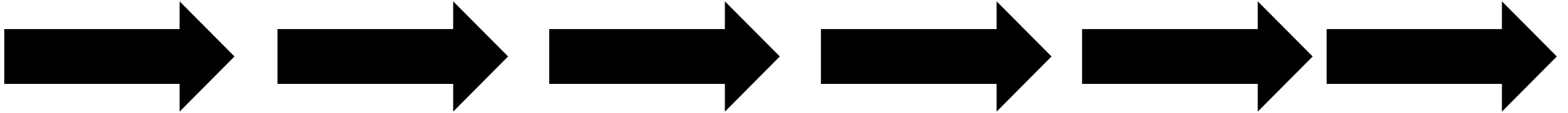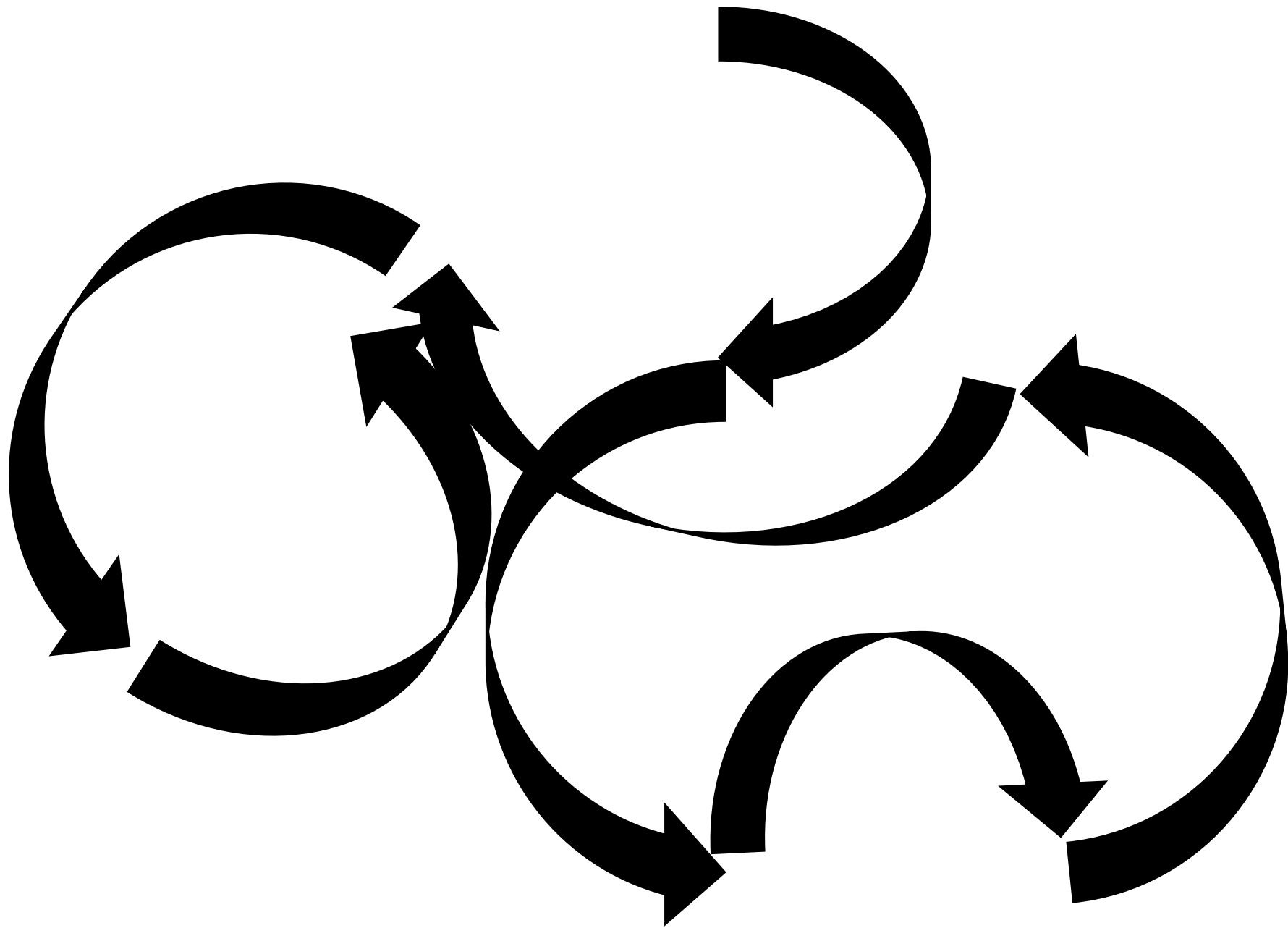# A Closer Look at Methodology

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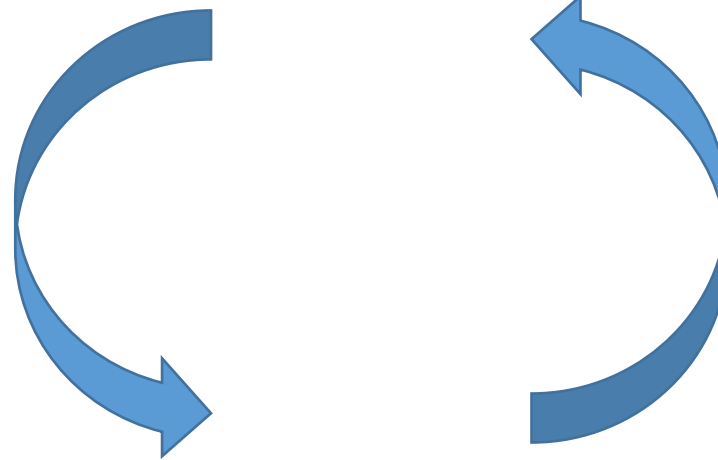
Choice of Research Design

Keeping Track of Coded Data

Staying Organized and Focused

Aha!

Data Analysis

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

Transcription

Templates

Analytic Memos

Data Maintenance Plan

Data Grid

	Transcribed coaching session audio	Coaching session notes	Field notes and videos	Classroom artifacts	Analytic memos	Interviews
Anna	9 sessions 226 minutes total	9 sets	7	35	17	2
Fay	10 sessions 282 minutes total	10 sets	8	33	19	2
Isabella	10 sessions 284 minutes total	10 sets	12	37	24	2
Patrick	11 sessions 290 minutes total	11 sets	12	48	24	2
Totals	**40 sessions 1,082 minutes**	**40 sets**	**39**	**153**	**84**	**8**

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)

Teacher Pseudonym: Date:
Period # / Time: Subject:
Grade: No. of Students (M/F):

Field Notes
  Template

Teacher Pseudonym: Date:
Context: Subject:
ANALYTIC MEMO

Analytic Memo
  Template

**Analytic Memos
Written <u>Immediately</u>
After Experience**

Fay
15.12.16

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

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
✓ Reflective stance
(Creswell, 2013; Glaser & Strauss, 1967/2006; Rubin & Rubin, 1994)

→

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

Case by Case Analysis : Create Chronological Portrait for Each Teacher

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

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Solidified codes

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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)

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

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
- ✓ Reflective stance

(Creswell, 2013; Glaser & Strauss, 1967/2006; Rubin & Rubin, 1994)

→ 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)

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
- ✓ Reflective stance

(Creswell, 2013; Glaser & Strauss, 1967/2006; Rubin & Rubin, 1994)

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Data Analysis

During data collection – Analytic memos
(Glesne, 2011)

→

Transcribed and reread all written data and write initial impressions
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Re-coded all data
(Rubin & Rubin, 1994)

		Final List of Codes	

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

Patrick

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

	Coach		Went wrong		Unease		Students	
	CS	INT	CS	INT	CS	INT	CS	INT
Anna	3	0	1	2	1	0	1	0
Fay	3	0	0	0	0	1	5	1
Isabella	0	0	3	0	2	3	3	1
Michael	4	0	0	1	2	0	4	0
Totals	10	0	4	3	5	3	13	2
CS + I Totals		10		7		8		15

CS – Coaching sessions
INT – Interviews

Origins of perplexity with DATES

	Coach		Went wrong		Unease		Students	
	CS	INT	CS	INT	CS	INT	CS	INT
Anna	11/9, 2/10, 3/16	0	12/21	Pre / post	3/16	0	10/28	0
Fay	11/4, 2/3, 3/9	0	0	Pre / post	0	Int	11/17, 3/2, 3/2, 3/16, 3/16	PRE
Isabella	0	0	12/16, 1/20, 2/10	0	11/4, 2/10	Pre, post, post	10/6, 3/2, 3/2	pre
Michael	10/21, 1/20, 2/10, 11/17	0	0	pre	11/17, 3/2	0	10/6, 11/4, 11/4, 3/2	0

CS – Coaching sessions

Framework Step 1: Identify initial perplexity	Framework Step 2: Describe video	Framework Step 3: Articulate focused central challenge	Framework Steps 4 and 5: Generate alternatives and select	Framework Step 6: Enact
Model and suggest	Model	Model and suggest	Model and suggest Ask dissonant questions	Model and suggest
--	--	Reconceptualize	Reconceptualize	Reconceptualize
--	Build	Revoice Build	Revoice Build	Build
--	--	--	Ask question to develop intersubjectivity to inform coaching	--

Codes: Types of Joint Actions Initiated by the Coach

Framework Step 1: Identify initial perplexity	Framework Step 2: Describe video	Framework Step 3: Articulate focused central challenge	Framework Steps 4 and 5: Generate alternatives and select	Framework Step 6: Enact
--	--	--	Suggest	--
--	--	--	Disagree	--
--	Build	Build	Build	--
--	--	--	Ask question to develop intersubjectivity (seeking targeted expertise)	Ask question to develop intersubjectivity (seeking targeted expertise)

Codes: Types of Joint Actions Initiated by the Teacher

Joint Action
Rogoff, 1990
Tharp & Gallimore, 1995
Wenger, 2008
Wertsch, 1998

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

**Consonance
Dissonance**
Bakhtin, 1981/2003
Rommetveit, 1988
Wertsch, 1998

Categories of Joint Action
Directive/Dissonant
Responsive/Dissonant
Directive/Consonant
Responsive/Consonant

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