

## The Research Roadmap Checklist

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This checklist is at <http://brianwhitworth.com/researchchecklist.pdf>

The element details are explained at <http://brianwhitworth.com/phdpubs-acis.pdf>

An online version is being developed at: <http://www.researchroadmap.org/>

For each element below:

**Circle** N/A (Not Applicable)

OR **Rate** It 1 to 5 (Weak to Good)

AND/OR **Check** it as Done

KNOWLEDGE ELEMENT	CHECK?
<b>Overview</b>	
<i>O1. Collegiality.</i> Does the research respect the scientific community by reading, referencing and building on other's work?	N/A _____ <input type="checkbox"/>
<i>O2. Scientific thinking.</i> Gives reasons before conclusions, and derives conclusions from what went before?	N/A _____ <input type="checkbox"/>
<i>O3. Academic format.</i> Are ideas connected together logically and consistently?	N/A _____ <input type="checkbox"/>
<i>O3a.</i> Does the introduction define the literature review topic?	N/A _____ <input type="checkbox"/>
<i>O3b.</i> Does the theory review lead to a research question?	N/A _____ <input type="checkbox"/>
<i>O3c.</i> Is the method appropriate for the research question?	N/A _____ <input type="checkbox"/>
<i>O3d.</i> Does the method create data that answers the research question?	N/A _____ <input type="checkbox"/>
<i>O3e.</i> Do the analysis conclusions address the research question?	N/A _____ <input type="checkbox"/>
<i>O3f.</i> Are the implications derived from the conclusions?	N/A _____ <input type="checkbox"/>
<i>O4. Correct language.</i> Are there language errors (spelling or grammar)?	N/A _____ <input type="checkbox"/>
<i>O5. Opinion statements.</i> Are there unjustified opinion statements that cannot withstand critical review?	N/A _____ <input type="checkbox"/>
<b>Introduction</b>	
<i>II. Title.</i> Does the title describe the topic/contribution in an interesting way,	N/A _____ <input type="checkbox"/>

and invite the reader to read on?	
<i>I2. Author(s).</i> Are authors in contribution order, and could each present the publication at a conference?	N/A _____ <input type="checkbox"/>
<i>I3. Abstract.</i> Does the abstract state the paper's main purpose, results and implications?	N/A _____ <input type="checkbox"/>
<i>I4. Problem.</i> Is the practical problem the research addresses stated?	N/A _____ <input type="checkbox"/>
<i>I5. Topic.</i> Is there <u>one</u> topic, referred to consistently throughout the paper?	N/A _____ <input type="checkbox"/>
<i>I6. Purpose.</i> Is the research purpose stated in a single sentence within the first few pages?	N/A _____ <input type="checkbox"/>
<i>I7. Publication type.</i> Is publication type (e.g. review, proposal or empirical study) stated early, so readers know what to expect?	N/A _____ <input type="checkbox"/>
<i>I8. Background.</i> Does a brief background history introduce the research?	N/A _____ <input type="checkbox"/>
<i>I9. Target audience.</i> Is the target audience, who should read the paper, stated?	N/A _____ <input type="checkbox"/>
<b>Theory</b>	
<i>T1. Scope.</i> Are the research boundaries defined and remained within?	N/A _____ <input type="checkbox"/>
<i>T2. Literature review.</i> Is the literature reviewed and analyzed by issues (agreements or contradictions), not as a sequential list of other's research?	N/A _____ <input type="checkbox"/>
<i>T3. Topic Construct/ Dependent Variable.</i> Is the topic construct (or dependent variable), which the research is mainly about, clearly identified?	N/A _____ <input type="checkbox"/>
<i>T4. Causal construct/ Independent variable.</i> Are causal constructs identified, or is there causal confusion (between what is causing and what is being caused)?	N/A _____ <input type="checkbox"/>
<i>T5. Conceptual framework.</i> Is the conceptual framework the research will use stated, ideally with a diagram?	N/A _____ <input type="checkbox"/>
<i>T6. Research question.</i> Is the research question a single sentence (clear), with many possible answers (falsifiable), focused enough to allow feasible data collection (testable)?	N/A _____ <input type="checkbox"/>
<i>T7. Research type.</i> Is the chosen research type (exploratory, descriptive, correlational or explanatory) appropriate and feasible?	N/A _____ <input type="checkbox"/>
<i>T8. Hypotheses*.</i> Is each hypothesis argued for and stated individually?	N/A _____ <input type="checkbox"/>

<b>Method</b>	
<i>M1. Methodology theory.</i> Is any methodology theory covered only briefly?	N/A _____ <input type="checkbox"/>
<i>M2. Qualitative vs Quantitative.</i> Is a qualitative, quantitative or mixed-method approach used as appropriate?	N/A _____ <input type="checkbox"/>
<i>M3. Pilot study.</i> Are pilot testing changes in research method/tools reported?	N/A _____ <input type="checkbox"/>
<i>M4. Research Design.</i> Is the logic of how the method's data answers the research question explicitly stated?	N/A _____ <input type="checkbox"/>
<i>M5. Control group*.</i> Were subjects randomly allocated to the control group?	N/A _____ <input type="checkbox"/>
<i>M6. Measurement.</i> Is why constructs were measured the way they were discussed?	N/A _____ <input type="checkbox"/>
<i>M7. Reliability.</i> Is measurement reliability considered, e.g. by precedence, test-retest or split-half checks?	N/A _____ <input type="checkbox"/>
<i>M8. Validity.</i> Is measurement validity considered, e.g. by content, criterion and construct validity?	N/A _____ <input type="checkbox"/>
<i>M9. Unit of research.</i> Is(are) the unit(s) of research specified, i.e. what is one data gathering "case"?	N/A _____ <input type="checkbox"/>
<i>M10. Procedure.</i> Is the data collection procedure sequence described, with any tools used, e.g. introduction script?	N/A _____ <input type="checkbox"/>
<i>M11. Task*.</i> Is the subject task, and any instructions involved, described?	N/A _____ <input type="checkbox"/>
<i>M12. Question design*.</i> Are questions asked of subjects understandable, unambiguous, unbiased, answerable and not offensive?	N/A _____ <input type="checkbox"/>
<i>M13. Response scale design*.</i> Are subject response scales easy to use, exhaustive and sensitive?	N/A _____ <input type="checkbox"/>
<i>M14. Sample generalizability.</i> Is it argued why sample results generalize to the population, e.g. that the sample is unbiased, big enough and representative?	N/A _____ <input type="checkbox"/>
<i>M15. Sample Size*.</i> Is the sample is big enough for the question(s) asked of it?	N/A _____ <input type="checkbox"/>
<i>M16. Replicability.</i> Does the method give enough for another researcher to repeat it (e.g. provide scripts and tools)?	N/A _____ <input type="checkbox"/>
<b>Results</b>	
<i>R1. Error type.</i> Is the research rigorous enough (avoids Type I false claim errors), <b>and</b> sensitive enough (avoids Type II null result errors)?	N/A _____ <input type="checkbox"/>

<i>R2. Data Conversion.</i> Is how raw data was converted to descriptive data, and how missing values were handled, properly described?	N/A _____ <input type="checkbox"/>
<i>R3. Demographics.</i> Are sample demographics compared to population demographics?	N/A _____ <input type="checkbox"/>
<i>R4. Information type.</i> Is information analyzed correctly according to type (qualitative, interval, ordinal, or categorical)	N/A _____ <input type="checkbox"/>
<i>R5. Descriptive summary.</i> Is there a descriptive summary of the results (e.g. themes, or N, mean and variance) that is commented upon?	N/A _____ <input type="checkbox"/>
<i>R6. Analytic statistics*.</i> Are there analytic statistics for strength (e.g. Pearson's r, Eta, Gamma, Phi, Lambda) and significance (e.g. t-test, F-test, Chi-squared), based on data type?	N/A _____ <input type="checkbox"/>
<i>R7. Assumptions.</i> Are the analysis assumptions stated and handled?	N/A _____ <input type="checkbox"/>
<i>R8. Findings.</i> Is each conclusion argued individually, one at a time, from the results?	N/A _____ <input type="checkbox"/>
<i>R9. Tables*.</i> Do tables have a title at the top, row/column headings, and a reference in the text?	N/A _____ <input type="checkbox"/>
<i>R10. Frequency tables*.</i> Do frequency table percentages add up to 100% for each row, and is each row a different causal construct value?	N/A _____ <input type="checkbox"/>
<i>R11. Mean tables*.</i> Do mean tables show dependent variable cell means varying by row/column causal variables?	N/A _____ <input type="checkbox"/>
<i>R12. Graphs*.</i> Do graphs have a title, axis labels, and is the graph type (line, bar or pie) right for the information type?	N/A _____ <input type="checkbox"/>
<i>R13. Summarize conclusions.</i> Are the main research conclusions summarized in a numbered list, and related to the research question?	N/A _____ <input type="checkbox"/>
<b>Discussion</b>	
<i>D1. Research Contribution.</i> Is the value this research adds, apart from what others have done, stated clearly and well?	N/A _____ <input type="checkbox"/>
<i>D2. Limitations.</i> Are the limitations of the research honestly declared?	N/A _____ <input type="checkbox"/>
<i>D3. Implications.</i> Are probable and possible implications of the findings for both theory and practice discussed?	N/A _____ <input type="checkbox"/>
<i>D4. Future research.</i> Are future research possibilities suggested?	N/A _____ <input type="checkbox"/>
<i>D5. Acknowledgements.</i> Is any help from others acknowledged?	N/A _____ <input type="checkbox"/>
<i>D6. References.</i> Do the references reflect the quality, breadth and recency of the publication?	N/A _____ <input type="checkbox"/>

<b>Final Points</b>	
<i>F1. Is the research relevant? – Useful to others? (Introduction, Discussion)</i>	N/A _____ <input type="checkbox"/>
<i>F2. Is the research rigorous? –Scientifically correct? (Method, Results)</i>	N/A _____ <input type="checkbox"/>
<i>F3. Is the research generalizable? –Widely applicable? (Theory, Discussion)</i>	N/A _____ <input type="checkbox"/>
<i>F4. Is the research logical? – Consistent and logical sequence of ideas? (All)</i>	N/A _____ <input type="checkbox"/>
<i>F5. Is the research well written? – Interesting and understandable? (All)</i>	N/A _____ <input type="checkbox"/>

Other comments:

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