



United Way
Winnipeg

Qualitative, Quantitative & Mixed Methods

June 2014 | Marianne Krawchuk | Summer Institute

Outline |

- Expectations of Session
- Quantitative Methods
- Qualitative Methods
- Mixed Methods

Expectations|

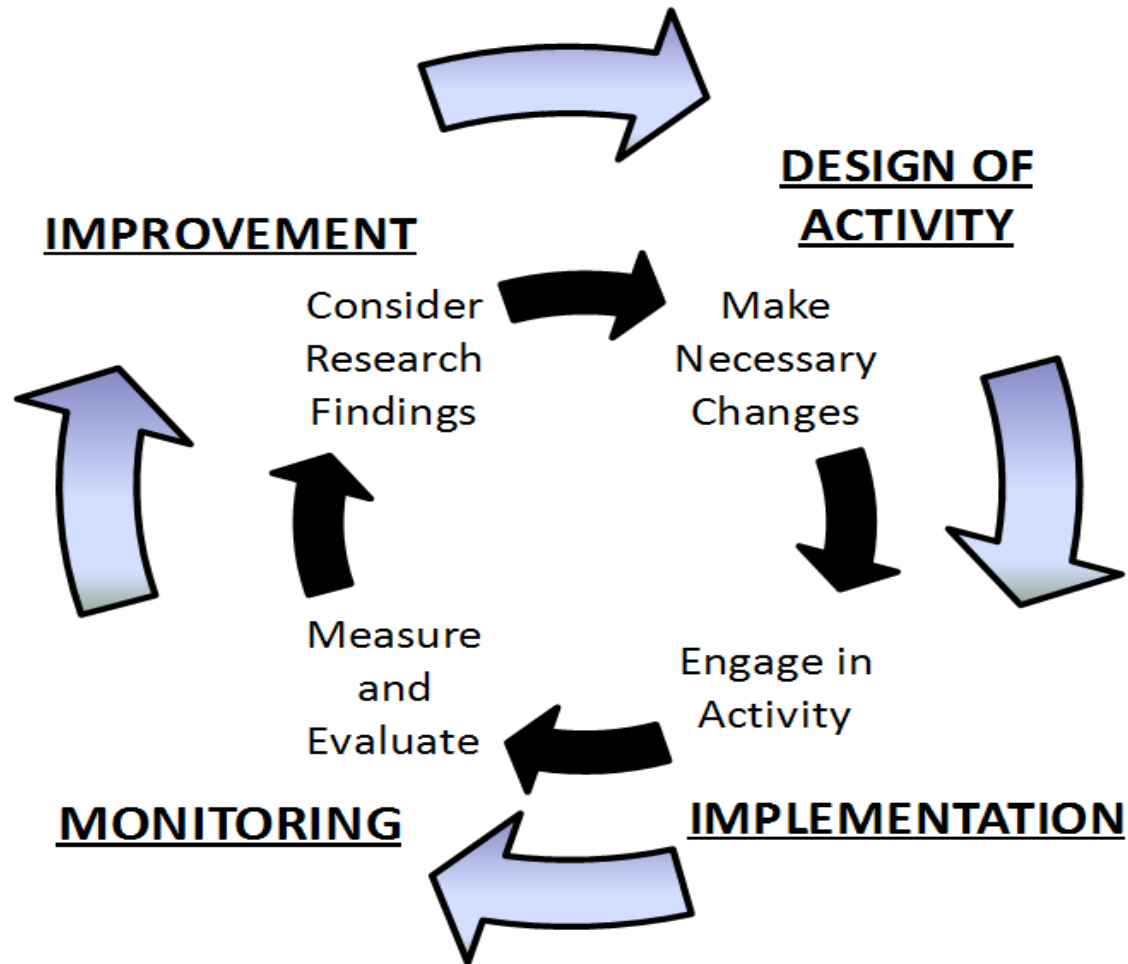
- What are your expectations for the session?
- What questions would you like answered?

Program Evaluation |

What?

“Program evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming.” (Patton)

Cycle of Evaluation



5 Questions an Evaluation May Answer

1. Did our participants change, and if so, how much and in what ways? (outcomes)
2. How much service did we provide (and what was the quality of that service)? (outputs)
3. What was the quantity and quality of the resources we used to implement our programs? (inputs)
4. Which resources were most important for providing high-quality service?
5. Which strategies (program qualities) were most important for achieving the desired outcomes? (activities)

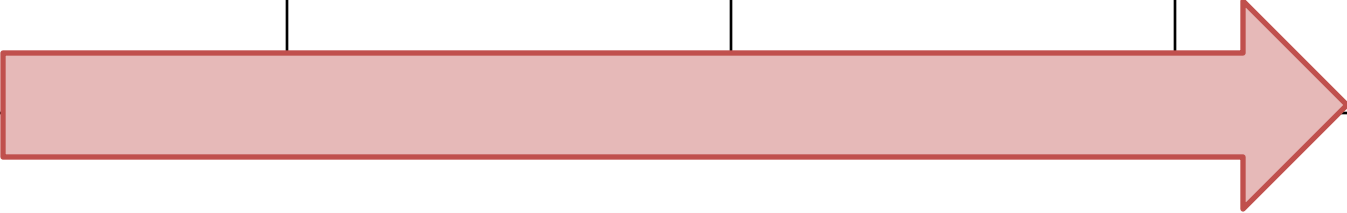
Program Plan |

a.k.a. Logic Model

Mission (D):

Who is the target population?

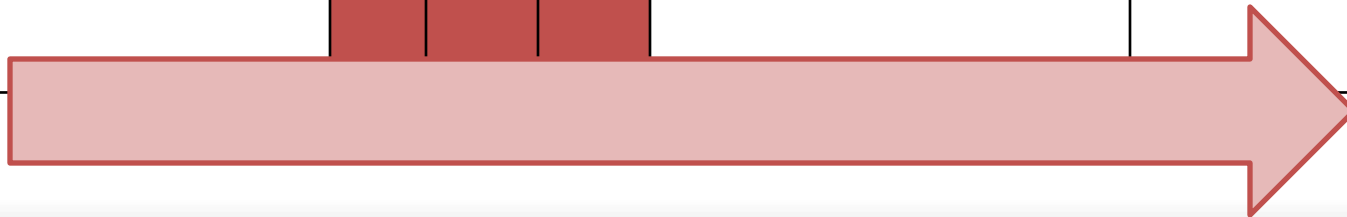
Outcomes (A+B+C)	Activities	Inputs	Outputs
What do we want to achieve?	What do we need to do to achieve each outcome?	What do we need to have to complete our activities?	What will these activities produce?



Evaluation Plan |

How will we know?

Outcomes (A+B+C)	Activities	Inputs	Outputs	Indicators	Measurement Tools
What do we want to achieve?				How will we know we've achieved our goals?	How will we measure/ collect our data?



Create a Data Collection Plan |

- ✓ Decide what data to collect to answer program evaluation questions

Outputs data

- Don't forget the easy data
- Can be collected on an ongoing basis

Outcomes data

- Use your logic model as a guide
- Time and resources are factors to collect quality data
- Identify the purpose of evaluation

Source: Canadian Outcomes Research Institute

Create a Data Collection Plan |

- ✓ Identify which tool(s) you will use to collect each piece of data
- Surveys, standardized tests, interviews, case study, focus group, etc.
- Phone, mail, in person
- Time and Resources to determine if you need to collect data from more than one data source

Source: Canadian Outcomes Research Institute

Data Collection Plan |

Sample

Outcome	Indicator	Method	Date	Person Responsible	Reporting
What are we trying to achieve?	What are collecting data on?	How will we collect this data?	When will this data be collected?	Who will collect the data?	How will this data be recorded/reported?
Outcome A, B or C		<ul style="list-style-type: none"> •Survey •Interview •Observation •Focus Group •Case Study •Round Table 	Date Pre/Post?	Name of person responsible	<ul style="list-style-type: none"> •Excel Access •Word •Homes •Other

Stakeholder involvement|

1. Who are your stakeholders?
2. What do stakeholders what to know?
3. How will information be presented to them?

Measurement Tool Design |

There are no rigid rules for making methods decisions. Therefore:

- There is no single best plan for an evaluation
- There is no perfect design
- There are always errors and ambiguities

****RESOURCE:**

http://www.tbs-sct.gc.ca/eval/dev/sma-pet/guidelines/guidebook_e.pdf

When choosing a methods, consider:

The purpose of your evaluation – will the methods allow you to gather information that can be analyzed and presented in a way that will be credible and useful to you and others?

The respondents – What is the most appropriate method, considering how the respondents can best be reached, how they might best respond, literacy, cultural considerations, etc.

Also consider:

- Resources available
- Type of information needed
- Least intrusive method
- Advantages and disadvantages of each method
- Need for credible and authentic evidence
- Multiple methods
- Importance of cultural appropriateness

Validity & Reliability

Reliability: refers to the level of measurement error that exists in the instrument or the data.

Internal Validity: refers to the extent to which it correctly answers the questions it claims to answer about what is being evaluated

External Validity: the extent to which the results can be generalized to other situations

Program Evaluation|

Standards (CES)

- **Utility** - evaluation will serve the information needs of intended users
- **Feasibility** - evaluation will be realistic, prudent, diplomatic, and frugal
- **Propriety** - evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results
- **Accuracy** - evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated

Qualitative|

Qualitative data: (words, text)

- Sometimes known as *content analysis* or *thematic analysis*
- Identifies themes/patterns in data
- Themes are coded and categorized to better understand the outcome being evaluated

Quantitative Data |

Quantitative data: (numbers)

- Calculation of basic descriptive statistics such as:
 - Frequencies
 - Measures of central tendency (mean, mode, median)
 - Measures of distribution (how different?)

Qualitative vs. Quantitative Data |

	Quantitative	Qualitative
Advantages	<ul style="list-style-type: none">• Answers ‘how much/may’• Provides numerical statistics which may be easier to present/understand• More questions answered• Little interpretation is needed (therefore less subjective)	<ul style="list-style-type: none">• Can ask for clarifications, ‘why’• Non-verbal cues• Allows flexibility• Provides more detailed responses
Challenges	<ul style="list-style-type: none">• Need to understand how to analyze/interpret• Doesn’t allow for expansion/clarification	<ul style="list-style-type: none">• Resource heavy• Small number of responses• Facilitator may influence responses• Subjective/bias• Time consuming to analyze

Qualitative vs. Quantitative Data |

Quantitative	Qualitative
<ul style="list-style-type: none">- Frequencies- Percentages- Average (mean)- Mode (most common response)- Median (middle response when responses are arranged in sequential order)	<ul style="list-style-type: none">- Open ended questions- Testimonials- Interviews- Focus groups- Content analysis- Case studies- Stories- Observations

Data Collection Tools |

Small Group

What tools do you commonly use to collect data?

What works?

What doesn't?

Measurement Tools |

Questionnaires, Checklists, Surveys

Overall Purpose	Strengths	Limitations
<p>To obtain information quickly, easily and in a non-threatening way.</p>	<ul style="list-style-type: none">• Produce accurate data (confidential so may get more responses, and data may be easily analyzed/reported)• Can be designed and implemented relatively quickly and low cost• Good for collecting data from large groups• Sample questionnaires already exist	<ul style="list-style-type: none">• need to be brief and ask relatively simple questions• wording and order can have a major effect on answers• interpretation may vary between respondents• may not get the full story (limited information, less thoughtful responses)• impersonal

Measurement Tools |

Interviews, Summaries

Overall Purpose	Strengths	Limitations
<p>To provide a fuller understanding of someone's impressions or experiences and to learn more about responses to questions.</p>	<ul style="list-style-type: none">• Permits clarification and elaboration of responses• Process builds trust therefore 'better' data• Process does not require a high level of literacy or technology• Greater completion rate than paper surveys	<ul style="list-style-type: none">• Time consuming• Difficult to analyze and compare• Can be costly, resource intensive• Requires skilled Interviewers – relationship may influence responses

Measurement Tools |

Direct Observations

Overall Purpose	Strengths	Limitations
To gather information and identify change from one perspective	<ul style="list-style-type: none">• Provides a snapshot view• Facilitates comparison/relationships• Tracks change over time (broad scope – multi faceted)• Provides a counterpoint to staff assumptions	<ul style="list-style-type: none">• Interpreting and categorizing behaviours can be difficult• Subjective (bias, preconceived notion, distractions)• May be confounding variables

Measurement Tools |

Focus Groups, Group Summaries

Overall Purpose	Strengths	Limitations
To explore a topic in depth through group discussion.	<ul style="list-style-type: none">• Can identify unanticipated issues• Helps explain quantitative findings (can expand/follow up)• Opportunity to share opinions• Empowers participants	<ul style="list-style-type: none">• responses need to be analyzed• requires a good facilitator• can be difficult to get group together/participation• group perspective may distort individual views• Can be time/labour intensive to organize

Measurement Tools |

Case Studies, Testimonials and Story-Telling

Overall Purpose	Strengths	Limitations
<p>To provide a comprehensive examination of a participant's experiences.</p>	<ul style="list-style-type: none">• provides “rich” information on specific cases• can answer cause and effect questions	<ul style="list-style-type: none">• time consuming to collect, organize, and describe• reflects only one individual's experience

Culturally Appropriate Methods |

Cultural differences may include:

- nationality, ethnicity, religion, region, gender, age, abilities, class, economic status, language, sexual orientation, physical characteristics, organizational affiliation, other...

Things to remember... |

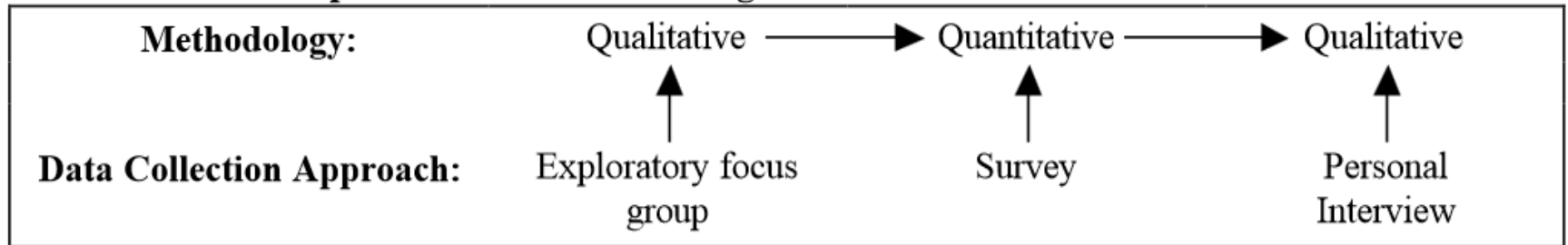
- There is no one right method of collecting data.
- Each has a purpose, advantages and challenges.
- The goal is to obtain trustworthy, authentic and credible evidence.
- Often, a mix of methods is preferable.

Triangulation|

- Use multiple methods to measure the same evaluation question
- Can strengthen findings/deepen understanding of results
- Can be problematic if different methods have different (potentially contradictory) findings

Mixed Methods |

Exhibit 12.—Example of mixed-methods design



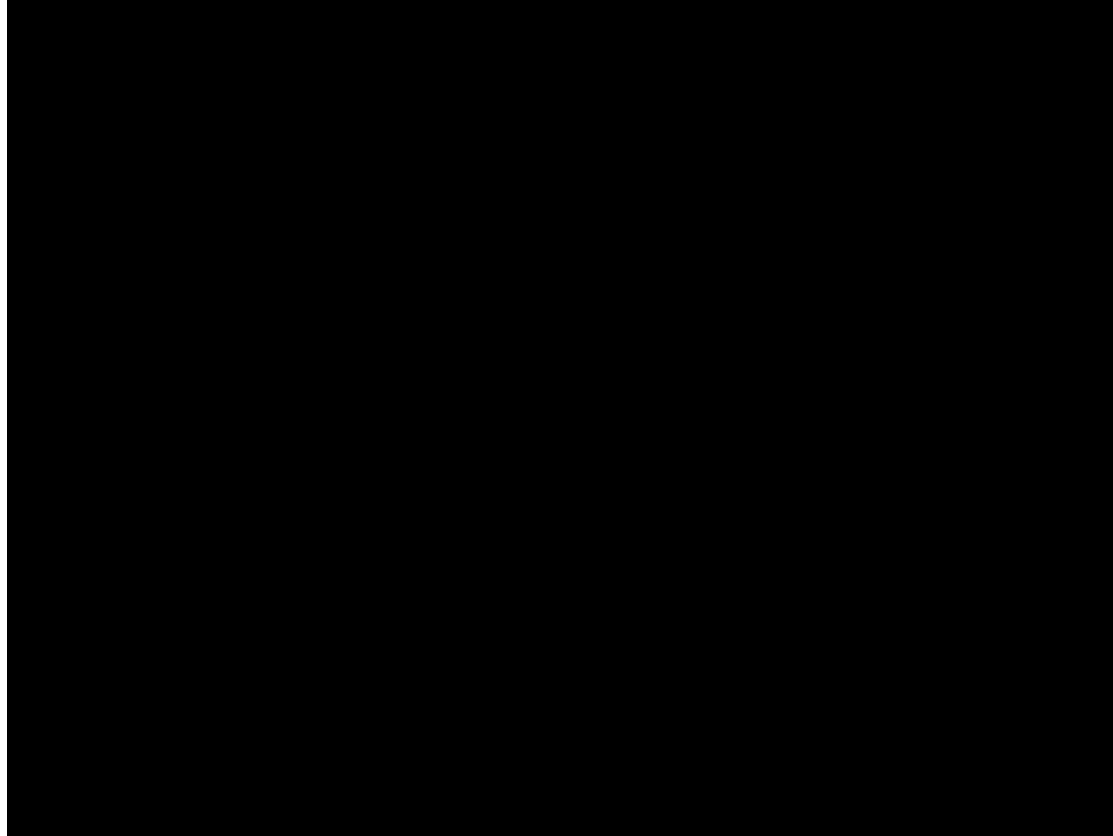
Source: <http://www.nsf.gov/pubs/2002/nsf02057/nsf02057.pdf>

Ten Principles

Rao Vijayendra and Michael Wollcock, “Integrating Qualitative and Quantitative Approaches in Program Evaluation,”

<http://www.cultureandpublicaction.org/bijupdf/ch08.pdf>

Be aware of Unanticipated Outcomes |



Source: <http://www.youtube.com/watch?v=Ahg6qcgoay4>

Review |

Did we answer all of the questions we wanted answered?

Any other questions?



Online Resources |

Evaluation

- Canadian Evaluation Society, <http://www.evaluationcanada.ca>
- Health in Common, <http://www.healthincommon.ca/>
- My M&E, <http://www.mymande.org/howto>
- Patton, M.Q. *Utilization-focused evaluation, 4th edition*. Thousand Oaks, CA: Sage. Data Collection, 2008

Data Collection

- Analyzing Qualitative Data - University of Wisconsin Extension, <http://learningstore.uwex.edu/assets/pdfs/G3658-12.PDF>
- Analyzing Quantitative Data - University of Wisconsin Extension, <http://learningstore.uwex.edu/assets/pdfs/G3658-6.pdf>

Mixed Methods

Creswell, John W. *Qualitative, Quantitative, and Mixed Methods Approaches Fourth Edition*. Nebraska: Sage Publications, Inc., 2014.

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