TechMatch Validity

Face validity

Face validity pertains to whether a tool "looks valid" to the people who use it (Schiavetti, Metz, & Orlikoff, 2011).

- TechMatch was developed as an outcome of a comprehensive survey of public computing accessibility. The survey identified unique public computing barriers and opportunities for individuals with cognitive impairments across three geographic and demographic regions and seven different types of public computing environments. TechMatch considers those barriers and opportunities in relation to an individual's cognitive, social, and environmental conditions. (Fox, Sohlberg, Fickas, Lemoncello, & Prideaux, J. 2009).
- We announced the official launch of TechMatch to rehabilitation professionals through three listservs in February, 2010.
- Data collected through April, 2010 from Google showed:
  - o 199 visits by 115 people between January 4, and April 4, 2010.
  - o A majority of visitors (76%) login directly; 3% are referred from other sites, and 22% locate the site through search engines.
  - o Most visitors were from the United States (187), and a small number were from Canada (4), Barbados (3), and Australia (3).
  - o 86% of users completed the TechMatch assessment.
- TechMatch weekly data showed:
  - o Highest usage levels during the week that the site was officially launched on professional listservs (43 unique visitors)
  - o Between January 1 and April 1, 2010, 128 TechMatch assessments were started and 89 were completed, indicating that 69% of those who start the TechMatch process complete a full assessment.
- These data suggest that TechMatch is achieving one of the goals of this project by helping care providers identify appropriate computing solutions for individuals with cognitive impairments.

Content validity

Content validity is based on how well TechMatch measures characteristics that determine the outcomes of computer technology use by individuals with cognitive impairments (Schiavetti, Metz, & Orlikoff, 2011).

- The five question areas used in TechMatch (Technology, environment, user needs, cognitive ability, and user situation) were adapted from *Matching Persons with Technology* (Scherer, 2005, 2008)
- Quantitative and qualitative data were collected from 20 rehabilitation specialists who tested TechMatch as part of our development process.
- Initial interviews were conducted with 5 cognitive rehabilitation experts identified by program heads of major rehabilitation centers. Each expert completed a TechMatch assessment for an anonymous client as a referent. While the expert completed the TechMatch, we used a think-aloud interview procedure (Dillman, 2000) to identify strengths or problem areas. We transcribed the clinician's comments and qualitatively analyzed the data to identify primary themes (Luborsky, 1994). We modified TechMatch instructions, assessment questions and responses, and the TechMatch report based on this analysis.

- A second round of interviews were conducted with 15 rehabilitation experts. Each informant responded to 22 questions in three areas. A majority of respondents liked TechMatch (92%), found it intuitive to use (92%) and will use it themselves in the future (88%).
- Strengths identified by expert and student evaluators included the following:
    - All aspects of TechMatch are easy to navigate.
    - Graphics are clear and understandable.
    - Findings are comprehensive and understandable.
    - Report is a tangible tool for client education.
    - TechMatch assessment is thorough.
    - TechMatch report identified critical factors for tech use.

Predictive Validity

Predictive validity of TechMatch is based on how well TechMatch predicts successful use of computer technology by individuals with cognitive impairments (Schiavetti, Metz, & Orlikoff, 2011).

- TechMatch surveys were completed by 7 graduate students in communication disorders and sciences for clients in their current or past caseload.
- Trials demonstrated that in all instances, TechMatch identifies computer technology currently used by people with cognitive impairments as one of three most highly rated options. The sample was not sufficiently large for statistical analysis.

References

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