A Closer Look at Methodology

Jennifer Sharples Reichenberg, Ph.D.
Choice of Research Design

Staying Organized and Focused

Data Analysis

Keeping Track of Coded Data

Aha!
Choice of Research Design

Multiple Case Study

Bounded by the cases (Creswell, 2013)
Within a real-life context (Yin, 2009)
Multiple sources of data (Yin, 2009)
Seeking understanding of a specific issue or concern (Creswell, 2013)
“Intensive, in-depth examination” (LeCompte & Preissle, 1993, p. 33)
Specific “aspects of a given phenomenon” (LeCompte & Preissle, 1993, p. 33)
Staying Organized and Focused
<table>
<thead>
<tr>
<th></th>
<th>Transcribed coaching session audio</th>
<th>Coaching session notes</th>
<th>Field notes and videos</th>
<th>Classroom artifacts</th>
<th>Analytic memos</th>
<th>Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna</td>
<td>9 sessions 226 minutes total</td>
<td>9 sets</td>
<td>7</td>
<td>35</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Fay</td>
<td>10 sessions 282 minutes total</td>
<td>10 sets</td>
<td>8</td>
<td>33</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Isabella</td>
<td>10 sessions 284 minutes total</td>
<td>10 sets</td>
<td>12</td>
<td>37</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Patrick</td>
<td>11 sessions 290 minutes total</td>
<td>11 sets</td>
<td>12</td>
<td>48</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>40 sessions 1,082 minutes</td>
<td>40 sets</td>
<td>39</td>
<td>153</td>
<td>84</td>
<td>8</td>
</tr>
</tbody>
</table>
Data Maintenance Plan

After a Coaching Session

Memo
Transfer audio
Transcribe audio
Coaching session notes – share with teacher
Artifacts – collect and name
Make materials – share with teacher
Reflection guide
Grid

After a Classroom Visit

Memo
Transfer video to my computer
Transfer video to portable computer
Field notes
Artifacts – collect and name
Grid
Time stamp
Templates

Reminded me of what I needed to write down or do (e.g., field notes: number of students, times)

Maintained coherence for me across the data (same information on every set of field notes)
As I was talking, Fay said something like, “Just keep going, and I’m going to work on this (her broken computer situation) while you talk.” However, by the mid-beginning of the session, she seemed to give our conversation her full attention and was invested (adding, making suggestions, etc.)

How do you judge the engagement of a teacher in a coaching session? – good question to think about further
Transcription

Within 24 hours
Did all transcription myself
Echo dictation with Dragon Naturally Speaking Software
Hardest part of the process – 30 minute session took 2 hours
Major step in data analysis
Add to analytic memos
Data Analysis
During data collection – Analytic memos (Glesne, 2011)

Transcribed and reread all written data and write initial impressions (Creswell, 2013)

Chronological portrait for each teacher

Defined and coded categories deductively based on research questions:
✓ Mediation by coach
✓ Mediation by framework
✓ Mediation by video

Apply descriptors e.g., “revoice”

Looked for themes within each category (Creswell, 2013)

Noticed differences and similarities across steps in the framework

Solidified codes

Reorganized by looking at each step in the framework instead of each category based on research questions (Creswell, 2013)

Re-coded all data (Rubin & Rubin, 1994)
Write Down All Data Analysis Steps and Dates for Two Reasons

1) Methodology chapter: Easiest to write!

2) Prove to yourself you are making progress
Initial analysis of complete corpus of data: March and April (began March 30)
Chronological rereading of each teacher’s material
On the transcript - Highlight important moments and make marginal notes
Development highlights (separate document)
  - Contextual Factors
  - Development
  - Lack of Development
  - Important Moments
Chronology of each cycle (separate document)
Pre- and post-interview highlights
Write a memo after initial analysis of each teacher

Meeting with Co-chairs – discuss approach to writing up findings - 4/14/16
During data collection – Analytic memos (Glesne, 2011)

Transcribed and reread all written data and wrote initial impressions (Creswell, 2013)

Chronological portrait for each teacher

Defined and coded categories deductively based on research questions:
- Mediation by coach
- Mediation by framework
- Mediation by video
- Reflective stance

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Second layer of analysis of complete corpus of data (began April 15)

1) Identify/Code mediation by the coach

“Mediation by the coach” defined as:

*Teacher’s perceptions* of the way the role, actions, or words of the coach supported their development

*Coach’s words or actions* that aim to support development of teacher thinking or practice

*Teacher’s actions that communicate need* for or use of coach to support development of teacher thinking or practice

Method:
1) Read and code the pre- and post-interview notes
2) Read and code the chronology
3) Read and code the transcripts
4) Read and code the memo written after initial analysis
5) Read and code the individual development highlights
6) Read and code cross-case highlights
7) Go back into original data for clarification and context throughout
8) Put everything coded as “mediation by coach” on a separate document “Coach mediation”
9) Look for common codes within this document and divide instances of mediation by the coach into common codes on the document
10) Create a document of codes for all teachers to look for common codes or unique codes and to collapse similar codes

Research Questions:
Code for Mediation by Coach, Video, and Framework

Recording Data Analysis Steps
During data collection – Analytic memos (Glesne, 2011)

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Chronological portrait for each teacher

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## Final List of Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Code</th>
<th>Present in framework steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers identifies perplexity independently – Something went wrong</td>
<td>WW</td>
<td>1</td>
</tr>
<tr>
<td>Teachers identifies perplexity independently – Sense of unease</td>
<td>UE</td>
<td>1</td>
</tr>
<tr>
<td>Teachers identifies perplexity independently – Observing students</td>
<td>OS</td>
<td>1</td>
</tr>
<tr>
<td>Suggesting by coach</td>
<td>SUG</td>
<td>1, 3, 4, 5, 6</td>
</tr>
<tr>
<td>Teacher initiated: Remember</td>
<td>REM</td>
<td>2</td>
</tr>
<tr>
<td>Teacher initiated: Description</td>
<td>DES</td>
<td>2</td>
</tr>
<tr>
<td>Teacher initiated: Noticing</td>
<td>NOT INT (interview)</td>
<td>2</td>
</tr>
<tr>
<td>Teacher initiated: Connecting</td>
<td>CON</td>
<td>2</td>
</tr>
<tr>
<td>Teacher considers students’ perspective</td>
<td>PER INT (interview)</td>
<td>2</td>
</tr>
<tr>
<td>Teacher judges</td>
<td>JUD</td>
<td>2</td>
</tr>
<tr>
<td>Teacher or coach views video to answer a specific question</td>
<td>SQ INT (interview)</td>
<td>2</td>
</tr>
<tr>
<td>Coach prompted description through a question</td>
<td>CP DES QUEST</td>
<td>2</td>
</tr>
<tr>
<td>Coach prompted description through a statement</td>
<td>CP DES STATE</td>
<td>2</td>
</tr>
<tr>
<td>Coach prompted description through a statement that leads to building</td>
<td>CP DES STATE BUI</td>
<td>2</td>
</tr>
<tr>
<td>Coach prompted description through a question that leads to building</td>
<td>CP DES QUEST BUI</td>
<td>2</td>
</tr>
<tr>
<td>Coach models description</td>
<td>C MOD</td>
<td>2</td>
</tr>
<tr>
<td>Coach models description to answer a specific question</td>
<td>C MOD SQ</td>
<td>2</td>
</tr>
<tr>
<td>Building by coach and teacher / Co-articulation</td>
<td>BUI (steps 2, 4, 5, 6)</td>
<td>2, 3, 4, 5, 6</td>
</tr>
</tbody>
</table>
Steps 4 and 5
Generating and Selecting Alternatives

TE 16.03.02
Patrick I know at some point in time as well I like to talk a little more just to get your guidance on constructing this essay, this research essay. You helped put together some things and if we could find some time to talk about constructing that

SUG 15.12.09
Jen So, that might be a good place for you guys to start as well - looking at model texts and how authors structure their arguments.
### Origins of perplexity

<table>
<thead>
<tr>
<th>Coach</th>
<th>Went wrong</th>
<th>Unease</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CS</td>
<td>INT</td>
<td>CS</td>
</tr>
<tr>
<td>Anna</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Fay</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Isabella</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Michael</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>10</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CS + I</td>
<td>10</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

CS – Coaching sessions
INT – Interviews

### Origins of perplexity with DATES

<table>
<thead>
<tr>
<th>Coach</th>
<th>Went wrong</th>
<th>Unease</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CS</td>
<td>INT</td>
<td>CS</td>
</tr>
<tr>
<td>Anna</td>
<td>11/9, 2/10, 3/16</td>
<td>0</td>
<td>12/21</td>
</tr>
<tr>
<td>Fay</td>
<td>11/4, 2/3, 3/9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Isabella</td>
<td>0</td>
<td>0</td>
<td>12/16, 1/20, 2/10</td>
</tr>
<tr>
<td>Michael</td>
<td>10/21, 1/20, 11/17</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CS – Coaching sessions
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model and suggest</td>
<td>Model</td>
<td>Model and suggest</td>
<td>Model and suggest</td>
<td>Model and suggest</td>
</tr>
<tr>
<td>Model and suggest</td>
<td>Model and suggest</td>
<td>Model and suggest and select</td>
<td>Ask dissonant questions</td>
<td></td>
</tr>
<tr>
<td>--</td>
<td>--</td>
<td>Reconceptualize</td>
<td>Reconceptualize</td>
<td>Reconceptualize</td>
</tr>
<tr>
<td>--</td>
<td>Build</td>
<td>Revoice</td>
<td>Revoice</td>
<td>Build</td>
</tr>
<tr>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Ask question to develop intersubjectivity to inform coaching</td>
<td>--</td>
</tr>
</tbody>
</table>

**Codes: Types of Joint Actions Initiated by the Coach**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Suggest</td>
<td>--</td>
</tr>
<tr>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Disagree</td>
<td>--</td>
</tr>
<tr>
<td>--</td>
<td>Build</td>
<td>Build</td>
<td>Build</td>
<td>--</td>
</tr>
<tr>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Ask question to develop intersubjectivity (seeking targeted expertise)</td>
<td>Ask question to develop intersubjectivity (seeking targeted expertise)</td>
</tr>
</tbody>
</table>

**Codes:**

Types of Joint Actions Initiated by the Teacher
Consonance
Dissonance
Bakhtin, 1981/2003
Rommetveit, 1988
Wertsch, 1998

Categories of Joint Action
Directive/Dissonant
Responsive/Dissonant
Directive/Consonant
Responsive/Consonant
Rogoff, 1990
Tharp & Gallimore, 1995
Wenger, 2008
Wertsch, 1998

Responsive
Directive
Deussen et al., 2007
Dozier, 2006
Ippolito, 2010

Joint Action
When? Why?
Historic and dynamic context
Lemke, 2001
Mercer, 2008