

EDUC 890 Class 2

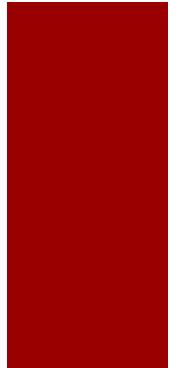
Chapter 2 (Qualitative vs. Quantitative)

Some- thing Inter- esting

- To continue getting to know each other, please share with the class your name (again) and—briefly—something interesting you did or that happened to you since we last met!

Chapter 2

**Quantitative and Qualitative Research Reports:
Understanding Different Types of Study Reports**



Quantitative

- Numbers
- Statistics
- Describes mathematical relationships between variables
- Addresses specific, narrow questions
- Uses words/terms like: experiment, correlation, survey, variables, factors, statistically significant

Qualitative

- Words
- Describes different perspectives and experiences in detail
- Addresses broad, general questions
- Uses words/terms like: phenomenon, thematic analyses, themes, patterns, interviews, focus groups, inductive, field notes, individuals' stories

*Which kind are you more inclined to read?
Which kind are you more drawn to DO?
Why?*

Combined research

- Researchers both explain variables and explore a phenomenon
- Data includes numbers and words
- E.g., in six daycare centres, interview teachers about their perceptions of physical activity and count the number of minutes each child is physically active throughout the day
- Often described as mixed-method or multiple methods

Why read both?

Quantitative

- Learn about specific concepts (variables) within large populations e.g.,
 - Prevalence of something within a population, such as child hunger, or support for Donald Trump
- Learn about relationships between variables, e.g.
 - poverty and school achievement; if an intervention causes changes in behaviour
- Learn what is prevalent; typical; what concepts are related; the results of an intervention

Qualitative

- Learn about the complexity of issues, through individual experiences, e.g.,
 - How it feels to be bullied;
 - How members of a rock band negotiate songwriting
- Why and how things are related, not just *that* they are related, e.g.,
 - How a student experiences school when she struggles to feed herself and young siblings
- Unusual or unexpected responses in addition to the typical
- Learn about the meaning, complexity, and uniqueness of phenomena

Group work 1

- In pairs, do questions 1 and 2 on p. 75



Text book says...

- Smith et al. (2012):
 - focus on explaining variables (i.e., psychological well-being);
 - ask specific, narrow questions (i.e., what is the impact of social support on psychological well-being of mothers of adolescents and adults with ASD?);
 - collect data from a large number of participants (i.e., 269 mothers);
 - collect data consisting of numbers (i.e., scores assessed using an instrument);
 - analyze these numbers using mathematical procedures (i.e., determining high and lower levels and associations);
 - remain invisible (objective) in the written report (i.e., do not mention themselves).

Text book says...

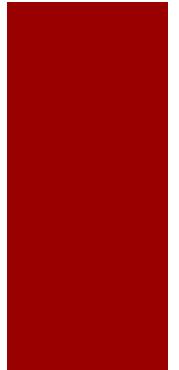
- Tozer et al. (2013):
 - focus is on exploring individuals' experiences (i.e., experiences of adults who have a sibling with autism);
 - ask broad, general questions (i.e., how do adults who have a sibling with autism give meaning to their family relationships?);
 - collect data from a small number of participants (i.e., 21 adult siblings);
 - collect data consisting of words (i.e., text from participants during semi-structured interviews);
 - analyze these words using text analysis (i.e., a broad narrative approach); remain visible, present, and subjective in the written report (i.e., mention themselves as "we" and provide their interpretations of the meaning of the results).

Assignment 2

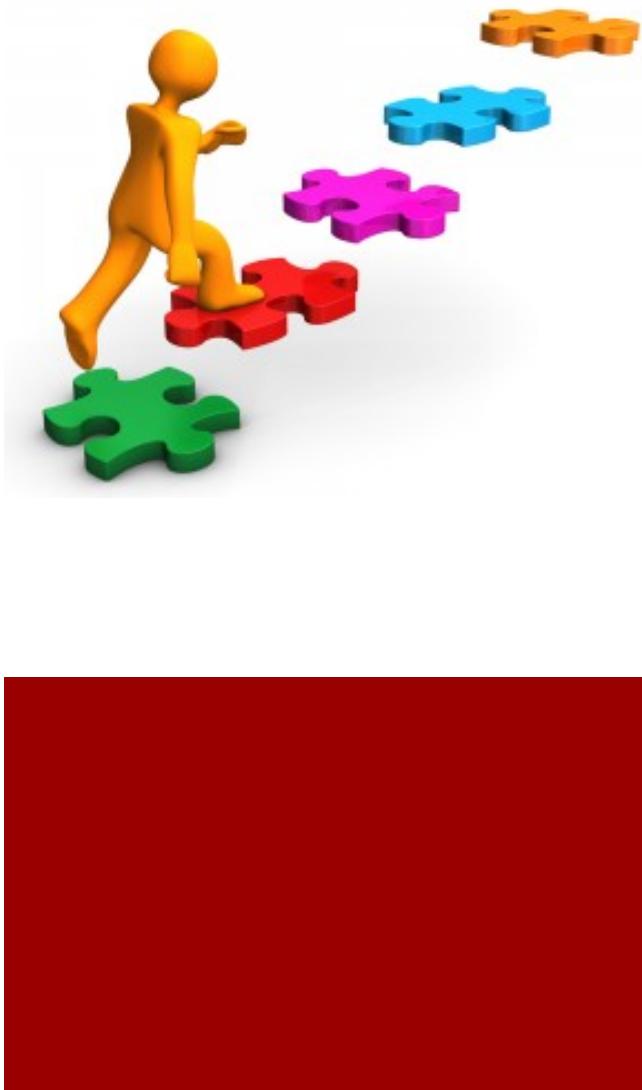
- Introductory components
- 10%
- Due Oct. 2 (*two weeks*)
- <http://benjaminbolden.ca/teaching/education-890/>

*Just wondering...any
general questions
about being a
graduate student at
Queen's Faculty of Ed?*





Advisor/Supervisor



Steps in the research process

Quantitative vs. qualitative

Step 1—Identify a problem

Quantitative

- The need to explain relationships among variables
- The need to measure trends in a population
- E.g., Xu et al. want to know about...
 - PA opportunities in middle schools and factors that influence them
 - Trends re: PA opportunities in middle schools

Qualitative

- The need to explore a phenomenon because little is known about it
- The need for detailed description and understanding of a phenomenon
- E.g. Tucker et al. want to know about...
 - Promoting PA of children in daycare
 - Daycare providers' practices or perspectives re: promoting PA

Step 2—Review literature

Quantitative

- Remains static, reviewed mostly at start of research process
- Used to describe the direction of the study (purpose, research questions, hypotheses)

Qualitative

- Dynamic, reviewed at start but also as new ideas emerge throughout research process
- Informs researcher's perspective, but does not prescribe direction of study, i.e., researcher remains open to what participants identify as significant or important

Step 3—Specify a purpose

Quantitative

- Specific and narrow
- Focused on measuring variables
- E.g., Xu et al. purpose: *to examine social and environmental factors that might interact with PA opportunities*

Qualitative

- General and broad
- Focused on individuals' perspectives about a phenomenon
- E.g. Tucker et al. purpose:
 - *To explore daycare providers' perspectives re: supporting PA for preschoolers*

Group work 2

- In pairs, find a research article that addresses an education topic of interest to you.
- Email me the *research purpose* – be as succinct as you can.
- Discuss whether the study is quantitative or qualitative and how you know.



Group work 2 results:

Research purpose statements

- The aim of this article is to study the determinants of student mobility for a panel of 33 European countries in the period 1998-2009.
- This study aims to: [investigate and] "highlight the role that test experience had on test takers' perceptions of their test performance and the alignment between the test and their classroom literacy activities."
- The purpose of this study is to investigate whether an intervention using circle time games improved behavioral self-regulation in an economically diverse sample of preschool children.

More group work 2 results:

Research purpose statements

- this paper explores the ways in which different types of schools provide different experiences of global citizenship education for both male and female pupils
- This paper reports on a study that investigated students' learning to self-assess oral performance in English by comparing student assessment with teacher assessment.
- This study sought to evaluate motor development in children aged 6 to 11 years old with learning difficulties and school characteristics of delayed motor development, before and after application of a motor intervention program.

More group work 2 results:

Research purpose statements

- this paper explores the ways in which different types of schools provide different experiences of global citizenship education for both male and female pupils
- This paper reports on a study that investigated students' learning to self-assess oral performance in English by comparing student assessment with teacher assessment.
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Step 4—Choose a research design

Quantitative

- Experimental design (e.g., explain impact of an intervention)
- nonexperimental design (e.g., correlational design, relating variables, as in Xu et al.)

Qualitative

- General qualitative approach (as in Tucker et al.)
- Formal qualitative research design (e.g. ethnographic, narrative, case study, grounded theory, etc.)

Step 5—Select participants and collect data

Quantitative

- Collect info from a large number of participants, sites, or time points
- Use data collection instrument with preset questions and response options e.g., survey
- Gather numeric data, e.g., test scores

Qualitative

- Collect info from a small number of participants or sites
- Collect data with broad, open questions
- Gather word (text) or image data

Step 6—Analyze data & report results

Quantitative

- Statistical and graphical analysis procedures
- Compare groups, relate variables, describe trends

Qualitative

- Text and image analysis procedures (e.g., code text to identify patterns, categories, themes)
- Develop descriptions and describe themes

Step 7—Draw Conclusions

Quantitative

- Compare results with prior predictions and studies

Qualitative

- Provide statements about larger meaning of findings and personal reflections and interpretations of findings

Step 8—Disseminate and evaluate

Quantitative

- Standard, fixed structures and evaluative criteria
- Objective and impersonal writing

Qualitative

- Flexible, emerging structures and evaluative criteria
- Subjective and reflexive writing
 - *Reflexivity is the process of examining both oneself as researcher, and one's relationship with the research, e.g., acknowledging one's biases and experiences and how they influence interpretations*

Homework

1. Go outside.
2. Read Chapter 3.
3. Find an article to use for assignment 2.
4. Read through assignment 2 description and exemplar and bring questions to next class.



***P.S. Next week we will meet in the *library*, in the teaching corner.