WHAT IS THE “MAGIC NUMBER?” A REVIEW OF RESPONSE CATEGORIES IN WRITING SELF-EFFICACY

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MEASUREMENT OF SELF-EFFICACY

Can I do this?
MEASUREMENT OF SELF-EFFICACY

Can I do this?

What is the best way to measure this?
Bandura’s Guidelines for Self-Efficacy Scales

The attached form lists different activities. In the column **Confidence**, rate how confident you are that you can do them **as of now**. Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot do at all</td>
<td>Moderately certain can do</td>
<td>Highly certain can do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bandura (2006)
METHOD

- Key Terms: writing self-efficacy; writing and self-efficacy
- 50 articles identified
METHOD

- Coding
  - Age of participants
  - Response scale
  - Rationale
  - Anchors
RESULTS: RESPONSE CATEGORIES

N of studies = 50

- 24: 0-100 Response Scale
- 26: Likert/Categorical
DISCUSSION: RESPONSE CATEGORIES

- What is the magic number?
DISCUSSION: RESPONSE CATEGORIES

What is the magic number?
- Several researchers recommend between 4 and 10 categories (e.g., Smith et al., 2003; Toland & Usher, 2011)
- Consider your sample
- Issues of cognitive load (Miller, 1956)
DISCUSSION: RESPONSE CATEGORIES

- An Example:

![Diagram showing response categories from 0 to 100, with categories for cannot do at all, moderately certain can do, and highly certain can do.](image-url)
Results: Researchers’ Rationale

Rationale provided by researchers for response scales used

- Bandura: 17
- Pajares et al. (2001): 8
- Rasch/IRT: 17
- Developmental: 6
- Prev. Published Scale: 1
- No rationale: 2

N of studies = 50
**DISCUSSION: RESEARCHERS’ RATIONALE**

- A 0-100 scale adds differentiating information (Bandura, 2006).
- A 0-100 scale is “psychometrically stronger” (Pajares et al., 2001).
- Scales should depend on respondents’ developmental level (Adelson & McCoach, 2012; Smith et al., 2003).
  - Similarities to grading scale (Pajares et al., 2001)
SIMILARITIES TO GRADING SCALE (PAJARES ET AL., 2001)
Conclusions
Thank you!

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