints- Contextual factors-Theoretical boundaries & transferability	*Enhance transparency and guide future work.* Acknowledge constraints honestly to strengthen credibility.	Clarifies *scope conditions*—where the chosen theory may or may not apply.	Discuss unmeasured constructs, sample specificity, or paradigm limits that could influence theoretical generalisability.	- Link each limitation to its likely impact on theoretical claims. - Suggest concrete ways future studies might address them.
8. Conclusion	- Concise answer to research question - Key theoretical & empirical contributions - Broader significance / call to action	*Provide closure and emphasise value.* Leave the reader with the study's essence and its theoretical payoff.	Summarises how the study *advances, refines, or challenges* existing theory.	Reiterate main theoretical insight in one or two crisp sentences; avoid introducing new theoretical content.	- Mirror wording from Introduction to create narrative "bookends." - Emphasise contribution, not merely summary. - Keep it focused and jargon-free.
9. Recommendations / Future Research	- Actionable suggestions for practitioners / policymakers - New research questions or contexts- Proposed methodological innovations	*Extend impact beyond the current study.*	Outlines *next theoretical steps*: where the framework should be tested, expanded, or combined with others.	- Propose studies that examine boundary conditions, moderating variables, or rival theories. - Identify datasets or settings that could sharpen theoretical precision.	- Ensure recommendations flow logically from findings and limitations. - Prioritise feasibility and theoretical relevance. - Distinguish practical advice from theoretical propositions.