RESEARCH SHOP

"know what's out there!"

Design of a needs assessment survey

Prepared for

United Way Halton & Hamilton (UWHH)

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Context and Objectives

United Way of Hamilton and Halton (UWHH) is a community organization that provides critical services and supports within three priority areas:

- (1) **Poverty to Possibility**: employment, financial security, and food security
- (2) **All That Kids Can Be**: youth and family supports
- (3) **Healthy People, Strong Communities**: mental health, safety, and community inclusion.

This project resulted from an 8-month collaboration between the McMaster Research Shop and UWHH, which aimed to refine and enhance an existing needs assessment survey tool originally developed by Brighter Spark Applied Research (BSAR). Grounded in the Sustainable Livelihoods Framework (SLF), the project sought to better capture the experiences and perspectives of UWHH service users, including their satisfaction with current services and ideas for improvement.

The project was executed in two phases:

1. First phase: Revising and adding onto the existing BSAR survey to improve accessibility and relevance for diverse community members, followed by a feedback session with representatives from select UWHH network agencies.
2. Second phase: Internally piloting two online versions of the survey to determine the optimal software platform—Accessible Surveys or Qualtrics.

Key objectives included:

- Developing a structured, SLF-based survey that effectively identifies needs, assesses existing services meeting those needs, and explores alternative services to meet identified needs
- Ensuring survey accessibility by applying best practices in design with input from key community representatives
- Refining language and structure to improve clarity, inclusivity, and sensitivity
- Exploring innovative approaches to service provision through literature review of emerging social support models adaptable to the Hamilton and Halton regions

The following documents our approach to and results of the project.

Phase 1: Survey development and refinement

The survey tool we wanted to develop contains three components: 1) an SLF-based "asset inventory" that effectively identifies needs (i.e., Part 1 of the survey), 2) an assessment of existing services meeting needs identified in the asset inventory (i.e., Part 2 of the survey), and 3) user ranking of alternative services to meet identified needs (i.e., Part 3 of the survey).

Developing Part 1 of the survey

Initial development

To develop part 1 of the survey (the asset inventory), we conducted a thorough review of a previous survey created by BSAR. BSAR's survey was designed according to the Sustainable Livelihoods Framework (SLF), with each part assessing needs from one SLF area. These areas (as seen in Figure 1) include:

- Basic needs
- Connections
- Health
- Money
- Sense of self
- Skills and employability

The BSAR survey already contained a variety of measures within each of the SLF asset categories. We aimed to optimize the questions to be more accessible and engaging (e.g., through simplifying the language). We expected that an improved survey experience would position us to collect higher-quality data. The final product of this review process would comprise the asset inventory (i.e., Part 1 of the survey), which establishes needs.

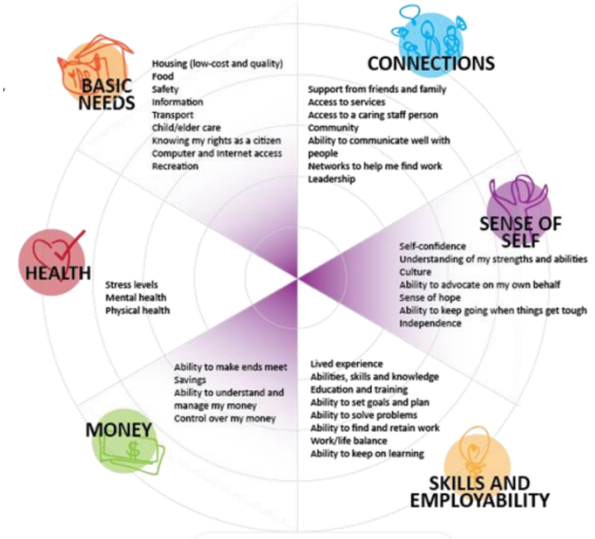

Figure 1: *Sustainable Livelihoods Framework, Sustainable Livelihoods Canada, 2021*

Our process of reviewing the survey was as follows

1. Assess the distribution of questions across SLF areas
    a. **How?** Count the total number of questions belonging to a specific SLF area.
    b. **Why?** To gain a better understanding of the needs that this survey assessed. In service of this goal, we also counted the number of questions belonging to each specific subcategory within a given SLF area.
2. Assess the engagement of the survey
    a. **How?** Count the number of different question formats (e.g. multiple choice, Likert, open-ended, slider, and multi-select)
    b. **Why?** Survey respondents experience different levels of engagement depending on the question format. Survey engagement also depends on the relative amount of each type of question. Hence, it was important to assess the diversity of question types.
3. Assess the overall tone and framing of the survey
    a. **How?** Analyze each question's valency, classifying them as positive, negative, or neutral
    b. **Why?** Questions which cast a respondent's experiences and behavior in a negative light are not enjoyable for them to complete, neither are they respectful of respondent's time and mental state. Positive or neutral framing is the standard.

Advisory committee review

Perhaps the most crucial stage of the review process was engaging our advisory committee. Advisory committee members were selected for their expertise in relevant fields and engagement with the affected communities. The committee completed a structured review process to evaluate the survey's accessibility and relevance. Feedback was provided through an individual rating phase, where members categorized questions using a colour-coded system:

- Green: question is effective as-is
- Orange: question requires revision (ex. Rewording, removal, valency change, scale adjustments)
- No highlight: question is redundant, irrelevant, or potentially triggering

Following this, we conducted a survey review meeting to discuss flagged questions and resolve disagreements. During this meeting, committee members assessed the survey flow, addressed potential redundancies, and identified underrepresented subcategories. Screening questions were also discussed to ensure a tailored experience for respondents, decreasing survey fatigue.

The research team reviewed the committee feedback and made revisions to improve the survey's structure and clarity. The total questions in the survey were either kept, modified, or removed by the judgment of the research team. The survey was divided among team members based on their prior involvement in SLF areas.
These modifications focused on several core objectives:

- **Improving accessibility:** Simplifying language, improving response clarity, and ensuring inclusive phrasing.
- **Decreasing redundancy:** Consolidating overlapping questions to streamline response collection.
- **Including youth perspectives:** Expanding on sections to assess academic programming and recreational spaces access
- **Rewording for sensitivity:** Addressing questions that could induce shame or discomfort
- **Adding the option to skip:** Allowing respondents to move past irrelevant sections based on their preliminary answers
- **Tracking Changes:** Modifications were documented using version numbers (e.g., Q2.V2) to maintain a structured review process.

After this stage, we removed 83 questions and modified 59 questions, resulting in 94 questions from an initial 173. A second stage of survey refinement, led by an internal team, reduced this number to 40 questions.

Following the refinement process, the team compiled and submitted key deliverables to UWHH, including:

- Marked-up copies of surveys reflecting advisory feedback.
- A finalized, condensed version of the survey incorporating all revisions.
- A summary of survey modifications, explaining the rationale for changes.

Developing parts 2 and 3 of the survey

We added onto part 1 of the survey by creating sections where participants could record their experiences with existing services, as well as indicate their interest in innovative programming alternatives. To develop these sections, we did the following:

Environmental scan of existing services

We began by brainstorming common types of services that address each SLF asset area. For example, within "basic needs," food banks are a common way to meet food security needs. We then combed city websites, organizational websites, and similar community directories to identify the various social services offered in each region. These platforms typically provided us with program information, such as service descriptions, locations, eligibility requirements, and contact details. We then cross-checked the compiled list of programs to ensure accuracy and relevance, removing discontinued or irrelevant services. Services were then categorized by SLF asset areas and subcategories. Finally, we shared our list with our Advisory Committee, and they provided feedback as well as added any services our team missed. This approach resulted in a robust list of existing social services and programs within Hamilton and Halton.
Two websites were especially informative for the environmental scan: the Halton Community Services Directory and the Red Book of Community Information provided by the Hamilton Public Library

Literature review and environmental scan of innovative SLF-aligned services

Through a structured environmental scan, we identified promising service models from other regions, evaluating their feasibility and relevance for local implementation. We reviewed innovative service programs from across Canada and internationally that align with SLF asset areas. We prioritized programs demonstrating strong evidence of effectiveness, scalability, and user satisfaction.
We also consulted academic and gray literature to find services which don't currently exist in the Hamilton/Halton region and that aim to address each of the SLF areas. For each service found, we documented its innovative approach to addressing the SLF area and where the service currently exists. Additionally, we searched for user reviews to evaluate the service's appeal or drawbacks and noted the number of people currently using it. It was also important to highlight unique findings, such as how the service is utilized or what differentiates it from similar offerings. Finally, we shared our list with our Advisory Committee, and they provided feedback as well as added any services our team missed.

Accessibility review

To enhance the accessibility and enjoyability of our survey, we turned to existing literature around best practices for survey design. The main objective of this literature review was to identify literature describing how to make surveys accessible and enjoyable to complete.
We asked three main questions:

1. How should we format survey questions to ensure they are accessible?
2. How many questions long can a survey be while still being accessible?
3. How many response options is best for a survey?

We generated four buckets of search terms, each encompassing a different facet of the research question (Table 1).

Table 1. Search terms for each component of our main research objective.

Survey	Accessibility	Best Practices	Marginalized
Needs Assessment	Gamified	Guidelines	Social services
Survey Experience	Enjoyment	Principles	Social science
			Community-based

We searched the following sources: Google Scholar, Google Advanced Search, McMaster Library OneSearch, Qualtrics Documentation, and Google Search. The relevant findings can be summarized into four major themes:

1. **Recruitment of participants**
   a. Use text message invitations rather than email invitations to increase response rate (De Bruijne & Wijnant, 2014)
2. **Formatting of survey**
   a. Vertical survey layout is more engaging for people completing the survey on a smartphone (De Bruijne & Wijnant, 2014)
   b. Keep survey short enough that participants don't get fatigued and disengaged (Adley et al., 2024)
3. **Gamification**
   a. Keep gamification processes minimal and relevant- don't overdo it. Gamification strategies should allow the process to feel shorter than the actual duration (Carlier et al., 2021)
   b. Strike a balance between novelty and familiarity. Some participants can feel unconfident with a gamified survey due to the lack of familiarity. (Harms et al., 2015 (a))
   c. Use achievement badges to keep participants engaged. (Harms et al., 2015 (b))
4. **Language**
   a. Use culturally-inclusive language (Adley et al., 2024)
   b. Word questions at the correct literacy level (Adley et al., 2024)

Research associates applied these findings when designing new questions, as well as revising existing questions.

Phase 2: Online Survey Upload

To ensure the best possible survey experience for participants, we uploaded our online survey onto two different platforms, namely Qualtrics and Accessible Surveys. We divided the survey into Primary and Secondary questions for the purposes of the online upload. The Primary Questions make up a shortened version of the survey; only a subset of questions from each SLF area are presented as primary questions and all participants see these questions. The Secondary Questions comprise an extension of the survey, which depends on how participants respond to the Primary Questions. Participants are presented a different combination of Secondary Questions depending on their responses to Primary Questions. This conditional formatting ensures that only relevant questions are presented to respondents and keeps the survey as short as possible.

In developing the survey, we reflected on the ease of working with a few different survey features, described in Table 2. Further, direct quotes from Research Associates are available in this presentation : Project Closeout Reflections.pptx

Table 2. Reflections on Survey

Feature	**Reflection**
Ease of Question upload	This process was very straightforward in both cases, but the copy and paste functionality in Qualtrics outperformed that of Accessible Surveys. Specifically, uploading survey response options was a faster process in Qualtrics.
Variety of Question Format	Qualtrics offered a wider variety of question formats, which meant that the overall survey was shorted in Qualtrics than in Accessible Surveys. Because of their commitment to accessibility in survey design, Accesible Surveys offers a comparatively limited range of question formats.
Skip Logic Creation	This process presented a learning curve in both platforms, however Research Associates noted that it was a straighforward process once they had learnt how to program the survey.
Help/Troubleshooting	The Accessible Surveys team was readily available to provide support with survey development, however their documentation was more difficult to navigate. In contrast, Qualtrics' documentation is more robust but individualised support is less available.
Training	For our purposes, training for the Qualtrics platform was straightforward; research associates completed a training video on YouTube and this provided sufficient training for our purposes. Training for the Accessible Surveys platform was extensive and involved the creation of a mock survey which allowed RAs to explore the platform's functionality.

Overall, The next phase of the project will involve piloting the survey with our Advisory Committee and a group of clients who access UWHH services.

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