

## LESSON PLAN

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### GRADUATE LEVEL RESEARCH METHODS CLASS ON MIXED METHODS

**TOPIC:** *Data Transformation: Quantifying Qualitative Data*

**READING:** Chapter 7: Data transformation and other strategies for mixing during analysis. From Creamer, E. G. (2018). *Introduction to Fully Integrated Mixed Methods Research* (pp. 116-141). SAGE

#### SESSION OBJECTIVES

Strategies for converting data are common in mixed methods research. This includes quantifying qualitative data and qualifying or adding dimensionality to quantitative data. With the increasing sophistication of qualitative and mixed methods software, not to mention AI, much has changed about the how qualitative is analyzed and visualized.

This unit illustrates how, after emergent coding is complete, qualitative data can be quantified in a data matrix and examined for relationships that could later be tested through quantitative procedures.

On completing the lesson, students will be able to develop critical thinking skills and:

1. Define what is meant by data transformation and to “quantitize” or “qualitize” data.
2. Generate themes/hypothesis about patterns and relationships in an excerpt from a coding matrix.

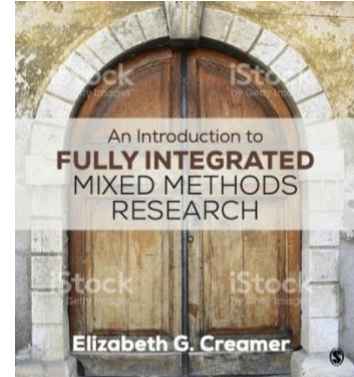
#### CLASS ACTIVITY AND ASSIGNMENTS

With its inclusions of strategies, conditions, and outcomes, the excerpt from a larger spreadsheet shown below is a data matrix that reflects key elements of post-positivist, realist grounded theory. It is organized to reflect research involving observations like what could occur if you were observing a classroom, playground, or interaction between a client and a patient. Two observations are shown; each which is broken down into incidents. The Xs in each cell is a type of intensity coding. It reflects the number of times that a construct (i.e., strategy, condition, outcomes) was observed in the incident.

Individually or in small groups, first, imagine a context about what might be being observed. Imagine that the strategies are being implemented by a teacher or therapists. Secondly, generate three tentative themes or hypothesis about the links between strategies and outcomes and the possible role of conditions. An example of this is:

1. Strategy 1 is linked to outcome 1, when there are no conditions.

### **Data Transformation: Quantifying Qualitative Data to Identify Relationships**



		Strategies				Conditions		Outcomes	
Obs.	Incident	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Condition 1	Condition 2	Outcome 1	Outcome 2
1	1	X, X, X,X						X,X,X	
	2		X, X			X			
	3				X, X, X				X, X, X
	4			X. X, X					X, X
2	5		X, X, X				X		
	6	X, X, X						X, X	
	7				X				X
	8	X, X						X, X	

**From:** Creamer, E. G. (2024, July). Chapter 4: Visual Displays that Contribute to Managing and Organizing Data. *Visual Displays in Qualitative and Mixed Methods Research*, Routledge.

#### SUPPLEMENTAL MATERIAL

**Video:** *Visualizing Qualitative Data with a Coding Matrix*.

<https://www.youtube.com/watch?v=ngY7lmPxRxo>