



EDUC 890 Class 2

Chapter 2 (Qualitative vs. Quantitative)

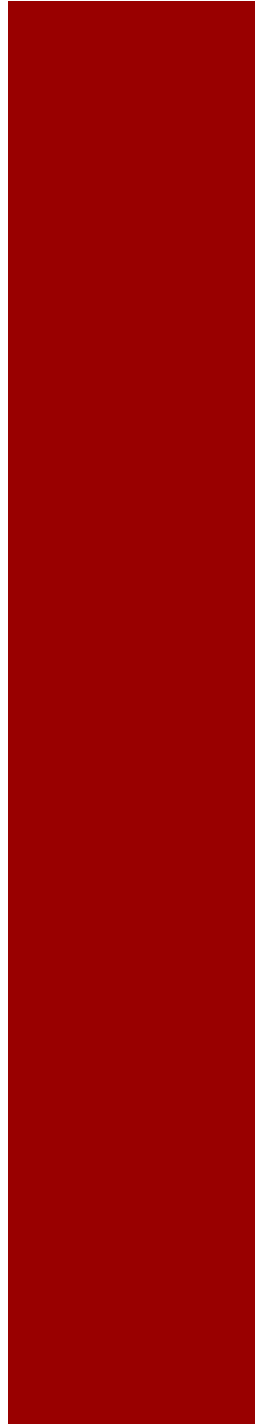
Some- thing Inter- esting



- 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

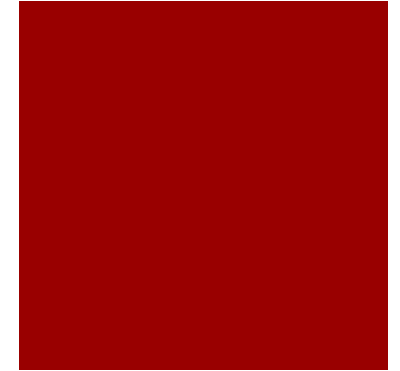
- Words
- Describes different perspectives and experiences in detail
- Addresses broad, general questions
- Uses words/terms like: phenomenon, thematic analyses, themes, patterns, interviews, focus groups, inductive, field notes, individuals' stories

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

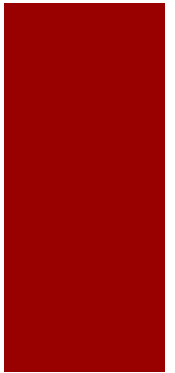
Why read both?

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).

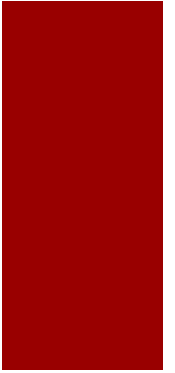


Assignment 2

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



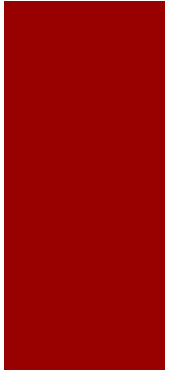
Step 1—Identify a problem

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*



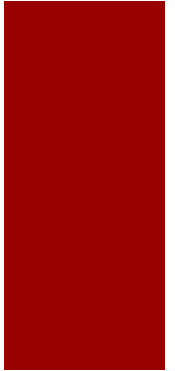
Step 2—Review literature

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



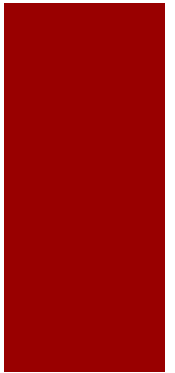
Step 3—Specify a purpose

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*





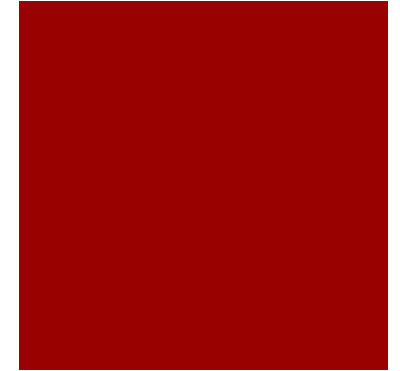
Group work 2

- 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:

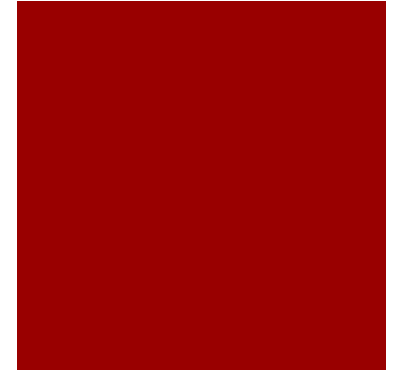
Research purpose statements



- 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:

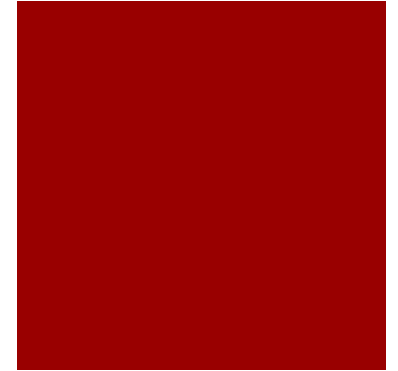
Research purpose statements



- 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



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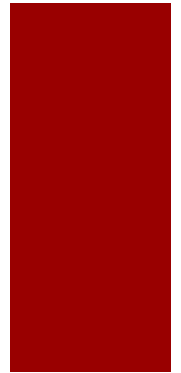
Step 4—Choose a research design

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.)



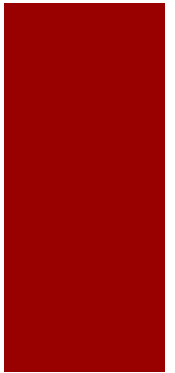
Step 5—Select participants and collect data

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



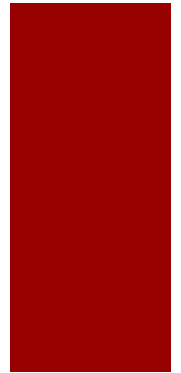
Step 6—Analyze data & report results

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



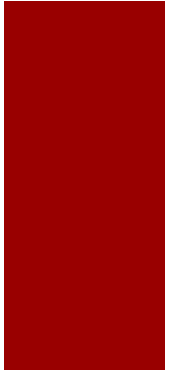
Step 7—Draw Conclusions

Quantitative

- Compare results with prior predictions and studies

Qualitative

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



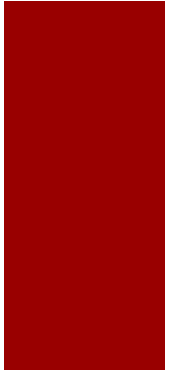
Step 8—Disseminate and evaluate

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.

