

TASK: PM-5 THE USE OF INTEGRATED CONTROLS BY PERSONS WITH PHYSICAL DISABILITIES

Investigators: Jennifer Angelo and Elaine Trefler

Rationale

Persons with limited motor abilities and multiple technical needs are able to access assistive technologies through either many individual switches or integrated controllers. There are no guidelines to assist clinicians or consumers in identifying persons who will be successful users of integrated controllers.

Goals

1. To determine criteria necessary for successful use of integrated controls by persons with multiple technology needs and complex physical conditions.
2. To identify service delivery components which support the recommendation and provision of integrated controls.

Methods Summary

A survey for interviewing successful users of integrated controls was developed in conjunction with the Office of Research at the University of Pittsburgh. Survey topics included, but were not limited to, user characteristics, environmental factors, amount and type of training and back up and maintenance of systems. Respondents were located through clinicians that worked in North American institutions that were multidisciplinary and known for their work in assistive technology. Thirty clinicians were contacted and assisted in the recruitment process. The survey was administered over the telephone and results tabulated and analyzed. A Likert type ranking system was used to analyze survey results.

Outcomes Summary

Twenty-four people with severe physical disabilities, who used integrated controls, participated in the telephone survey. The survey focused on their satisfaction with areas related to use

of an integrated control device. Respondents were generally satisfied with their integrated control devices. A moderate correlation coefficient was found between gadget appeal and satisfaction with devices. The sample was self-selected and voluntary.

Three areas were identified as leading to satisfaction with integrated controls. One, the introduction of the integrated controller gave the respondents a method of accessing devices that, prior to receiving the controller, they were unable to operate. Second, some form of training took place. Either the trial or error or trial and error plus a manual were used for training in cases where persons were satisfied with their integrated controllers. This information might help clinicians select a training method. Finally, persons who liked gadgets were more likely to be satisfied with integrated controllers. A second survey was completed with clinicians that recommend integrated controls. Issues affecting their recommendation of integrated controls included the availability of technical support and the comfort of the clinician with the technology.

Due to the small sample size and the fact that the group was self-selected, the results must be interpreted carefully and should not be generalized to the population of persons using integrated control devices. Further studies need to be conducted to support or refute these findings. One group that may be surveyed is the population that has abandoned integrated control device to examine why the devices were abandoned. Another area that should be investigated is how these results differ when surveying children. The device procurement, receiving devices all at once or over time, the learning curve, and type of training may be quite different depending on the age and experiences of the individual user. This survey demonstrated that persons using integrated control devices were, in general, satisfied with them.

Recommended Future Research

Authors propose that a survey should be conducted on the population that has abandoned integrated controls. Another area that should be investigated is how these results differ when surveying children rather than adults. Finally, training methods utilized with complex high technology systems need to be investigated.

Publications

Angelo, J., Trefler, E. (1996). Surveying satisfaction of integrated controls users. Proceeding of the RESNA '96 Annual Conference, Salt Lake City, UT, June 1996: 212-214.

Trefler, E and Angelo, J. Surveying Users of Integrated Controls - A Pilot Study. Proceedings, ARATA. Adelaide, Australia, October 1995: 17-19.

Angelo J and Trefler E, (1998), Satisfaction of Persons Using Integrated Controls, *Assistive Technology*, 10.2. 77-83.