Data Collection

EDCP 585E
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Teachers as Advocates

- Before we begin talking about data collection, we must first think about why teachers engage in inquiry.
- The classroom teacher might engage in inquiry in order to challenge policy makers and improve teaching practices.
History of Data Collection

- Data Collection methods have originated from a variety of disciplinary backgrounds, drawing on distinct histories and various disciplinary perspectives.

- Anthropology, psychology, sociology, neuroscience are just some of the fields that are mentioned that are used in data collection.

Definitions

- We find definitions to be neat and tidy when we organize our thoughts about terminologies, but definitions and vague isms can “lure us into dangerous liaisons if we entertain them enthusiastically or embrace them without reservation” (Aitken, 2002, p. 393).
Letting go of some of these Definitions

Letting go of some of these definitions enables teachers to engage more effectively as insider researchers. As teachers conduct insider research inquiry in school settings, they depend on this subjective knowing as they modify their data collection methodologies to fit the dynamics of school settings, resulting in stronger and effective inquiry study inside schools.

Challenge

The challenge for teachers as researchers is to draw together activities into a focused and manageable study that addresses the inquiry question.
My Thoughts about Data Collection

Teachers need to look at data with a critical lens, ask questions and be a part of a supportive team in order to address the inquiry question. Pick the data that best suits your research needs and be prepared to change the methodology as your inquiry may evolve.

Flexible Design

Data collection methods are not always known in advance; as the teacher interacts with participants, he or she may determine that it is necessary to follow up on additional and different data sources to address the question under consideration.

There are varied and multiple paths that teachers can use to move from questions to answers and numerous methods to consider for data collection.
### Different Types of Data Collection Methods Employed

- Qualitative
- Quantitative
- Data from People
- Surveys
- Case Studies
- Electronic Data Collection
- Interviews
- Observations
- Ethnographies
- Descriptive accounts data
- Documents

### Qualitative Data

- Qualitative methodologies often collect data in an unstructured way. It is relational, interpretive, subjective, inductive and complex.

- The methods might involve observations and interviews and is often in the form of language.

- Qualitative researchers do not generally begin studies without some preconceived ideas about theory to support their work (Marecek, 2003).
Quantitative Data

- Is likely to involve numbers
- In some cases I’ve seen statistics, charts and scores

What is interesting is that

- Until recently, quantitative and qualitative researchers published separate journals and isolated themselves from each other and adopted different theoretical orientations toward data collection.
I have generally seen **mixed method** approach

- Mixed method means that the researcher employs both qualitative and quantitative data in their research.
- This might be done to uncover and cross-check new insights by comparing contradictory or complex findings from several methods.
- For example an elementary teacher in Massachusetts, collected data for five years from the classroom and playground including observations, audiotapes, field notes, samples of writing, performances, and narratives of children during classroom events as she pursued her study on gender.

The mixed method approach is useful in the sense that:

- Qualitative research may provide background information on context and subjects. Quantitative data collection may plug gaps in quantitative study if some issues need to be quantified.
Data From People

- Usually these are the participants in the study. A study can involve one participant or multiple people.

- There are multiple types of participants that could be involved in the research for instance:
  - Homogeneous sampling focuses on groups with similar characteristics
  - Random purposeful sampling adds credibility when potential sample is too large
  - Criterion sampling meets some stated criteria for group membership

Surveys

- Surveys are frequently used to obtain opinions from people regarding feelings, beliefs, and attitudes to gain information related to the issue under study.

- Generally a survey or a questionnaire is the main instrument used to collect data from participants
Interviews

- Researchers who might choose this method might obtain perspective and opinions from participants. Individuals from a group can share understandings and experiences that may include their own: thoughts, feelings, motivations, and the actions of others.

Observations

- Observing human behavior in natural settings gives us an insight into their behavior and interrelationships among groups.
Ethnography

Ethnography is a qualitative research design. Researchers might use this method to observe, explore and examine the socio and cultural dynamics in settings such as schools.

Descriptive Accounts Data

Narratives

Narratives and stories collected from participants examine how participants embrace the complex nature of conditions that shape their lived experiences as well as the intrinsic structures of how a story is told or written.

Teacher autobiographies are personal stories shaped by knowledge, values and feelings.

*They can also be shaped by our past or present experiences and what we look forward to in the future.*

Wendy Lutrell (2010) said: write as though you are in a conversation with yourself, establish a regular practice of writing at least once a week, and use a system of organizing your work with dates and topics.
Documents

- Are frequently used to provide background and contextual material for a study such as school policies, demographic information on school websites, capture ongoing records over a period of time, and insights into the context from where the research takes place.

Case Studies

- Is a method to provide insight and to capture the complexity of individuals, schools and communities. It is an in-depth investigation into the context and a setting of a condition.

- This method is useful when examining participant relationships as well as their actions, attitudes, motivations and stressors in organizational settings.
Electronic Data Collection

- Researchers might get creative and use multimodal means to obtain information.
- For example: teachers as participants may be asked to create visual images of some aspect of their teaching or to express their feelings about specific topics.

Conclusion

- In the end, research inquiry is for teachers who want to understand themselves and improve their practice.
- Teachers as researchers think critically about the design and methodologies used to conduct research.
- They develop habits of professional inquiry either individually or collaboratively.
- Lastly they think critically about design and methodologies used to conduct insider studies in school settings. They bridge ethical stance and diligence to a more formal inquiry process.