A Family Affair: Caring in Teaching and Implications for Research

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Abstract

The purpose of this study was to explore how perceptions of remembered instances of teacher caring and non-caring in K-College impacted the academic motivation of a college student and then to discern implications for both teaching and educational research. The student in this study described his perceptions of caring and non-caring and offered advice to instructors for making a positive impact on their students' academic motivation. The first part of the title of this article "A Family Affair" stems from the fact that the researcher is the father of the participant while the student's mother participated in this interview/mini focus group by sharing her perceptions. Both the father and mother had prior knowledge of some (not all) of the instances of caring and non-caring described and thus shared a privileged insider position. Cooperative peer checking was used both during and after the interview to promote the trustworthiness of findings. It was found that the degree of caring shown by teachers and professors had a profound influence on the participant's willingness to put forth effort especially in those courses that were not his favorite subjects thus demonstrating a tight connection between caring and tapping into the motivation of students. An important implication of this study is that teachers at all levels would seem to benefit greatly by being aware of the impact of caring on student engagement and their attitude towards lifelong learning. An additional implication is that if the ultimate purpose of educational research is to contribute to effective learning and teaching, then the "soft" variable of caring should be considered in these inquiries. Finally, it is hoped that readers will find this study to be generalizable to the degree that it resonates with their own experience as teachers, students, or parents which we refer to as "experiential validity".

Let's first consider the following quotes where the term *care* has been italicized.

"No stranger to trouble myself I am learning to *care* for the unhappy." (Virgil, Aenid Book 1, 630)

"Crabbed age and youth cannot live together: Youth is full of pleasance, age is full of *care*" (The Passionate Pilgrim, Shakespeare, 1599)

"I wish I could *care* what you do or where you go but I can't…My dear, I don't give a damn." (Gone With The Wind, 1936)

"For I don't *care* too much for money, For money can't buy me love" (Can't Buy Me Love, Beatles, 1964)

 "The longer we consider and examine the present day methods of education, the more clearly we recognise that children lack the *care* and consideration which would be in accord with their present and future needs, a care which considers equally the child's mental and physical needs and capacities. We notice that if children are not given the *care* which takes their stage of human development into consideration, they will lack the foundation for the task ahead in school and for their later lives in general." (Friedrich Froebel, Founder of Kindergarten, 1782-1852)

"They don't *care* what we know until they know that we *care*". (Madeline Hunter)

Introduction

The above array of quotes conveys some of the meanings and nuances that can be used to define *care* using first, second, and third person. In this article, the concept of caring in education is investigated from the perspective of a son (S) and further elucidated by the mother (M). S was the primary focus in this study since he was asked by the Father-Researcher (FR) to share a description of his experiences and perspectives related to remembered instances of caring and non-caring during his elementary, high school, and college years during a recorded mini focus group interview where M also participated. Based on S responses, M was asked by FR to share her reactions to these responses. FM analyzed and synthesized their narratives and perspectives regarding *caring* and how it might be integrated into both education and educational research. Although analysis and synthesis actually began during the interview, Oral Coding (Bernauer, 2015) was the primary method of analysis although as will be seen below, adaptations were made during the data analysis process as was envisioned when Oral Coding was first introduced.

The following Research Questions guided data collection:

RQ1. What instances of caring and non-caring does S readily recall from elementary and high school and to what extent are these recalled instances perceived by S as having a continuing impact on motivation to do well in college?

RQ2. What instances of caring and non-caring does S readily recall from college during his Freshman and Sophomore years and to what extent are these recalled instances perceived by S as having a continuing impact on motivation to do well in college and on career aspirations?

RQ3. Based on recalled instances of caring and non-caring in elementary school, high school, and college, what suggestions would S make to help teachers and professors make a stronger impact on their students in terms of their motivation to do well in school and to pursue their career aspirations?

RQ4: What perspectives are offered by M based on responses to RQ1-RQ3 offered by S?

FR envisioned these responses as a fertile field for transforming resulting data via "description, analysis, and interpretation" (Wolcott, 1994) via both *tacit* and *propositional* knowledge (Polanyi, 1962) in relation to integrating the concept of caring into education and educational research. It was anticipated that themes would emerge from intra-family dialogue where the interactions among M, S, and FR were seen as positive contributions toward understanding the influence of caring on achievement and motivation rather than as a source of "bias". FR used dialogue coupled with empathetic understanding and reflection as a type of "member checking" to promote trustworthiness of data and to integrate tacit data conveyed during dialogue including emotion, intuition, and body language with propositional data that were conveyed via straight-forward language in the written responses. The ultimate aim was to get to the heart of the matter

regarding the impact of caring on students and therefore its potential role in teaching, learning, and scholarly inquiry.

The Qualitative and Quantitative Traditions

Is it not true that sometimes we qualitative researchers think that our quantitatively-oriented colleagues either do not care as much as we do about our participants and that they secretly harbor the belief that qualitative research is inferior to quantitative methodology? I cite one older and one more recent source that weakens this belief. In relation to caring, Bauswell (1994) introduces his book *Conducting Meaningful Experiments: 40 Steps to Becoming a Scientist* by first saying that "meaningfulness" can be defined in different ways by different people but that "I happen to define a meaningful research study as one that has the potential of actually helping people and improving the human condition." (p. 1). Regarding the value of qualitative approaches, Pilcher and Cortazzi (2016) interviewed 17 researchers who leaned quantitatively and found that most of them not only did not deprecate qualitative approaches but rather found these approaches to be valuable to scientific inquiry. So, even if we differ with our quantitatively-oriented colleagues in terms of epistemology and methods, might it be beneficial to remind ourselves once in awhile that we are all on the same team?

So now, having neatly exposed and defused any latent biases towards researchers with a quantitative bent, let us now discuss what we learned from our participant regarding the issue of caring in education and implications for educational research by first discussing the purpose of education itself.

Purpose of Education

Purpose is behind everything that we do. In the case of education, aspiring teachers are typically required to arrive at their own "philosophy of education" that captures their values and beliefs about schooling. As a teacher of educational psychology for both novice and experienced teachers, I have found the book by Cooper and Garner (2012) *Developing a Learning Classroom: Moving Beyond Management Through* **R***elationships,* **R***elevance, and* **R***igor* to hit the nail on the head because they stress that the sequence of these "three Rs" is critical because developing relationships with students lays the necessary foundation for the other two components of effective teaching. In fact the Madalyn Hunter quote above -- "they don't care what we know until they know that we care" is highlighted by Cooper and Garner (p. 27). Bernauer, Lichtman, and Mogadime (2016) offer the following statement of educational purpose --

> We send our children to school so that they can *grow* (emphasis added) artistically, cognitively, emotionally, morally, and socially within a safe, encouraging, and *caring* (emphasis added) environment, leave as lifetime adventurers who are ever ready to question and learn about themselves, others,

and their world, and to meaningfully contribute to the interrelated welfare of self, others, and world throughout their lives (p.13)

As can be seen, educational purpose is described in terms of *growth* and *caring* in relation to five inborn capacities. Let us now examine the responses of our participant in relation to this purpose statement and these capacities.

Description, Analysis, and Interpretation Using Oral Coding

FR followed Wolcott's suggestion to transform qualitative data using description-analysis - interpretation (Wolcott, 1994) and also used the ideas related to the use of critical thinking in qualitative data analysis (Bernauer, Lichtman, Jacobs, & Robertson, 2013). Both of these articles offer a framework for making sense of qualitative data and it was within these frameworks that FR utilized the method of "Oral Coding" (Bernauer, 2015b) to go about making sense of the data provided by both S and M in relation to the question of caring in education and its implications for educational research. In addition, while there was only one primary and one secondary informant, it is hoped that readers will identify points of connection with this study based on their own experiences as teachers, students, and/or parents. We refer to these connections as "experiential validity" and offer this concept in lieu of the vaunted "external generalizability" based on random sampling.

A mini focus group/interview was conducted on August 4, 2016 and FR kept Wolcott's description-analysis-interpretation triad firmly in mind as he conducted this interview. However, Wolcott also raised the question as to whether there is a clear distinction between analysis and interpretation. Based on the process of oral coding (Bernauer, 2015b) and a further refinement of oral coding that is described at the end of this article, I can say without reservation that both analysis and interpretation began simultaneously during data collection but were refined in the days that followed. What follows are the 1) research questions; 2) accompanying conversation prompts; and 3) FR's analysis and interpretation of participant responses based on the purpose of this study.

RQ1. What instances of caring and non-caring does S readily recall from elementary and high school and to what extent are these recalled instances perceived by S as having a continuing impact on motivation to do well in college?

Prompt 1.1: Thinking about your days in elementary and high school, what instances of teacher caring or non-caring do you recall that had an effect on your motivation to do well in school?

Unfortunately, the primary participant (S) immediately related negative perceptions about his religion teacher in high school (S attended a Catholic school). He said that during a typical 45 minute class, the teacher talked for 30 minutes about his own opinions and took no questions at all from students. S also said that when you got questions wrong on a test and asked this teacher about the question, the teacher's response

was simply that the answer was wrong and there was no more discussion or explanation. S went on to say that this was probably the worst class and the worst teacher that he has ever had because it was simply "somebody standing up there telling students what he thought".

S then related another instance of non-caring in high school when he described his English teacher from his junior year. He said that whereas the religion teacher suffered from too much "self dialogue", his English teacher was almost the opposite. He described a typical class as one where students took turns reading sections of literature that were assigned by going up and down the rows of students. S indicated that he felt like he and his classmates were still being treated like they were in elementary school instead of individuals who were now capable of independent thinking and reflection. This teacher sat at her desk presumably listening to the students read while she did other work and then assigned homework for them to do at the end of the class and this concluded the class session. He went on to say that although he was also thinking of a teacher from elementary school who also demonstrated non-caring, he commented that at least they had a recess in elementary school whereas they did not in high school!

As the participant harkened back to elementary school, he recalled his fourth grade teacher as another major example of non-caring. This teacher was described in terms of not so much in terms of classroom practice but rather her demeanor and her behavior in general. As noted above, the participant indicated that unllike high school where he had to sit through long boring classes with no break, recess was a regular feature in elementary school. However, he said that when recess had to be held in the classroom because of bad weather, that his teacher would sit right outside the door in the hallway and if anybody's foot even inadvertently would go beyond the threshold of the door that the student was immediately given a detention.

What is disturbing about these three instances is not only the perceived lack of caring and the way that students actually learn, but that these instances were foremost in the memory of the participant rather than more positive instances. It is also important to note the close connection between the teaching process and the impact on student perceptions about whether teachers care about their students including their views and reactions to the concepts and ideas discussed in class. The participant indicated that this type of teaching whether in elementary school, high school, or college results in students feeling like the teacher really does not care about them as individuals and that consequently very little genuine learning results. It seems based on these perceptions that the personal characteristics of the teacher and the teacher's relationship to students is inextricably connected to teaching effectiveness and it may very well be that if teachers are not perceived as caring then their instructional methods and arrangements are also perceived as inadequate. The participant referred to a "lack of respect" as being the major feeling he experienced during these times when caring was not demonstrated.

When asked about positive instances of caring in elementary school and high school, S immediately said that "Mr. A" a teacher in 8th grade is probably the most effective teacher he has had probably to date which means through his sophomore year of college. He described effectiveness in terms of the way that this teacher interacted with

him and the other students in terms of the respect that he showed towards students' ideas and perspectives. He also talked about "Mrs. D." who taught math in high school. The participant confessed that he is not a "math person" but that Mrs. D. not only took the time to explain concepts to him that were unclear but did so on her own personal time such as before and after school or during lunch. Both of these instances of caring were deeply felt by the participant and hopefully someday will overshadow the negative instances in his mind.

Prompt 1.2: To what extent do any of these instances of caring and non-caring continue to have an effect on you in terms of your motivation to do well in college?

The participant immediately asked the question how teachers in large lecture halls could connect with students in college. He did not connect back to his elementary or high school experiences directly but rather seemed to look at what he now considered important in terms of teacher caring and effectiveness now that he was in college. The question about large lecture halls was actually the only connection to non-caring that the participant offered. Rather, he then went on to talk about three instances of caring that he has experience thus far in his early adult life as a college freshman and sophomore.

RQ2: What instances of caring and non-caring does S readily recall from college during his Freshman and Sophomore years and to what extent are these recalled instances perceived by S as having a continuing impact on motivation to do well in college and on career aspirations?

Prompt 2: What instances of teacher caring or non-caring do you recall from your experiences thus far in college that have had a strong effect on your motivation to do well during the remainder of your college years and on your career aspirations?

The first instance described by the participant offered a great counterpoint to the negative experiences he described regarding his high school teachers. Rather than lecture about his own thoughts and experiences, the participant said that his college instructor for philosophy and theology so engaged him in the content "that it didn't matter how much time and work were needed -- I was motivated to learn because this teacher was very much interested in what he was teaching and also his students". The participant went on to say that because of the obvious enthusiasm of the instructor and his concern for his students that he was motivated to learn a subject that previously held little interest for him. During the interview he said that even though he was not Catholic (which was news to his parents) he said that he experienced valuable learning in his college religion class related to the prophets and a deeper meaning of the Bible that he never learned in high school and went on to say that what he learned in grade school and high school was a sham – so much for thinking we (the parents) did the right thing by sending him to parochial schools -- we tried to console ourselves by classifying his assessment as a normal part of rebellion against all things parents try to impart to their children! He reiterated that while there was a lot of work required in his college religion class, he didn't care because he stressed that his college professor is the only religion teacher he ever liked from preschool through high school because he cared and wanted them to learn

-- although he went on to say that "religion per se is a different topic and I don't want to get into now"!

The second instance of caring in college described by the participant related to his Spanish teacher who he said mandated assignments every Monday, Wednesday, and Friday to submit the next class and said " while they were hard he gladly did them because he knew that the teacher really cared that he learned Spanish" He said that it was a lot different than doing mindless work at the end of the day to give a grade which contrasts very sharply with what he said about his high school English experience.

He cited high teacher expectations (for both his Religion and Spanish teachers) as something that had a very positive effect on him although it presented a formidable challenge in terms of completing all assigned work. However, he went on to say that the "personal care that these two teachers exhibited dwarfed the challenge of the work". He concluded his evaluation of his two college teachers by saying that they were passionate about what they taught and passionate about their students. At this point, I couldn't help but think about the "Three R's" (Relationships-Relevance-Rigor) as the necessary sequence for creating a "learning classroom" where students' engagement in learning is the primary the focus rather trying to "manage" them (Cooper & Garner, 2012).

When asked about negative instances of caring in colleges his immediate response (again) was "lecture halls don't work". He said that in college "you almost are treated as an adult" [this elicited a discrete smile from both parents] and he said he had never experienced lecture halls in either grade or high school. [He added more about this later].

The third instance of caring described by the participant during college did not involve a college instructor but rather the owner of a coffee café named the "Spirited Goat" that is near his college. The participant identified this individual as a person who had a very positive impact on him because of the respect and caring shown as well as the wisdom he shared with the participant. He epitomized the relationship part by describing an experience he had at the coffee shop where he had such a great conversation with the owner that he forgot to pay him and the owner also forgot to ask him to pay. The participant related that he was so moved by the genuine caring shown by the owner "that I went out of my way to go back to the shop to pay".

He characterized these three individuals by saying that "all three of them had a balance of relationships, professorship, and setting expectations". These individuals took the time to form a relationship that formed a basis for his learning. The participant said that he wasn't sure where he picked up the following quote. "they don't care what you know until they know that you care" but it epitomized these three instances. [I knew that the quote is from Madeline Hunter that I must have shared – kids really do listen sometimes!].

RQ3. Based on recalled instances of caring and non-caring in elementary school, high school, and college, what suggestions would S make to help teachers and professors make a stronger impact on their students in terms of their motivation to do well in school and to pursue their career aspirations?

Prompt 3. Based on all of the examples you provided from Elementary, High School, and College, what would you suggest to teachers so that they could have a stronger positive effect on their students in terms of their wanting to do well in school and to pursue their career aspirations?

When asked this question the participant immediately responded with "don't get comfortable". He then went on to say that his current experience working part time for an international nutrition company has taught him that he needs to "talk to the new person in the room" because everyone is learning something new including the teacher and that both teachers and students should consider themselves as "perpetual students". He then said that teachers should teach as if the labels of "teacher" and "student" are removed and where professors create an environment where they are not seen as better than students but rather as fellow learners. He added that when he presents to a group of people that it's like he is "teaching and learning for the first time". [This latter comment made me think that perhaps not only is writing = thinking but speaking = thinking if we do it with metacognitive awareness]. When asked about the concept of caring, he connected it to the idea of us all being perpetual students "because teachers are human beings just like their students and that by learning right along with their students it comes across as genuine caring."

The final research question applies to M (the mother of the participant) in terms of her reactions to the participant's rsponses.

RQ4: What perspectives are offered by M based on responses to RQ1-RQ3 offered by S?

Prompt 4. Based on what you have heard during this interview what reactions do you have?

While M did not participate to a great extent during the interview (except for noting that she really did not know how deeply the negative experiences had affected the participant in fourth grade), she now joined the participant in discussing the ill effects of large lecture halls in college. She especially resonated with the participant's feeling that he felt like he was treated like a number and that many students are lost both physically and mentally in such a large classroom environment. Because M had experienced the same kind of environment in college, she commiserated with the participant about this experience. In addition, because she owns her own company that trains adult students to use software, she was especially sensitive to the load on the teacher in such a large classroom setting since it would prevent the teacher from developing any kind of relationship with students. She also agreed with the participant that the workload for a teacher with such a large number of students would be quite overwhelming and again

would prevent personal relationships and communication especially in relation to exams and assignments. This conversation between S and M ended the interview.

Implications of Caring in Teaching and Research

So, what do these findings suggest in relation to the construct of caring in teaching and learning and for the conduct of scholarly inquiry?

What became most apparent during this interview was that the student-participant automatically linked his interest and commitment to put forth effort in a subject matter regardless of his prior interest in it to the passion of the teacher for his/her subject and the interest that they took in their students. And, as the participant quoted from Madeline Hunter during the interview "they don't care what we know until they know that we care", this "interest" in their students is probably best captured buy the term "caring".

I recognize that our more quantitatively-inclined colleagues would point out that there is too much "noise" or confounding of variables to be able to deem findings as valid or trustworthy and therefore quite problematic for generalizing beyond this admittedly small sample size of n = 1. On the first count of noise and confounding of variables I plead "guilty" and happily so because I don't think that the complexity of human beings, including learning and teaching, is amenable to partitioning into variables. As for the second charge of findings not being valid, I also admit that judged by the quantitative criteria of validity and even by some criteria put forward by qualitative researchers that the findings from this study would not be considered trustworthy especially since it is based on just one primary participant. However, I appeal to readers to evaluate the findings of this study not based on the traditional criteria of internal or external validity as put forward by quantitative research or even the criteria put forward by qualitative researchers but rather to draw upon their own life's panorama of experience and perspectives offered by these experiences in order to come to their own conclusions about the trustworthiness of these findings. I refer to this as *experiential validity* and ask readers to weigh the evidence in the findings presented in this study based on reflection of their own lives and experiences during their school years.

To carry this idea of *experiential validity* a bit further, I ask you to think back to those teachers who made a real difference in the way that you felt about a subject, yourself, or your future. Was it not those teachers who you perceived as caring about you as an individual even though the particular way that it was expressed may have varied? Whenever we find ourselves nodding in agreement as we think back to our own experiences throughout our lives, aren't we giving our silent assent to the validity of what has been seen or said? In fact, whenever two or more individuals really agree on a perspective based on their own history and interpretation of this history, does this not constitute a type of validity because of a shared perceptual understanding of phenomena? And while this shared understanding cannot be shown to be statistically generalizable to the "larger population", I venture to hypothesize that this generalizability (or transferability) could be readily demonstrated through large-scale interviews.

So if our solitary participant does in fact speak for many of us then what might schools of education that prepare future teachers and those departments that prepare researchers for education and the social sciences take from these findings? I would suggest that caring, although not a variable that is typically used in prediction equations, may, in fact, be critically important in helping students to grow and achieve academically, emotionally, and socially. One of the things that I believe must happen is that education must shed the paradigm where scores on achievement tests that are concerned primarily with right and wrong answers and that are not integrated with instruction can or should serve as the primary indicators of student, teacher, or school success (Cooley, W. W. & Bernauer, J.A., 1991; Powell, J. C., Bernauer, J. A., & Agnihorti, V., 2011). Rather, if we begin with the belief that every student has unique capabilities, potential, and the ability to learn, then we should first discover how our students learn and then adapt our teaching and our testing based on this recognition.

If schools of education should include "soft" concepts such as caring in their preparation programs, what about university programs that prepare students to conduct research in schools? While I was trained to become an educational researcher it was strictly in line with the quantitative paradigm where the search was on for "variables" that could be used to help "explain and predict" student cognitive achievement (as measured on tests) using techniques such as regression analysis, factor analysis, and hierarchical linear modeling. It is the ability to compartmentalize learning and schooling and to arrive at cause-effect statements and to be able to generalize these statements that is at the heart of the quantitative (or rationalistic) paradigm. It seems that it would be a bit problematic to somehow quantify the construct of caring to be an element of these methods for analyzing data. Of course, the qualitative paradigm cannot be so neatly captured but can readily admit soft variables such as "caring" into its methodologies since it's ontology is not anchored in a stable reality that can be parceled into variables but rather is embedded in the concept of multiple perceptual realities. A solution to this apparent problem may be for educational research programs to not only talk about "mixed methods" but to also recognize that when it comes to the complexity of teaching and learning that quantitative methodologies are of limited use. Rather, it is those very things that promote student motivation and interest in learning such as teacher caring and high expectations that more than likely holds the real key to doing well on external measures such as tests. On the other hand, when it comes to assessing the impact of social and economic factors on schools, then the sophisticated techniques employed by quantitatively researchers seem to admirably fit the bill. And so, it is suggested based on the findings from this study and this researcher's own sense of "experiential validity", that future educational researchers should start with the learner and then move outward to those influences that are more peripheral to teaching and learning. I am quite sure that there is a place for every type of educational inquiry as we search for ways to make learning, teaching, and schooling more effective.

In a more radical departure, Thomas Mann (1952) in his magnificent novel *The Magic Mountain,* speaks through his characters thus….

> One day all the world would realize that our system, which had developed out of the cloister school of the Middle Ages, was a ridiculous bureaucracy and anachronism, that nobody in the world any longer owes his education to his schooling, and that a free and public instruction through lectures, exhibitions, cinematographs, and so forth was vastly to be preferred to any school course (p. 519).

Although dated both historically and geographically, I wonder how many of us might agree with this position when viewed through the lens of "experiential validity"; that is when we as adults look inward to discover what really mattered in our cognitive, emotional, moral, and social growth. I also wonder about the role of caring in such a radical departure from our culturally accepted approach to schooling. Don't you?

Finally, to further complicate the issue of caring, Noddings (2005) writes that even if teachers try to be caring that it also must be perceived as such by students. In fact, it could be the case that some of the teachers that the participant perceived to be non-caring may well have been very well-intentioned and, in fact, thought that they were doing the right thing. However, perceptions become even more complex within the swirl of the school milieu where power differences intermix with the ever-changing chemistry of peer relations and "growth pains". Again, this suggests that the traditional way of conducting educational research is simply not suited for identifying and appreciating these complexities.

Oral Coding

Although not the primary focus of this study, because of the researcher's interest in using a more aural-oral approach for making sense of interview data based on Wolcott's (1994) Description-Analysis-Interpretation (DAI) triad, I thought it important to include some observations related to the use of oral coding. I thought back to DAI as I conducted the interview and Wolcott's question about whether we can truly keep analysis and interpretation separate. In fact, Wolcott also notes that description itself also involves a simultaneous foray into analysis and interpretation. Both DAI and the relationship among them hovered over me as I experimented with oral coding using different combinations of the original recording on Mac GarageBand, IPhone VoicePro, and Dragon Dictate as I wrote up my fieldnotes.

I first introduced the concept of Oral Coding in a study focused on higher education (Bernauer, Semich, Klentzin, & Holdan, 2013) where one of my co-authors (Jacqueline Klentzin) used phenomenological coding while I used Oral Coding to analyze data that were collected during focus group sessions. We found that there was significant agreement in our findings and interpretations using both methods. I then used Oral

Coding in a study that explored the remembrances of graduates of Catholic schools over several decades and found that Oral Coding helped to preserve the unique voices of participants as we went about transforming raw data into written text (Bernauer, 2015a) . Finally, I attempted to codify Oral Coding more explicitly into seven steps initially at the 6th Annual TQR Conference on January 9, 2015 at Nova Southeastern University and later in a journal (Bernauer, 2015b). However, as I noted at the end of the article, I thought that this new analytic method would hopefully "evolve" over time as it was used. And indeed, while analyzing data for this current study, I found that while I adhered to the spirit of the seven steps of Oral Coding that I, in fact, drifted from them especially in the way that I accessed the three technologies of GarageBand on my Mac laptop that was used to initially record the interview, QuickVoice Pro on my IPhone that served as the secondary recording device, and Dragon Dictate on my Mac that was used to transcribe from voice to text (Microsoft Word) that served as the direct link to the article that you are reading. It would be difficult to describe in exactly what sequence I used these technologies because I found myself "jumping around" among them as I wrote this article and would be hard-pressed to try and present a linear account of a very non-linear process. Nonetheless, I intend to continue experimenting with this method of transforming data even though I'm sure that my "experimentation" will not meet the tenants of the scientific method but will nonetheless hopefully serve to provide some useful information to those who are interested in using this method in their own work.

Both my co-authors and I would be deeply appreciative if you have any suggestions or questions to help "transform" this presentation into a suitable journal article – please let us know!

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