Travel Partner Satisfaction and Effectiveness of Wayfinder System

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Introduction

- Community mobility and transportation can pose a challenge to those living with disabilities that impact their quality of life.
- Lack of knowledge and confidence on how to use public transportation can be incredibly discouraging and further compound existing challenges.
- The Mobility Assistance for People with Cognitive Disabilities (MAPCD) addressed the potential of smartphone technology to minimize barriers for those with cognitive disabilities and increase their success with public transportation use [1].
- The Wayfinder system includes both access to a mobile app (Figure 1) and an online portal, via laptop or smartphone (Figure 2) to build specific routes for the traveler.
- The Adult Learning Theory was introduced to this project to train the travel partners.
- Adult Learning Theory is the theory in which adults learn on a driven and motivational level [3].

Objectives

1. Describe the travel partner satisfaction of the personal navigation educational training program
2. Describe the usage patterns of the Wayfinder online route builder portal

Methods

Subjects
- Participants consisted of individuals with cognitive disabilities (travelers) who are 18 years old and older and their caregivers (travel partners).

Procedures
- The travel partner was trained on how to operate the Wayfinder Route Portal and build individualized routes for the traveler.
- Adult Learning theory was used to train travel partners.
- Satisfaction surveys were administered after the trainings.
- Optional focus group was conducted to receive travel partner input on the Wayfinder system.

Analysis
- Satisfaction surveys assessed the travel partners’ overall satisfaction and perceived effectiveness of the Wayfinder system.

Results

- Qualitative data were collected during two focus groups conducted in April and November 2019.
- Additionally, 7 travel partners filled out an optional satisfaction survey with answer choices provided of “yes”, “kind of” and “no”.
- Three primary themes were identified: 1) training effectiveness, 2) portal route building, and 3) user friendliness of the portal (Table 1).
- Once identified, themes were matched to the factors identified by Batavia and Hammer [4].
- Travel patterns agreed that the training and the route building portal were:
  - Smooth and easy (training was efficient).
  - Portal itself was difficult to access.
  - Portal unexpectedly crashed or quit.
  - When portal was working appropriately, it was easy to use and navigate.

Table 1: Themes and Factors

<table>
<thead>
<tr>
<th>Theme</th>
<th>Factors</th>
<th>Example descriptions</th>
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<tbody>
<tr>
<td>Training effectiveness</td>
<td>Learnability</td>
<td>Ability to apply the training materials in developing routes on portal</td>
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<tr>
<td>Portal route building</td>
<td>Ease of Set-up (Assembly), Operability</td>
<td>The portal, when having no technological issues, was easy to use after getting the hang of it. Additionally, the portal was easy to access and maneuver around the portal settings and features.</td>
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<tr>
<td>Portal user friendliness</td>
<td>Dependability</td>
<td>The portal had “crashed” or was unexpectedly quitting.</td>
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Discussion

- The travel partner in this study experienced the benefit of the traveler(s) being able to practice their autonomy and become more independent in the community.
- Due to this perceived benefit, the travel partner continued using the route building portal to create routes for the travel, despite the technological difficulties that may fall under the route building.
- Through the thematic analysis, learnability was related to travel partner training effectiveness, ease of assembly and operability with portal route building, and dependability with portal user friendliness.
- One limitation to this was the issue the travel partners had with the crashing of the portal.

Conclusion

- Three themes were identified through qualitative analysis of focus group data: training effectiveness, route building portal accessibility, and user friendliness of the portal.
- The travel partners were appropriately trained based on Adult Learning Theory and then asked to apply their learnings to creating their individualized routes.
- The route building portal was found to be user friendly yet time consuming and had occasional technical issues when attempting to enter the portal.
- Future activities will focus on improving the portal dependability, ease of setup, and operability while maintaining the fundamentals of the training.

References