Quality and Rigor as Essential Practices in Assessment

Dr. J. Patrick Biddix
Professor of Higher Education
Associate Director, Postsecondary Education Research Center (PERC)
The University of Tennessee, Knoxville
pbiddix@utk.edu | Instagram researchrundowns
“good enough” is no longer good enough
Session Learning Outcomes

1. Understand the purpose of Quality and Rigor
2. Distinguish Quality and Rigor
3. Learn Criteria for Quality and Rigor
4. Value Quality and Rigor as Essential Practices*
Opening Considerations

• We may disagree on terms. That’s OK.

• We may disagree in approach. Also OK.

• You may agree 100% with me. Definitely OK.
Purpose of Quality and Rigor

• “The ultimate goal of assessment is to use information to ensure quality and to guide improvement actions” (Schuh et al., 2016, p. 295)

• “while there are specific concepts related to rigor in research, the key concern regarding assessment results is the accuracy of the results and interpretations made from them.” (Henning & Roberts, 2016, pp. 35-36)
Purpose of Quality and Rigor

“How does one know that the results of an assessment are accurate and how important is it that they be accurate?”
(Henning & Roberts, 2016, p. 34)

- How does one know = Rigor
- How important is it = Quality
Words Researchers Use

**Quality**
- Confirmability
- Dependability
- Transferability
- Credibility

**Rigor**
- Soundness
- Reliability
- External Validity
- Internal Validity
## Tentative Terminology

<table>
<thead>
<tr>
<th>Quality</th>
<th>Rigor</th>
</tr>
</thead>
<tbody>
<tr>
<td>An outcome that adds value by meeting or exceeding stakeholder expectations.</td>
<td>The verifiable value [validity] of a project or study, as evaluated by accuracy, precision, replicability.</td>
</tr>
</tbody>
</table>
sine qua non

- A fundamental characteristic of Quality is Rigor
- A project cannot have Quality without Rigor
- A project can have Rigor, but not Quality
A Quality Assessment Project*

• Achieves one’s goals
• Meets or exceeds stakeholder expectations
• Creates an outcome consistent with goals
• Adds value

Schuh et al. (2016) noted that “we seek ways to ‘assure’ that quality will be the result of our various efforts’ (p. 249).

*As derived from Arminio and Creamer (2004, p. 19)
Case Study

IM Officials and Conflict Management

• Intramural (IM) officials must handle conflict between their peers on the field and court.

• Does their experience as an IM official enhance their conflict management ability?
Problem #1 Poor Quality

1. We do not consider quality
2. When we do, it is too late

Quality relates the value or worth of the assessment. It is often a post-work consideration (evaluation) that needs to be a design consideration.
Case Study Application

- Quality
  - Poorly Formatted, Unclear Report
  - Unconnected Recommendations

+ Rigor
  - Project/Method Alignment
  - Replicable Methodology
  - Validated Instrument
  - Intentional Sample
A Rigorous Assessment Project

• Is valuable for the assessor
• Does not waste resources
• Involves and includes a plan
• Should be evaluated during the process

Traditionally, Rigor is evaluated post-hoc (after a study). If it meets certain criteria it is considered to be a good, or rigorous, study.
Problem #2 Poor Rigor

1. We do not incorporate rigor
2. When we do, it is often reactive

“Standards and criteria applied at the end of the study cannot direct the research as it is conducted, and thus cannot be used pro-actively to manage threats to reliability and validity.” (Morse et al., 2002, p. 16)
Case Study Application

+ Quality

- Rigor

Executive Summary
Interpretable, Clear, Concise Report
Useful, Useable Recommendations
Methodology Appendix

Imprecise Instrument
Convenience Sample
**Key Questions**

<table>
<thead>
<tr>
<th>Quality</th>
<th>Will someone else believe the results?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can someone else interpret the results?</td>
</tr>
<tr>
<td>Rigor</td>
<td>Can you defend your choices?</td>
</tr>
<tr>
<td></td>
<td>Could you repeat the study?</td>
</tr>
</tbody>
</table>
## Ensuring Quality and Rigor

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Consideration</th>
<th>Linked Research Concepts</th>
<th>Project Design</th>
<th>Data Collection</th>
<th>Analysis and Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Interpretable</td>
<td></td>
<td></td>
<td></td>
<td>external review</td>
</tr>
<tr>
<td>Quality</td>
<td>Believable</td>
<td>credibility</td>
<td>multiple methods</td>
<td>member checking</td>
<td>expert review</td>
</tr>
<tr>
<td>Rigor</td>
<td>Repeatable</td>
<td>dependability</td>
<td>audit trail</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>reliability</td>
<td></td>
<td>Instrument pilot (2+ collection)</td>
<td></td>
</tr>
<tr>
<td>Rigor</td>
<td>Defensible</td>
<td>confirmability</td>
<td>audit trail</td>
<td>multiple methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>representativeness</td>
<td>criterion sampling</td>
<td>oversample (if needed)</td>
<td>member checking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>validity</td>
<td>multiple methods</td>
<td></td>
<td>Instrument pilot (scoring)</td>
</tr>
</tbody>
</table>
Quality and Rigor by Design

Project Design
- multiple methods
- audit trail
- criterion sampling

Data Collection
- member checking
- Instrument pilot (2+ collection)
- multiple methods
- oversample (if needed)

Analysis & Reporting
- external review
- expert review
- member checking
- Instrument pilot (scoring)
Assessment needs to be rigorous, but it doesn’t have to be difficult.
If Nothing Else... (**worst case**)

**Quality**
- Add an external review
- Implement a member check

**Rigor**
- Pilot your instrument
- Include an audit trail
Closing Considerations

- We have grown as a field, but the next step in legitimacy is showing our work.
- You can demonstrate your worth, the value of your personnel, programs, and services.
- But can you show how you got there (Rigor) and that what you can show is valuable (Quality)?
Questions & Connections

Social Media
researchrundowns

Internet
https://researchrundowns.com/

Email
pbiddix@utk.edu
References


