

## Checkpoints for Reviewing Usability Test Reports

As project managers, designers, engineers and researchers you no doubt often find yourself reading, reviewing and advising on research reports that have been commissioned or written by others. The ability to critically review such reports, and to help stakeholders weigh up the merits or shortcomings of research data and conclusions, is an extremely valuable skill. These checkpoints will help you ensure your review covers the key issues.

These checkpoints are based on the work of Julian Meltzoff (1997).

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### THE CHECKPOINTS

Circle yes or no

- Is the research question clearly stated? yes no
- Does the introduction, statement of the problem, and overview of any literature or previous reports adequately set the background for the reader, and is this material consistent with the research question? yes no
- Is it clear why the study was conducted? yes no
- Given the research question and the background material are the research hypotheses and objectives appropriate and clearly stated? yes no
- Are key terms well defined? yes no
- Is the independent variable appropriate given the question of the study? Are the levels of the independent variable appropriate? yes no
- Is the dependent variable appropriate for the study? yes no
- Are the criterion measures of the dependent variable appropriate, valid, and reliable? yes no
- Are the scoring, rating, and judging procedures valid and reliable? yes no
- Is the measuring apparatus (if any) accurate and reliable? yes no
- Are the controls appropriate? Can the results be affected by variables that have not been controlled? Are the controls or control groups (if used) properly selected? yes no
- Is the research design suitable to meet the objectives of the study? Is the research design appropriate to test the hypotheses and answer the research question? yes no
- Are the methods and procedures clearly described in sufficient detail to be understood and replicated? yes no
- Is the presentation sequence of test stimuli (including any randomizations or counter-balancing) appropriate? yes no
- Are the test participants properly oriented and motivated? What is their understanding of the task? Are the instructions sufficiently clear and precise? yes no
- Are there any signs of experiment bias in the design, data collection, assessment, analysis, or reporting? yes no
- Are the participants properly selected? Is the sample representative and unbiased? Do the procedures adhere to the guidelines for the protection and well being of participants? yes no

- Is the sample size appropriate? Are the appropriate procedures used to assign participants to groups, treatments, or conditions? Are suitable techniques used to establish group equivalence, such as matching, equating, or randomizing? yes no
- Does participant attrition occur and if so does it bias the sample? yes no
- Are bad data properly identified and set aside (not included in the final test data set); and are instances of bad data reported and explained as such? yes no
- Have the data been appropriately analyzed, sorted, categorized, grouped, prioritized etc.? yes no
- Are descriptive statistics used? Are these accurate? yes no
- Are the inferential statistical tests appropriate? Are the assumptions for their use met? Are there any errors in the calculation or presentation of statistical results? yes no
- Are all graphs correctly labeled (both the X and Y axes)? Are data elements on graphs properly coded, and identified? yes no
- Are tables and figures clearly labeled and accurately presented and referenced in the text? Are results and findings correctly interpreted, properly reported, given meaning and placed in context? yes no
- Are recommendations unambiguous? Do recommendations follow clear usability, human factors, or ergonomics guidelines? yes no
- Are recommendations supported by references to prior literature or to industry standards? yes no
- Is the discussion section of the report reasonable in view of the data? yes no
- Are the conclusions valid and justified by the data? yes no
- Are the generalizations valid? yes no
- Do references (if used) match the citations in the text? yes no
- Have ethical standards been adhered to in all phases of the research? yes no
- What can be done to improve or re-design the study? yes no

- Philip Hodgson, January 2005

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## REFERENCE

Meltzoff, J. (1997) *Critical Thinking About Research: Psychology and Related Fields*. American Psychological Association.