

## **The (un)making of the teacher—record, pause, rewind: Methodological issues of integrating video and research**

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One of the well-documented quandaries pre-service teacher education programs face when working with teacher candidates, is addressing the misconceptions of teaching that these future teachers bring to the pre-service teacher education program (Darling-Hammond & Baratz-Snowden, 2005). *The (Un) Making of the Teacher* – which from this point forward shall be referred to as *(Un)Making* – refers to a SSHRC<sup>1</sup>-funded research study that explores a small group of teacher candidates' (i.e., pre-service teacher education program students) conceptions of teaching and learning as they progress through a one-year pre-service teacher education program. The study incorporates a documentary filmmaking approach, which to the best of my knowledge, at the time of the study's conception, has not previously been documented in the teacher education literature. The purpose of this paper is to share the methodological issues that emerged in the organization, participant selection, and data collection phases of the research study. At the onset of *The (Un)Making* research the following question framed some of my video/audio/field notes:

What issues arise when incorporating the video camera for data collection and eventual mobilization of knowledge?

To contextualize the issues, I first provide a brief overview of the *(Un)Making* study, including the background to the study, the theoretical framework, and the study's methods. The methodological issues specific to these initial phases of the research study will follow, accompanied by a description of my attempts at either resolving the issues or preventing similar issues from reoccurring as the research study progressed.

### **How (un)making came to be**

*(Un)Making* emerged after almost a decade of working with teacher candidates as a teacher educator, whereby year after year, I noted similar challenges related to future teachers' deeply rooted assumptions about teaching and learning that permeated their notions about how to create meaningful instructional experiences for K-12 learners. This is consistent with the teacher education research that suggests “if preconceptions about teaching are not addressed, prospective teachers can unconsciously cling to ineffective practices and fail to learn more-beneficial approaches” (Darling-Hammond & Baratz-Snowden, 2007, p. 117). This could be due to what Lortie (1975) coined as “the

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apprenticeship of observation", the notion that individuals enter teaching after many years of schooling, and as such, the "student" experience, largely shapes our conceptions, of what it means to teach.

The difficulty for both programs and teacher candidates is summarized eloquently by Alice Pitt (2010):

21st-century teaching means pressing even harder against the strong tides of tradition that painstakingly built the schools where our future teachers formed their own understanding of what school is like. The dilemma for pre-service programs is to prepare future teachers for schools as they currently exist while also enlarging their vision about what schools and public education might, should, or will become" (para. 2 & 3).

This is detrimental to the profession in that "teaching from this observational and non-analytical perspective appears to be a simple action, guided either by custom (this is the way teaching is done) or by nature (this is the kind of person I am)" (Labaree, 2000, p. 232). As a result, teaching is often viewed as a transmissional process of delivering curriculum to students, simply requiring knowledge of subject matter (Darling-Hammond & Baratz-Snowden, 2005). At the beginning of each new academic year, I would witness this transmission-oriented and non-analytical perspective within the new group of teacher candidates, and at the end of the program, I would contemplate why some teacher candidates shifted their understandings about teaching and learning, while others clung tightly to their initial beliefs. After 10 years of contemplation, *(Un)Making* formalized my ponderings to explore more deeply the two following questions: 1) How do teacher candidates' conceptions or misconceptions of what it means to "teach" evolve over the course of a one-year pre-service teacher education program? 2) What circumstances within the pre-service program (e.g., course work; interactions with other teacher candidates, faculty, students in K-6 classrooms, schools; practicum experiences) prevent or encourage such educational paradigm shifts to occur?

Although it is teacher candidates' conceptions (and/or misconceptions) of teaching and learning that this study addresses, the output—the documentary film—would also bring this complexity to life for non-teachers, which is critical for educational change to happen. Like teacher candidates who enter pre-service programs with misconceptions of teaching, non-teachers in society might also still cling to their own misconceptions of teaching, believing that teaching is an easy job. Darling-Hammond and Baratz-Snowden (2007) acknowledge that teaching is still regarded, "merely as proceeding through a set of curriculum in a manner that transmits information from the teacher to the child." (p.112), and that many still see teaching as a less-than complex profession that basically only requires knowledge of subject matter (ibid). Our teachers are charged with leading educational change by fostering skills of creativity and innovation, communication, collaboration, and critical thinking (C21 Canada, 2012), however the pedagogy and outcomes to foster such skills may oppose traditional paradigms of education, and create resistance. For paradigms to change, those who resist educational change initiated by teachers and schools must also examine their deep seated preconceptions of teaching and learning.

Lastly, the idea of "(un)making" teachers emerged at a social gathering where upon learning my profession, a new acquaintance summarized my work by suggesting I "make" teachers. At that moment, I immediately responded, "No, I am trying to unmake teachers", reflecting the need to mobilize the research beyond the academy. The final research output—*The (Un) Making of the Teacher* documentary film—attempts to mobilize the knowledge to all audiences, and in doing so, the film might encourage discourse amongst audiences, and perhaps begin "unmaking" public perceptions to help shift education paradigms, deeply entrenched in tradition.

## **Theoretical Framework**

This work draws from several theoretical perspectives including biography, documentary film, and more broadly—visual research. Each of these perspectives is now briefly described.

### *Visual research*

Banks (2007) posits that analysis of the “visual” (i.e., use of images, film, video, drawings, etc.) could be used in most social research studies, however, there exist “numerous variations of the relationship between images and analysis” (p. 38). Banks (2007) explains these variations typically reflect the: 1) approach to analyzing the “visual”; 2) manner in which the visual data is obtained; and 3) “issues being analyzed” (p.38); all largely rooted in the epistemological and ontological assumptions underlying the research.

Although visual research, especially within anthropological and sociological work, is not a new research approach to research methods (Banks, 2007; Pink, 2012; Pauwels, 2011), Pink (2012) suggests that visual research methods are becoming more interdisciplinary in nature. Pauwels (2011) describes visual research within the context of visual sociological and visual anthropologic contexts: “visual sociology and visual anthropology are grounded in the idea that valid scientific insight in society can be acquired by observing, analyzing, and theorizing its visual manifestations: behavior of people and material products of culture” (p.3).

As a novice visual researcher, I used Pauwel’s Integrated Framework for Visual Social Research (Pauwels, 2010) as a framework of the possible approaches within the visual research context. Pauwels (2010) explained the framework is not intended to be prescriptive but provides enhanced understanding and awareness to visual research. The framework provides an overview of the “interconnected options and opportunities researchers have when considering using visual input and/or output in the study of society and culture” (Pauwels, 2011, p.4). The framework also organizes visual inputs and outputs based on the origin and nature of visuals, research focus and design, and format and purpose (Pauwels, 2010).

### *Biography*

Educational biography, a type of research within the biographical research family, explores the lives of individuals within the educational realm (Kridel, 1998). Guided by the study’s research questions, this work also draws from the work of Denzin’s (1989) interpretive biography methods. Documenting the teacher candidates’ conceptions as they enter and progress through a pre-service teacher education program, seeks to understand the individuals’ “turning-point moments” (Denzin, 1989, p.69) as well as epiphanies or the “interactional moments and experiences which leave marks on people’s lives. In them, personal character is manifested. They are often moments of crisis which alter the fundamental mean and structures in a person’s life. Their effects may be positive or negative (Denzin, 1989, p. 70).

### *Documentary filmmaking as a process and product*

In the 1930s, John Grierson, a documentary film pioneer, coined the term “documentary” to describe a “creative treatment of actuality,” (as cited in Nichols, 2010, p.6). Well-known film theorist, Bill Nichols (2010) suggested that an agreeable definition of documentary film has not been achieved, nor is it necessary. Instead, Nichols (2010) suggested that “More important is how every film we consider a documentary contributes to an ongoing dialogue that draws on common characteristics that take on new and distinct form, like an ever-changing chameleon” (p. 6).

This research is grounded in the work of Nichols (2010) who made the following three “commonsense assumptions” (p.7) regarding the documentary genre, acknowledging that some of

the terminology requires clarification: "Documentaries are about reality; about real people; tell stories about what really happened" (p. 33). By adding the video camera to capture the individual lives of teacher candidates, this research holds potential to distinguish itself as a research process and product. Documentary film has been used in educational research as a source or form of archived data (Warmington, Van Gorp, & Grosvenor, 2011), as a data collection strategy (Schuck & Kearney, 2006), and in other non-educational research, as an innovative way to conduct research (Shrum, Duque, & Brown, 2005).

Goodman (2004) maintains that several similarities exist when the disciplines of research and documentary filmmaking intersect; both "help others understand a particular phenomenon" (p. 335), however, researchers and documentary filmmakers could learn much from each other (Goodman, 2004). By using video/documentary film as part of the research process, the camera is used not only as a form of data collection to explore the lives of individuals but to also mobilize the knowledge to a wider audience outside of the academy (Petrarca & Hughes, 2015). Keeping with the interpretive biographical method within this educational context, it is hoped that the participants' turning-point moments (Denzin, 2012) will be described with and through the video camera by documenting participants' accounts and experiences as they progress through the Bachelor of Education program.

### **Methodology**

The *(Un)Making* study seeks to understand issues related to a small group of teacher candidates' conceptions of teaching and learning as they enter and progress through a two-semester Bachelor of Education program, within multiple bounded systems or cases (Stake, 1995; Yin, 2003), and as such also incorporates case study methodology. To understand the issues related to teacher candidates' conceptions and misconceptions of teaching and learning, it is necessary to explore deeply the lives of a small group of teacher candidates.

By incorporating visual methodology into this study, I hoped that the visual records of the "moments" would provide additional insight to complement the case study and biographical approach. As noted by Banks (2007), incorporating the visual into a research study allows for the revelation of some "sociological insight that is not accessible by any other means" (p.4). This study explored the full range of experiences of teacher candidates during their learning-to-teach journey, captured by the visual that may not have been fully constructed via an interview or survey.

#### *Examining the methodological issues*

Several research issues emerged within the initial stages of this research. As issues emerged, they were documented via field notes (written and videotaped) and categorized by phase of the research and topic, clustering within two key areas: technology and ethics. Within the context of this paper, technological issues represent problems related to the video camera, other related tasks and equipment such as storage of data, transfer of files, sound, light, as well as situations related to the data collection process where the video camera itself served as a hindrance to data collection. An ethical issue refers to a problem or challenge related to ethics or "a set of guidelines, principles and codes which in the case of research are used to guide the behaviour of the researcher when conducting research" (Merrill & West, 2009; p. 168). In biographical methods (or perhaps any research methods), Merrill & West (2009) suggested researchers must always consider the relationship with participants so that they are not exploited but rather as equal as possible and fully involved in the research. Within a documentary filmmaking process, Pryluck (1976) identified several ethical issues to consider regarding the individuals participating in the documentary filmmaking process, including but not limited to disclosure, exploitation, informed consent, consequences of participation, legitimacy, truth claims, and privacy.

The subsequent sections describe the participant selection and data collection processes, followed by four examples of methodological issues excerpted from my video/audio/field notes. The four examples are discussed within the emerging themes of technological and ethical issues; followed by the strategies I implemented to address the issues or strategies to minimize or prevent the issues from reoccurring as the research study progresses.

### **Getting started**

All research involving human participants in Canadian universities must follow the principles in the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (TCPS2, 2014). The university's Research Ethics Board (REB) ensures research that involves human participants complies with the policy statement. Key principles in the statement are based on core principles based on respect for persons, concern for welfare, and justice (TCPS2, 2014). If research is conducted at multiple sites, then approval from other organizations is also required. In the original research proposal for this study, I would need to obtain approval from the university's research ethics board as well as approval from school boards where the teacher candidates completed practicum placements. The intention was to also document teacher candidates in their host schools during practicum experiences, as part of their Bachelor of Education journey.

#### *Methodological Issue Example #1: Unexpected roadblocks to access*

After an adamant refusal to bring the video camera into the schools—even after school hours—I can see why educational research is so challenging....first there were many questions and clarification requests in order to obtain approval to research my own students. Now I can't get into the schools. I understand the need to protect kids but—I'm not even studying the students or the teachers. I am studying the teacher candidates. I even offered to go into the practicum sites after or before school so that I can observe teacher candidates preparing for their teaching. So frustrating. (Field notes/video recording)

This excerpt from field notes reflects only one of many “access” issues experienced during the data collection. This entry was documented early in the research process, and reflects the high levels of frustration I felt at that time.

The initial submitted application for ethical approval from the university's REB to conduct this research with human participants was returned several times requiring clarification in areas specific to “respect for persons”. Most of the areas requiring further explanation concerned ethical issues related to informed consent, confidentiality, privacy, and power relationships (Merrill & West, 2009)—all ethical issues to consider within research involving human participants *and* documentary filmmaking contexts. As noted by Shrum, Duque, and Brown (2005), video is “a more intrusive technology, a more threatening character” (p.9). The added complexity of including the video camera to capture the participants' lives for the purposes of telling the story via a documentary film raised additional concerns for the REB, requiring me to clarify further how I would ensure the respect for persons.

Issues related to the potential intrusiveness of the video camera, similar to issues regarding the intrusiveness of biography (Merrill & West, 2009), were raised by the university REB, in an attempt to protect the participants from harm as a result of the work. To address the additional ethical complexity of the video camera, it was decided that required consent was necessary prior to participation in the research study, but consent is also required post-video analysis after participants view and approve the selected clips that will be included in the final output (i.e., the documentary film). Because the camera immediately removes the participants' anonymity, the teacher candidates

needed to know that their privacy would be respected and maintained once they viewed any video clips that included them for the purposes of inclusion in the final documentary. By giving the participants the final decision-making power regarding the inclusion (or not) of video clips, the power and decision-making is hopefully shared between the participants and the researcher. The following is an excerpt-from the initial consent form that informs the participants of their rights once video analysis is complete:

If any of your footage is used, you will see the clips that I hope to use, and if you decide you do not want the footage to be included in the final documentary, I will not use it. You have the right to withdraw at any time during the process. Once the final documentary is edited together, however, you will no longer have the right to withdraw.

If I were to rewrite this section of the consent form today, I would remove the word “I” and substitute for the word “we”. This is largely due to the collaborative processes that have emerged amongst participants and researcher throughout the data collection.

An additional complexity of access involved non-participants that might be unintentionally captured by the video camera in the background. In the university setting where this research is based, non-participants could refer to other students, faculty, and support staff. Although they were not the subject of the research study, media-release consent was still required. The logistics of obtaining consent in a manner where members of the university community would not feel coerced required much consideration and review.

Lastly, access to teacher candidates in their practicum schools required initial school board REB approval prior to gaining the university’s approval. Because of the vulnerable populations (i.e., children) with whom the teacher candidates would be working, access to those sites was denied by the school board and thereby the university. Even though the children and teachers were not the focus of the study, the school boards’ primary care/responsibility was to protect the children and teachers within their school board from harm. To glean insight into teacher candidate learning during the practicum, instead of observing their experiences using the camera, the participants provided artifacts, video diaries, and post-practicum interviews related to their own learning experiences during practicum.

After many revisions and much clarification, university REB approval for working with the teacher candidates was granted to work with the teacher candidates/participants. The following materials were amended and/or included in the final research ethic board-approved application for research at the university:

- Recruitment Material: Verbal Script for Teacher Candidates (Participants)
- Consent Material: Consent Form for Teacher Candidates (Participants)
- Post Video Analysis Consent for Teacher Candidates (Final approval for participants)
- Information Material: Script for Media Release Form (for any individuals captured in background of observations)
- Consent Material: Media Release Form (for any individuals captured in background of observations)
- Video Diary Prompts for Teacher Candidates (Participants)
- Semi-structured Interview Questions for Teacher Candidates (Participants)
- Confidentiality Agreement for RAs and editors
- Thank you letter (will be on letterhead)

## Participants

Participants were drawn from the 250 teacher candidates enrolled in the final iteration of the eight-month Bachelor of Education program in Ontario, at a university in the Greater Toronto Area (GTA) in Southern Ontario, Canada. Initially, the goal was to obtain 3 – 5 participants to reflect the wide variety of individuals enrolled in the Bachelor of Education program, and from which the most can be learned, via maximum variation purposive sampling (Merriam, 1998). To reflect the diverse teacher candidate population at the university, dimensions of interest included gender, stage of career (e.g., stay at home parents or second career individuals returning to school, new graduate), or cultural diversity (e.g., newcomers to Canada, first or third generation Canadian,). After the first invitation to participate in this research, 15 teacher candidates expressed an interest in learning more about the research. After meeting with the interested individuals to discuss the project further, 13 participants eventually consented to participating in the project, and posed an unanticipated methodological dilemma.

### *Methodological issue example #2: Unexpected participant interest*

I am quite surprised at the interest this project has elicited. Why are they interested? Is this the reality show generation? I mentioned that if they sought fame, they need to reconsider their participation. If they are genuinely interested, how am I going to reduce the number of participants to five? They appear so different and I really don't want to eliminate any of them. I honestly believed that I would have trouble just getting three participants, let alone 13! How do I tell some of them they don't make the cut? Why would I not include one participant over the other? Who am I to decide which of the two second-career fathers from different cultural backgrounds would make a "better" participant? That is absurd. Or which young 20-something gets to stay in the study? I can't determine which so called "dimensions of interest" are more valuable than others. Plus, what if some of them drop out during the project? I don't know what to do...if they all participate, am I doing the study justice? Am I able to examine their individual lives to the extent that I would be able to do so if there were only 3 – 5 individuals? If I reject the majority of participants, am I doing them justice? Am I preventing voices from being heard? They all want to share a story. Who am I to determine whose story is more important? (Field notes/video recording)

The above excerpt reflects my unexpected ethical dilemma of selecting 3 – 5 participants, and thereby eliminating eight willing and eager participants from the study. Given the nature of the biographical research, I felt strongly that the labour-intensive interviews needed to be conducted by me rather than a research assistant so that a trusting relationship could be established. By excluding eight of the participants, the research would certainly be more manageable, however, the stories of eight diverse individuals would *not* be told. As the researcher, *who was I to make that decision?* Suddenly I felt as if my position of "researcher" carried with it a position of power and oppression (Freire, 2000)—a position I felt uncomfortable in holding.

After consulting with colleagues (both researchers and one documentary filmmaker), a common recommendation was to *not* eliminate any of the participants for two key reasons. First, some of the participants might eventually withdraw from the research. One has since officially withdrawn from the study. Secondly, my colleagues also suggested that the level of willingness and participation might vary amongst the individuals as the study progressed. As the research study proceeded, one participant officially withdrew from the study, while some participants did remain more active than others. Although the less-active participants did not officially withdraw from the

research study, their participation was not as enthusiastic as it was initially. The rationale for the recommendations from my colleagues approached the research issue in more of a pragmatic fashion, however, it was the ethical nature of the issue that troubled me. The issues of power and potentially omitting or excluding others who wanted to be heard was not fully addressed and still an area of great fuzziness for me. The decision to keep all participants posed other issues such as an increase in labour, time, and equipment.

### **Data Collection**

Data collection from multiple sources included videotaped individual and group interviews, participant video diaries, artifacts, and observations. I regarded the video camera merely as a data collection tool. Reflecting my lingering positivistic approach to research, I believed the role of the video camera was limited to a technological tool to facilitate data collection and to capture events to “provide a relatively incontestable description for further analysis and ultimate reporting” (Stake, 1995, p. 62). The periods of participant observation using the digital camera varied from case to case, and was largely dependent on access, and consent from individuals at various sites. The original research proposal included examples of observation sites such as on-campus classrooms, home settings, and practicum settings in schools.

#### *Methodological issue example #3: Unexpected actor*

I’m not sure how using the camera is going for observation is going to work. It created a lot of chaos today. Even though I just parked myself and the camera in the corner and zoomed in on participants, it still created a little buzz in the classroom. Maybe because this is still new and the participants and their classmates aren’t used to it? Will they ever get used to the camera in the room? Today, I had several non-participants photobomb the shots hoping to “get in the documentary”, and one non-participant actually squealed, “It’s on you now!” to one of my participants. My participant suddenly sat straighter in her seat. If this continues, this is not going to work. How can I actually “creatively capture reality” when they are too busy paying attention to the camera? (Field notes/video recording)

This excerpt was from an early video log I made after one of the first few observation sessions. Originally, the video camera sought to simply serve as an extension of me—the researcher—capturing the participant observations, interviews, artifacts in a wide variety of settings and contexts, over the course of the eight-month Bachelor of Education program. It became evident quite quickly that the camera was in fact, not an extension of me but rather an *actor* in the research (Shrum & Duque, 2008). By actually having the technology as an actor in the research then, how does the camera itself influence the participants? Shrum and Duque (2008) noted that including the video technology in the research made it “a subject of commentary and focus of action” (p. 349).

This video technology—the additional actor and subject of attention—seemed to be creating chaos, preventing the participants from being “real”. Would the participant observations be trustworthy? Would the documentary really reflect “reality” about “real” people (Nichols, 2010)? Fortunately, it appeared that the participants and non-participants alike eventually became more accustomed to the camera as the teacher candidates’ attention moved off of the camera and onto the course work.

Shrum and Duque (2008) recommend that one way to address this issue is to let the participants conduct filming. Some of *The (Un)Making* participants eventually extended the filming of their own video diaries whereby they responded regularly to prompts using their mobile devices and/or computer cameras, to other situations and contexts. Eventually, some of the participants began to spontaneously create videos to capture their excitement, disappointments, or frustrations.

As the research and school year progressed, they also began to initiate requests from me to video record their presentations or discussions during their classes. If I was unable to meet the request, the participants filmed one another using their mobile devices such as smartphones and tablet computers. The following excerpt from my field notes reflects this shift:

For the first time, today I feel that the technology is creating less chaos as I try to “capture” my participants on camera. I can’t believe one of my participants commented on the need for better lighting in one of the rooms! Others jumped in and commented on the sound quality and the actual positioning of the camera. I suddenly felt like “we were all in this together”. When probed further, the teacher candidates said that because they had been videotaping various activities and then watching them, they were getting used to the conditions that would enable the technology to best capture the situation. (Field notes/video recording)

This excerpt also introduced the notion of co-researching and co-constructing the narrative, making participants active participants in this research. To what extent will their active participation continue into the future phases of the research such as data analysis and piecing the story together? For example, will the participants see themselves as “active participants in interpreting and making theoretical sense of narratives as part of a learning relationship” (Merrill & West, 2009; p. 135)?

#### *Methodological issue #4: Data storage*

So today I was reminded of a hard lesson about technology—it isn’t always reliable!! Data, data, data, data....my computer storage is full. My students’ device storage is also full. There is nothing more frustrating than trying to dump data off of my CF cards in preparation for the next interview, only to have my computer say I have no more room to store data. My portable jump drive isn’t big enough either. I tried to upload a few files to my password protected cloud storage but the time for it to upload was painfully slow. So as one of my participants appeared in my makeshift office-turned-studio, excited to be interviewed, I felt like I deflated his balloon when I explained that all of my storage was full and I couldn’t do an on-camera interview with him at that time because I needed to dump video from the cameras and there was nowhere to dump the footage. In desperation, I emptied the contents of my technology bag to see if another CF card was hiding and what fell out made my head spin. I didn’t realize I had acquired so many cables and clips and cords. Usually, I carefully put them away in their small labeled plastic bags or holders but lately, I’ve been so overwhelmed with trying to squeeze in so many interviews, that I have not been as diligent as I was at the beginning. (Field notes/video recording)

This happened very early in the research study and now multiple external hard-drives (ranging in capacity from 1 – 3 TB of storage space) store the data. In addition, because there were so many interviews to complete, there was not sufficient time in between scheduled times to transfer the files from the camera to the hard drive. Compact Flash (CF) cards (or flash memory mass storage devices to record the video in the camera during filming) are quite expensive, however, having extra storage on hand makes the work flow somewhat easier.

Relying on one external hard-drive is insufficient and unreliable. Two months into the data collection, one of the external hard-drives that had not yet been duplicated suddenly began to malfunction. The hard-drive was relatively new (purchased two months earlier) but unfortunately, faulty. The manufacturer was prepared to send me another hard drive because it was on warranty,

however, two months of data could have potentially been lost. An extremely expensive data recovery company salvaged all of the video data and now each hard-drive is also protected by a data recovery insurance plan. Compared to the cost of data recovery, the additional insurance is a small fraction of the cost.

Lastly, protecting the data is critical—the hard drives should be password protected and/or stored in a locked storage area. Students also experienced similar technological frustrations in that they would complete video diaries and upload to folders shared only between me and each participant. Their folders filled up regularly and so weekly dumping of the data from their individual folders to my external storage was required. For participants who made many diary recordings, a portable flash drive was provided to make the data transfer easier.

### **Pausing, Rewinding, and Emerging Recommendations**

Merrill and West (2009) claim, “Doing biographical research can be rewarding and enjoyable but also painful, perplexing and political” (p.111). This research study seeks to capture the “unmaking” of the teacher, the turning-point moments and epiphanies (Denzin, 1989) experienced by teacher candidates as they enter and progress through a pre-service teacher education program. So far this research study has been extremely rewarding and enjoyable, however, as seen in a few of the examples shared in this paper, some of the methodological issues have been painful and perplexing from a technological and ethical perspective. By taking time during the hectic research process to pause and rewind (figuratively and perhaps literally at times) via regular documentation of field notes (via text, video, audio) and reflecting on the research processes and issues, I gained valuable insight into my role as a researcher and the complexity of the research process. Through this pausing and rewinding process, the following three general recommendations emerged: 1) be flexible; 2) when in doubt, go back to the foundations; and 3) step out of your comfort zone and silo.

#### *Be flexible and open*

It is important to remember that “research will not always go as planned. We have to learn to be flexible and reflexive in our use of biographical methods” (Merrill & West, 2009; p. 111). Throughout the problem-solving process, I attempted to be flexible, although it was quite challenging to do so at times. For example, when faced with the unanticipated larger number of participants eager to partake in the study, I needed to adapt my schedule so that I could block additional time to interview and manage the additional participant files. If I rigidly held to my original intention to work with 3-5 participants, using my initial purposive sampling rationale and criteria, three of the “3 – 5” participants I had preliminarily considered filtered with my original criteria would have either withdrawn from the study or participated minimally. As in any research study, depending on the situation, the range of flexibility will vary and have constraints depending on the nature, boundaries, and ethics of a study. I recalled the wise words of Lao-Tsu, “a tree that is unbending is easily broken” (Tsu, 1989, p. xxxix), and realized the importance of maintaining a flexible approach where and when possible.

#### *When in doubt, go back to the foundations*

When faced with methodological issues, I returned to the initial foundations that guided the research. I first revisited the original questions that steered this study and considered the relationship between the issue at hand and the purpose of the research. For example, when I was not granted permissions to bring the camera into the K-12 schools, I returned to the original questions guiding the study: 1) How do teacher candidates’ conceptions or misconceptions of what it means to “teach” evolve over the course of a one-year pre-service teacher education program? 2) What circumstances within the pre-service program (e.g., course work; interactions with other teacher

candidates, faculty, students in K-6 classrooms, schools; practicum experiences) prevent or encourage such educational paradigm shifts to occur?

Using the questions as a guide, I considered how bringing the camera (or not) into the K – 12 classrooms would help address these questions. Rather than relying on observations (“captured” by the camera), I asked participants to create video diaries during their practicum placements in a non-school setting in response to prompts using the original questions as a guide. I also used the questions as a roadmap for discussions during the small-group and individual interviews. Upon further reflection, I realized that the camera in the school setting may have been grounded in the final product—the documentary film. I envisioned shots of tired participants entering and exiting the building after a long evening of planning or a long day of instructional experiences. This realization, early in the organizational phases of the research, helped me recognize my biased expectations based on my own teaching experiences. I was making assumptions of camera shots and angles based on what I thought (or wanted) to see. This new insight led me to explore additional literature in disciplines outside of the comfort of my own educational research realm and further addressed in the subsequent recommendation.

I also relied on the study’s theoretical framework to assist me in working through the ethical dilemmas. For example, by attempting to understand my participants’ conceptions of teaching and learning as they progressed through the Bachelor of Education program, I went back to the biographical research literature to help guide my decision-making, when I had questions regarding my role and relationship with the participants as the study progressed. I was relieved to learn, for example, that within biographical types of research, concerns regarding the role of the researcher, researcher bias, power, validity, and ethics are a few examples of potential issues biographical researchers may face (Merrill & West, 2009). When ethically perplexed, I also reflected on my ethical responsibilities towards: 1) the film (Nichols, 2010; Ruby, 1988); 2) the audience (Nichols, 2010; Winston, 2000); and most importantly towards the 3) participant(s) (Pryluck 1976, Winston, 2000). I needed to honour the participants, and their courage and willingness to share their stories and epiphanies not only with me but potentially with a much wider audience.

#### *Step out of your comfort zone and silo*

When I first began examining approaches to addressing the research questions, I ventured into unfamiliar methods and perspectives outside of my educational research comfort zone. By stepping outside of my educational research silo, I not only stumbled into research methods such as biography and visual research that opened my research world to new perspectives, but as seen in some of the examples described in this paper, I also discovered commonalities within approaches exist.

For example, Bullough (1998) emphasized the overlap and commonalities of case study and biography especially when the focus of the case study is on a living life (Kendall, 1986). Case study methodology not only demonstrates the potential of biographical research in making meaning of the individual’s life and experiences, but also provides opportunities to bridge to broader cultural and societal contexts (Merrill & West, 2009). Given the potential intrusiveness of biography, documentary film, and in this case, visual research, I also discovered common ethical considerations regarding power, exploitation and privacy (Merrill & West, 2009; Pryluck, 1976). As noted earlier, although visual research is becoming more interdisciplinary in nature (Pink, 2012), Pauwels (2011) suggests a lack of methodological integration exists. This is problematic in that methods tend to be “reinvented” and often classic work from visual research scholars is ignored (Pauwels, 2011). Pauwels (2011) suggests this frequent reinvention of visual methods results in lack of “methodological depth and often without consideration of long-existing classics in the field” (p. 3). If integrating visual forms of research within your discipline, I strongly recommend exploring the

work of from visual research scholars to further strengthen your own foundational understandings of visual research.

As previously described, I originally considered the video camera as a “data collection” tool, an ontological remnant of my previous positivistic background and perspective. By considering how to use the video camera in my educational research and by facing a host of methodological and ethical questions and issues (including the few described in this paper), I stumbled into other disciplines that I am still navigating and searching. By no means am I now an expert in these fields; but rather a lifelong navigator and learner, valuing the work and foundations of scholars within other disciplines.

### **Future Directions and Conclusions**

Next steps include the continuation of both the *(Un)Making* research study as well as the exploration of research issues embedded in the act of describing the lives and experiences of the individuals within the *(Un)Making* research. Methodological issues related to the analysis of the hundreds of hours of recorded data as well as issues related to the editing processes when piecing the story together are currently being documented within this research, however, this initial documentation of methodological issues has already been helpful to the research team in dealing with new conundrums unearthed during analysis.

The methodological issues documented in this paper have demonstrated research issues within the context of the *(Un)Making* research study—work initially grounded in teacher education. Not only could this work contribute to the teacher education literature but it may also contribute to the methodological discussions surrounding the initial stages of research within an interdisciplinary context. Plummer (2012) maintains that social science researchers have not yet fully embraced the potential of video for research stating, “There will be problems, for sure, but it is a most remarkable resource which could have changed the face of much social science out of all recognition during the twentieth century. Somehow, it scarcely touched it.” (p. 34). Given the increasing pervasiveness of video technologies in today’s society, perhaps researchers who have not yet incorporated the video cameras into their research might at least “touch” video for research, and perhaps one day, embrace its potential.

By embracing the potential of video, the *(Un)Making* study has served as an awe-inspiring personal learning experience and journey as a researcher and teacher educator. The methodological dilemmas have forced me to address internal tensions specific to my deeply entrenched positivistic background. As I examine dilemmas encountered in this research, I find I am more frequently re-examining my own epistemological and ontological assumptions about teaching, learning, and research. Not only is *(Un)Making* helping me learn more about teacher candidate learning and growth, but as seen in the methodological dilemmas shared in this paper, it has also served as a catalyst for me to re-examine deeply entrenched assumptions about research. In essence, *The (Un) Making of the Teacher* is also “unmaking” me as a researcher and teacher educator.

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