This study examined the process followed by graduate students in the formation of research problems for their dissertations. Narratives were solicited from researchers who received Spencer Awards for their dissertation research, and researchers received 30 narratives that described the process of research problem formation. The grounded theory analysis of this narrative data produced three themes: (1) Research Literature and Official Documents; (2) Interpersonal Interaction; and (3) Ethnographic Practice. These findings support the initial assumption that the process of problem formation involves a variety of qualitative research processes. (Contains 16 references.) (Author/SLD)
On the Emergence of Research Problems

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Abstract

In this study we examined the process followed by graduate students in the formation of research problems for their dissertations. We solicited narratives from researchers who received Spencer Awards for their dissertation research and we obtained 30 narratives that described the process of research problem formation. Our grounded theory analysis of narrative data produced three themes: (a) Research Literature and Official Documents, (b) Interpersonal Interaction, and (c) Ethnographic Practice. These findings support our initial assumption that the process of problem formation involves a variety of qualitative research processes.

On the Emergence of Research Problems

For a student contemplating a thesis or dissertation, the dilemma of creating or locating a problem suitable for research can loom large. The situation is not entirely different for a beginning faculty member at a university who realizes that a necessary condition for a successful research effort is a good question. Indeed, "for beginning researchers, selection of a problem is the most difficult step in the research process" (Gay, 1996, p. 36).

Finding a problem is not only a difficult step in the research process, it is the point at which everything begins and is, additionally, consequential to the entire research process. When it comes to design of a study "research questions determine every facet of research design" (Light, Singer, & Willet, 1990, p. 17). Overall, however, the professional literature rarely suggests concrete and systematic procedures for helping to solve the problem-of-the-problem. The main argument advanced in this paper is that since research problems (RP) emerge during qualitative research, we may be able to profitably use qualitative methods to assist us in finding all sorts of RPs, both quantitative and qualitative ones.

Research in general, and problem formation in particular, is most often a messy, recursive, and inductive process. Researchable problems emerge slowly from the fertile mire of data and experience in a manner that is qualitative by its very nature. Since the search for the elusive RP will be iterative or recursive, the seeker will need to continually organize and reorganize data. This operation will be neither quick nor straight because it demands patience, perseverance, and a decided tolerance for ambiguity. The system promoted in this paper is to carefully identify both possible sources of data and an outline of an "interview schedule" to know what to ask of these sources.

Data Sources

Where or from whom will you acquire the data for your qualitative problem-finding study? We suggest five data sources: (a) Self, (b) Literature, (c) Theory, (d) Advocates, and (e) Skeptics. Regarding the self as a source of data, Crowl (1993) notes that "One of the most fertile sources of research ideas is you" (p. 27). For example, what experiences have you had that are pertinent to your topical area? Also, what are your thoughts and opinions concerning this topic. With respect to the literature, "...there is no substitute for knowing the territory..." (Krathwohl, 1993, p. 75). Being intimately familiar with the professional literature in your general area of interest is a necessary prerequisite to problem identification. A researcher can also work deductively by starting with a theory. Consequences, or predictions that might be observable in practice and which would serve to either confirm or deny a theory can be investigated. Finally, both advocates and skeptics should be consulted. These individuals will serve as your key informants in the qualitative problem finding-creating effort. Advocates have carefully considered perspectives on the topic of interest and may have unique insights or a number of unresolved issues they may be willing to share with you. If you really want to understand the weaknesses of an idea, however, discuss it with someone who is critical of the notion or who holds an opposing viewpoint.

What Do You Require of These Data Sources?

Now that several data sources have been identified, you need to develop some sort of abbreviated or summary interview schedule. In particular, what should you ask of these sources to be of assistance in problem identification? We suggest twelve areas for questioning: (a)

Assumptions - What assumptions are being made? Are they tacit or overt? Are they reasonable assumptions? Who is making these assumptions? What are the consequences of these assumptions? Challenges - To what extent are the assumptions and other aspects of this topic or problem area open to challenge? What group is initiating these challenges? Is this a political area? To what extent are the challenges perceived as political? What are the competing viewpoints? Importance - Why is this area important? Who cares about this area and answers to questions here? Are the questions in this area more relevant to theory or practice? What portions or aspects of the area are most important? What's Hot - What is the most current thinking in this area? What is presently popular? Have the newest notions been shown to be both effective and practical? Where is the unfinished work in this area? What's Cool - What is the "other side" of the current thinking in this area? What components or portions of the newer or traditional approach might be best salvaged for future use? What's Provocative - "Provocative statements, uncharted areas, unverified findings, and interesting ideas can also serve as sources for identifying research problems" (Millman, 1998, p. 37). History - How did we get to this current state of knowledge? Where have we been before? If we look back at where we have been and at where we are now, is it possible to predict where we may be in the future? Ideal/Goal - What is the ideal situation or goal in this area? Is this ideal reasonable? What are the projections regarding the attainment of these goals? What are the possible pitfalls that lie ahead? Extremes - Take the notions and related recommendations in this general area to their logical (or not so logical) extremes. Is this extreme position reasonable or even desirable? Are there advocates of these extremes? Are there dangers in the extreme position? Controversy - What is the current controversy in this area? Where are the areas of conflict and where and what are the tacit agreements? Who are those involved in the debate? What, precisely, is at stake? Who has the most to gain and who has the most to lose? Contradictions - Where are the contradictions? Precisely, what is contradicting what? Who is contradicting whom? What is the quality of the various positions? Is it possible to test the validity of one position versus the other? The Gaps - What is it that I might investigate? What would be a good research question in this area? Where are the gaps or places that need further clarification or study? Why has this area been overlooked to date?

As a researcher collects the information described above he or she should take careful notes from the "field." These notes become the raw data from which potential RPs emerge. As your thinking evolves, you will need to continually return to these data for clarification and confirmation. Your own thoughts and reflections as you consider various data sources should be written down. In addition, you should include implications, deductions, and predictions from relevant theories, detailed notes of discussions with others including colleagues, advisors, skeptics, and advocates, and your subsequent notes on these notes plus interpretations and conjectures.

Methodology

The participants in this research project all received Spencer awards for their dissertation
research. Letters soliciting participation were sent to 200 award winners and 30 responses were received. The participants were given the following guidelines:

We are trying to better understand how the most promising young scholars have successfully identified the "problem of the problem". That is, we are looking for exemplars to assist our understanding of asking good questions. In particular we are interested in the origin, evolution, and evaluation of the research question that was the guide to your dissertation research. A narrative on this topic of any length you choose to write is desired and would be much appreciated.

Responses ranged in length from a single paragraph to several pages. After preliminary reading of the narratives we began the coding process with the goal of identifying dominant themes. Repeated reading of the narratives resulted in clumping and recoding until a tree of large-order and small-order themes emerged from the data (Lindlof, 1995). This allowed us to move to the latter stages of data analysis which focus on theorizing and recontextualization. Theorizing refers to the "constant development and manipulation of malleable theoretical schemes until the 'best' theoretical scheme is developed" (Morse, 1994, p. 32). In this way a grounded theory approach to understanding the data emerged, and we then moved toward recontextualization, that is, finding ways in which the theoretical explanations can be applied to other settings and be useful to others (Morse, 1994).

**Interpretation**

Initial analysis of the data produced 45 discrete categories. These categories were collapsed into three major themes: (a) Research Literature and Official Documents; (b) Interpersonal Interaction; and (c) Ethnographic Practice.

**Research Literature and Official Documents**

Different types of published sources were identified by 15 of our respondents as contributing to the identification of research problems: (a) Teacher's magazines, (b) Department of Education reports; (c) State records, (d) Files of state teachers association, (e) Legal records, (f) Archival records, and (g) Scholarly literature.

Typical of the responses we received was researcher #3 who focused on the influence of evangelicals on education in Tennessee:

I was still looking for a specific topic as I approached my qualifying examinations. I had read George Marsden's *Fundamentalism and American Culture* and found myself surprised when his work concentrated on fundamentalist battles in Pennsylvania. He did a remarkable job of explaining fundamentalism by identifying where it was forced most clearly to defend itself. But what caught my attention was the underlying message of the book — that you had to look elsewhere for explanations for fundamentalism because the South was so unabashedly fundamentalist. But taking my cue from the research emerging about variations in Southern orthodoxy in the era of the civil rights movement, I thought perhaps there was more to the story about fundamentalism as well. (Researcher #3, p. 4)

Although half of our respondents identified different types of published sources as guiding the identification of their research problems, four respondents indicated that it was a dearth of literature in an area that prompted them to conduct their study. For example, researcher #5 who was interested in examining school architecture offered the following explanation:
I found virtually nothing had been written on American high schools -- and scholarship on American school architecture as a whole was extremely scarce, except for work on Modernist schools of the 1940s/50s and American colleges. The realization that the field was relatively untapped was the final factor in my decision. (Researcher #5, p. 2)

Respondent comments about the role of prior research (or the lack thereof) in problem formation is not surprising. In graduate school doctoral students are exposed to a wide scope of studies that contain the seeds for new research projects. Sometimes it is the results or interpretations that a scholar offers that prompts subsequent studies; other times it is suggestions for future research. More intriguing examples of problem formulation, however, are the interactive and ethnographic processes that spark a researcher to commence with their dissertation research. These processes are highlighted in the next two sections of our interpretation section.

Interpersonal Interaction

Conversations with a variety of people also served as a catalyst for the identification of research problems. Seventeen of our 30 respondent narratives focused on these conversations as instrumental in formulating their research problems. These conversations were with: (a) advisors and other professors in the respondent's department, (b) elementary and high school teachers, (c) project team members, (d) religious leaders, (e) other graduate students, (f) childhood friends, (g) parents, (h) research participants, (i) and students who took a class from the researcher.

Researcher #11 identified a number of conversational interactions that prompted her dissertation research:

The genesis of my dissertation was while I was working on my master's degree... For fun, I decided to learn Vietnamese... While taking the class, the instructor introduced me to the Vietnamese community in New Orleans -- a small, and particularly tight knit community that has been the subject of a lot of immigration researchers. I noticed that the kids from the community entered college at very high rates and, once there, did pretty well. I didn't think about that again until I entered the PhD. program in Sociology at University X. One of the professors there had recently received a grant to study Asian Americans, but had not yet done much work on the topic. I combined my interest with his work on Asian American stratification and came up with my topic. (Researcher #11, p. 1)

Another researcher who credited multiple people for the identification of her research problem was researcher #14 who stated:

Throughout [my] voracious reading [on the subject] I was guided and assisted by my professors at University S... and I brought my students' experiences and my own questions into my graduate papers and class discussions... I was encouraged to continue asking questions... by professors who began to treat me more like a colleague than a student. After I defended my master's thesis, my professors encouraged me to apply for a Ph.D. program where I could return to my questions about literacy and slave narratives. At University X again I found professors who understood my inquiry and guided my search for answers. My questions about slave narratives were broadened by a mentor who brought to my attention the fact that many slaves could already read and write Arabic language. (Researcher #14, p.2)
One of the roles that an advisor can play in the selection of a dissertation topic is helping a doctoral student make choices among different research project alternatives. Identifying a direct conversation with his advisor as instrumental in his identification of a dissertation topic, Researcher #5 stated:

I determined that my dissertation would be either on architectural sculpture in the early twentieth century or on Ittner and the St. Louis schools. I discussed the choices with my advisor and he persuaded me that the school building topic had the potential to be much more interesting and broad, encompassing aspects of education, architecture and history. (Researcher #5, p. 2)

Sometimes the conversations that a graduate student has with a professor take the form of simple encouragement, but that encouragement is instrumental in the identification of a researchable problem. As Researcher #27 explained:

I shared a conference poster session with Dr. M a nationally recognized media historian and scholar on corporate media power. After explaining my research on commercial Internet initiatives, I was encouraged by Dr. M to continue research in this understudied area. (Researcher #27, p. 1)

The people we interact with can impact our ideas in a variety of ways. Researcher #7 attributes part of her topic selection to one of her research participants, a high school teacher. She explains:

Mr. H, one of my participants, introducing the concept of a map in his geography class, picked up an apple and asked students what would happen if they were to flatten the apple onto a sheet of paper. Several students said that it would be torn to pieces. Mr. H continued to say, "Yes, a representation is inevitably a distortion." At the moment I felt despair. I instantly imagined the apple skin cut and rumpled, fixed on a two dimensional surface. I could not but think that what I was doing as an ethnographer was not unlike cutting and rumpling down an apple skin. I had had a graduate course devoted solely to the issue of representation, but none of the scholarly discussions affected me as much as Mr. H's apple. Mr. H's apple has become a parable for me. I have come to accept that a representation is a distortion in some ways. I do not feel hopeless, nor do I pretend that the apple skin is intact. I admit that my apple skin will have cuts and wrinkles; [and] that... I do not know how many cuts and wrinkles it has; and that I do not even present the whole skin. But I attempt to show the kind of tool I used to carve out the apple skin, and what wrinkles might have been made from that (Researcher #7, p. 1)

Interaction with others is not always helpful and supportive and sometimes the path to a dissertation proposal is somewhat circuitous. Consider the comments of Researcher #29:

I talked over my idea with a visiting professor, a professor in another department and other graduate students who were supportive but not particularly helpful in developing the topic. When I approached my advisor about the subject, his reception was less than warm and he subtly discouraged me from following this path. I became disheartened and gave up on the idea... I [then] wrote a very short proposal for a grant application which I gave to my advisor. He encouraged me to continue down this path. I received the grant which included seed money and a writing workshop for the development of a larger grant proposal. (Researcher #29, p. 1)
Some researchers distinguished between those interactions that are helpful in pursuing a research topic and those that are not. Researcher #13 was grateful for the encouragement she received from parents but skeptical of the help offered by academics. She explained:

I think curiosity is nurtured during the earliest years. I am grateful for parents who encouraged me to pursue my interests no matter what other people thought about them. To be honest with you, I think academic life is so politicized these days that young scholars' natural curiosity is inhibited unless they are very tough. Which I think I was. I did not have a "cool" topic, but it interested me, and I have no regrets about pursuing it. (Researcher #13, p. 1)

Taken collectively, our respondents' comments show how conversations with influential others may create a social learning environment that serves as a catalyst for research topic formation. Bandura's (1973, 1974, 1977, 1997) social learning theory draws attention to important aspects of the interactive learning environment that takes place within our central communication networks. Sometimes the members of our various communication networks provide us with general ideas that are helpful in topic creation. In fact, Papa, Auwal, and Singhal (1995, 1997) have argued that the process of creativity is facilitated when people share stories about how to respond to commonly experienced problems. Other times members of our communication networks serve as role models that facilitate our learning and our creativity in identifying researchable topics. In our data set this appeared to be the case when professors, advisors, and teachers served as role models inspiring students to think creatively about potential researchable problems.

Ethnographic Practice

Our third theme in finding researchable problems is ethnographic practice. Some of the examples consistent with this theme involve a discovery process that emerged during fieldwork. Other examples are more consistent with the practice of autoethnography and involve a consideration of the researcher's cultural roots and autobiography. Overall, 20 of our 30 respondents' offered examples that could be classified as ethnographic practice.

The central role of fieldwork prior to topic selection was explained by researchers #8 and #18:

The truth is I had only a very vague idea of what my dissertation topic would be until I was a few weeks into my "fieldwork" period. In fact, the topic I wound up choosing was guided by the data I was collecting rather than determined prior to the beginning of the actual research. (Researcher #8, p. 1)

My research grew out of a deep body of lived experience, interviews, observations, videos and still photographs, documents, and field notes. This information was coded and research foci emerged from the research material. In this fashion, my research question evolved. (Researcher #18, p. 1).

Another researcher presents a more developed response of the emergence of her research question through fieldwork. She explained:

In 1985, as an international development worker in the Far North Province of Cameroon, I spent my weekends attending spectacular death celebration dances, accompanied by high school (lycee) students... This was the "gurna" dance, the ancestral dance of the Tupuri...
people. [Through] this [dance] the Tupuri people released the spirit of the deceased to the world of the ancestors and commemorated the value of a human life well-lived...

However, when I returned to Tupuri in 1996 and 1997, I discovered, as many have before me, that my research questions dissolved before my eyes. I had asked: how did youth reproduce and revise tradition, in light of their school experience? But the category of "youth" proved to be too large and unwieldy. There were many kinds of "youth," and therefore the question of "which youth" reset the question every time it was broached. Furthermore, the more I discovered about the "gurna" society, the more complex and all-encompassing it appeared to be; just to comprehend all that was occurring poetically and socio-politically in the "gurna" songs was a task in and of itself. Eventually, I began to ask larger questions about how competing moral orders were negotiated in a community, and how public performances were implicated in this process. These foundational questions seemed vital to understand how rural traditions, such as the "gurna," would fare in the changing conditions of the "post-colony." (Respondent #17, pp. 1-2)

Ethnography as a method has undergone tremendous diversification in recent years. One of the most recent trends has been the shift from ethnography to auto-ethnography. Pratt (1995) provides a distinction between these two approaches to ethnography:

an autoethnographic text...[is] a text in which people undertake to describe themselves in ways that engage with representations others have made of them. Thus, if ethnographic texts are those in which European metropolitan subjects represent to themselves their others, autoethnographic texts are representations that the so-defined others construct in response to or in dialogue with those texts. (p. 35)

Autoethnography often integrates the ordinary and mundane realities of everyday life into academic writings, and "is a form of ethnography that blurs lines between personal and social, self and other" (Simpson, 1996, p. 372). It essence it represents "the reflexive turn of fieldwork for human study by (re)positioning the researcher as an object of inquiry who depicts a site of interest in terms of personal awareness and experience" (Crawford, 1996, p. 167).

Self-reflection, autobiography, and a focus on one's cultural roots are part of the responses offered by 14 of our 30 respondents. Each of these responses can be considered a form of autoethnography that leads to the emergence of research questions.

Respondent #7 offered the most developed explanation of the process of self-reflection as it pertained to her dissertation topic. She explained:

I feel that the aspect of myself that was marked as "different" by many of my peers in Korea has become a strong tool in my intra- and inter-cultural learning. As my search for the self grew more pressing during my college years in South Korea, I was increasingly viewed as "unique", which was not always a compliment. Most of the time it was a somewhat neutral acknowledgment that I tried to look at things from different perspectives. But being "different" could also be taken as a sign that I was more concerned about my "self" than about social cohesion. For my part I felt an acute sense of conflict between the needs of myself as an individual and norms and expectations of family, friends, and ultimately, society. I seemed to demand more personal space than others and to act upon the notion that "everyone is different." I withdrew myself at any slight hint of social conformity. As my inner conflict was accentuated, I considered a
graduate program in anthropology, which had fascinated me since childhood. It seemed that with anthropology I would be able to tackle the question that preoccupied me: to what extent am I Korean. [Concerning my dissertation] it seemed as if I was hearing from many educators at school X my own anxiety about social conformity, when they expressed concerns about peer pressure. As I deeply valued individuality, I truly appreciated their effort to nurture it in their students. Sometimes I even fantasized: "What if I had received the kind of education teachers at school X designed for creativity development. (Respondent #7, pp. 2, 4)

Reflecting on his childhood experiences, Respondent #22 explains how he came to develop his dissertation problem:

[T]here was a very personal aspect of [my] choice of a dissertation topic. During my middle childhood I was an avid dominoes player... In fact, my father used to challenge his friends to games with me as his partner. So I saw the study as honoring my father, grandfather, and grandmother who never attained high levels of schooling but whose thinking was sophisticated and strategic. I also wanted to better understand the nature of this thinking and how it related to school-type concepts. (Respondent #22, p. 1)

Also reflecting on childhood experiences, Researcher #30 had this to say about the formation of her research problem:

Issues of equity and equality -- in opportunities and attainment, in school and work -- are at the heart of my research interests. I date my commitment to matters of social justice to experiences in my formative years. I grew up on a dairy farm in far northern Wisconsin and attended school in an ethnically and economically homogenous community. Yet, I also came of age in an era of social activism. Events surrounding the Civil Rights Movement, the Women's Movement, and the War in Vietnam, shaped my beliefs in equality and opportunities for all people.... In my dissertation, I hope to learn more about the mechanisms that foster inequities on the bases of race/ethnicity and gender and how educational policies and practices can attenuate these disparities. (Respondent #30, pp. 1-2)

The most developed explanation of an autoethnographic process of problem formation was described by Researcher #6 who explained:

In the spring of 1993, when I was 29, I flew to Cincinnati, to the quiet, shaded suburb where I grew up, for the wedding of an old high school friend.... My adolescence had been a troubled time--I was kicked out of high school, arrested twice, ran away from home, contemplated suicide, and eventually went through a drug rehabilitation program when I was 17--and after I went away to college I stayed away, mostly out of embarrassment, fear, and discomfort. The wedding was something of a reunion for my high school friends and me. In addition to the groom were three of my other best high school friends, each of whom had shared in my adolescent troubles. Although I hadn't seen most of them since I was 17, I had heard now and through the grapevine where they were and what they were doing. Nonetheless I was surprised when I saw them together. One was a very successful businessman with his own software company; another was a doctor, trained at Johns Hopkins and Yale; a third had both an MBA and a law degree and was clerking for a federal judge; the last was married, earning a middle-class salary in a sales department,
with a baby on the way. The juxtaposition of my adolescent memories of them with the 29-year-old reality of their successful, middle-class and upper-middle-class lives struck me powerfully, and I began to wonder how we had all gotten to here. What we had done as teenagers was not so different... from the stereotype of poor and urban teenagers: we used drugs, sometimes sold them to support our own use, engaged in petty crime, fathered children, ran away from home, and were kicked out of schools and arrested. Yet somehow we had all grown up into highly-educated, successful adults. How did this happen?... The following Spring I went back to Cincinnati to talk to anyone I could find who had known me as an adolescent--my old girlfriend, my psychologist, high school teachers, old friends. I went to the courthouse to look up my police record; I walked the halls and looked through yearbooks at my old high school; I visited my favorite old hangouts, all changed and foreign now, trying to remember what I felt like 12 years before. I was trying to figure out who I was back then, I told everyone. In the process of this "archaeology of the self," I became less and less interested in the specifics of my own life and increasingly interested in more general questions about the structure of opportunity in society. I wondered how our lives might have been different if my friends and I hadn't been lucky enough to live in an affluent community that had the resources to provide us with safety nets and second chances each time we fell. This question became the driving force behind my dissertation research. This dissertation is both a personal document and a piece of scholarly research. As I read through the social science literature on adolescent drug use, I found my experience missing (Researcher #6, pp.1-2)

Despite clear evidence from a number of our respondents that the search for a dissertation topic often involves a personal process of self-reflection, one respondent negated this perspective: Consider the comments of Researcher #20:

I don't think I have any great knack for asking good questions. Furthermore, I suspect that the reason people are drawn to the questions they research has nothing to do with their intellectual ability to frame good questions and everything to do with murkily understood psychological needs. I don't think you can teach anyone else the skill of asking good questions because I am not so sure it is a skill. I couldn't ask good questions generally, I can only ask good questions about one pretty narrow slice of American history. I'm not sure that's a skill, sometimes it is more like prison--you are compelled to keep returning to the intellectual scene of the crime, so to speak. Sorry--this probably doesn't make much sense, but I never actually spent any time "identifying a problem to research." The problem found me. And I suspect that is how it works for most of us. And this problem probably found a lot of other people before it found the person, which for whatever reasons, connected with it emotionally enough to bother to try to answer it. I think it's quite nearly an irrational process (Researcher #20, p.1)

Conclusion

In this study we examined the process followed by graduate students in the formation of research problems for their dissertations. We solicited narratives from researchers who received Spencer Awards for their dissertation research and we obtained 30 narratives that described the process of research problem formation.

Our grounded theory analysis of narrative data produced three themes: (a) Research
Literature and Official Documents, (b) Interpersonal Interaction, and (c) Ethnographic Practice. These findings support our initial assumption that the process of problem formation involves a variety of qualitative research processes.

Our proposed model of data sources and data requirements did not prove as useful as anticipated although the data sources of self and research literature were identified by a number of our respondents. Future research should consider selecting a larger number of narratives to develop a more complete model of research problem formation. Also important to examine is research failures. Not all processes of research problem formation produce researchable problems. We can certainly learn as much about research problem formation by gaining a more in depth understanding of the failures researchers encounter in developing their research programs.

References
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