

Studying the Educational Effect of a Self-Paced Learning Protocol for Evaluating Community Environment Accessibility: A Preliminary Analysis

Gussai M. Obiedat, MSOT¹, Jaclyn K. Schwartz, PhD, OTR/L², Rochelle Mendonca, PhD, OTR/L³, Suzanne Burns, PhD, OTR⁴, Roger O. Smith, PhD, OT, FAOTA⁵, Laryn O'Donnell⁶

¹University of Wisconsin–Milwaukee, Milwaukee, Wisconsin, United States; ²Florida International University, Miami, Florida, United States; ³Columbia University, New York, New York, United States; ⁴Texas Woman's University, Denton, Texas, United States; ⁵R2d2 Center, Milwaukee, WI, USA; ⁶Huntington University, Huntington, Indiana, United States

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Primary Author and Speaker: Gussai M. Obiedat, qobiedat@uwm.edu

BACKGROUND: Community accessibility is of a great importance to empower PWD to engage and participate within their communities. Although several environmental assessments are available (Letts et al., 1994), there are few tools for educators to teach about building accessibility (Tomashek et al., 2017). A standardized assessment and a training protocol that can be included as an educational training tool to teach and measure the accessibility of community environment for occupational therapy students is still missing. The purpose of this study is to examine the educational effect of a learning protocol designed to teach occupational therapy students on community environment accessibility across five different campuses. This protocol comprises completing an online training program and performing accessibility evaluations of public buildings (restaurants) using a newly developed assessment tool.

METHOD: In this experimental pre-post study, 212 occupational therapy students across five OT programs completed a self-paced, online-training module, which was hosted on the learning management system Canvas and consisted of narrated presentations, videos of people with disabilities experiencing environmental barriers, and pictures. Students also completed two building evaluations using the AccessTools assessment (Rehabilitation Research Design & Disability Center, 2021). Students completed a knowledge quiz developed by an expert panel to measure their knowledge of community accessibility at baseline and after completing the training and building evaluations. A two-way ANOVA was conducted to study the differences in students' knowledge scores between pre-post quizzes across the different programs.

RESULTS: The ANOVA analysis resulted in a significant interaction between the quiz scores and program. A follow up analysis of the simple effects of quiz scores showed that students' pre-post knowledge scores increased significantly in each program, with an average of 23% increase in the quiz scores across all programs. However, while all programs revealed significant improvements in the quiz scores, the analysis of simple effects of program revealed a significant variability in the scores between the programs (FPre (4, 212) <0.0001, FPost (4, 212) <0.0001).

DISCUSSION: The results of this preliminary analysis indicate that completing the online training and building evaluations using the AccessTools assessment, presents a valid approach to enrich occupational therapy students' knowledge base on community accessibility and to teach them how to evaluate the accessibility of various buildings in the community. This in turn should create a more knowledgeable OT students, who can then use evidence to become strong advocates for accessibility of all buildings. Additionally, even though we assumed that student improvements would be comparable across different campuses, since the same protocol was implemented, the analysis revealed that students' baseline knowledge and improvement after completing the learning protocol were different across the different OT programs, and further investigation is needed to identify the reasons for these differences.

References

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