DEVELOPING SURVEY TOOLS

INTRODUCTION

This tool is intended to provide an overview of key elements of a survey and steps to develop an effective survey. Surveys are commonly used research and assessment tools that can measure knowledge, skills, attitudes, and perceptions in relation to intended learning outcomes of a program or service. They can also be used to assess needs, demographic characteristics, and broader climates within a population of interest. You can collect both quantitative and qualitative data using a survey design. Surveys tend to be relatively low investment from a time and human resource perspective for individuals conducting an assessment project, and provide opportunities to collect data from large volumes of participants. This tool will help you in developing an effective survey to answer your research questions of interest.

PURPOSE OF SURVEY PROJECT

Determine what it is you want to find out, perhaps with research questions or research objectives. Framing the purpose as one (or multiple) research question(s) will help narrow down the purpose of the project.

DETERMINE WHAT OUTCOMES WILL BE MEASURED

*SEE 'ARTICULATING PROGRAM LEARNING AND DEVELOPMENT OUTCOMES' FOR MORE INFORMATION

Questions will often be designed to measure outcomes of characteristics we have the potential to influence through learning activities in programs and services, such as:
- Attitudes
- Knowledge
- Skills
- Goals, intentions, aspirations
- Behaviours and practices
- Perceptions of knowledge, skills, or behaviour

CHOOSE TARGET GROUP AND SAMPLE SIZE

Determine what members of the university community you want to survey (e.g. students, staff, faculty; individuals who have participated in a specific program you’re interested in evaluating; students who may be impacted by a particular issue or decision you will be making, etc.) and to whom results may be generalized.
Census surveys involve collecting data from all members of a population of interest. While census surveys can yield important insights, it may not be necessary to collect data from every member of a population when not feasible. Often properly defined sample can produce generalizable results (i.e. external validity). Extending the reach of the survey also does not address response rate issues, as a high percentage of respondents is critical to ensuring that the sample is representative of the population (i.e. validity). There are no hard rules about when to use a census survey or sample survey. A few considerations of census versus sample based surveys include:

- Do you have access to the full population being studied? (i.e. email addresses or contacts to share a survey?)
- Is there a cost to administering the survey?
- Are there time or human resource limitations (ie. interview-based surveys) that make census approaches prohibitive?

Where possible, census survey approaches can provide more comprehensive data, however, the considerations above work to avoid survey fatigue among targeted populations can sometimes make sampling a preferred approach.

**SAMPLING METHODS INCLUDE:**

- Simple random sampling (drawing names);
- Systematic random sampling (e.g. every 10th name);
- Stratified random sampling (separate samples for every subgroup; e.g. samples in 1st, 2nd, 3rd, and 4th year student groups); and
- Cluster sampling (treating groups as subjects to be sampled; e.g. a class of students).

**DETERMINE WHETHER THERE IS A NEED TO OBTAIN RESEARCH ETHICS BOARD (REB) APPROVAL BEFORE ADMINISTERING A QUESTIONNAIRE TO HUMAN SUBJECTS**

Some guiding questions when determining whether your survey would be deemed quality assurance (i.e. not requiring ethics approval) versus research include:

- Are you collecting data outside of what you need or are interested in for program/service improvement purposes?
- Do you intend to share any data externally? (i.e. conference, publication, website - typically quality assurance data can only be used internally)
- Are you collecting sensitive information that could cause harm to participants or organizations involved?
- Are you collecting data from vulnerable or marginalized communities? (e.g. racialized communities, LGBTQ2+ communities, children, etc.)

If you responded ‘Yes’ to any of the above questions, please contact the Director of Research, Assessment, and Planning to discuss whether Research Ethics Board approval will be required and identify plans for next steps. Please allow at least 6 months in advance of your intended survey launch for development of an ethics protocol and navigation of the approval process.
CHOOSE TYPE OF SURVEY

• **Online questionnaire** (preferred method based on sustainability considerations): approved online survey platforms for Western Student Experience include:
  - Campus Labs (Baseline): contact the Director of Research, Assessment and Planning (wseassessment@uwo.ca) to get access and/or request a survey
  - Qualtrics: visit mysurveys.uwo.ca for more information - all Western staff, faculty and students can set up a free account.
  - Microsoft Office 365 forms: can be accessed through your Western Office 365 account, mail.uwo.ca

• **Paper-based** (mailed or in-person)

• **Telephone**

CONSIDERATIONS IN DECIDING TYPE OF SURVEY:

• Type of participant contact information you have
• Ethical and privacy considerations (e.g. anti-spam laws for reasonable use of email)
• Type of information being collected (if you need to explain or clarify content, in person or telephone might make sense)
• Human resources needed to collect data (online administration uses fewer resources and streamlines data analysis and communication)
• Accessibility for target population:
  - Do all participants have computer/digital literacy?
  - Will an online administration enhance accessibility (i.e. be accessible to text readers?)
  - What administration technique will your target population respond most to? (mail-outs or telephone calls may be more effective with certain populations)

DETERMINE COLLECTION PROCEDURE

• Confidential: identifiers are used to follow-up with non-respondents or match data from pre-test/post-tests, but individual data are NOT shared with anyone. Considerations when a confidential approach might make sense:
  - You want to collect more information or follow-up with participants;
  - You want to link survey results with institutional data (i.e. program/service access, grades, course enrollment, etc.)

• Anonymous: no identifiers are used, so follow-up with non-respondents or matching data from pre-test/post-tests is not possible. You can include anonymous unique identifiers to link pre-post data. Considerations when an anonymous approach might make sense:
  - You are collecting sensitive information.
  - You don’t need identifying information

CONSIDER THE TYPE OF SURVEY ADMINISTRATION:

• Pre-post survey design: you administer the same questions to participants before and after a learning activity to measure changes in their self-reported knowledge, skills, or attitudes.
• Post-only design: you administer a survey once after a learning activity to measure participant satisfaction, self-perceived increases or changes in knowledge, skills and attitudes etc; note that question design would need to directionally reflect the desired changes/increases.
• Pre-only design: you administer a survey to collect information about participants and/or their needs before offering a program or service; often exploratory and not directly assessing a program or survey.
• Benchmarking: you administer a larger scale survey launched across multiple programs or organizations to compare program/organization effectiveness.
• Baseline: you administer a larger scale survey measuring constructs of interest in a particular population at multiple time points. These surveys can be linked to interventions (programs and service, awareness campaigns, etc.) to indicate how our activities may be impacting the population over time.

DETERMINE IF OTHER ASSESSMENT METHODOLOGIES WILL BE USED:

How will the different methods being used complement each other?
• Focus groups
• Guided group discussions
• Structured interviews
• Informal interviews
• Other

Often, qualitative data through interviews and focus groups can help you delve deeper into and interpret quantitative results.

STEPS FOR DEVELOPING A SURVEY

1. NAME THE SURVEY PROJECT
Include a short summary of the purpose of the study.

2. DEVELOP PRECISE, APPROPRIATE QUESTIONS AND COMPREHENSIVE ANSWER CHOICES
Ensure that the question matches the measurement scale. Choices include:
• Fixed response questions: easy to quantify, but may not capture the depth of a participant’s experience; see ‘Types of Scales’ resource to identify some ways to measure or structure response scales in fixed response questions. Examples include:
  ○ Yes-no
  ○ True-false
  ○ Multiple choice
  ○ Rating scale/continuum (e.g. Like rt scale)
  ○ Agree-disagree
  ○ Rank ordering
• Open-ended questions: allow participants to narrate their lived experience, but should be used sparingly as these questions give the impression that the survey is a lot of work; also difficult to analyze and summarize results.)
Tips for developing effective survey questions:

- Avoid questions that are biased, make assumptions, or cannot be answered fully with one survey response.
- Avoid ‘double-barreled’ questions; ensure you are only asking about one thing in a given question. An example of a double barreled question would be ‘Have you benefited from participation in an internship or community engaged learning experience?’ This should be separated into two separate questions so you can interpret the specific type of experience a student benefited from.
- Use numbered scales in connection with scale labels (i.e., frequently, rarely) when possible. For example, in defining time frames.
- Ensure answers categories are intentionally designed (e.g., purposefully offering a neutral answer choice), mutually exclusive (i.e., do not overlap), and that negative answer choices are balanced with positive answer choices (e.g., dissatisfied, somewhat dissatisfied, neither dissatisfied nor satisfied, somewhat satisfied, satisfied).

ENSURE THE SURVEY IS DIRECT AND QUESTIONS ARE ORDERED LOGICALLY

- The survey should include simple instructions on how to complete each section and questions should be posed in plain language, with esoteric terms defined as necessary.
- Only include questions that address topics you “need to know”.
- The first questions should be relevant to the purpose and easy to answer, with the most important questions at the beginning of the survey as respondents may be fatigued or hurried by later questions. Ask demographic questions towards the end of the survey.
- Group similar questions together by topic or scoring method (e.g., scale used for response measurement) and number each question.
- Provide space at the end of the survey for the respondent to comment about their experiences or about the survey etc.

USE A COVER LETTER

For survey projects considered formal research, this would be the ‘Letter of Information’. Best practice for evaluation surveys (considered quality assurance, not formal research) involve including a similar letter to inform participants. This should include the following elements:

- purpose
- sponsor
- why response is important
- promise of confidentiality, explanation of identification process
- deadline for returning survey, what to do when questionnaire is complete
- informed consent
- where to direct questions
- thank you

For a sample cover letter, see: (upload document or link to REB website - TBD).
CONDUCT EVALUATION

- administer questionnaire
- analyze data
- summarize relevant findings

REPORT, COMMUNICATE, AND USE RESULTS

We should only collect data when we intend to mobilize and utilize it in our practices. To avoid data-hoarding and ensure we maximize the impact of our assessment efforts, think of the following considerations:

- Who is this data relevant or interesting to?
  - Whose work might the findings impact?
- How can we report findings back to the population studied in an accessible manner?
- What are the implications of findings on our programs and services?
  - What changes will you make? How and when will you make them?

REFERENCES


ADDITIONAL RESOURCES

- http://www.lmu.edu/Assets/Academic+Affairs+Division/Assessment+and+Data+Analysis/Christine$!27s+Folder/Surveys+Website/Survey+Design+Resource.pdf
- https://vp.studentlife.uiowa.edu/assessment/tools-for-assessment/