INTRODUCTION TO MIXED METHODS IN RESEARCH DESIGN AND IMPLEMENTATION

OUTLINE

- Definition

- MM Rationale

- MM designs

- Challenges

- An example

WHAT IS MIXED METHODS (MM) RESEARCH?

▶ Mixed methods research is a design for collecting, analyzing, and mixing both quantitative and qualitative research (or data) in a single study or series of studies to understand a research problem (adapted from Creswell and Plano Clark, 2011).

Mixing:

Qualitative data helping researchers understand processes, especially those that emerge over time, provide detailed information about setting or context, and emphasize the voices of participants.

WITH

Quantitative approaches to test theories or hypotheses, gather descriptive information, or examine relationships among variables, measuring magnitude/change.

RATIONALE FOR MM?

▶ To help understand complex phenomena from multiple perspectives

▶ To help mitigate the limitations of examining a question from one paradigmatic lens (i.e., qualitative or quantitative approaches alone)

▶ To help 'see' data through different lenses (data transformation):

  ▶ Qualitized data: e.g., quantitative data types are converted into narratives (e.g., profiles) that can be analyzed qualitatively

  ▶ Quantitized data: transforming qualitative data into numerical values that can be quantitatively analyzed

▶ To corroborate and help triangulate findings

…Greene & Caracelli, 2007

CHOOSE METHODS/ANALYSIS THAT DIRECTLY SUPPORT YOUR RESEARCH TASK

▶ Recognize the theoretical drive of the project

  ▶ Purpose is to explore, discover, research tends to be 'inductive' (where qualitative approaches and 'thick' descriptions of data can be useful)

  ▶ Purpose is to test hypothesis, confirm theory or quantify/measure change or magnitute, research tends to be deductive (where quantitative approaches can be useful)

CONSIDERATIONS IN MM DESIGN

▶ Theoretical perspectives driving the research and informing the researcher(s)

▶ Implementation of specific methods (sequence of specific methods)

▶ Priority of specific methods (e.g., 70% Qual over 30% Quan?)

▶ State of Integration (within the research questions, in data collection, or data analysis, interpretation?)

TYPES OF MM DESIGNS

▶ Convergent (parallel or concurrent) designs: Collecting quan and qual data in parallel tracks through the research or concurrently

▶ Sequential (explanatory or exploratory) designs: one data set builds on the results from the other

▶ Embedded (or nested) designs: using quan and qual approaches in tandem and to embed one in the other to provide new insights or refined thinking

…Cresswell, Plano Clark, Guttman & Hanson (2003)

MM CHALLENGES

▶ Resources: extensive time/resources needed to carry out the multiple steps involved in mixed methods research, data collection & analysis (particularly when volumes of data).

▶ Analytic and interpretive issues: strategies needed to interpret MM (i.e., interpreting integrated results when unequal emphasis placed on one method); strategies to resolve differences between data sets

MM EXAMPLE:
RESEARCH QUESTIONS

1. How do culture teaching beliefs, visions differ and evolve among international language teacher candidates in two Ontario teacher preparation programs? How intercultural are these culture teaching beliefs and visions ?

2. How do culture learning experiences in a curriculum and methodology class differ and influence TC beliefs and visions?

3. What demographic, experiential factors influence new teachers' culture teaching beliefs and visions ?

4. How do these culture learning experiences prepare new teachers to work with culture in international language education?

...Lawrence (2010)

RESEARCH APPROACH

- Multi-staged, mixed methods comparative case study approach

- Integrated mixed methods, integrated analysis, data transformation and varied data sources to view complex belief and change phenomena from distinct paradigms

- Attempt to highlight individual voices (extreme sampling) that illustrated the situated nature of beliefs, teacher education impact that differed from group results

METHODOLOGY

Complementary, integrated qualitative and quantitative data sources

- Repeated, piloted questionnaires (x3) – based on Sercu et al., 2005 including both open and closed questions

- 8 classroom observations per site

- Repeated semi-structured individual interviews and year-end focus group in each site

Integrated qual/quan multi-step analysis using intermethod & intramethod mixing to corroborate findings

Examining Culture Teaching Familiarity

1. **Please rank how familiar you currently feel with the areas listed below <u>as they relate to the target language and culture you're planning to teach.</u>** Your level of familiarity should reflect how extensively you could discuss/teach the topic in your language classroom (i.e., "Very familiar" means it would be very easy for you to talk about the topic extensively; "Not familiar at all" means you don't really know anything about this particular cultural aspect of the target language you're going to teach).

	Very familiar	Sufficiently familiar	Not sufficiently familiar	Not familiar at all
Socio-historical background on the target culture (e.g., history, political systems, religions, traditions)				
Forms of cultural expression (literature, music, art)				
Daily life, routines, living conditions				
Communication patterns in the target language (e.g., indirect vs. direct communication patterns)				
Youth/pop culture				
The range of cultural diversity in the target language (e.g., many diverse cultural groups in many different countries speak Spanish)				
Value systems and beliefs				
Relationship between the target language and culture (e.g., how culture influences language use)				

CT BELIEF CHANGES: THE TEMPERING EFFECT

"*It's sort of like that progression when you become a teacher, you're all excited and then it's like ….the downer*"…Anja (TU)

- *Increased* culture knowledge = *decreased* CT familiarity (muted by L2/living away experience) & CT insecurity
- Increased awareness of constraining factors (time, language-focused curriculum, resource limitations)
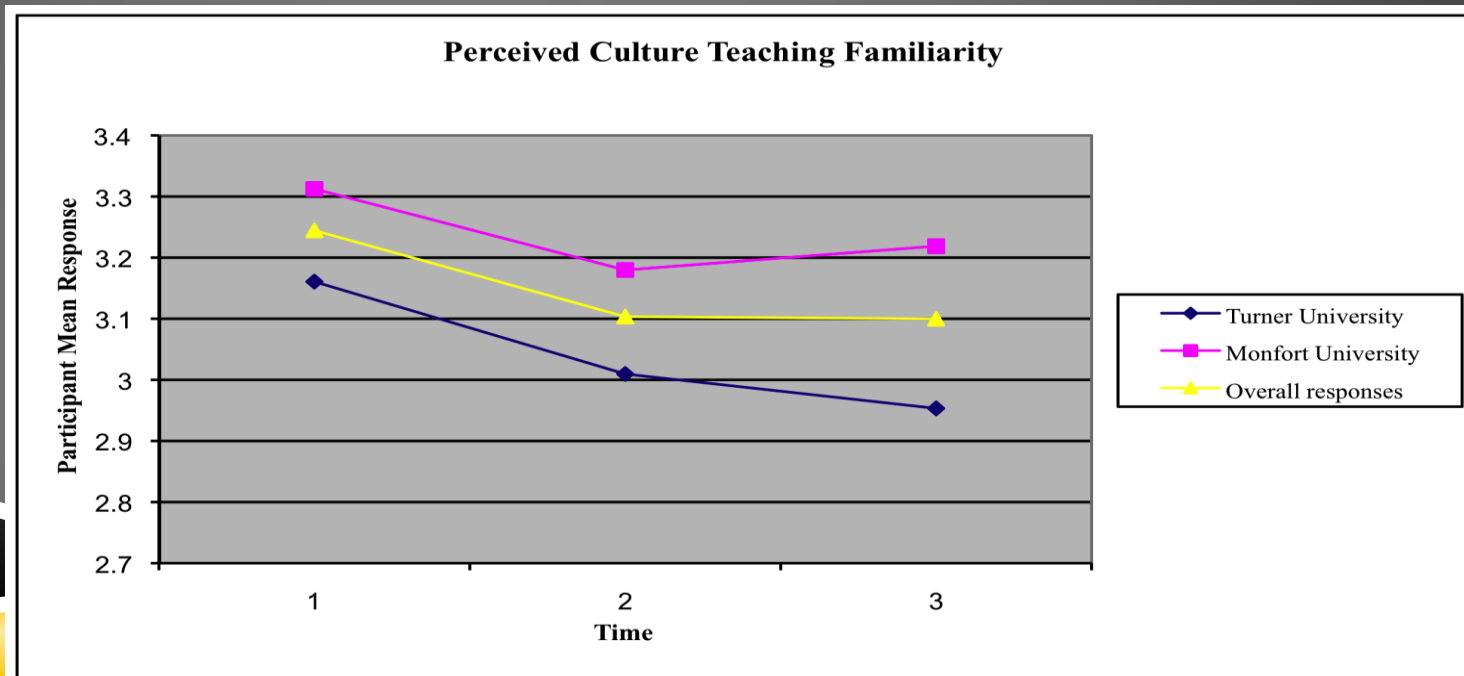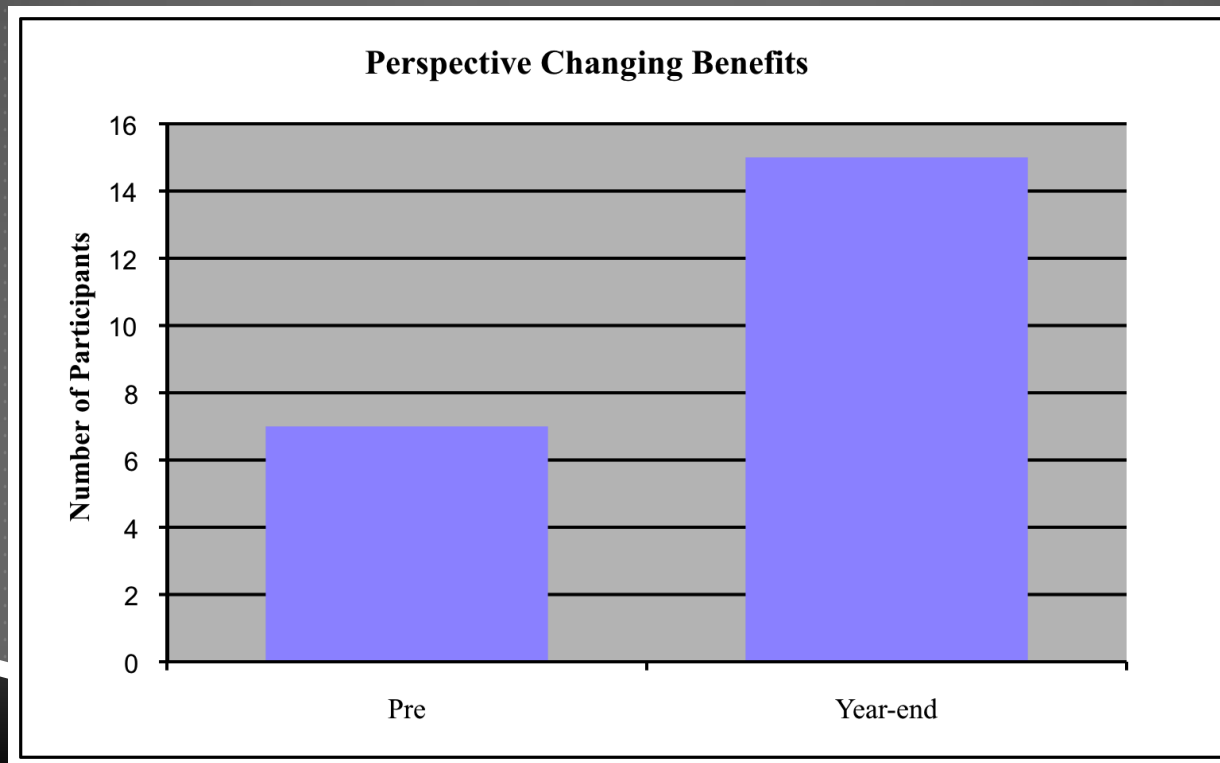
A TRANSFORMATIVE SPIKE...
...AND A LOST TEACHING OPPORTUNITY?

What topics and approaches do you see yourself using in future language classes to teach culture?

Culture Teaching Vision Spike
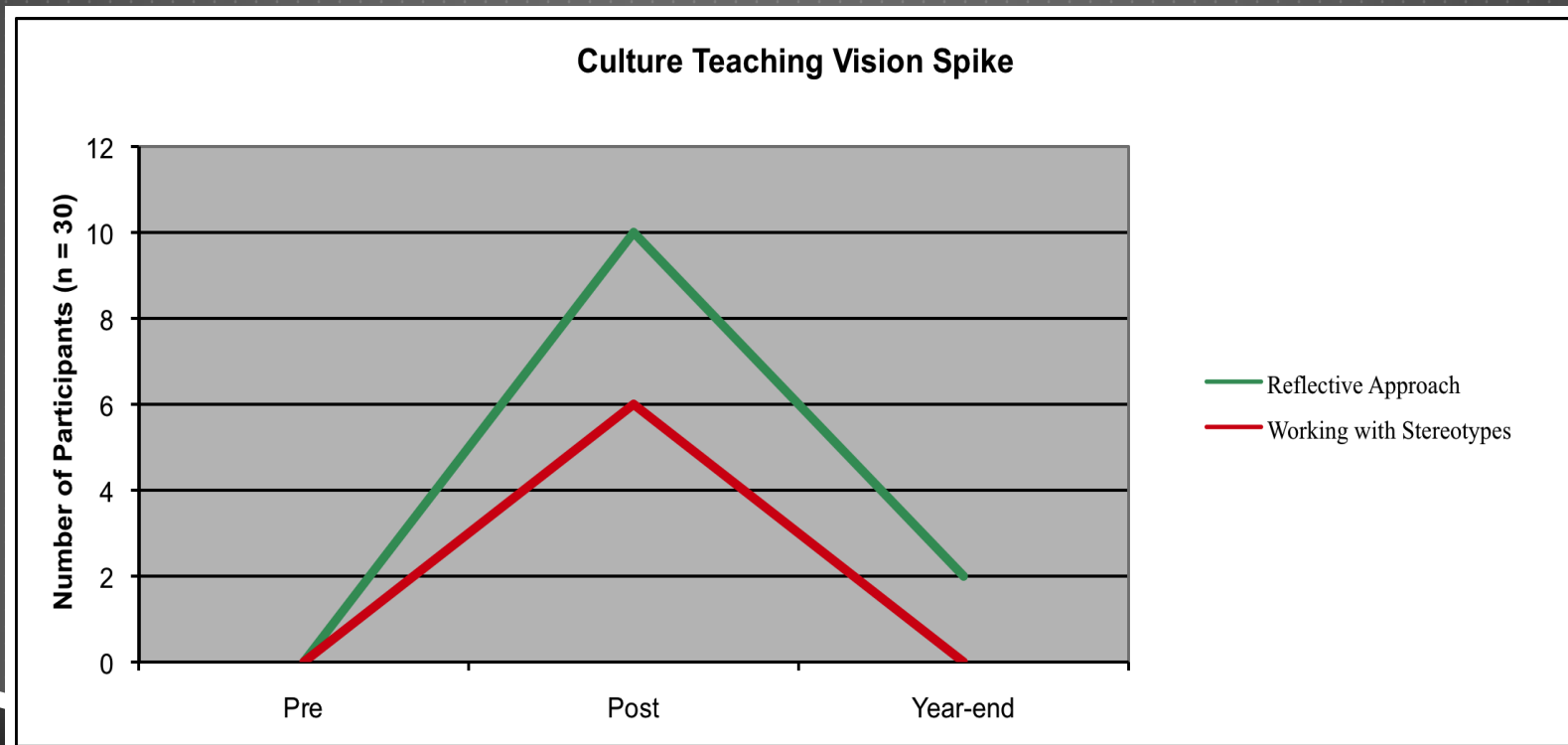
IN BOTH INSTITUTIONS, A DOUBLING IN PERCEIVED CULTURE TEACHING BENEFITS

"The benefits of teaching culture in international languages: it creates empathy and understanding"....Jennifer, MU at year-end.

Findings Integration Matrix

Participants and research focus	Data and methods	Turner University	Monfort University
Teacher educators			
Demographics	Interviews; QUAL	More TE experience; strong FSL immersion focus; strong Mexican connection; otherness-sensitized	FSL and Italian secondary focus; transformative French immersion experience; identity-sensitized
CT Goals	Observations, interviews, focus groups; QUAL	Peacemaking, sensitivity and empathy	Passion for the L2 and C2; C2 immersion
CT Practices	Observations, interviews, focus groups, QUAL	Teacher-dominated; integrated CT; CT strategy focus; emphasis on culture, language, bias	Elicitation-focused; CT overview; stereotype focus
Teacher candidates			
Demographics	Questionnaires interviews; QUAN	Younger, dominant Spanish focus; less L2 teaching and living away experience	Older, strong Italian and Spanish focus; more L2 teaching and living away experience
CT Needs	Questionnaire; QUAL/quan	Stronger concerns over cultural sensitivity	CT strategies and C2 knowledge
CT Beliefs	Questionnaires interviews, focus groups; QUAL/QUAN	Culture seen as more complex over lessons; CT *helps L2 and C2 learning* was most commonly perceived benefit; increased beliefs of perspective-changing CT benefits; increased CT confidence and enthusiasm; increased concern over stereotypes and insecurity related to target culture knowledge; CT confidence/knowledge higher with experienced TCs	
		Increased awareness of influence of culture on language	Drop in concern over CT methods and increased insecurity over cultural knowledge/stereotypes

REFERENCES

▶ Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research.* (2nd ed.). Thousand Oaks, CA: Sage.

▶ Greene, J. C., & Caracelli, V. J. (1997). Defining and describing the paradigm issue in mixed-method evaluation. In J. C. Greene & V. J. Caracelli (Eds.), *Advances in mixed-method evaluation: The challenges and benefits of integrating diverse paradigms. New directions for evaluation* (pp. 5-17). San Francisco: Jossey-Bass.

▶ Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., Hanson, W. E. (2003). Advanced mixed methods research design. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 297-319). Thousand Oaks, CA: Sage Publications, Inc.

MM links:

http://obssr.od.nih.gov/scientific_areas/methodology/mixed_methods_research/section2.aspx