



Going Forward with Research

November 2017

Presented by: Christine Frank, PhD

Agenda

- ▶ Your Accomplishments
- ▶ Why are we here?
- ▶ Action Research and Program Evaluation Fundamentals
- ▶ Qualitative and Quantitative Data Collection
- ▶ Data Analysis
- ▶ Reporting
- ▶ Ethics



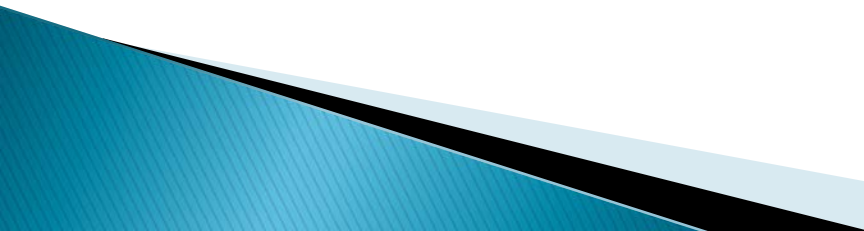
Why Are We Here?

School Effectiveness Framework

- ▶ Section 2.4 Job-embedded and inquiry-based learning builds capacity, informs instruction, and contributes to a culture of learning



Why Are We Here?

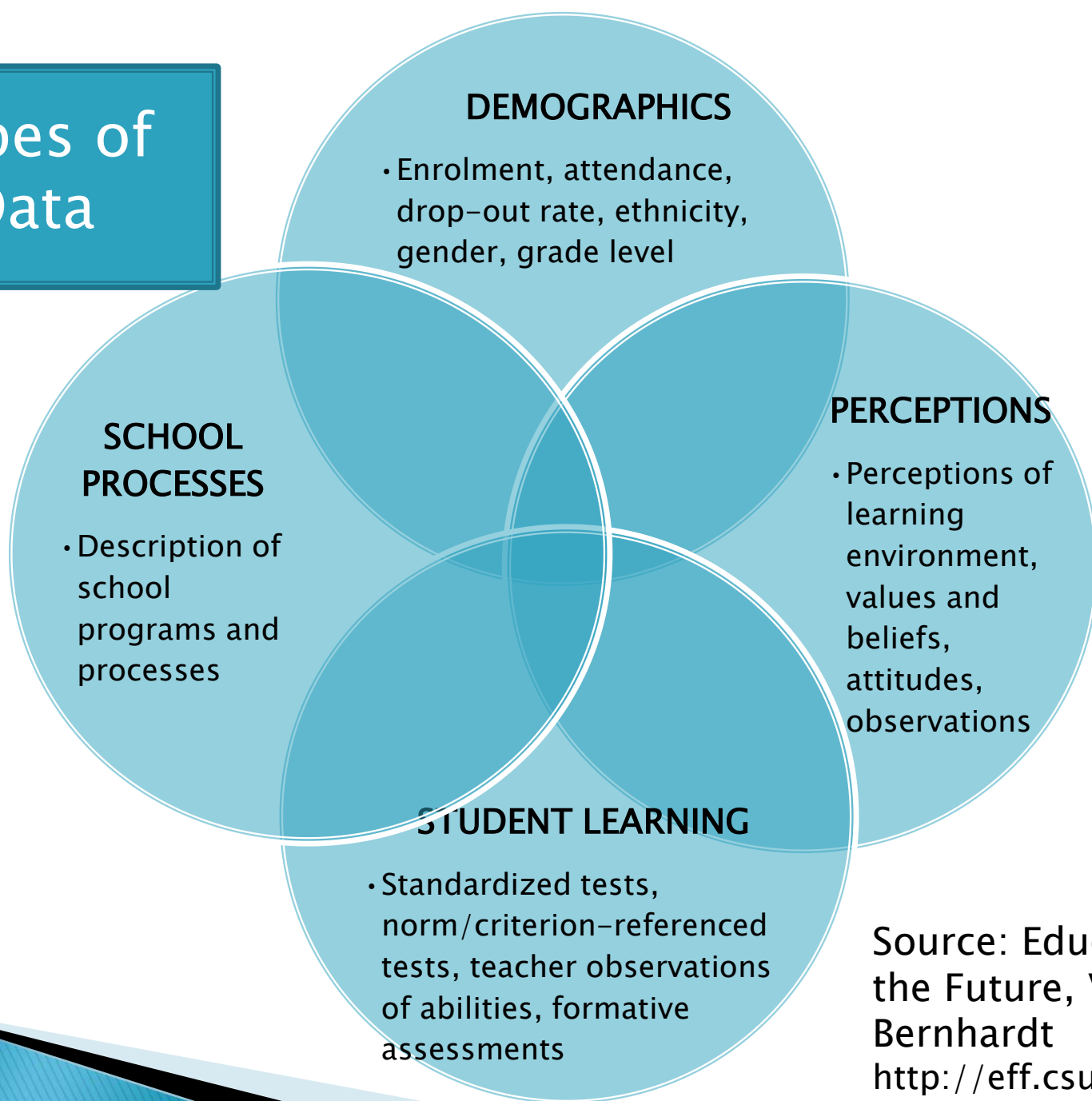
- ▶ Action Research Definition
 - "Investigations conducted by and for the people taking the action, on their own action to inform their future actions." (Richard Sagor)
 - ▶ Need for understanding of our unique student populations at local level
 - ▶ Need for greater understanding province-wide of A&CE student populations
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Doing “Research”

- ▶ Systematic Inquiry
 - Ask the right questions
 - Use correct methods
 - Gathering data (information)
 - Analyzing data (information)
 - Use findings
 - Share findings

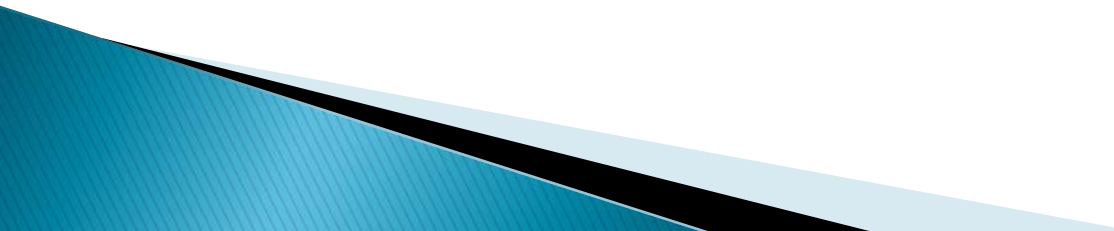


Types of Data



Source: Education for the Future, Victoria Bernhardt
<http://eff.csuchico.edu>

Program Evaluation Categories

- ▶ Needs Analysis: What do students need?
 - ▶ Process: How can our program be improved?
 - ▶ Outcome: What happens as a result of the program?
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Quantitative Methods	Qualitative Methods
Data are numerical	Data are usually words, actions, interactions, images.
Methods: Surveys, compilation of indicators (e.g. EQAO), experiments, etc.	Methods: Observations, interviews, focus groups, open ends on surveys, etc.
Objective: Looking for measurement and generalization	Objective: Exploring in-depth, finding out why, looking for unanticipated, asking for suggestions

Example Research Questions

▶ Descriptive

- Quant: How many students attained their post-OSSD goals (%)?
- Qual: How were students enabled to reach their post-OSSD goals ?

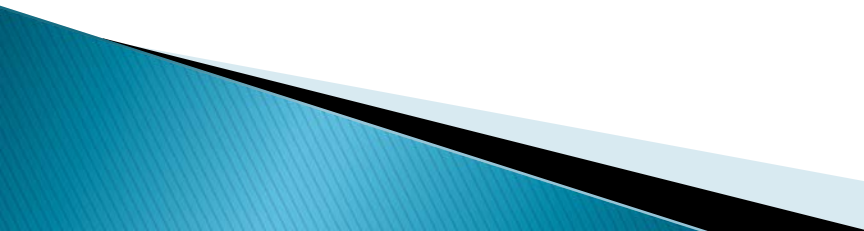
▶ Relational

- Quant: Of early leavers and current day school students, which group of students had better % goal attainment?
- Qual: What were the barriers to goal achievement for these groups? Are they different?


▶ Causal

- Quant: Has career testing/counselling increased goal achievement?
- Qual: How has career testing/counselling helped students reach their goals??

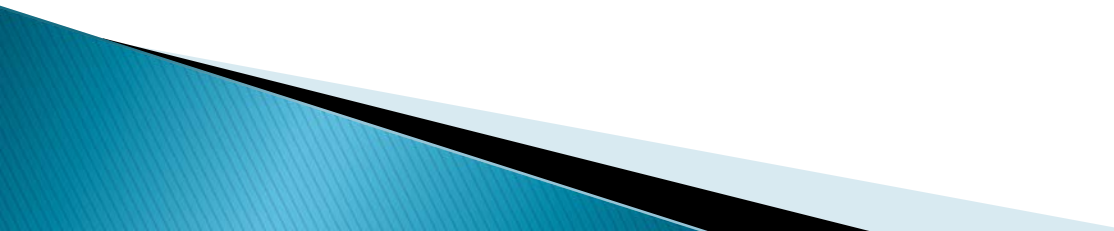
Example Questions (Health Sector)

1. What proportion of newly diagnosed patients attended diabetes education coaching from 2016–2017?
 2. What difficulties did diabetes patients encounter when navigating the current health care system?
 3. What could be done to help patients better manage the complexity of diabetes and co-morbid conditions?
 4. What are possible improvements in triage procedures and health team composition?
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Good research questions from last year's projects

- ▶ Has our practice of promoting student achievement through social media resulted in an increase in student success and engagement? Sudbury Catholic
 - ▶ One recommendation: Increase frequency of use of the Selfie booth by changing its location in the school and promote its use among staff on a regular basis to highlight accomplishments and community partnerships.
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Another

- ▶ What practices are presently in place to support at risk Grade 11 and 12 high school students* in successfully completing at least one credit toward graduation through St. Nicholas Adult High School? Ottawa Catholic
 - ▶ One conclusion: Currently, there is no consistent board wide process in place to facilitate the transition of students to St. Nicholas Adult High School.
- 

Another

- ▶ What impact did providing students with an alternate instructional format have on their credit accumulation and on their self-assessed engagement with school? **Trillium Lakelands**
 - Finding: While not part of our research question an additional positive outcome was that the videos allowed ESL students to watch and re-watch the materials to ensure they understood the content.

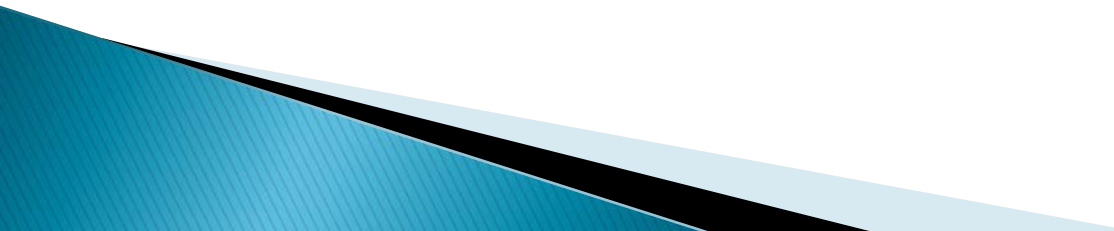
Conclusions directly answer research questions

- ▶ Question:
 - What are the educational goals of students who attend night school?

- ▶ Matching conclusion:
 - The greatest proportion of students wanted to complete their OSSD to get into college or university. The next most common goal was to upgrade marks for post-secondary entrance. Focus group findings link the desire for post-secondary education to a sense of family responsibility.

Wording Is Important

Consider these research questions:

- ▶ What is the best and most efficient way to deliver A&CE?
 - ▶ Why do students leave before attaining their diploma?
 - ▶ To what extent does our program meet Aboriginal students' needs?
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Hypothesis

- Statement of what you expect to find
- Formal hypothesis:
 - If students have a clearly defined and realistic career goal, they will be more likely to attain their OSSD.
- May be simply a statement of expectation:
 - We expect a greater OSSD achievement rate among females.
- ▶ Not always necessary:
 - Some research questions may be entirely without expectations.

Evaluation Framework (HO)

Question	Indicator	Method/Source
What proportion of students was eligible for PLAR for mature students activity in semester 1, 2016–17?	Number eligible over number enrolled	
What proportion of eligible students participated?	Number participated over number eligible	
What proportion of participating students gained credits?		
What barriers affect the use of PLAR for mature students in our board?		

Examples: Quantitative Data

- **ONSIS Data**
 - Number of credits earned
 - Number of diplomas awarded
- **School Records**
 - Number of students attending
 - Number demitted
- **Survey Data**
 - Closed ended questions re background, attitudes, needs, perceptions

Collecting Quantitative Data Via Survey

- ▶ Multiple Choice (one or as many as apply)
- ▶ Categorical (yes/no, family status)
- ▶ Likert Scale (1–5, agree/disagree)
- ▶ Ranking
- ▶ Numerical (#children, # years out of school))

Be wary: Student satisfaction ratings are limited as outcome measures. People may like a program but it may not be reaching its intended goals.

Example: Qualitative Data

- ▶ What led to your enrolment in this program?
 - *I found school boring, so I wasn't too motivated, and when I got to the end, I was short three credits. My dad always wanted me to get a trade, electrician like my uncle. He was willing to take me on as an apprentice, so I came back to pick up the credits I needed.*

Example Study: Qual and Quant

- ▶ Research question
 - What pathway do students, parents and educators most favour?
- ▶ Hypothesis
 - University is valued most highly.
- ▶ Methods
 - Survey
 - Focus groups

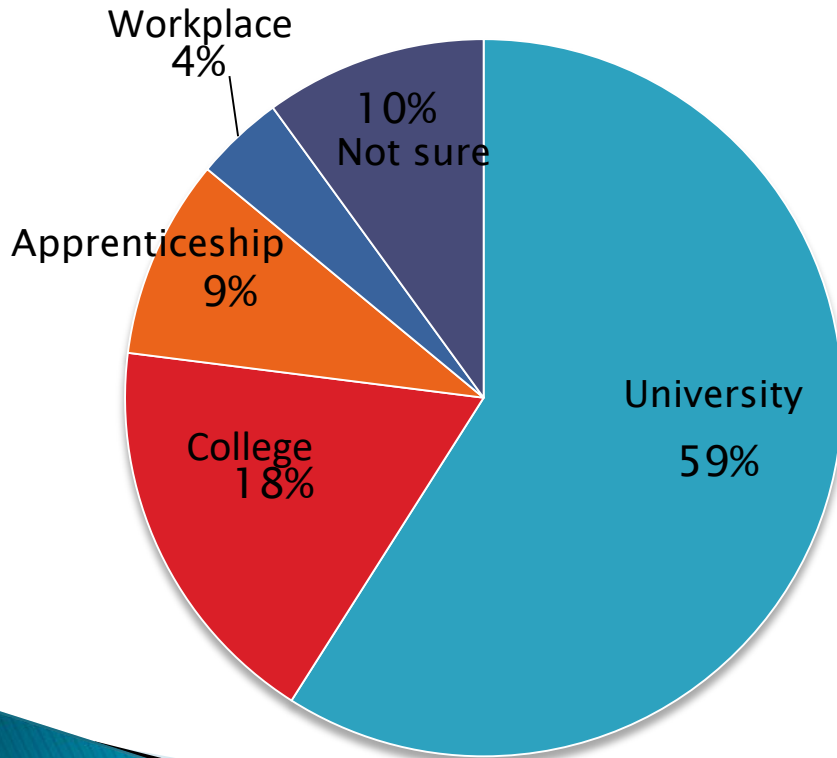


Context for Example Study

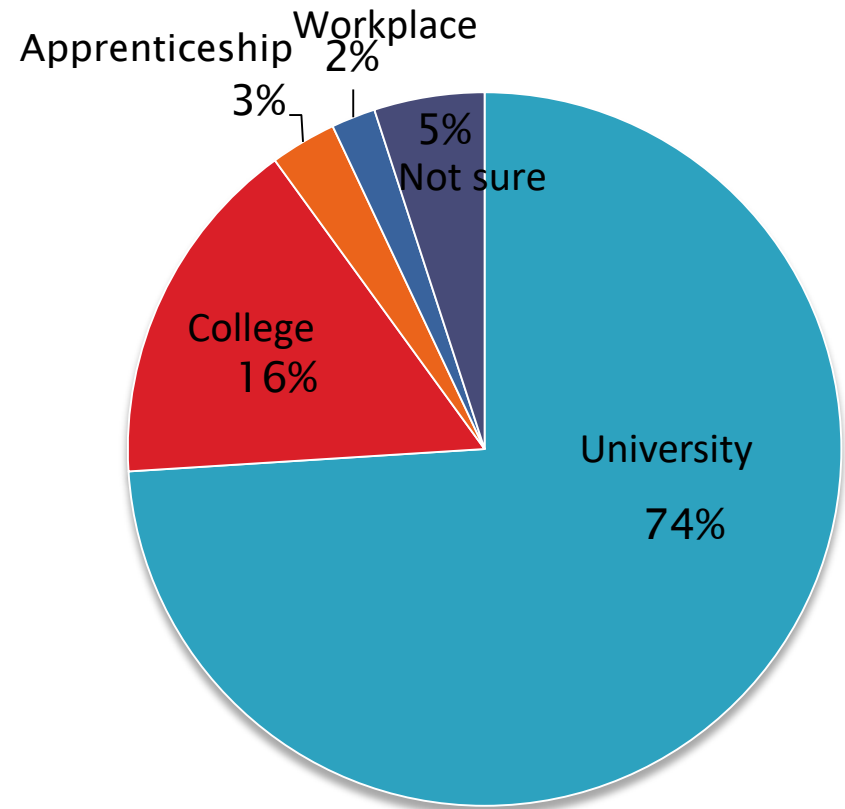
- ▶ King Report 2009 looked at Ontario student destinations:
 - University 34%
 - College 20%
 - Apprenticeship 6%
 - Workplace OSSD 15%
 - Workplace No OSSD 25%
- ▶ <http://www.collegesontario.org/research/king-report-2009.html>

Quantitative Findings: Students' Intentions After High School

Students Born in Canada

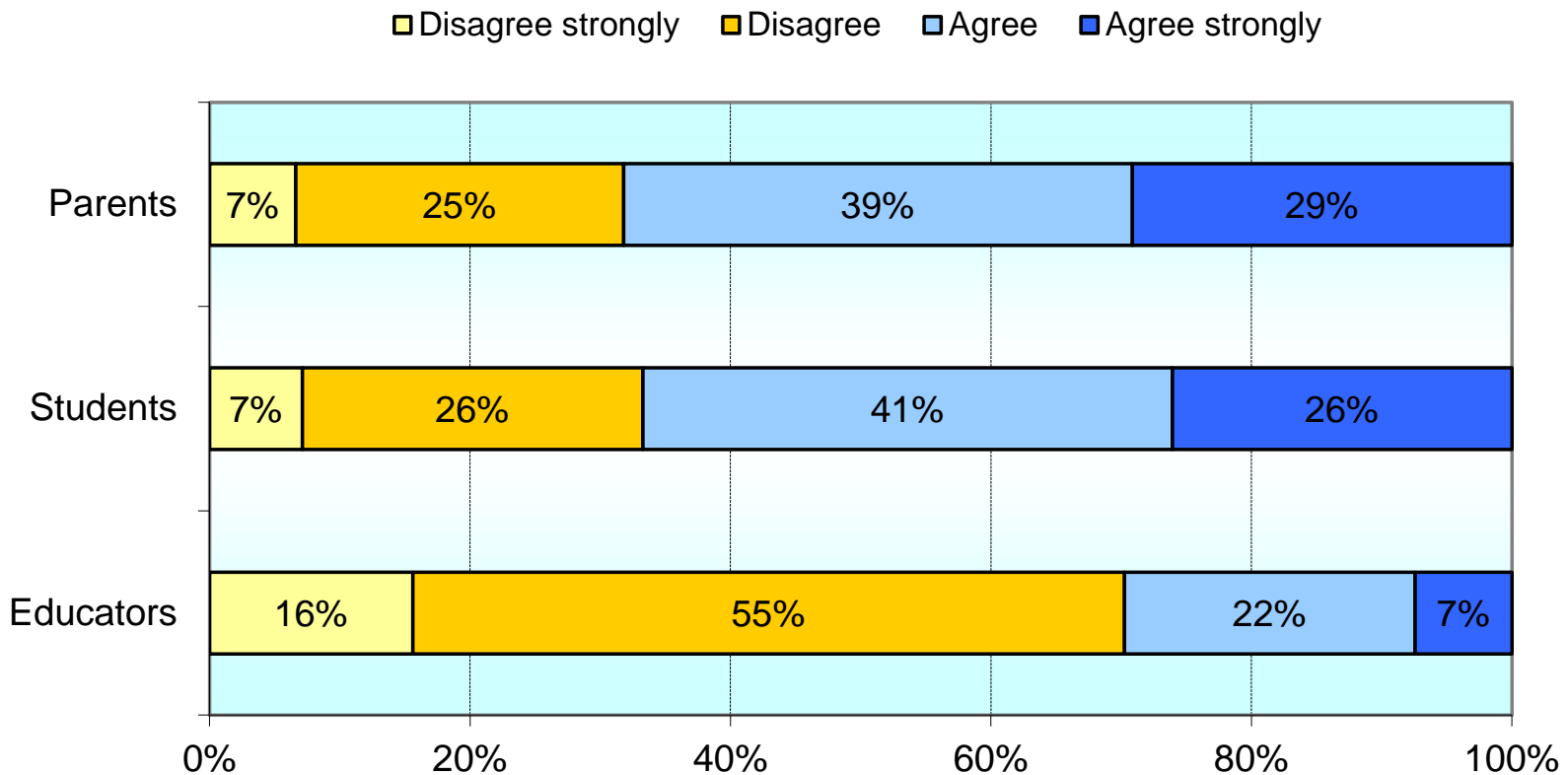


Students Born Outside Canada



More Quantitative Findings

“Students with high enough marks should go to university.”

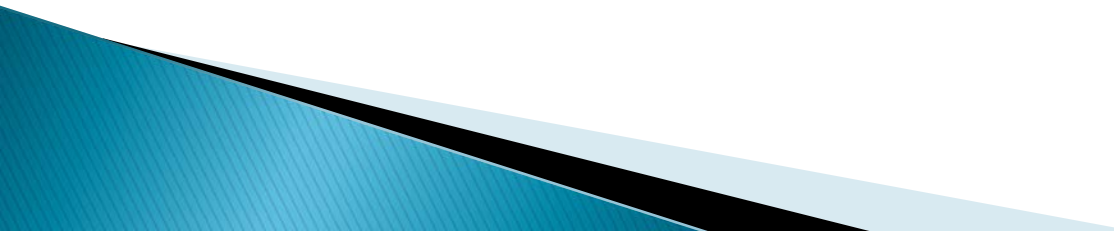


Qualitative Findings: Parent Focus Groups

▶ Key Finding

- Parents often move to Canada with the express intention of giving their children university education. They say not going to university severely limits a person's future prospects in many other countries. Newcomer parents need help to understand that limitations are not as severe in Canada.

Interviews, Focus Groups or Open-Ends? (HO)

- ▶ Crucial choice: What will work with your participants?
 - ▶ Interviews and focus groups require sampling and recruitment
 - ▶ Who conducts interviews and focus groups?
 - ▶ Other considerations: See Handout “Comparison of Qualitative Data Collection Methods”
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Framing Questions

- ▶ Not loaded or leading:
 - How important is it to you to be respected?
 - Does night school help you by allowing you to work days?
- ▶ Not double-barreled:
 - How do you feel about the school's atmosphere and activities?

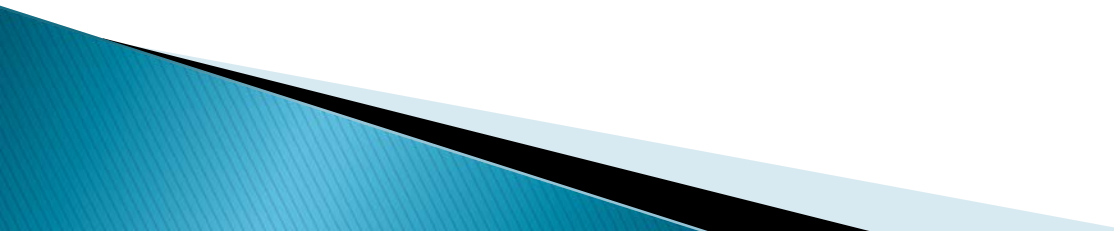
Framing Questions:

Surveys

- ▶ Response categories should be mutually exclusive and exhaustive.
- ▶ Wording must be in plain language.
- ▶ Wording must be unambiguous:
 - Ambiguous: What is the highest level of education you have achieved?
 - Better: Before attending this program, what was the highest level of education you achieved?
 - Ambiguous: Did you receive your previous education in Canada?
 - Better: Did you receive your highest level of education in Canada?

Framing Questions:

Interviews, Focus Groups and Open-Ends

- ▶ Begin with words like “how” and “what”
 - ▶ Avoid “why”
 - ▶ Not dichotomous (yes/no)
 - What led up to enrolling in night school?
 - NOT: Did you enroll in night school to gain college entrance?
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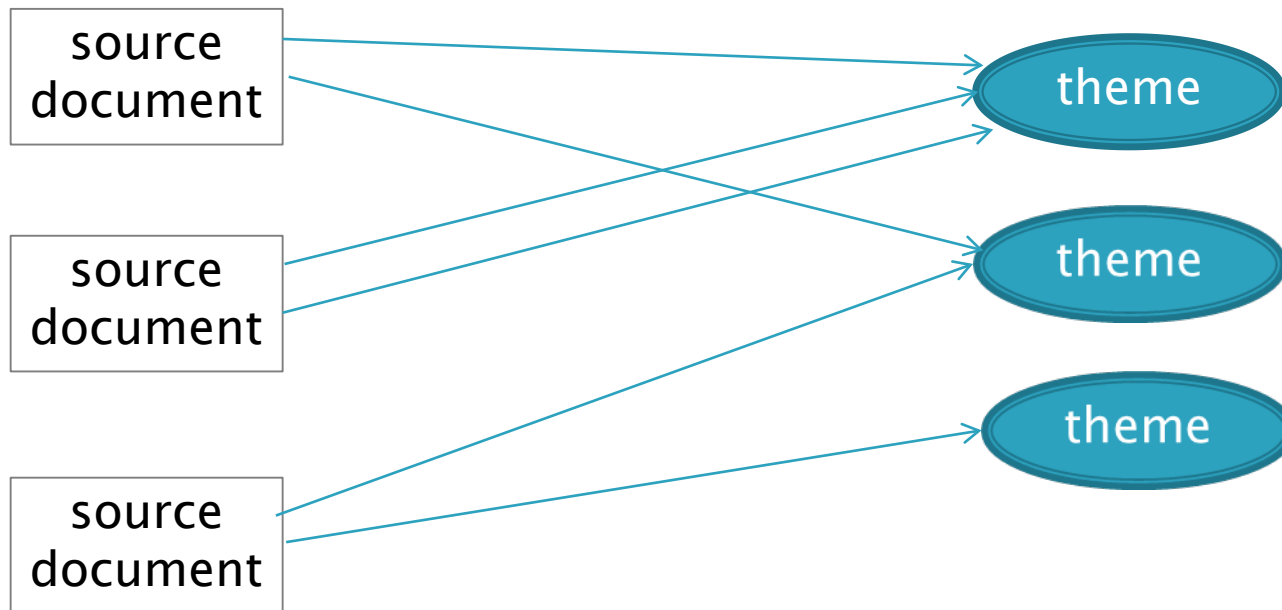
Analysis and reporting (HO)

- ▶ Basic frequencies are provided by online programs such as Survey Monkey.
- ▶ Previous reports and posters available
 - Reports contained
 - Research question(s)
 - Answers to questions (Conclusions)
 - Resulting impact or change in program delivery
 - Recommendations/Next steps
- ▶ Posters were 9 slides

<http://www.cesba.com/resources/sips-menu/>

Basic Coding Process for Qualitative Data

Code text in source documents into themes





Further Help

- ▶ Further training for using qualitative data
- ▶ Please contact me if you need advice.

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