

Using Qualitative Methods to Examine Influences on Active School Travel and Children's Health

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Background

Active school travel (AST) – any mode of human-powered transport to/from school – is an efficient method to help achieve recommended physical activity and build healthy physical activity habits among children lasting into adulthood. Over the last four months, this ongoing project sought to identify best practices for policies and procedures that support and promote the use of active travel modes and AST by Ontario students using qualitative methods through community based research.

Project Description

Over the last year, three major tools were developed to examine key influences on AST and children's health and well-being. These tools included two pilot surveys - one for parents and one for children from grades four to eight located in South Western Ontario. The third tool was a comprehensive travel diary for the child survey takers to fill out after completing their initial children's pilot survey. Over the last four months, these tools were tested in order to collect feedback from volunteers recruited in South Western Ontario. The goal of the pilot testing of these tools was to determine if the survey tools and travel diary were valid and reliable research tools in measuring the AST related concepts that could help researchers collect insight on improving the current AST related policy system.

Pilot Tools



Parent Survey

This survey tool asked questions regarding their children, household characteristics, neighbourhood, child's school travel habits, and potential barriers related to active school travel in their children. The pilot study had this survey administered online, and will be administered online during the full-scale project in the future as well.

Child Survey

This survey tool asked questions regarding household characteristics, neighbourhood, modes of travel and barriers related to AST. This survey also included a section asking children to correctly identify and interpret road and safety rules. Separate surveys were administered to children who typically walked to school versus children who typically bussed. The pilot study had this survey administered online, however, the updated survey will be administered in person during the full-scale project.

Travel Diary

This pilot tool was only presented to children for feedback. The purpose of this diary was to track children's moods throughout the day and how it is impacted by active school travel. Three versions of the travel diary were created - a "morning" version, "afternoon prior to leaving school" version, and "afternoon after arriving at home" version to measure change in mood and track AST methods throughout the day. During the pilot study, only the morning version was presented to child participants for feedback.

Project Timeline

1: Recruitment

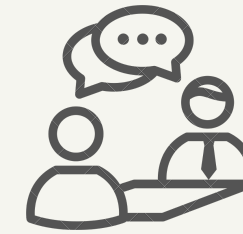
Parent and child dyads were recruited in South Western Ontario regions through social media platforms such as Twitter, Facebook and Instagram through the official lab social media accounts. Geographically targeted Facebook ads, graphics, and word of mouth was also used in order to get a more heterogeneous sample. As an incentive, participants were given the option of a \$35 gift card for a retail/grocery store of their choice. The target goal for recruits was 50-100 parent-child dyads with varying demographics (neighbourhood-level SES, participants with English as a second language, child grades from 4-8 etc.). The pilot study reached 80 parent-child dyads, with a total of 160 volunteer participants.

3: Individual Debriefing

After the survey was completed the researcher and the participant engaged in a 1-on-1 debriefing assessment. During this time the participant was asked to elaborate on any questions they had comments or concerns about, and the interviewer asked for more details on items that the participant had difficulty interpreting. Finally, participants were asked for any suggestions that may improve the survey. This assignment was completed for both parent participants and their respective child.

5: Transcription

As all of the interviews were recorded, all videos were later uploaded and transcribed initially by Microsoft Streams. The researcher from each interview further rewatched all recordings and edited any mistakes made by the technological transcription services. Comments regarding each interview were also added onto the respective transcribed document. A second researcher later helped confirm what was said in each interview and the recordings were analyzed qualitatively through Taguette in order to extract important findings.



2: Cognitive Interview

Parent and child dyads were invited to complete an online version of the pilot survey tools separately at an assigned time. While taking the pilot survey, participants were recorded as they shared their computer screen with the microphone on and video off. First, the participants received a brief description of the survey followed by a description of the goals of the pilot study. Next, participants were given instructions on "thinking aloud" during the survey. The participants then completed the survey while thinking aloud. The cognitive interviewer/researcher acted as an observer but also checked in with the participant if there was an extended silence or if the participant had issues understanding the survey presented. Any discrepancies and issues that arose from misunderstanding, or questions regarding the survey were recorded and later transcribed.

4: Travel Diary

Child participants were additionally presented with a travel/mood diary during the 1-on-1 interview. While three versions of this diary were created, the morning version of the travel/mood diary was used during pilot testing as it contained the most survey items. Each item was discussed one at a time with child participants as they were asked to give their interpretation of each item. Child participants were also asked about barriers that they might have had in completing the survey and any changes they suggest to the diary.

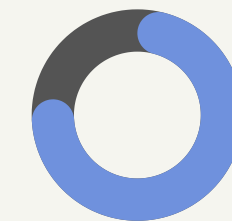


Findings

After analyzing major feedback received from the pilot test interviews, several changes were made to the original pilot surveys. Word changes, deletion of irrelevant survey sections and addition of relevant information were added to the presented pilot surveys. These changes were implemented to allow for a more comprehensive survey when the full scale project is launched.

While the full-scale project was not conducted, results from the pilot-study sample were still critical in providing key points that would allow for identification of best practices related to AST policy change along with community opinions on their children's school travel habits. For example, the child pilot surveys allowed us to identify major sources of misunderstanding when it came to understanding road safety/signs, biking safety rules, and the impact of AST and pollution. The average of all "correct" answers in the child surveys regarding road safety knowledge was 58% percent. However, the correct answers per question averaged to around 78% indicating that specific questions with lower than 50% correct answer rate may have been misunderstood by children. These questions were reworded to better encompass the question's meaning, and emphasis will be placed on examining mistakes due to knowledge gaps during the full scale study.

Average of total correct answers in all child road safety survey responses was 58%



Average of correct answers per question was 78%

Next Steps

After disseminating the recorded feedback collected from the volunteer sample along with analyzing the quantitative results of the surveys, the initial pilot surveys for both parents and children were revised accordingly to improve reliability and validity for full scale in-person testing. Next steps will include administering these updated tools during the full scale testing project.

References

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