

Dear Data: The Process of Becoming a Researcher

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Abstract

Dear Data is a project by Giorgia Lupi and Stefanie Posavec (2016), two strangers who met at a conference and decided to become friends by sending post cards to each other each week depicting hand-drawn data visualizations from every day events, such as the number of doors opened in a day or how many complaints were made in a day. This paper draws inspiration from the *Dear Data* project. As a doctoral studies assignment, it was created to understand research processes, collaboration, and different ways of conducting research using personal experience over a three-week period. For this project, I chose to track how many goodbyes I made in person while travelling around Newfoundland and Labrador for the Christmas holidays. The paper, then, is an illustration of my process of understanding research through social interactions. In doing this project, I created an alternative data visualization to help present the data collected from the project, and use the visualization to aid in the presentation of results and interpretations. Finally, I discuss the process of doing research and the multitude of decisions required, while also commenting on some of the lessons learned in doing this project.

Becoming a Researcher

Dear Data is a representation of an idea and identity, and a practice of research. This project ultimately served the purpose of confronting the identities of graduate students who are being trained to become researchers, while also training these graduate students in the practices of research. This particular project was rooted in quantitative data collection, with some qualitative aspects as well; however, it is also linked to my own epistemology as a researcher. This epistemology is informed by personal experiences, training, and a worldview which influences my understanding of the world and informs my view of a feminist, queer, and critical epistemology.

Feminist epistemology

A feminist stance on research is grounded within personal experience. It is sometimes used to criticize or make unconscious connections visible vis-à-vis the experience of difference. In essence, it rejects the notions of positivism; instead, valuing emotions, researcher subjectivity, and relationships (for a richer discussion of feminist epistemologies, see Lazreg, 1994). As evident in earlier texts, feminist epistemology is historically rooted in the experiences of women (e.g. Campbell & Wasco, 2000; Lennon & Whitford, 1994). As a queer man and mental health counsellor, the appeal to personal experience, emotions, and the acknowledgment of the complexity of people drew me close to this epistemology. However, some may argue that my presence as a man overrides the voices of marginalized women and women's-only spaces.

Gamson (1997) examines the nature of exclusion in social movements in relation to the Michigan Womyn's Music Festival and their exclusion of trans and intersex people (which shut down in 2015 amid growing criticism of this exclusion; Ring, 2015). As Gamson noted, the symbolic exclusion of groups of people allow for group cohesion and solidarity. However, Gamson explored this issue regarding the

exclusion of a trans woman in 1991 by the festival, which raised the question of “‘who is a woman?’ (and therefore ‘who is a lesbian?’) and perhaps most of all, ‘who is a feminist?’” (p. 189). This underlines the debate about the inclusion of gay men in feminist processes especially regarding the subordination of women by men. While celebrated queer and feminist theorists such as Eve Kosofsky-Sedgwick (1990) and Judith Butler (1997) have denounced such a view as heterosexist in nature, it is still held by certain sub-sections of feminist thought, notably radical feminists who argue that women’s-only spaces are held under constant threat and attack (MacKay, 2015)

As a queer man, I wondered where I fit in this land of in-between, the borderlands. Too gay to be mainstream, too much of a man to inhabit feminist-spaces. Or at the very least, my presence requires a constant attention and thoughtfulness of the tension that some may have as a masculine-presenting person in a feminist space. In becoming a researcher, I found that using tenants of some feminist thought and some tenants of queer thought lead me to a comfortable compromise.

Feminist-Queer Epistemology

A queer way of knowing centers around a deconstructing of gender and sex, and the discursive categories of male/female and straight/gay binaries. It arises out of queer theory and feminist thought, despite a tension between the two theories regarding gendered experiences (i.e. what constitutes woman-hood and exclusion). As McCann (2016) notes, queer theory has the ability to open up a heteronormative (i.e. heterosexuality as normal) worldview and challenge oppressive structures.

Hammers and Brown III (2004) argue that a feminist-queer methodology can co-exist due to the similarity of challenging oppressive structures and the nature of deficit to which women and queer people are subject. This view allows for a reconsideration of gender-based oppression which dismantles notions of how masculinity and femininity should be enacted. This positioning informs this research in a number of ways because queer experiences can be rendered invisible, especially in quantitative research.

It is important to place myself in this research as the project centers myself as the locust of data collection, primarily due to ethical considerations. As my experiences are the focus of this project, it is necessary to underline these epistemologies and acknowledge the influences that they may have on the interpretations being made and the experiences that are had in this project.

Rationale for the Data Collection

The authors of *Dear Data* ended off their project with “Goodbyes.” Goodbyes have cultural significance within Western contexts. For example, we say goodbye when we leave shops, social events, and when we leave for vacation, among other reasons. We also say goodbye to people who leave us, to people who are dying, to pets, even to television shows. The reality is that goodbyes are frequent and integral to social interaction. Goodbyes are inevitable in Western cultures, and are typically universal, therefore making the gesture the perfect subject to research.

Despite the significance of goodbyes, there is little research about their implications on culture from a sociological or anthropological perspective. Indeed, much of the literature surrounding goodbyes is associated with grief and counselling. However, this literature is useful in the discussion of goodbyes as it addresses the nature of meaning construction as well as mental health in relation to grief and loss. For instance, in a systematic review of the literature, Tew et al. (2012) found that social capital and social

inclusion were linked with mental health, wherein lower feelings of social inclusion and lower social capital negatively affected mental health. Consequently, they also found that feeling connected in interpersonal relationships, or relationship quality, was an important signifier of mental health. Studying the nature of goodbyes and the type of the relationships that these goodbyes are associated with may therefore be a useful measure in determining social networks and support.

To measure goodbyes, this project uses my own life as the centre of the data collection process. As I travelled around the province of Newfoundland and Labrador for the Christmas holidays, I thought about how goodbyes occurred in different areas. My partner and I live in rural Labrador in a town of less than 1000 people. Meanwhile, I travel to an urban area of Newfoundland (i.e. the island portion of Newfoundland and Labrador) for education, and fly back and forth frequently. Due to the holiday season, I traveled to rural Newfoundland to visit some of my family who live in a small, traditional town in the eastern region of the province. As a result, there were many goodbyes related to geographical displacement.

Visualization of the Data

Method

Below is a visualization of the data that I collected during the three-week course of this project. In order to create this visualization, I tracked the number of goodbyes every day during a three-week period. In order to do so, I retroactively recorded the number of goodbyes and to whom I said the goodbye. I chose retroactive recording at the end of each week in order to reduce bias, intentionally or unintentionally making social interactions happen during this period. While this might have been affected by the limitations of memory, due to the geographical isolation of the areas that I travelled, interactions happened infrequently and were therefore memorable. I used my calendar and reviewed text-messages to increase the accuracy of the reported data. I further anonymized the people by classifying interactions into relationship types (e.g., family, friend).

Visualization

The visualization of the data went through several iterations of development, until one was found that captured the data. Paint was used as the primary method of visualization due to the accessibility of materials, and the canvas was blank, unlined printer paper, again due to accessibility. The visualization was placed in the center of the page in order to account for cut-off margins, as well as to provide a minimalist aesthetic. Together, these data are captured using lines, dots, and colour to represent the findings.

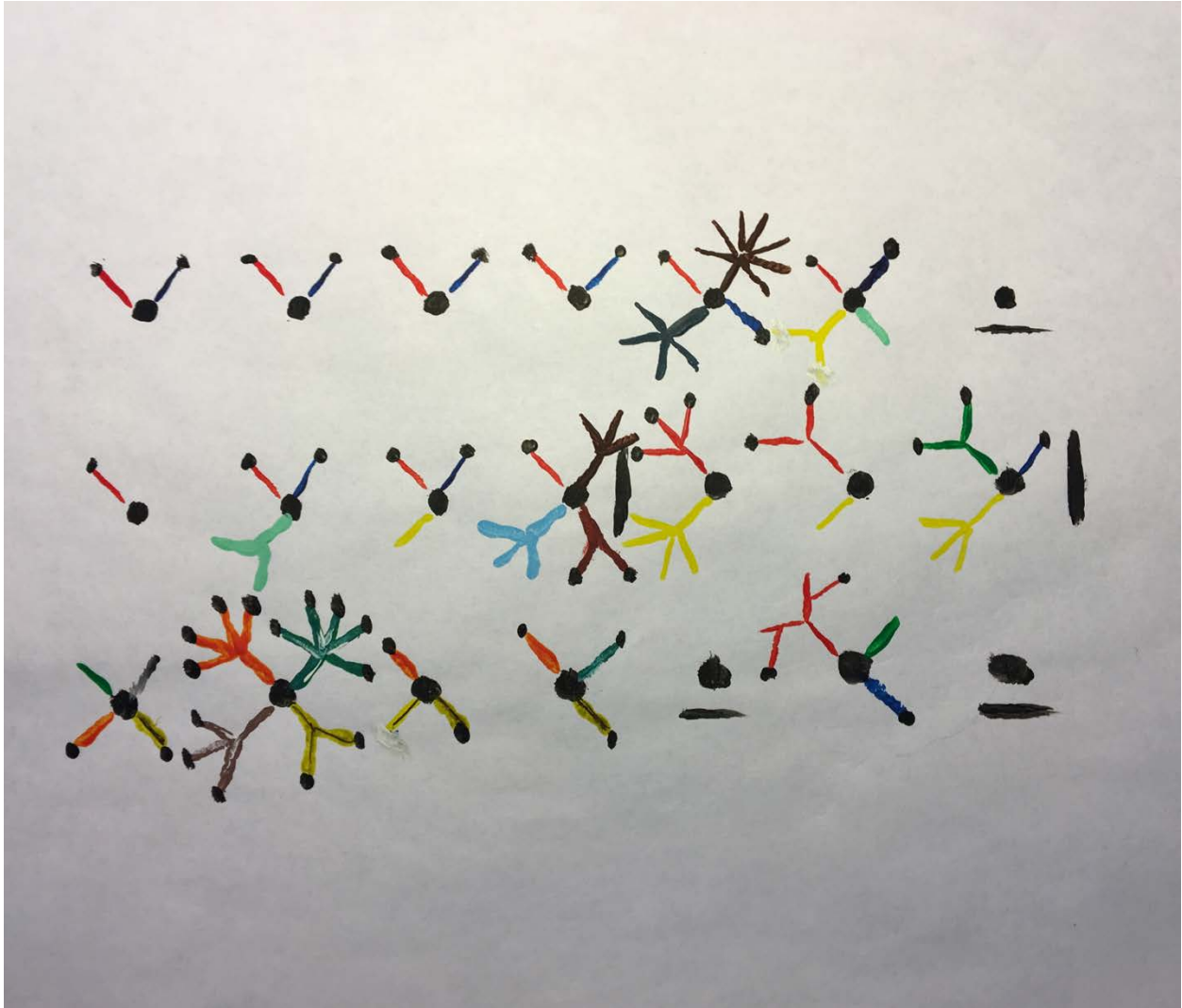


Figure 1. The visualization of the number of goodbyes that occurred over a three-week period.

How to Read this Visualization

The figure below explains how this visualization can be read. Through the process of creating an alternative visualization of the data collected, it is necessary to explain the visual in more detail than traditional formats, such as graphs or tables.

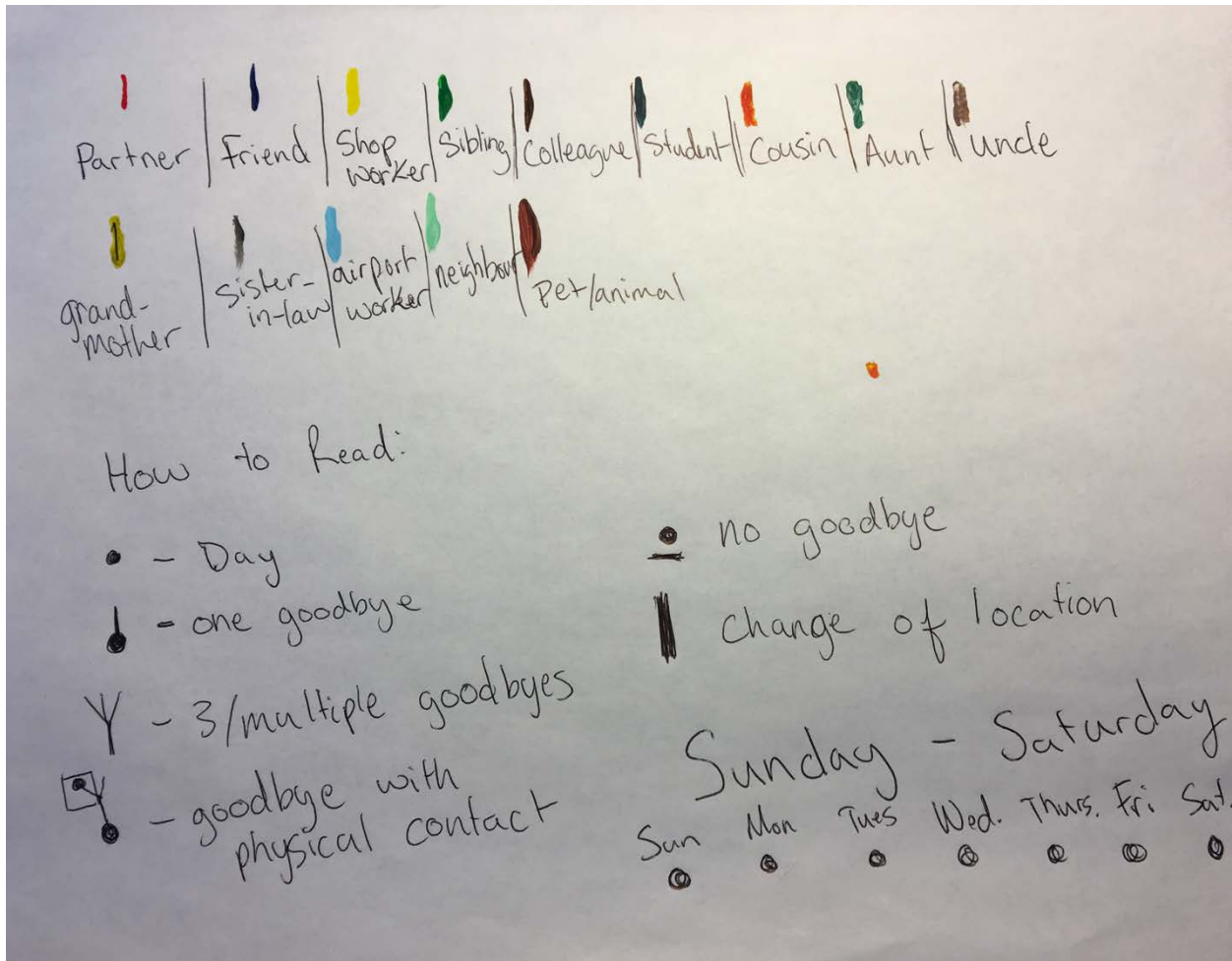


Figure 2. An explanation of how to read the data visualization.

The data are organized over three weeks, with each day represented by a black dot arranged from Sunday to Saturday, with each row constituting one week. There are three changes in location, broken up by large black bars. The data begins in rural Labrador, moving to urban Newfoundland, and ending with rural Newfoundland. A singular experience of goodbye is organized by different lines extending from the black dot.

Each line represents a goodbye, with each colour representing a different relationship type. For lines that are grouped together by colour, these represent different people within a similar relationship type (e.g. partner, friend, family, service worker). See Table 1 for a list of the relationships. Some lines have a black dot at the end of them, representing physical touch associated with the good bye, such as a hug, handshake, or kiss. For days when no goodbyes were exchanged, a horizontal line is drawn across the bottom of the black dot.

Table 1
Classification of relationship type by colour in data visualization.

Colour	Relationship Type
Red	Partner
Dark Blue	Friend
Yellow	Shop Worker
Green	Sibling
Brown	Colleague (Partner's)
Navy	Student (Partner's)
Orange	Cousin
Green with White Line	Aunt
Brown with White Line	Uncle
Dark Yellow with Black Line	Grandmother
Grey	Sister-in-Law
Sky Blue	Airport Worker
Light Green	Neighbour
Dark Red/Burgundy	Pet/Animal

Results of the Data

The results of the data are presented here. They are organized by the three geographic locations, and some explanation is given to contextualize the results. Overall, the results suggest that goodbyes occurred less frequently in urban areas versus rural areas, with weather, transportation, and travel times being large indicators of frequency and ability for social interaction to occur. The results also demonstrate that superficial interactions, as judged by relationship type, were less frequent in rural areas when compared to urban areas

Rural Labrador

The period in rural Labrador lasted for one-and-a-half weeks. I said goodbye 43 times during this period, to people grouped into eight different relationship categories. During this time, I said goodbye to my partner almost every day. The majority of these goodbyes consisted of saying goodbye to him in the morning when he went to work, or on Sunday when he would spend several hours at work. The second most recurring goodbye was to a close friend, whom I saw almost every day for a variety of contexts, including supper, tea, socializing, or other activity. These were the only relationship types (i.e. partner, close friend), with the exception of animals, where there was a physical component to the goodbye.

Goodbyes in Rural Labrador were related primarily to geographic location. The town that I live in has less than 1000 people, with the closest town requiring several hours of highway travel. The weather during this time was consistently between -15 to -30 degrees Celsius. This, in addition to working from home meant that leaving the house only happened during periods of need, such as to go to the grocery store. Therefore, goodbyes were less frequent.

There were two days during this period which contributed to the most goodbyes on a given day. The first day was the local school's holiday concert which I attended because my partner is the music teacher. The second day occurred on the day we left Labrador to go to Urban Newfoundland. On this

day we saw my partner's colleagues on the same flight, one of whom brought their dog with them. I said goodbye to their dog as well as my own cat prior to leaving.

Urban Newfoundland

The period in Urban Newfoundland lasted for three days in total. During this time, I said goodbye 14 times to four different types of people, including close friends, shop clerks, my partner, and my brothers. During this time, my partner and I stayed together, visited close friends, and went to restaurants and shopping centers. At the end of the three days I left to be with family in rural Newfoundland, while my partner went to visit his family for several days before meeting me in rural Newfoundland. My brothers opted not to join me due to work commitments.

Rural Newfoundland

The period in Rural Newfoundland lasted for seven days, or one week. During this time, I said goodbye 30 times to seven different categorical types of relationships. The majority of the interactions during this time included an aspect of physical touch. The time that I said goodbye the most was on the second day, which was Christmas Day. During this time, I visited family for Christmas dinner with my sister (our parents were out of the province visiting our brother). Furthermore, my sister and I would be checking in on our grandmother and aunt next door. At the mid-week point, my aunt went to the hospital for the remainder of the holidays (a regularly occurring event due to chronic illness), and our grandmother stayed with a relative due to age-related mobility issues.

During this period, we had several groups of friends visit us. On the second-last day, two friends, my sister, and partner, who had rejoined us mid-week, went snowshoeing while I stayed home to do work. Later that evening our friends left for home, and we said goodbye with physical touch. This created a day with a different pattern of lines than is seen elsewhere, which can be seen at the second last dot on the visualization.

Interpretation of the Data

In the process of interpreting the results from this project, I chose two possible correlations, the frequency of goodbyes in urban-versus-rural settings, and the quality of relationships. While there may be other interpretations that could be conferred from the results, due to the limited scope of the data collected and the individual nature of the project, these results cannot be generalized outside of my own life circumstances. However, in saying that, the interpretations that apply to my life are represented here with several possible reasons given as to why it may be an important outcome.

Less Goodbyes in Rural Life

Rural life might be associated with less interaction than urban life. For instance, a 2010 Belgian survey of 2,332 students found that those living in urban areas possessed higher social capital (i.e., friends and acquaintances) than did rural students (Lannoo, Verhaeghe, Vandeputte, & Devos, 2012). Despite being in urban Newfoundland for only three days during the three-week period of this project, there were almost as many goodbyes as the weeks in rural Newfoundland and Labrador on a given week. If this figure included the day prior, in which the goodbyes were a result of going to the airport, then this percentage is comparable or greater than the weeks in rural areas.

Several factors may impact the frequency of goodbyes in rural versus urban areas. First, there are fewer people in rural areas compared to urban areas. Additionally, homes are more spread out versus urban centers, with little or no apartment complexes to compact living areas. The rate at which people may interact with each other might be lower as a result of this spread. Second, weather may be an important factor in the rate of interaction in which goodbyes may be exchanged in certain geographic locations. In northern areas of Canada, temperatures can be so low that is dangerous to go outside. During less extreme periods (i.e., below -50 Celsius), layers of high-performance clothing are required to safely go outside. This may include heavy coats, sweaters, gloves, face masks, hats, boots, snow pants, and so on. Due to the extremities of temperature during winter months, the accessibility of such requirements, and even the energy required to change into such gear, fewer people may be inclined to leave their houses. For this project, while in Labrador, temperatures ranged from -15 to -45. While I did have extreme weather gear, I did not have access to snow pants, which limited the range of mobility and the amount of time I was able to commute outside without incurring pain from the extreme cold. Weather is linked as well to changes in daylight over the year, and during my time in rural Labrador, namely early-mid December, sundown typically began at 3:30 PM, which may have also contributed to a lack of social interaction.

The access of vehicles may also inhibit people from leaving their houses, impacting the rate at which goodbyes are able to occur. Urban areas typically have public transportation which allows for an ease of movement between locations. In rural areas, however, there are no public transportation options, with the town I stayed in not having access to a taxi service either. This was an individual factor in being able to leave rural Newfoundland, as my partner had a rental vehicle and there was no other access to a vehicle. Even when a vehicle was available, travel times to the closest town was 3 hours in Labrador, and 1 hour in rural Newfoundland. Therefore, interactions may be impacted by social class, accessibility, weather, and other influences.

Relationship Quality

The quality of relationships was assessed in this project by relationship type. Overall, there were 14 relationship types noted in the project, which can be further categorized by friends, family, acquaintances, and strangers. Interactions with strangers occurred the least during this time, with the exception of the experiences in urban Newfoundland, in which goodbyes with strangers accounted for almost half of all exchanges (46.7%, $n=7$). Therefore, the type of exchange that occurred in rural Newfoundland and Labrador versus urban Newfoundland were largely familiar.

Relationship quality and support may be an important consideration for mental health. In a meta-analysis of 20 published population surveys, Peen, Schoevers, Beekman, and Decker (2010) found that rates of psychiatric, mood, and anxiety disorders occurred at a higher rate in urban areas versus rural areas. Using data collected from the 2002 Canadian Community Health Survey 1.2, Romans, Cohen, and Forte (2011) also found a significantly higher rate of psychiatric disorders and depression among urban Canadians versus rural Canadians. However, they note that anxiety disorders were found to occur at the same rate between rural and urban areas. Romans et al., note that participants with a stronger sense of belonging to their community and higher social support reported lower rates of depression.

Using the 2007/2008 Canadian Community Health Survey, Kitchen, Williams, and Chowhan (2012) also found that a stronger sense of belonging was linked with better health. They suggest in their findings “that rural areas and small towns benefit from higher levels of civic engagement, participation in community activities and voluntarism as well as more neighbourliness. In short, they have enhanced

social capital, which in turn, likely results in a greater sense of belonging among residents” (p. 123). This may also be due to the quality of relationships which can impact sense of belonging and satisfaction, as noted in the results here. With more acquaintances, less strangers, and closer friendships, relationship quality may positively impact health. Although mental health was not the focus of the research, it may be helpful for future directions to consider how relationship quality and frequency of saying goodbye to strangers versus familiar people impact these qualities.

Research Process and Choices

The research topic changed throughout the process of this assignment. It began with something simpler, such as the number of interactions with my pet cat, and later changed to interactions and goodbyes. The topic of goodbyes was inspired by the *Dear Data* project, who ended their project with the topic of goodbye. While the topic was similar, the processes and interpretations involved were different. This ultimately felt more meaningful, and thus aided in self-motivation in the process. During the process of this project, I, like any researcher, was forced to examine and carefully choose how the results were to be interpreted, the data collected, presented, and identify any significance to it, among micro-choices which occurred throughout.

Choice of Method/Methodology

The method and methodology were largely linked to my background and education. As mentioned previously in this paper, I come from a critical feminist-queer background and this epistemology informs my qualitative-leanings. I used descriptive statistics from the data collected to infer correlation to two themes, which borrows from both quantitative and qualitative research, given the ‘social’ nature that informs the research process here. In coming from both a quantitative and qualitative background, I was comfortable in using these processes, trained in them, and they seemed to fit the research question. This is not to say that the data could have been presented in another way, simply that choices were related to the research question as well as my own comfort informed by experiences and training.

Lack of Context and Limitations

In analyzing the results of the research, it became apparent that there was a loss of contextualized meaning. Interpreting the results from the quantitative data alone yielded results which were potentially meaningful; however, there were several important considerations missed in the process.

Within the contexts of this research, I examined the nature of my experiences of goodbyes. While not necessarily impactful in the interpretation of findings, the context of the data is often lost due to the way that quantitative research transforms experience into raw data. For example, my partner and I said goodbye to each other between the period of Urban Newfoundland and Rural Newfoundland. While I mention that he rejoined us and such a return is not noted in the data, neither is the context of *why* the goodbye occurred. As a queer man, my partner is not able to come out to his parents, which results in him leaving for his parents’ home for Christmas without me. This is an inherently queer problem which fails to be noted by traditional quantitative methods. A feminist-queer epistemology and methodology used here would question such contexts that may be missed otherwise. This must therefore be considered in the nature of *becoming* a researcher, as well as *doing* research.

The data collected for this project failed to account for perceptions of feelings. How I felt about goodbyes varied, and impacted me differently within relationship types and overall. Qualitative data

through journaling would have been better suited to exploring these connections here. Additionally, several logistical issues came up in the research process, such as the decision to include telephone calls and text message conversations in which goodbyes occurred. Eventually, I chose not to include these in order to narrow the focus of the project and avoid unnecessary complications.

Micro-decisions occurred throughout the research process which may have had an impact on the findings and interpretations. Decisions such as the colour, medium, how to report the data, and so on, were frequently encountered throughout the project. This meant going back and forth on decisions made, re-making decisions, and changing things around. For example, the decision to use paint was a logistical decision based on the availability of materials; however, how the data was presented changed several times before finally choosing one. Other decisions were also included in the data but chosen not to be represented in the final project. This included conceptions of 'closeness' in the quality of the relationship, requiring a value-judgement to be placed on certain relationships. This was taken out due to the sensitive and ever-changing nature of social relationships, as well as the implications of putting a quality label on a relationship and potentially damaging these relationships if they were to be read.

Researchers are constantly in a state of making decisions on the research process. As a result, this may or may not change the findings and interpretations, or even the direction of the research. Here, I found myself making many decisions that shifted the initial conception of the research project. Whether it is for the better or not is a matter of perspective, which can be challenging when reporting research to the public.

Lessons Learned

This research project was an illuminating experience as a new doctoral student. The ability to collaborate and learn research processes through alternative forms of data collection was a worthwhile endeavor that added to existing research competencies, and facilitated feelings of self-efficacy and self-confidence. Despite this, some challenges occurred logistically in the collaborative process as well as in the creative process. Therefore, the use of alternative forms of visualization must be used carefully and cautiously.

Research as a Collaborative Process

Collaboration among researchers is not an easy feat; however, it is a rewarding and worthwhile endeavor. It is linked to higher productivity, more publications, and greater impact than single-author contributions (Katz & Martin, 1997). Collaboration, it should be understood, can range in definition from general advice or insights to taking a more active role in a specific research piece (Katz & Martin, 1997). In the process of this research, I met with two other colleagues and we engaged in a process of collaborative feedback based on our topic, data collection methods, emerging ideas, and so on. Through this process, we were engaged as first-year doctoral student in a socialization process in this project into what Seloni (2012) calls an *academic culture of collaboration*.

One of the primary benefits of the collaboration process is the informal quality of peer review. Given ideal conditions, collaboration can make research and writing stronger by having feedback from peers, thereby decreasing the variability and increasing the quality of research (Rigby & Edler, 2005). This process was made easier due to the intra-disciplinary nature of the collaboration, and the relatively equal levels of experience and years in the field. While all of the collaborators had different skills and expertise, there were no obvious issues due to differences in power or status.

The process of collaboration had several challenges involved. Logistically, scheduling was the most difficult task in this process. Working with two other people who had their own schedules meant that meetings were scheduled and rescheduled over the course of several weeks. This was challenging to navigate, largely due to the deadline that we had to independently meet. The costs of collaborative research can include significant time commitments involved in administration and management of the research project, as well as the time required to facilitate meetings with collaborators (Katz & Martin, 1997).

(Self-)Confidence and Creativity in Research

Research is a necessary part of graduate and doctoral student training. Mowbray and Halse (2011) found in their survey of 20 final-year doctoral students in Australia that all students noted the development of technical skills such as research and writing as an integral part of doctoral education. However, students may feel inadequate in the early years of a doctoral program in developing these technical competencies. As a novice in the broad domain of research, I initially felt overwhelmed with the decisions required in conducting research.

While collaborating helped in overcoming some of the anxiety associated with conducting research, student-faculty discussions were equally beneficial. Weekly check-ins were conducted at the beginning of each weekly class, and the professors of the doctoral seminar course were regularly available through email and in-person. Feeling respected during student-faculty interactions has been found to be associated with stronger self-confidence and motivation (Komarraju, Musulkin, Bhattacharya, 2010). Further, during this project I found myself in the middle of several challenging life events which disrupted the project. Engagement with the professors outside of the class led to feeling supported, cared for, and contributed to self-confidence and motivation. This is consistent with research on educator competencies, which indicate that qualities of being caring and supportive are important factors in student learning (Keeley, Smith, & Buskist, 2006).

The Creative Process

Dear Data as a process-focused project allowed for a more engaging and creative process to understanding research. Creating alternative visualizations for our data served a two-fold purpose. First, it demystified the research process, which further contributed to self-confidence and self-efficacy. Second, I was confronted with decision-making processes that required me to reflect on the process of communicating data rather than the mechanics of style and graphical representation. However, it also was able to serve a multitude of other purposes in addition to these two.

Research on alternative forms of data visualization among family therapy doctoral students found that students felt a positive and negative tension in the research training, including optimism for having learned new skills, and pessimism for feeling uncertain about what they are doing (Piercy et al., 2005). Piercy et al. also noted participants experiencing satisfaction from personal meanings associated to research, positive relationships built with other doctoral students in the process, and stronger development of research skills. This was also evident in my own experiences within this project, as it gave an opportunity to socialize with other students and develop my research skills in a less-threatening medium.

Despite these advantages, there are disadvantages as well. As noted by Eisner (1997), there are trade-offs to the benefits of creative, alternative forms of visualizations. While it may benefit us by offering

abstract ways to convert complex experiences, as well as offering more questions, it is difficult to measure its validity in the meanings that we ascribed to such visual forms. To be sure, I err on the side of caution in this project, avoiding making any generalizations or assertions other than for the purposes of illustrating the process.

Eisner (1997) further argued that there is a potential negative backlash which needs to be carefully considered. This judgement from the scholarly community may make it difficult to present and publish findings. He also noted that alternative forms such as video will be difficult to translate into paper journals. While we have moved to more online-processed journal formats, videos as data representation are still scarcely seen, in part due to the restrictions of copyright, server upload costs, and large video sizes and quality. Despite Eisner's argument coming from 20 years ago, alternative forms of visualizing research data are still impacted by some (sub-) disciplines and the accessibility of technology.

Conclusion

This paper discussed the process of becoming a researcher through *Dear Data*, an alternative visualization data project inspired by the book. Through the topic of frequencies of in-person goodbyes over a three-week period, I created an alternative visualization to represent the results of my personal research. I proceeded to use this visualization and the data collected to present the results of the project as well as some of my interpretations of the data. Ultimately, the project centred around the *process* of doing research as a new doctoral student. To demonstrate this, I commented on the decision process and the limitations that came up throughout the project. Finally, I reflected on the lessons learned about myself as a researcher and the larger domain of research itself, commenting on the creativity, collaboration, and self-confidence that doing such a project has on novice researchers like myself. Ultimately, we as an academic community can all learn about research through such a creative project like *Dear Data*.

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