

Content Validity of a Survey on Child Assent to Research Participation

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BRIEF SUMMARY

Experts from diverse fields provided quantitative and qualitative feedback on the relevance and conciseness of a survey on assent to be sent to thousands of researchers across the world

Concept of assent — Process through which minors agree to participate in research, after receiving an explanation appropriate to their level of understanding.¹

Background — We present a content validity analysis process intended to enhance the relevance and conciseness of a research assent survey. We designed the survey to provide an overview of current research assent practices in children. The survey focused on: (1) types of research assent, (2) assent prerequisites skills, and (3) challenges associated with seeking assent.

Survey Methodology — Survey development followed an iterative improvement process involving: (1) literature search and initial development, (2) group and stakeholder feedback, and (3) content validity analysis and final revisions. The content validity analysis included both qualitative and quantitative feedback from a multidisciplinary expert panel.

Results — The survey had high relevance and conciseness. Item format had a slight but significant impact on the perception of conciseness (but not relevance), with ranking items of more than five options perceived as lower in conciseness.

Future Directions — The proposed process has the potential of improving survey validity in various contexts. The survey is being deployed to an international pool of child researchers.

OBJECTIVES

End Goal — To develop a finalized survey prototype that assesses knowledge, opinions, and procedures of child assent processes across disciplines.

Specific Objectives — To test a working model among experts in various fields and collect feedback on the relevance and conciseness of the survey. To this end we:

- ✔ Conducted a thematic analysis of the feedback
- ✔ Computed conciseness and relevance content validity indices
- ✔ Analyzed the appropriateness of question formats (open-ended, slider, rank)

THEMATIC ANALYSIS

We completed a thematic analysis according to the guidelines by Zhang et al.² using the qualitative feedback from the experts as textual samples. The key themes identified are summarized below.

- ✔ **Appropriateness of Questions** — Feedback frequently touched on whether certain survey questions were relevant or appropriate for the target demographic or the intended research objective.
- ✔ **Cultural & Demographic Considerations** — There was a concern about the inclusivity and cultural sensitivity of the survey, especially regarding demographic options and cultural contexts.
- ✔ **Survey Design and Usability** — Respondents commented on the overall design and usability of the survey, suggesting improvements to make it more user-friendly and to reduce the likelihood of participant dropout.
- ✔ **Clarity** — Experts commented on the clarity and comprehensibility of survey questions. They indicated that some questions were either vague or potentially confusing.
- ✔ **Use of Examples & Guidance** — Experts suggested that more specific guidance or examples should be provided within certain questions to help respondents understand what is being asked.

METHODS

Content Validity Concept — Content validity involves a wide range of methods to ascertain the conciseness and relevance of a questionnaire or survey. Content validity can be documented through both qualitative and quantitative means. We conducted a thematic analysis (qualitative approach) and obtained a variation of the Lynn content validity index³ (quantitative approach).

“It took me a longer than I would have liked to understand what was being asked here.”

Selecting and Surveying Experts — We identified a convenience sample of five scholars (academics) with a background in research ethics ($n = 2$), research with children ($n = 3$), survey development ($n = 3$), psychometrics ($n = 1$), and qualitative methods ($n = 1$). Three of the experts were behavior analysts with clinical backgrounds, one was an educator, and one was a psychometrician. All five experts approached completed the content validity survey.

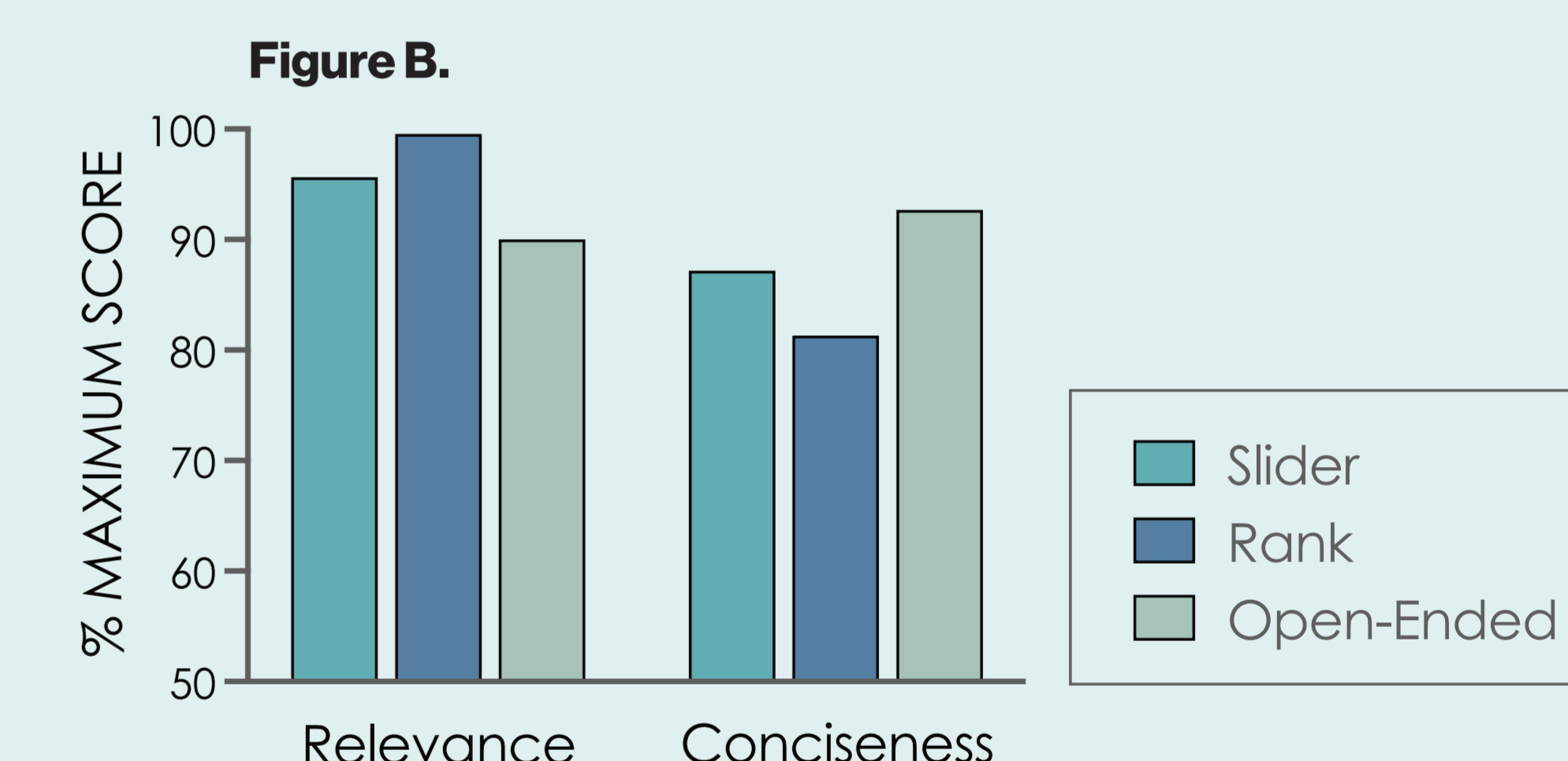
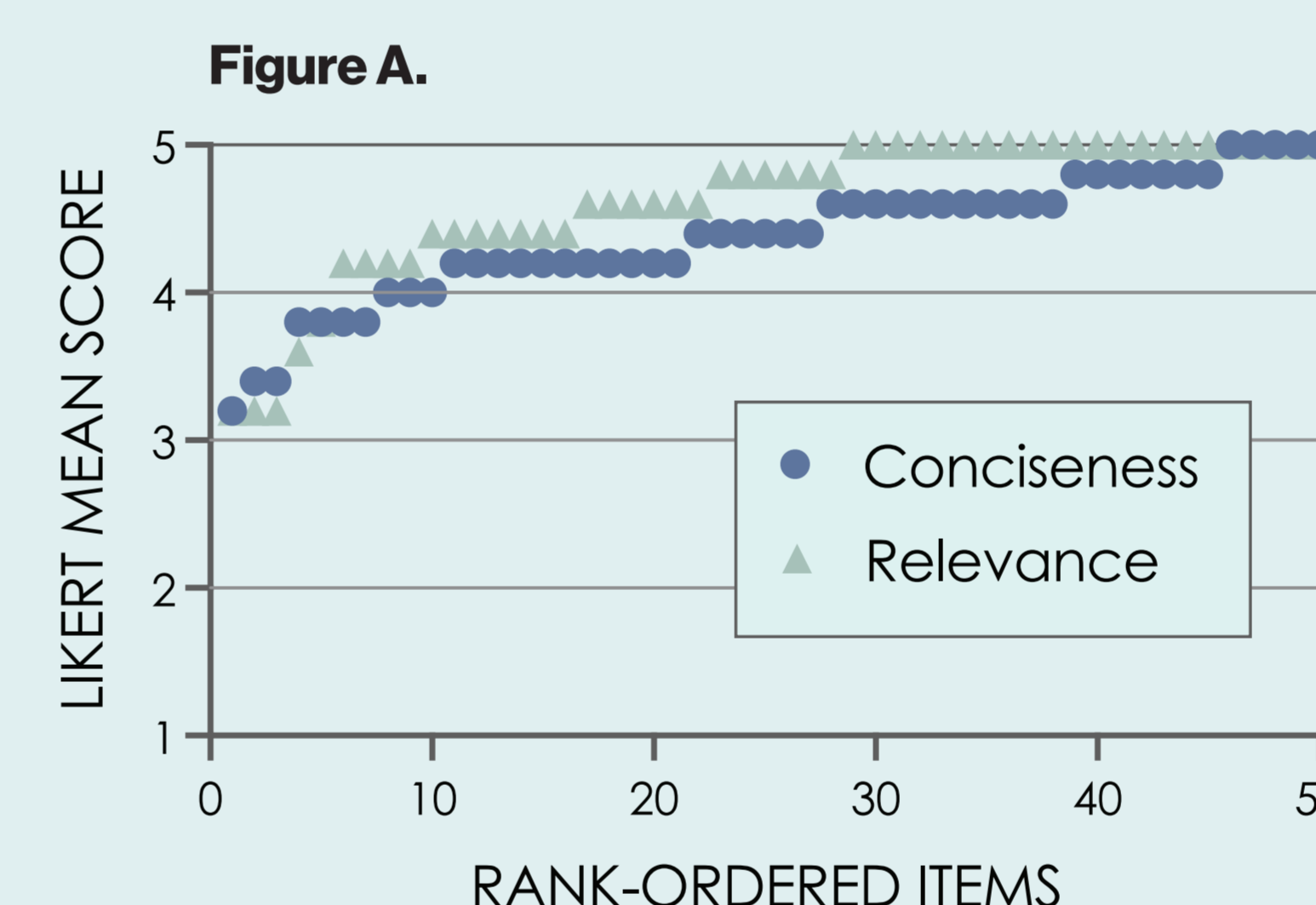
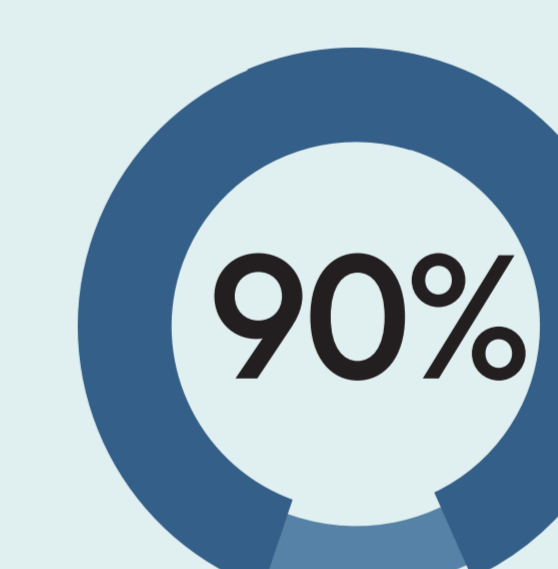


Figure A. Distribution of Likert scores (range, 1-5) across all survey items. All items with a mean score below 4 were rephrased, eliminated, or replaced. **Figure B.** Relative relevance and conciseness of various types of survey items. Relevance remained high across all item types. However, rank and slider items need to be phrased very carefully to attain adequate conciseness.



Mean relevance & conciseness

Mean conciseness and relevance summary index by the panel.

RESULTS & DISCUSSION

Corrective Actions — **1.** We rephrased, replaced, or eliminated items with relevance and/or conciseness scores below 4. **2.** We added training items to allow participants to familiarize themselves with the various item formats in the survey. **3.** For rank items, we limited the options to be ranked to five and used simple ranking for mobile platforms. **4.** We added visual analogue scale labels to all slider items. **5.** We incorporated branching options to keep total survey time to approximately 25 minutes. **6.** We randomized section order where appropriate to balance missing values across survey sections.

“too many open-ended items...this might lead participants to closing the window.”

Survey Deployment and Future Directions — Once the content validity was completed, we compiled a large contact library of researchers within the field of early childhood research, including clinical child psychology, child development, pediatrics, pediatric nursing, child psychiatry, special education, and applied behavior analysis. We have contacted approximately 75,000 scholars across the world. We expect to obtain a large number of usable datasets. We believe this to be one of the largest exercises ever conducted to document research assent practices in early childhood. We hope that this research will provide the basis for government-sanctioned guidelines for seeking assent in children.

REFERENCES

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