Learning Experience and Identity Development as a Research Assistant

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Abstract

What research learning experiences do current students have as research assistants (RAs) in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans? Despite the importance of these questions, there seems to be very little research conducted or written about the experiences of research assistants as they engage in the research process. There are few resources to which research assistants or their advisors can refer regarding graduate student research learning experiences.

The purpose of this study was to understand the kinds of learning experiences that 4 RAs (who are enrolled in the Faculty of Education at Brock University, St. Catharines, Ontario) have and how those experiences contribute to their identities as researchers. Through interviews with participants, observations of participants, and textual documents produced by participants, I have (a) discovered what 4 RAs have learned while engaged in one or more research assistantships and (b) explored how these 4 RAs' experiences have shaped their identities as new researchers.

My research design provided a separate case study for each participant RA, including myself as a research participant. Then as a collective, I studied all 4 cases as a case study in itself in the form of a cross-analysis to identify similarities and differences between cases. Using a variety of writing forms and visual narratives, I analyzed and interpreted the experiences of my participants utilizing arts-based literature to inform my analysis and thesis format. The final presentation includes electronic diagrams, models, poetry, a newsletter, a website presentation, and other representational arts-based forms.
This thesis is a resource for current and future research assistants who can learn from the research assistant experiences presented in the research. Faculty members who hire research assistants to assist them with their research will also benefit from reading about RAs’ learning experiences from the RAs’ perspective. The information provided in this thesis document is a resource to inform future policies and research training initiatives in faculty departments and offices at universities. Consequently, this thesis also informs researchers (experienced and inexperienced) about how to conduct research in ways that benefit all parties and provide insight into potential ways to improve research assistantship practices.
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CHAPTER 1: INTRODUCTION

Statement of the Problem

What research learning experiences do current students have as research assistants (RAs) in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Despite the importance of these questions, there seems to be very little research conducted or written about the experiences of research assistants as they engage in the research process. There are few resources to which research assistants or their advisors can refer regarding graduate student research learning experiences. This deficiency in scholarly literature is confirmed by researchers who found numerous writings describing methods of doing research in Education, but few publications addressing the topic of graduate students learning how to accomplish educational research (Cumming, Shi, & So, 1997; Pallas, 2001). McGinn, Dunstan, and Faulkner (2001) reason that, although few studies have systematically investigated research training in the social sciences or in Education (a field that incorporates several social sciences disciplines), studying graduate students’ initial research experiences can provide theoretical and empirical grounding for improved research training which in turn will positively affect the quality and impact of research conducted by new researchers. (p. 7)
Participating in a research assistantship, as a research assistant, is not an unusual undertaking by full-time students at Brock University where I am completing my graduate studies. It is my impression that a small group of full-time students hold the majority of the research assistantships available whereby a student (from this small group) may accept more than one assistantship and work on several contracts concurrently. The usual responsibility of RAs in a university setting is to assist professors or research supervisors in conducting research. At Brock University, RAs’ involvement in research varies and can include: database searching, writing literature reviews, conducting interviews, doing on-site observations, writing research grant proposals, editing manuscripts for publication, presenting research at conferences, and any number of other research tasks. RAs’ duties can also include commonplace activities such as photocopying, running errands, and acting as a secretary to the primary researcher.

I have worked as a RA since I began my Master of Education degree in September 2001. In my research assistantships, I have learned many new skills and gained knowledge that I would not have learned in graduate coursework, such as learning to write conference proposals and participating in research project meetings. Cumming et al. (1997) have documented graduate students’ experiences, describing the value and benefits of actively participating in authentic educational research projects. As one student commented:

This project helped me to learn how research is done. Just observing and being a part of it was quite an experience….I became more conscious of the whole process of the research, from designing to reporting. The concrete steps became clear.

(Cumming et al., 1997, p. 428)
McGinn (2001) suggests that in addition to formal coursework, one of the most powerful forms of research training is through a research assistantship (p. 7). I have a hearing disability that has made it difficult for me to participate fully in large classroom situations. Therefore, the smaller research groups and one-on-one learning that is characteristic of research projects in a research assistantship work very well for me. Participating in a research assistantship, and having a research assistantship supervisor who is willing to take the time to explain the research process to me, has reinforced concepts or methods that I didn’t quite grasp in traditional classes and coursework. Currently, I am employed as a RA on a project that allows me to complete interesting and varied tasks that not only help me to stay updated on new research methods and practices, but also fuel my “ideas journal” for my own research. This current research assistantship also offers me opportunities to utilize my fine arts background where I create artwork to understand and interpret my learning experiences as a research assistant and a co-researcher. To date, I have created paintings and drawings in combination with my narrative writing explorations that also include poetry forms.

My thesis research focuses on the research learning experiences of 4 graduate students who participate in one or more research assistantships and who are enrolled in the Faculty of Education at Brock University, St. Catharines, Ontario. The purpose of this study is to understand what kinds of learning experiences the 4 RAs have and how those experiences contribute to their identities as researchers. I believe that this study will contribute to the literature base currently available.
Background to the Problem

Over the past 2.5 years, I have become aware of the diversity of experiences that RAs have in their assistantships at Brock University. Through my conversations with peers and research supervisors, I have not only shared my experiences as a RA, but I have learned much about other research activities and new tips to which I might not otherwise have been exposed in my own research practices. This realization that different research assistantships provide very different research learning opportunities for RAs has prompted me to inquire about and document the kinds of learning experiences that graduate students have had in research assistantships. In this research, I wanted to find out how the research learning experiences of RAs in research assistantships at Brock University contributed to researcher identity development and influenced future research plans.

My study contributes to the small body of formal knowledge and scholarly literature regarding graduate student research learning that is concentrated on research assistants working in a research assistantship. By utilizing a case study approach, I have conducted an in-depth investigation of selected RA experiences and explored the everyday web of learning that occurs while RAs participate in authentic research endeavours, and how this learning has contributed to RAs’ identities as researchers.

Purpose of the Study

The purpose of this qualitative collective case study was to investigate and describe the experiences of RAs who engaged in one or more research assistantships (Stake, 2000). Through interviews with participants, observations of participants, and
textual documents produced by participants, I have (a) discovered what 4 RAs have learned while engaged in their research assistantships and (b) explored how these 4 RAs’ experiences have shaped their identities as new researchers.

Central Questions

What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Overview of Approach

In this study, I conducted a series of two to three interviews with 4 participants in order to find out how RAs describe their learning experiences and researcher identity development while engaged in a research assistantship.

The first interview was an introductory interview asking the participants about their general learning experiences as RAs and background information. The second interview delved into specific details of being a RA and RA researcher identities. The third interview took the form of an informal discussion to review and verify transcripts of previous interviews, observational data, and other sources of information. This final interview allowed one of my participants to elaborate upon her research learning experiences and research identity development, as well as provided additional information that was not addressed in the two previous interview sessions. The other participants provided me with enough data in the first two interviews that I did not need to conduct a final interview with them.
On-site observations of RAs at work took place on the Brock University campus (in settings recommended by the participants) at about the same time as the second interview. Documents such as résumés, application letters, reflections, and so forth were collected throughout the study from the participants. With the consent of the participants, I interviewed their supervisors in order to triangulate data and contextualize the participant’s RA experience.

By carefully selecting participants, I studied 3 participants, who allowed me to observe a diverse range of RA experiences. Additionally, I reflected upon my experiences as a researcher-in-training. As a research assistant and co-researcher of a larger research team project, I have been keeping a journal as part of the data collection regarding my experiences as an aspiring academic. I have continued my journal writing throughout my thesis work as a way to document my research practices, but also to learn about my learning processes and changing identities as a researcher.

Furthermore, in order to keep my data collection techniques consistent, my advisor and I were both interviewed by a third party using the same interview questions that I used to interview my participants and their supervisors. Drawing from my RA experiences, I engaged not only myself, but also the participants in an ongoing dialogue regarding our learning and our self-perceptions as researchers.

Because I was interested in exploring the individual experiences of RAs in their research assistantships, this research design used a collective case study as described by Stake (2000) and Merriam (2001). Stake (2000) describes the collective case study as a way to study “a number of cases in order to investigate a phenomenon, population, or general condition” (p. 437). My research design provided a separate case study for each
participant RA, including myself as a research participant. Then as a collective, I studied all 4 cases as a case study in itself in the form of a cross-analysis to identify similarities and differences between cases. I wove my experiences with the experiences of my participants in the final thesis presentation using arts-based literature to inform my analysis and thesis format. The final presentation includes electronic diagrams, models, poetry, a newsletter, a website presentation, and other representational arts-based forms. I used arts-based representations throughout my thesis to tap into my strengths as a visual learner and an artist. I wanted to create a thesis that invited my readers to connect with my research in more than one way. As a research assistant and co-researcher, I was encouraged by my team members to include creative artworks as part of my narratives in our research project. As an artist and hard-of-hearing person, the opportunity to include artwork as part of my narrative has not only helped me to express my experiences as an aspiring academic and researcher, but also provided me with the opportunity to explore how narrative analysis and arts-based interpretations can be used in research effectively.

Using a variety of writing forms and visual narratives, I analyzed and interpreted the experiences of my participants in this thesis. The following bio-poem (Bean, 1998) illustrates how I identify myself in terms of being a research assistant. It is one of many forms of writing that you will come across as you read this thesis.

Annabelle Louise

Inquisitive, creative, conscientious, reflective

Identifies herself as an artist, a hard-of-hearing person,

a research assistant, and a co-researcher

Lover of knowledge, art, and technology
Who feels confident, challenged, and rewarded

Who needs guidance to seek knowledge, art to comprehend discoveries, and adaptations to cope with her disability

Who fears time passing too quickly to enjoy the process of learning

Who contributes ideas, encouragement, and a different perspective

Who would like to share what she has learned about learning and identity development as a research assistant

Member of several communities of practice at Brock University

Grundy

Theoretical Frameworks

Lave and Wenger (1991) suggest that “learning is a process of participation in communities of practice: participation that is at first legitimately peripheral but that increases gradually in engagement and complexity” (p. 1). I was introduced to Lave and Wenger’s (1991) learning perspective while working as a research assistant and I have acquired a wide-ranging awareness of its application to learning in research communities through my research assistantship and my thesis work. It is my understanding that research assistantships can be viewed as communities of practice where learners or students are the “newcomers” to a research community and teachers or faculty supervisors are the “old-timers” within that research community (Lave & Wenger, 1991, p. 29). In research assistantships or research communities of practice, students become
engaged in research activities and the “meaning of learning is configured through the process of becoming a full participant in a sociocultural practice” where this social research learning process includes the learning of knowledgeable research skills (Lave & Wenger, 1991, p. 29). Lave and Wenger’s (1991) notion of legitimate peripheral participation provides a way to explain how research assistants learn about research and how this contributes to the formation of a researcher identity.

I also wanted to further explore researcher identities using Wenger’s (1998) notion of communities of practice. Wenger (1998) presents a theory of learning that starts with the assumption that “engagement in social practice is the fundamental process by which we learn and so become who we are” (p. 1). By “being active participants in the practices of social communities and constructing identities in relation to these communities” (Wenger, 1998, p. 4), newcomers not only gain the knowledge and meaning that emerges from taking part in community practices, but eventually acquire a sense of belonging to that community. It was my hope, as I collected information about my participants’ research learning in a research assistantship and reflected upon my RA experiences, that Wenger’s (1998) theories of meaning and identity would help me to understand the researcher identity development of the participants and how this researcher identity development influenced our future research plans.

This research allowed me to apply and extend the notions of participation, community of practice, identity, and meaning with respect to RAs’ learning experiences and leads to a theoretically and empirically grounded perspective on research assistantships as a site for graduate student learning.
Limitations of the Study

There were many limitations to this study. In particular, finding participants that would most inform the field was challenging with such a small participant pool. Added to this difficulty was finding participants who represented a variety of backgrounds and perspectives (according to degree completion stage, race, gender, age, differently-abled bodies, and research interests). The participant pool was limited to those who chose to participate and who were available during the period of time that I planned to collect data (November 2002 - July 2003 with periodic participant contact throughout the year 2003).

Importance of the Study

Investigating the learning that occurs in research assistantships from the perspective of the graduate student RA is helpful to future and current graduate students, faculty, and staff to better understand how research skills and concepts are learned and utilized by graduate students in settings outside classrooms. As Takata and Leiting (1987) suggest, students who participate in “real world” research-related projects and activities learn the survival skills needed to cope in future real world research such as “the politics of research, the power games in the community, ethical dilemmas in the workplace, personnel and people problems, and so forth” (p. 145).

This study provided an opportunity for participants to reflect on the positive and not-so-positive aspects of their research learning experiences as research assistants. As will be indicated in the subsequent chapters, this thesis research uncovered many layers
of learning in relation to the cultural, organizational, and political aspects of graduate school and graduate education not readily experienced in traditional classroom settings.

Overall, the participants in this study had positive research assistantship experiences. However, there were a few incidents discussed during the interviews that provided glimpses of the kinds of oppression and exploitation of graduate students that Hinchey and Kimmel (2000) document.

This thesis will be a resource for current and future research assistants who can learn from the research assistant experiences presented in the research. Faculty members who hire research assistants to assist them with their research will also benefit from reading about RAs’ learning experiences from the RAs’ perspective. The information provided in this thesis document will be a resource to inform future policies and research training initiatives in faculty departments and offices at universities. Consequently, this thesis will also inform researchers (experienced and inexperienced) about how to conduct research in ways that benefit all parties and provide insight into potential ways to improve research assistantship practices. I hope that future and current graduate students, faculty, and staff will be able to better understand RA interactions and the specific tasks that RAs feel most significantly contribute to their research learning and researcher identity though this study.
CHAPTER 2: REVIEW OF THE LITERATURE

In their current SSHRC-funded research project, McGinn, Manley-Casimir, and Shields (2001) suggest that there are insufficient numbers of students or recent graduates of Ph.D. programs to counter the predicted "major shortages in faculty ranks within Canada" that have been forecasted for the coming years, especially in the area of Education (p. 9). Elliott (2000, as cited in McGinn, Manley-Casimir et al., 2001) reports that the projected hiring needs of faculty members will range between 25,000 and 30,000 due to the 20 percent increase in student enrollment and the 50 percent replacement rate for departing faculty members in the coming years (p. 10). Therefore, finding different ways to carefully train (and socialize) current graduate students as effective researchers and educators is necessary so that the advancements in research and teaching are sustained during the impending faculty shortages.

McGinn (2001) asserts that "few studies have systematically investigated or theorized about researcher training in social science disciplines and humanities or in Education (a field that incorporates several social science and humanities disciplines)" (p. 1). This estimation is echoed by Pallas (2001) who states that "there is scarcely a literature on the preparation of education researchers" (p. 7). Indeed, "graduate student research development represents a relatively new area of study in the educational literature" (Mullen, 2000, p. 19). However few, there are studies being conducted that focus on training graduate students to become competent researchers and potential future faculty members (Cumming et al., 1997; McGinn, Dunstan et al., 2001; Mullen, 2000;

Review of the Literature

The purpose of this literature review is to provide a framework for discussing the research learning experiences and researcher identity development of 4 research assistants from the Faculty of Education at Brock University who participated in this study.

The following discussion reviews the available literature within three sub-sections: (a) relationships, (b) research learning, and (c) identity development. As you read the subsequent sections of this discussion, please keep in mind that graduate research learning and education is a complex area of study. The literature that I have collected researches and describes learning at different, but interconnecting levels, which makes it very difficult to highlight an individual aspect of learning without sometimes making reference to other aspects. However, by creating these three sub-sections I feel I have presented the reader with a framework to highlight the areas of learning that I feel are the most pertinent to understanding graduate research learning and researcher identity development in this study.

Towards the end of this chapter, I discuss the approaches and limits that I developed in acquiring literature for this study and my conclusions. This literature review was an ongoing process of inquiry informing the research process and data collection activities.
Relationships

The literature indicates that learning in social contexts seems to be an important aspect to research learning. Shared research learning activities provide a site for “generating perspectives for building research communities” (Mullen, 2000, p. 6).

Wenger’s (1998) notion of communities of practice can be applied to Mullen’s (2000) research where students formed bonds as they “pursue[d] shared enterprises over time” (Wenger, 1998, p. i). Wenger’s (1998) communities of practice theories can also be applied to Bunch’s (1995) study that suggests community members share certain perspectives and rules that govern the intellectual and social aspects of their community and that it is necessary for newcomers to learn, not only the conventions of the discipline, but also conversations of the community in order to become full participants.

Participating in a research assistantship provides an excellent site to practice the theoretical components to doing research, as well as the language component of understanding research. By interacting and conversing with others within a community, students learn “to work with others in meaningful and productive ways” (Nyquist & Wulff, 1996, p. 77).

Socialization has been defined as an active “process by which new members acquire the core elements of a new culture” (Schein, 1987, as cited in Brown-Wright, Dubick, & Newman, 1997). According to Roth and McGinn (1998), becoming socialized is also a process of learning where “newcomers learn much of the craft by participating with old-timers in legitimate and initially peripheral ways” and then “eventually they become old-timers themselves” (p. 217). In research assistantships, “old-timers” are usually faculty members working with students on various research activities. The
literature that I gathered almost exclusively focused on student and faculty relationships and not a wider team of other students and faculty members. However, the literature discussing student and faculty relationships did talk about a range of information from positive and negative aspects of students and faculty relationships to discussing implications for mentoring graduate students.

Literature that discusses the positive and negative aspects to student and faculty relationships, invariably uses metaphors or other analogies to illustrate relationship dynamics. For example, metaphors alluding to negative power distribution within student and faculty relationships are evident in Miller and Stephens’ (1998) study that described the student and faculty relationship as a game of “Russian Roulette” or a student and faculty relationship whereby the research assistant may “undertake the brainless job of photocopying” (p. 111). Hinchey and Kimmel (2000) describe graduate students as the “other” and suggest that “to become a graduate student, means to enter a potentially oppressive relationship” (p. 63). Drawing upon the work of Hawley, Hinchey and Kimmel (2000) designate three types of oppressive supervisors:

- the autocrat, who ‘insists upon dictating [the student’s] every move’;
- the judge/jury, who gives the student ‘no help at all, just says aye or nay about everything...like a Roman emperor’;
- the opportunist, who treats the student as ‘an academic slave to promote her own career’ and the worst of whom will ‘usurp [the student’s] best ideas and fail to credit...contributions, knowing there isn’t much [a student] can do about it’ (p. 103)

Kimmel and Hinchey (2000) believe that, “it is the student who pays the price for the faculty member’s power abuse” (p. 103). From these authors, the reader can deduce that
student and faculty relationships can be problematic and that graduate students
sometimes hold a relatively powerless position within student and faculty relationships.
As a result, potentially negative relationships may not contribute to effective RA research
learning or researcher identity development.

Alternately, some literature alludes to the potential equilibrium of power in
student and faculty relationships where research learning and researcher identity
development are viewed as positive experiences. For example, in a research situation
where intense supervision may be required (e.g., a research team interviewing a prisoner),
a more experienced supervisor might take a supportive lead in questioning rather than the
less experienced research assistant (Takata & Leiting, 1987). Similarly, in the joint
writing of a manuscript for publication, a research assistant and supervisor can share
responsibilities in a collaborative and collegial atmosphere (Miller & Stephens, 1998;
Roth & McGinn, 1998). It seems that research assistants who participate in research
activities that have been designed with the student in mind, and that promotes learning
and understanding, will most likely develop healthy researcher identities.

Whether research assistants have positive or negative research learning
experiences depends on the teaching and learning philosophies of their supervisors.
Nyquist and Wulff (1996) state “that most supervisors rely on their personal, but often
limited, experience as their only guide in the area of graduate student supervision” (p. 2).
In other words, supervisors “either emulate their own supervisor’s styles or try to treat
their students in a manner that is opposite from the supervision that they experienced”
than the faculty members) are the oppressors in graduate education whereby students are
“things” and that graduate student suffering based upon a philosophy of “suffering is good for ‘em” is the norm due to organizational structures within universities (pp. 21-22).

Delworth and Hanson (1990, as cited in Brown-Wright et al., 1997) argue that research assistants’ “real comfort with and appreciation of research are acquired only through systemic involvement in relevant research projects with faculty over a period of time” (p. 411). This means that research assistants need to find faculty members with whom they can work for an extended period of time to reap the benefits of research learning and researcher identity development.

However, graduate students must also weigh the benefits and drawbacks of participating in research assistantships and make informed decisions regarding their participation in research communities and projects. Bunch (1995) describes how students of powerful, influential members of a discourse community have entrée into the inner circle, but that they must make certain compromises in order to gain the benefits of such an association. For example, “students must buy into the major professor’s research agenda and this sometimes involves abandoning their own initial interests” (p. 29). However, in exchange, it seems that the students “become first observers of, then participants in, the critical, on-going conversations of the discipline” (Bunch, 1995, p. 29).

Research Learning

McGinn (2001) proposes that there are at least four sites for graduate students to learn and understand research: (a) in research methods courses; (b) in disciplinary content courses; (c) by assisting on faculty research projects; and (d) by conducting their own
independent research projects (p. 1). My thesis study focuses on research assistantships as a research learning site for students to understand research. However, information about research learning in two other research learning settings is relevant to my discussion about research learning: (a) research assistantships, (b) undergraduate and graduate research projects, and (c) classroom-based research activities. In the following discussion, the benefits of the different research learning settings and the merits of the learning-by-doing approach are highlighted.

*Research assistantships.* Conrad, Duren, and Haworth (1998) report that students who actively and consciously practiced their profession or craft through engaging in hands-on teaching and learning experiences developed a “connected understanding of their professions” (pp. 67-68). This “connected understanding” appears to be an outcome of research learning in research assistantships. In their research, Cumming et al. (1997) report on the learning processes of 6 students who worked on a 3-year research project using a learning-by-doing approach. Students “observed that their participation in the research project afforded them various opportunities to make links directly between ongoing research and their graduate course and theses” (p. 430). The students also gained experience and knowledge in conducting research in “the context of a large research project,” something none of the students had previous experience doing (p. 427).

Osbourne, Norman, and Basford (1997, March) suggest that a mutually beneficial research assistantship program that considers students and faculty members is a win-win situation for both parties involved. For example, “students are gaining valuable experience and may have research presentations and publications to show for their
efforts. Faculty get dedicated students to enhance the productivity of their professional development efforts” (p. 5).

Landrum and Nelsen’s (2002) quantitative investigation of the value and benefits of students doing research assistantships is based on the results of a national survey of 211 undergraduate psychology educators. In their study, Landrum and Nelsen (2002) were studying how undergraduate students could enhance their skills and abilities to distinguish themselves from their peers in a highly competitive field. In the open-ended response section of the survey, Landrum and Nelsen (2002) report that teamwork, leadership and time-management skills, self-confidence, and interpersonal communication skills acquired in research assistantships benefited students going on to graduate school or seeking employment after graduation (Landrum & Nelsen, 2002, p. 18).

*Undergraduate and graduate research projects.* Traditional research methods courses can sometimes be limiting experiences for graduate students because instructors and textbooks describe the various steps of the research process, but rarely the “realities of research” (Takata & Leiting, 1987, p. 144). The learning-by-doing model is a non-traditional learning approach whereby students participate in “real” research projects by applying their theoretical knowledge of the research process thereby making connections with theory through practice. Participating in authentic or real-world research projects from inception to completion appears to be the ideal venue for the learning-by-doing model and for learning the complete research process.

A learning-by-doing model of learning is described in detail by Takata and Leiting (1987) where a group of undergraduate students, under the guidance of a faculty
member, carried out a research project on gangs and juvenile delinquents in a nearby community. From beginning to completion, the students learned about research methods, how to apply them, and how to conduct research in an ethical and orderly manner. Day to day, students learned how to: deal with ethical issues, develop teamwork strategies, think critically about maintaining confidentially, appreciate the efforts of doing research through trial and error, make real-life decisions, defend those research decisions to others, and dress and act in a professional manner (Takata & Leiting, 1987).

Winn (1995) describes how classroom-based teaching can equip students with research skills in data collection, sampling, data analysis, presentation of research findings, and so on. However, she argues that classroom-based teaching cannot substitute for practical experience because it removes research methods from the social, political, and economic context in which research is done (p. 204). Winn (1995) suggests that “if students are to become research practitioners, supervisors or commissioners, they need to gain understanding of how the various stages of the research fit together in the research process” (p. 204). However, that is not to say that the classroom can’t be a site for learning about research. The next sub-section discusses how the research learning process can be included in course-based work to the benefit of the students.

*Classroom-based research activities.* Based on the literature I collected, it seems that instructors who try to incorporate authentic research learning activities or “real” research projects into their courses and under their supervision have experienced successful student research learning outcomes. In her research studying graduate student engagement in a workshop format teaching research methods, Mullen (2000) reports preliminary findings which indicate that student research development is enhanced
through group activities supporting multiple approaches to qualitative analysis when conducted in a workshop format (p. 5). Likewise, McGinn, Dunstan et al. (2001) state how students learned about research by conducting semi-structured interviews as a course assignment whereby students “demonstrated their ability to apply course material to a research task” and gained valuable practical experience in a supportive learning environment (p. 4).

Identity Development

Is the feeling of confidence a sign that students have learned something? Takata and Leiting (1987) reported that when it came time for a group of student researchers to present their research project findings on gangs in their community that the “students were confident about their presentation because they had become well-versed in every aspect of the project” (p. 149). Being well-versed in all aspects of a research project is an outcome of learning when students are given the opportunity “to really understand how to design and conduct research” from start to finish (Roth & McGinn, 1998, p. 220).

“Current research and theory suggests that students learn best when they have opportunities to engage in authentic tasks where they begin to develop identities as practitioners” (McGinn, Dunstan et al., 2001, p. 1). This is consistent with Wenger’s (1998) suggestion that “learning and a sense of identity are inseparable” (p. 115) and that “building an identity consists of negotiating the meanings of our experience of membership in communities” (p. 145). This means that research assistants who are working on research tasks and learning about research within a community of practice are
simultaneously negotiating the meanings of their experience and identity within those communities.

The "understanding of identity as practice" (Talburt, 2002, p. 2) becomes more acute when a person belongs to more than one community of practice. Research assistants who participate in more than one research assistantship may also belong to more than one research community. Therefore, they will need to negotiate their identities between different communities of practice. Lee provides a glimpse into the complexities of belonging to more than one community and the meaning-making involved in trying to manage multiple identities in the following quote:

Because of the research methodology that I enacted, my graduate studies plunged me into a situation where I was simultaneously an apprentice in two different worlds. I was becoming an increasingly full participant in environmental activism and in academic qualitative research. How was I able to manage my identity while being an activist when I was simultaneously being a researcher of activists? (Lee & Roth, 2003, ¶ 34)

Perna and Hudgins (1996) and other researchers suggest that graduate assistantships are a mechanism for professional socialization of graduate students in which graduate students learn "not only the knowledge and skills required to perform particular job tasks, but also the attitudes, values, norms, language and perspectives necessary to interpret experiences, interact with others, prioritize activities and determine appropriate behavior" (p. 5). It seems that graduate research assistants who have obtained research experience have usually acquired the necessary research skills and social
behaviours to conduct research competently and conversantly, thereby influencing an identity transition from research assistant to researcher.

*Approach to Reviewing the Literature*

**Keywords**

I used the following keywords in my literature search: research assistant; research assistants; graduate assistant; graduate assistants; research assistantship; research assistantships; graduate assistantship; graduate assistantships; research training; research assistant narratives; research assistant programs; graduate research learning; student researcher; graduate researcher; faculty-advisers; faculty-advisors; graduate-students; research assistant stories.

**Databases Used**

I searched all education-related databases listed on the Brock James Gibson library website. These include: Academic Search Premier; CBCA Complete; ERIC (CSA, E-Subscribe Documents); and PsychInfo.

**Limits**

The literature gathered for this thesis was recent and consisted of articles, books, conference papers, and other documents. I looked at reference lists from my primary literature searches to determine any other valuable resources to be used for this study. I decided early in the literature search that a time limit on searching criteria was unnecessary because there wasn’t (and still isn’t) a lot of literature published on graduate
research learning. I felt that any available resources (including some from other disciplines) were valuable to this study. Limits included: rank by relevance and English language only.

Chapter Summary and Conclusions

For this literature review, I proposed a framework to discuss the research learning and researcher identity development of the participants of this study. After reviewing the available literature, I came to the following three overall conclusions.

First, the learning-by-doing model for research preparation and training appears to be a beneficial learning approach for students learning about research. By participating in authentic real-world research tasks, students learn not only about research methods, but also the whole research process and the social, political, and economic circumstances that come along with it.

Second, learning about research in social contexts involves learning about the research process through practice and through interacting with other researchers within a community of practice. Over time, research assistants’ researcher identity develops as they learn the language of research and learn how to conduct themselves as researchers. When research assistants develop into competent and confident research practitioners, they sometimes shed their identity as research assistants and become researchers.

Third, the past experiences of faculty members influence how they approach the research training of their research assistants. In positive relationships, the power distribution between both parties tends to be more or less balanced and mutually
respectful. Alternately, in unstable relationships, the power distribution can be one-sided where the faculty supervisor holds the power over the student assistant.

Overall, the benefits of graduate students participating in research assistantships were considered positive and mutually beneficial. Additional literature on research assistantship learning and researcher identity development is interwoven throughout the subsequent chapters in support of my data results.
Rationale for Qualitative Research

I am a graduate student currently engaged in a research assistantship and I am curious to know what other RAs learn in their research assistantships. I am interested in knowing the daily research activities of other research assistantships, and how RAs learn to engage in the research activities of the project upon which they are working.

Using a qualitative research design and qualitative research methods, I was able to ask research assistants who are currently employed as RAs in the Faculty of Education at Brock University for their perspectives and reflections about the research learning process. A qualitative research design allowed me to enter the RAs’ learning grounds and observe the actual learning as it took place. During this process, I uncovered much evidence regarding RAs’ learning and researcher identities.

Not all RAs have access to research assistant information sharing sessions. Because there seems to be very little written about RA experiences and research assistantships, I wanted to document and create a resource for current and future research assistants who can learn from the experiences and researcher identities that are presented in this thesis.

Overall Strategy and Type of Design Used

This research design used a collective case study as described by Stake (2000) and Merriam (2001). By carefully selecting participants for these case studies, I investigated a small number of participants (4), and was able to understand a diverse
range of RA experiences. Drawing from my RA experiences, I engaged the participants in an ongoing dialogue regarding the learning that was taking place in their research assistantships and their self-perceptions about doing research. Did the RAs that I studied identify with the role of a researcher or some other role? The overall strategy was to learn as much as possible from 4 participants and then study the collective as a case study in itself (as a cross-analysis) to identify any similarities or differences between the cases.

*The Role of the Researcher*

I anticipated that my role as a researcher would vary from the perspective of an unobtrusive observer to that of a participant observer. Because I felt that I had much to contribute to this study on research learning and researcher identity, I decided to use myself as one case study in this thesis. Utilizing journal writing techniques (Janesick, 1999) and mixed genres such as artwork reflection and story-writing (Richardson, 2000), I hoped to interweave my interpretations with the interpretations of my participants.

Depending on the comfort level of my participants, I tried to engage in their research assistantship activities as much as possible in order to translate into words what was happening during a research assistantship. I reflected upon and encouraged my participants to reflect upon their learning experiences throughout the interviews and informal conversations so that I could uncover the roles with which the RAs identified. Additionally, throughout my observations, interviews, and informal discussions, I wrote reflective notes and memos, created drawings, and composed detailed journal entries in order to connect my experiences as a RA with those of my participants. Utilizing these
different interpretive techniques, I was able to intertwine my story with the stories of my participants in the final thesis product.

Selection of Participants

Purposeful Sampling and Participant Profiles

Drawing from Merriam’s (2001) description of purposeful sampling, I drafted participant profiles to guide my selection criteria. In order to make sure that there was some heterogeneity in my participant sample, I attempted to find participants who had different disciplinary backgrounds; who were engaged in different degree programs in Education (M.Ed. and Ph.D.); who were at different stages of degree completion; and who were of different race, gender, age, and ability. By selecting “information-rich cases” (Patton, cited in Merriam, 2001, p. 61), I hoped to see evidence of RA learning experiences.

The rationale for choosing participants who were connected in a larger research community at Brock University was so that I could apply the notions of communities of practice (Lave & Wenger, 1991). Because it was my impression that a small pool of students acquired the majority of the research assistantship contracts in the Faculty of Education at Brock University, I anticipated that there would be some overlap and interconnections between my participants, their activities, their relations to certain faculty members, and their selected research methods and resources. It should be noted that there was and still is very little research conducted on research assistants who are learning about research and very little on the development of researcher identities. Therefore, any information that I gathered from the participants in this study, whether the sample was
heterogeneous or not, is valuable information and will contribute to the small literature base available. Please view the participant profiles in Table 1 detailing the characteristics of potential participants that I considered in my selection process.

Participants in Relation to Participant Profiles

Demographically speaking, almost all my participants are white, female, and full-time students. I am not able to describe in detail the characteristics of each participant in relation to the participant profiles due to confidentiality issues. However, I can highlight how close my participants were to the participant profiles I created by stating what characteristics were not representative of my participant selection. For example, all my participants are female, although I had hoped to have at least one male participate in my study. Additionally, all my participants were full-time students, although I had hoped to have at least one or two part-time students involved. I acquired participants at different stages of their degree completion, but two of the participants had begun the data collection phases of their thesis research. The ages of my participants also appear to be quite diverse. Overall, I acquired approximately three quarters of my participant profile lists for each participant.

I use pseudonyms in place of real names to protect my participants’ identities. My participants’ pseudonyms are Ellen Starr, Laura Reid, and Claire Johnson. I use my real name in the following chapters, however, I introduce pseudonyms for my supervisor and my participants’ supervisors in the later chapters of this thesis.
Table 1
Participant Profiles

<table>
<thead>
<tr>
<th>Participant 1:</th>
<th>Participant 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• needs to be a new M.Ed. student who has recently acquired a RA position</td>
<td>• needs to be a new Ph.D. student who has recently acquired a RA position</td>
</tr>
<tr>
<td>• will need to be selected with the help of an administrative assistant</td>
<td>• will be selected from my peer/colleague group</td>
</tr>
<tr>
<td>• will be a full-time or part-time student</td>
<td>• will be a full-time or part-time student</td>
</tr>
<tr>
<td>• can be a female or male student</td>
<td>• can be female or male student</td>
</tr>
<tr>
<td>• different race to other participants</td>
<td>• Caucasian</td>
</tr>
<tr>
<td>• 25-35 age group</td>
<td>• 35-50 age group</td>
</tr>
<tr>
<td>• will have a background (educational, discipline-based, cultural, interest-based) that does not relate to Participants 2 or 3</td>
<td>• will have background (educational, discipline-based, cultural, interest-based) that differs from other participants</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant 3:</th>
<th>Participant 4: Annabelle Grundy (researcher)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• needs to be an M.Ed. or Ph.D. student who has submitted his/her proposal and has begun the data collection phase of a thesis/dissertation course and also involved in a research assistantship OR needs to be an M.Ed. or Ph.D. student who is near completion of his/her thesis who is currently a RA or has recently had a research assistantship contract</td>
<td>• needs to be an M.Ed. or Ph.D. student who has submitted his/her proposal and has begun the data collection phase of a thesis/dissertation course and also involved in a research assistantship</td>
</tr>
<tr>
<td>• may be selected with the help of an administrative assistant or my thesis advisor</td>
<td>• will be a full-time student</td>
</tr>
<tr>
<td>• can be a male or female student</td>
<td>• a female student</td>
</tr>
<tr>
<td>• different race to other participants</td>
<td>• disabled student</td>
</tr>
<tr>
<td>• 20-50 age group</td>
<td>• Caucasian</td>
</tr>
<tr>
<td>• will have a background (educational, discipline-based, cultural, interest-based) that does not relate to Participants 1 and 2</td>
<td>• 20-30 age group</td>
</tr>
<tr>
<td></td>
<td>• will have background (educational, discipline-based, cultural, interest-based) that differs from other participants</td>
</tr>
</tbody>
</table>
In addition to the above information, the reader should know that Ellen Starr, Claire Johnson, and I worked mostly on qualitative research studies during our research assistantship contracts. Laura Reid’s research assistantship contracts consisted of working on both qualitative and quantitative studies. In Chapters 4-7, the reader will read more about the kinds of research tasks and research learning in which the participants engaged.

*Field Procedures*

1. I received approval for the proposed study from my advisor and committee members.

2. I submitted an application to the Research Ethics Board for approval to carry out my proposed research, which included letters and forms to obtain permission to conduct the study with selected participants. (See Appendix A for ethics clearance letter.)

3. I selected my participants purposefully using the participant profiles in order to understand what RAs learned in a research assistantship.

4. I conducted the first set of interviews. By the end of the first interview with my participants, I had enough information regarding their RA learning to proceed to ask participants if I could observe their practices as RAs at their research sites.

5. At about the same time that I conducted the second set of interviews, I observed my participants engaged in research assistantship activities. The observation sites were ones where my participants felt comfortable with me observing and felt that I could gain the most information and insight into their daily RA practices.
6. With the consent of my participants, I interviewed my participants’ supervisors after the first and second interviews had been completed.

7. I created a temporary third interview schedule in case I needed to clarify any of the information that I collected in steps 1-6 above. Except, for Claire Johnson, I did not conduct a third and final interview with my participants. As part of the clarification process, I emailed my participants asking for clarifications and member checks.

8. Through the interviews, observational notes, written journal entries, informal discussions, drawings, and informal interviews with supervisors (with the participants’ consent), I interpreted, identified, and triangulated data.

9. I administered and recorded data following the procedures outlined in my REB application.

10. With permission, participants transcribed raw interview data for me for monetary compensation using the participant-as-transcriptionist method (Grundy, Pollon, & McGinn, 2003). In two cases, a third-party transcriptionist was hired to transcribe raw data.

11. After data collection was complete, I analyzed the transcript data using grounded analysis coding and constant comparative method (Creswell, 2002; Freeman, 1998) to look for trends, multiple perspectives, similarities, and differences within and across individual case studies to be used in Chapter 8: Cross-Case Analysis.

12. I used the approach outlined in step 11, as a way to familiarize and engage with the transcript data in preparation for my narrative analysis where I utilized Creswell’s (2002) re-storying techniques (p. 528) and Clandinin and Connelly’s
three-dimensional narrative inquiry space (p. 49) to understand the individual stories and case studies of my participants (Chapters 4-7).

13. When my participants' individual stories were written, I returned to the categories I developed in step 11 and collapsed categories further into themes and checked my theme development against my transcripts, again using a constant comparative method (Creswell, 2002; Freeman, 1998).

Data Collection and Recording

Anderson and Swazey (1998) suggest that there is no substitute for on-site interviews or observation-based data collection for studying graduate experiences (p. 3). I found this to be true in my research study, where I used interviewing and on-site observations as my primary data collection activities. Secondary data sources included documents provided by participants and other artifacts collected through informal meetings and discussions with my participants that pertain to the study. Table 2 shows the primary and secondary sources of data that were collected. Notice that the third interview was not necessary for Ellen Starr, Laura Reid, or Annabelle Grundy because I had enough data from their first two interviews and other sources. The following sub-sections describe more fully the data collection activities that I implemented.

In-Depth Interviewing

My participation in the interviews varied according to the comfort level of my participants. My interview questions (following this section) were a consistent way to
<table>
<thead>
<tr>
<th>Data Type</th>
<th>Ellen Starr</th>
<th>Laura Reid</th>
<th>Claire Johnson</th>
<th>Annabelle Grundy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview 1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Interview 2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Interview 3</td>
<td>N/A</td>
<td>N/A</td>
<td>X</td>
<td>N/A</td>
</tr>
<tr>
<td>Supervisor Interview</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Observation</td>
<td>X</td>
<td>N/A</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Résumé</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Other</td>
<td>chart</td>
<td>journal</td>
<td>written notes from supervisor</td>
<td>journal</td>
</tr>
</tbody>
</table>
guide my questioning so that I could focus on listening and lip-reading in the interview. However, I also allowed the participants the freedom to talk about their RA experiences in a way in which they were comfortable because I soon discovered that, through their story telling, they usually answered the questions I had planned to ask them as they spoke about their experiences. In the case where participants were telling their stories, I relied on my cue questions to guide their thinking and to help them elaborate on experiences they saw as important to their development as researchers.

I engaged my participants in conversational interviews (Kvale, 1996) that allowed them to talk informally about their research learning experiences and allowed me to contribute to the conversation by sharing my experiences as well. Acker (2000) addresses issues surrounding interviewer detachment whereby the "interviewer refuses to stay detached and carries an obligation to reveal some of her own feelings in order to introduce greater reciprocity into the interaction" (p. 193). I found that by sharing some of my experiences in response to my participants' experiences, I gained the trust of my participants in a way that elicited detail regarding specific issues related to their experiences. Also, reassuring participants that I would keep names and places confidential was also helpful in this process because some participants asked me if it was okay if they used the real names of the people with whom they worked.

I involved each participant RA in a sequence of two interviews (three interviews for Claire Johnson). Overall, I wanted to gain a sense of each participant's individual background or past experience and how these translated into their current practice as RAs. I conducted an introductory interview to get to know the participants and to hear about the types of activities in which they participated. This interview was also an
opportunity for me to ask permission to observe the research assistantship activities that they were talking about at a time and place of their convenience. The second interview, which was scheduled at about the same time as an observation period, was intended as a follow-up to the first interview asking more specifically about researcher identity development. In this interview, I asked participants for their permission to interview their research assistantship supervisors for triangulation purposes. If more information was needed after conducting the first two interviews and the observation, a third interview was arranged in order to clarify information or ask about things that came up during the observation. The following interview schedules document the interview questions that I used with participant RAs and their supervisors. Prior to each interview session, I provided the participants with sample questions from each interview schedule to: (a) clarify what kinds of questions they should expect, (b) provide them with some time to think about and reflect upon their experiences, and (c) alleviate any performance anxieties that a participant might have prior to the interview. I found that this additional step elicited thoughtful answers from my participants, and also provided participants with the opportunity to bring artifacts (such as journals, time management schedules, résumés, and so on) to aid their descriptions of their experiences.

Introductory Interview.

1. Can you describe a typical day or “shift” as a research assistant?
   - What types of research activities, events, etc. have you engaged in as a RA?
   - What do you do?
   - Where do you work?
• How do you structure your work?

2. Please describe your learning experiences as a RA.

• What skills have you learned?
• What research techniques and methods have you learned?
• What research language have you learned? (Do you feel comfortable using the language and lingo of a researcher? Do you have examples to share of language or words that you have learned or use frequently while you work as a RA?)
• How do you plan to use what you have learned as a RA in your degree program?
• What did you hope to achieve or gain through your participation in these research activities in your current research assistantship?

3. Will you allow me to observe you as you work on research assistantship tasks? This observation period can be of a research assistantship task of your choosing, and one that you feel depicts a rich learning experience that you have or have not yet described during the course of this interview.

4. How did you come to be a RA?

• Why did you choose to be a RA?
• How much time have you spent as a RA?
• How long have you been a RA?

5. What is your disciplinary background?

• Can you describe your prior research experiences if any?
• Do you think that your prior experiences have aided you in your research assistantships?
Second Interview.

1. Can you describe the most rewarding learning experiences you have had as a RA?

2. Can you describe the least rewarding learning experiences you have had as a RA?

3. Have your learning experiences as a RA been positive? Why or why not?

4. Have your experiences as a RA motivated you to do further research in education? Why or why not?
   - Will you pursue higher studies? Why or why not?
   - Does your occupation (that you will pursue) require research skills? Is it related to education?

5. Do you feel like a researcher?
   - How do you feel while you work as a RA?
   - How has being a RA influenced this sense?
   - Have your perceptions or views about educational research changed since you have worked as a RA?

6. Do you recommend that other students participate in research assistantships? Why or why not?

7. May I please have your permission to interview your research assistantship supervisor in order to triangulate the RA learning experiences that you have described with what your supervisor has observed? This interview with your supervisor will be strictly about your learning experiences during research-related tasks as a research assistant and will not include any personal information. However, please be warned that by allowing me to interview your supervisor, you will be divulging your identity and your participation in my project to your supervisor.
8. Because I am a hard-of-hearing student, it is impossible for me to transcribe audiotaped interviews. I rely on third-party transcribers to transcribe my audio tapes for monetary compensation. This may not be the best way to acquire quality transcripts because third-party transcribers can occasionally be unreliable and inaccurate with their transcription services. I have the added disadvantage of not being able to check my transcripts because I am not able to hear what is being said on the audio tapes. However, recently, I have discovered a different approach to acquiring a transcript. By asking my participants to transcribe for me instead, the third-party influence on my final transcripts is eliminated. I would like to ask you for your transcribing services for the audio-taped interviews that you have participated in as an interviewee. For your transcription services, you will receive $5.00 per audio-tape minute.

Third Interview (I asked Claire Johnson questions 1-3 in an informal interview, and I asked Ellen and Laura only question 3, electronically).

1. Since our last interviews, have you learned any other things in your research assistantship?
   - Have you engaged in any other activities?
   - Is there anything else that stands out that you would like to talk about?

2. Have you learned any other new skills?

3. Have you had a chance to review the previous interview transcripts?
   - Are there any potential identifying details in them that I might not be aware of?
   - Is there anything else that you would like to add to my investigation?
Supervisor Interview.

1. How did you come to have or choose (Participant’s name) as your RA?

2. How long have you known (Participant’s name)?

3. What types of research, activities, events, etc. have you employed (Participant’s name) to complete?

4. Using examples, how has (Participant’s name) revealed that s/he has learned about research?

5. Do you believe that (Participant’s name)’s learning experiences have been positive? Why or Why not?

6. What research learning experiences do you think have been most rewarding for (Participant’s name)?

7. Do you think that (Participant’s name) feels like a researcher after working as a RA for you?

8. What do you perceive (Participant’s name)’s attitude towards further education to be? Do you think that s/he will pursue higher education? Why or why not?

9. Were you ever a RA?

10. Can you describe the learning experiences you had as a RA?

11. Were your RA learning experiences positive? Why or Why not?

12. Do you feel that you supervise your student RAs similarly to the way you were supervised as a graduate student?
Direct Observation

During the introductory interview, I asked my participants for their permission to observe them engaged in a RA task at a time and place of their convenience. I hoped that by observing my participants in a research assistantship activity that it would help me to better understand the learning experiences that they had described in their interviews. My role as an observer varied according to the comfort level of my participants and changed from being passive to being a relatively active participant observer. As a passive observer, I was present at the scene of action, but I did not participate or interact with the research assistant or other related people to any great extent (Spradley, 1980). As a relatively active participant (and with the permission of my participant), I sought to participate along with my participant in RA activities by asking questions, and clarifying actions in order to fully learn and understand what participants were doing as RAs (Spradley, 1980).

Using Lave and Wenger’s (1991) legitimate peripheral participation framework as a springboard for my study, I observed RA practices within a community of researchers. The community of researchers that I observed (including the participant) was limited to students, faculty, and staff at Brock University, but did include researchers from other social science disciplines at Brock University.

I observed 4 participants (including myself) engaged in the learning process while working as RAs. During the introductory interview with each participant, I established a setting in which the RA participant would feel most comfortable having me as an observer (or in some cases a participant-observer). The observation settings of all the participants were located at the university, on a research site where the RA was working.
During the observations, I recorded my thoughts and ideas, as well as observed new and learned skills in order to understand the interactions that occurred during research assistantships from several perspectives. The observations reinforced the concepts, responses, and ideas that were shared by the participants in the introductory and secondary interviews.

Document Review

Participants willingly shared some of the work that they had completed during their research assistantships (e.g., conference proposals, papers, meeting notes, and so on) or other personal research documents such as research journals written reflecting upon the research assistantship. I asked the participants for résumés or other background information (curriculum vitae, certificates, awards) that I could look at to connect these documents to interview questions. As a way to provide greater reciprocity in this research project, I shared some of my research assistantship documents so that my participants would learn from my experiences and benefit from my newly acquired knowledge as a research assistant.

Triangulation and Methods for Trustworthiness

I designed this study in a way that allowed me to access several information sources in order to triangulate my data. In this qualitative study, I collected data from the participant, the participants’ supervisor, observations of the participant engaged in research assistantship activities, and documents. Through interviews with the participant and the participants’ supervisors, I asked questions that elicited information regarding my
participants' research learning experiences and their researcher identity development. By utilizing these different sources of information, I attempted to acquire a complete and accurate picture of my participant's learning and how that learning has shaped their identities as researchers.

As an active participant and RA of a larger research study, I used the process of journal writing to record my reflections, my thoughts, my ideas, my questions regarding my researcher identity, and my interactions with others as a student researcher. From these journals, I realized how much I had to contribute to the study I proposed for my thesis research.

As a hard-of-hearing student, I have a unique perspective on the research learning process, as well as a newly established researcher identity. My goals as an aspiring academic have changed daily and I utilized what I learned from my research assistantships as a way to not only inform my own research, but also to help me to develop my identity as a researcher. I documented each step of the data collection process by dating my reflective notes, journal entries, memos, interview transcripts, and so forth as a way to keep track of how my learning informed my research. I also took notes on the decisions that I made during my data collection in order to help myself stay on track, conduct a thorough study, and provide myself with an audit trail (Lincoln & Guba, 1985c; Padgett, 1998). Furthermore, I used the time throughout the data collection period to reflect upon data collected and how it was being transcribed and prepared for data analysis. My ongoing analysis (a) informed my data collection steps, and (b) helped me to amend data collection techniques and interview questions.
In addition to my observational notes, participant interviews, and informal conversations, I approached my participants’ supervisors (with the participants’ permission) for interviews. The interviews with the participants’ supervisors helped to verify and expand upon my findings and further informed my ongoing analysis. I reflected upon my participation and observations of RA activities using my experiences as a practicing RA as a springboard. I also recorded and reflected upon any documents or materials that participants submitted as documentation of their research learning activities or research identities.

Padgett (1998) suggests that “researchers return to the research site [or research participant] periodically as a way to ensure that one is on the right track” (p. 100). Similarly, a way to account for inconsistencies in my data was to use a form of negative case analysis (Lincoln & Guba, 1985c), whereby, I kept refining my interpretations until they “account[ed] for all known cases without exception” (p. 309). I made sure that the data I collected were truthful and consistent with (a) what the participant reported during interviews, (b) what the supervisors commented upon, and (c) what I observed in a participant’s research assistantship session. Although, I was at different stages of my data collection and analysis with different participants, there were occasions where I felt that I needed to verify inconsistent information during my data analysis. This verification process took the form of an informal meeting whereby I asked the participant or the participant’s supervisor about the accuracy of information. The following journal entry illustrates one verification process that I used to figure out the “competence/confidence” code in Claire’s RA work:
My hearing disability makes it difficult for me to hear in certain situations and to differentiate between words and meanings. During the first and second interviews, one of my participants talked about the coding process she was experiencing. In particular, my participant talked about the codes she was learning about and how sometimes she was not able to identify some of the codes during the coding analysis. I asked my participant to clarify the coding process (as I was having difficulties imagining how the coding was being conducted) and I asked her to explain using examples. Unfortunately, several factors were hampering my ability to understand what she was trying to explain to me. Some of the terminology that my participant was using was new to me so trying to keep codes straight in my head was difficult, but also I had difficulties hearing the words and comprehending what my participant was talking about because my participant was an international student who had a slight accent. I let temporary misunderstandings go because I thought that the observation period might help me to understand the coding process and allow me to ask questions as it was occurring. The observation was indeed an insightful experience for me. Not only did I learn about coding using qualitative analysis software, I also began to understand the somewhat complex coding process that my participant was trying to explain to me earlier. Because I wanted to make sure that I had understood my participant's learning, I requested a third interview to go over my observations, my supervisor interview, and talk about any new things that my participant had learned since the previous first interviews. During this third interview, my participant talked about a code she was having difficulty understanding during her
coding process. She labeled this particular code as the "confidence/competence" code. Interestingly enough, I heard about this code during my participant’s supervisor interview but didn’t question my understanding of it when my participant’s supervisor mentioned it. Again, I had difficulties understanding what my participant was trying to explain to me, mostly because the two words competence and confidence sounded so similar. Also I was interpreting the two words as two separate codes when they were actually the same code. Fortunately, during a subsequent informal chance meeting, I asked my participant’s supervisor about this code and she not only clarified the meaning behind the “confidence/competence” code, but also made me aware of why this code was one of the codes that my participant had difficulties identifying in the coding process. (researcher’s journal notes)

The Participant-As-Transcriptionist Method in Trustworthiness of Information

Another process that I used to help account for or eliminate inconsistencies in my interview data collection was the participant-as-transcriptionist method (Grundy et al., 2003). By asking my participants in the second interview to transcribe the interview tapes, I believed that my participants would have the opportunity to reflect upon and amend information that was presented in the interview sessions (Grundy et al., 2003). It was my hope that the positive experiences I had had in my recent research projects where I utilized the participant-as-transcriber method would emerge again in this study (Grundy et al., 2003). Overall, two participants agreed to transcribe their interview tapes and
another decided to ask someone she trusted to transcribe her interview tapes. In my interview, the interviewer transcribed the interview tapes.

Another benefit of the participant-as-transcriber method was its use as a form of member checking (Lincoln & Guba, 1985a) whereby the participant reacted and responded to the process of listening to their audiotaped interview (Lincoln & Guba, 1985c). The two participants who transcribed their own tapes reported back to me indicating that they had enjoyed the process. One participant, in particular, remarked how transcribing the interview material made her realize how much she accomplished over her academic career and the boost it provided for her confidence.

In another case, Lincoln and Guba’s (1985c) suggestion of “playing back” interview data was taken to another level. Due to my hearing disability, I cannot transcribe my own interview tapes or check interview transcripts against interview tapes. When I asked participants to transcribe for me, I gave them the option of helping me to find a transcriber in the event that the participant wasn’t able to transcribe. In one case, a participant chose not to transcribe, but offered a suggestion for a transcriber that she often used to transcribe her interview work. Although, I knew the ethical implications of hiring transcribers (Tilley, 2003a, 2003b) other than my participants, I trusted my participant to acquire transcripts for her interview tapes. Unfortunately, when I received interview transcripts from the participant’s transcriber, I had to request a re-transcription because some of the interview data were clearly missing, especially parts where I was talking during the interview. When I informed my participant about the missing information, she took it upon herself to correct the transcripts by listening to the tapes along with her transcriber. The interview tapes were literally played back and re-transcribed with the
participant’s help. Incidentally, my participant was grateful for the opportunity to hear herself talk about her experiences on tape and reflect upon her learning as a research assistant and a developing researcher.

Lincoln and Guba (1985c) suggest that providing a participant with a summary of an interview (or an interview transcript) allows researchers to informally “play back” the information collected so far and check for reactions and comments from participants (p. 314). This process was also used for the supervisor interviews. As a form of member checking, the participant either transcribed the supervisor interview or read the transcript of the supervisor interview. In one particular case, having a third interview allowed my participant to clarify an inconsistency that her supervisor discussed.

Data Processing and Analysis

Time Line

I collected data over a period of 5 months from December 2002-April 2003, with the exception of a supervisor interview that occurred in June 2003.

Overall Analysis Approaches

Individual cases. Because I was interested in presenting my case studies as individual “portraits” as described by Lightfoot (cited in Merriam, 2001, p. 194), my analysis approach was primarily inductive or content based. My participants provided primarily experiential data, so I tried to preserve their experiences in narrative form, but also tried to uncover embedded information and make it explicit (Lincoln & Guba, 1985b).
Employing the three-dimensional narrative inquiry space approach, I analyzed and understood my participants’ experiences as they related to the major aspects of situation, continuity, and interaction (Clandinin & Connelly, 2000, p. 49). As I read and re-read the field-texts, I thought about the elements of the personal, social, past, present, future, and situation to guide my analysis, thereby unravelling meanings and embedded information. Ollerenshaw and Creswell (2002) describe clearly how I approached the final stages of my narrative analysis:

The restorying process, as described by Clandinin and Connelly (2000), first involves collaborating and renegotiating information with participants and returning again and again to the field text. Finally the researcher writes interim texts to find a narrative that promotes an account of participants’ lived experiences. (p. 342)

I referred to Clandinin and Connelly’s (2000) book often to inform my analysis techniques. I also utilized Creswell’s (2002) re-storying techniques (p. 528), which allowed me to organize the data chronologically.

Cross case. As part of my thesis, I was also interested in comparing the experiences of my participants in the form of a cross-case analysis to see similarities and differences between participants’ learning experiences and research identity development. The actual comparison is treated as another case study that describes and summarizes the findings across case studies. Throughout my cross-case analysis, I used the constant comparative method (i.e., constantly comparing incidents or ideas to create categories that were also compared; Merriam [2001]) to make connections between data,
categories, and themes. I also used memoing and category development to inform my analysis techniques (Creswell, 1998; Freeman, 1998).

An Arts-Based Approach to Interpretation and Representation

After I had analysed my data using three-dimensional narrative inquiry space (Clandinin & Connelly, 2000, p. 49) and Creswell’s (2002) re-storying techniques (p. 528), I needed to find a way to tell my participants’ individual stories as research assistants learning about research and developing their identities as researchers. I also felt that it was important to include reflections on my research learning and researcher identity development intertwined with the experiences of my participants.

Janesick (1994) states that “like a choreographer, the researcher must find the most effective way to tell the story, to convince the audience” (p. 215). The most convincing way that I could tell my participants’ stories and interweave my own story throughout was by using arts-based representational forms. By using arts-based representational forms, I hoped to “help others see and understand” (Eisner, 1991, p. 3) and also help myself to focus on the essence of what I had learned about my participants and convey these findings truthfully. Eisner and Powell (2002) suggest that “when visual images are generated, relationships among several ‘parts’ can be examined simultaneously; they can be reflected upon” (p. 138). Throughout my analysis, I created drawings and images as a way to reflect upon my understandings and make connections between the parts of stories that my participants told.

From these drawings and my analysis notes, I began to visualize or create visual models of what I had discovered. In their study, Eisner and Powell (2002) reported that
creating visual models constitutes a framework for the interpretation of data. For me, this was an essential step because after I had assembled my narrative analysis information into a single model or drawing for each participant, I felt that I could begin to interpret my findings. Richardson (1990) suggests that “people experience and interpret their lives in relationship to time” (p. 119). The separate visual models for each participant made clear for me the connections between interactions and situations over time and presented me with an overall sequence of events to contextualize each participant’s experiences.

All of my diagrams, models, newsletters, webpages, and slide presentations were created using electronic drawing tools and templates. Some of my diagrams and models were based on hand-drawn pictures that I created as I conducted my narrative analyses. However, most of my diagrams and models were realized using computer drawing tools, shapes, and clipboards.

Eisner (1991) states that “what we look for, as well as what we see and say, is influenced by the tools we know how to use and believe to be appropriate” (p. 4). Using the computer to create my diagrams and models was appropriate for conveying my participants’ narratives for two reasons. First, it provided me with a quick, user-friendly way to experiment with and interact with the narrative elements of the stories I was trying to present. Second, the “Undo Typing” and “Save” features allowed me to correct mistakes effectively and save diagram elements that seemed to work so that I could put together an overall diagram or model at a later date.

Final versions of the visual models open the subsequent chapters (see Figures 1, 2, 3, and 4). Upon completion of the visual models, I was well prepared to turn my attention toward textual representations of the participants’ experiences. Differences
among participants, as evidenced through the visual models, prompted me to use different textual formats for each case.

**Overall Thesis Presentation**

My thesis consists of nine chapters including four individual participant case studies (Chapters 4-7) and a cross-case (Chapter 8). By separating the cases into chapters, I felt that confusion between the participants would be avoided and readers would experience a break in the flow of my writing. As indicated in the following case descriptions, the chapters are depicted as separate stories, but there is a sense of continuity and repetitious movement across the chapters. For example, Chapter 4 uses poetry to convey Ellen’s story. Chapter 5 is a newsletter that uses a variety of prose formats to convey Laura’s research learning experiences and researcher identity development, including poetry as I used in Ellen’s story. I believe that this inclusion acts as a way to bridge Chapter 4 with Chapter 5. Similar bridges are provided among subsequent chapters.

*Ellen Starr.* Ellen Starr’s story is represented through poetry. Using narrative poetry forms described by Bender (1998), Bugeja (1994), and Oliver (1994), I created a flow of text that depicted Ellen’s research learning and identity development. The placement of the poetry text on the page is an integral part of Ellen’s journey as a research assistant.

I chose poetry to tell Ellen’s story because I felt that writing narrative poetry was the most effective way to translate the visual narrative poetry of a post-interview diagram that I created as part of my analysis. Also, I felt that the complexities and richness of
Ellen’s narrative could not be adequately told through social science prose. Eisner (1991) echoes my thoughts when he says, “poetry can say what prose cannot convey” (p. 22).

Over my M.Ed. career, I have been reading (or been made aware of) papers or books that utilized poetry (Durham, 2003; Graveline, 2002; Richardson, 1994; Saresma, 2003; Woodard, 2002) and other forms of narrative prose (Sarris, 1997; Sava & Nuutinen, 2003). I wanted to explore these artistic ways to portray Ellen’s stories with the dual purpose of revealing Ellen’s narrative intertwined with my story. As a unit, the poetic narrative tells Ellen’s story over time in carefully chosen words and the visual model (see Figure 1) reflects the overall story as an interconnected web of shapes, colours, and lines.

Laura Reid. Laura Reid’s story is represented as a newsletter. Laura was involved in many research assistantships and had many experiences. She talked in detail regarding some experiences and in general about others. Therefore, I formatted this newsletter, so that I could create shorter narratives of Laura’s research learning and researcher identity development, in a form consistent with the ways that she discussed her experiences. The narratives include a combination of narrative prose, poetry, and question and answer text. As I mentioned earlier, I included poetry in Laura’s story as a way to provide the reader with a way to bridge Laura’s story with Ellen’s in the previous chapter and to convey a sense of continuity and repetitious movement across all the chapters.

In some sections of the newsletter, I describe and explain Laura’s research assistantship experiences using a form of thick description (Denzin, 1994; Janesick, 1994; Morse, 1994; Stake, 2000). The thick description provides readers with the context of Laura’s experiences, helps state the intentions and meanings that organized her
experiences, and reveals Laura’s learning experiences as a process (Denzin, 1994, p. 505). Using a diagram that was created from my narrative analysis (see Figure 2), I was able to focus on telling Laura’s story in a way that was concise and clear.

The newsletter appears in a bound sleeve at the back of the thesis. After readers have read a general introduction for the chapter, they are encouraged to read the newsletter located at the back of the thesis. The newsletter itself is removable from the sleeve to allow readers to read it outside the bound thesis document. Sava and Nuutinen (2003) state that “the reading experience demands the reader to be an active participant in giving meanings for the questions he or she may raise from the layered way of writing an article” (p. 517). By encouraging the reader to read Laura’s story outside the thesis document, I hoped that the reader would be able to engage in an active reading experience and be able to exercise choice, enjoyment, interest, and freedom in understanding Laura’s story. As a back up, a second copy of the newsletter is bound directly into the thesis binding within Chapter 5.

Claire Johnson. Claire Johnson’s story is represented through a website-like format. Each webpage is a different narrative describing Claire’s research learning and researcher identity development using various forms of prose such as poetry, newsletter-style reporting, a recipe, question and answer text, and so on. Again, I continued to build on the previous two participants’ narrative representations by including poetry and newsletter articles in Claire’s story. I also introduced a new narrative representation in the form of a recipe, which was inspired by Clandinin and Connelly’s (2000) “soup metaphor” (p. 155).
I have included a CD-Rom with the thesis, which allows readers to click on different parts of the visual model (see Figure 3) to access the relevant textual materials using hypertext links. Again, the reader becomes an active participant in the re-ordering of Claire’s story by navigating the model diagram I created to connect all the narrative elements of her story. “The reader must move back and forth across multiple levels of reflections, [diagram elements], and reactions, becoming an active participant in the dialogue, experiencing feeling, and associating with the work rather than standing apart from it” (Bochner & Ellis, 2003, p. 510). Because readers have to physically place themselves in front of a computer, thus emulating Claire’s physical learning space, readers become active participants in Claire’s story development.

The CD-Rom includes all necessary software to allow the electronic data to be viewed on existing computer platforms and future platforms (to the extent possible or imaginable at this point). As a back up, I have included a paper-based version of the CD-Rom content in the text. The paper-based version essentially looks like a series of printed webpages with graphics and text.

*Annabelle Grundy.* Annabelle Grundy’s story is represented as a linear electronic storyboard presentation formatted onto a CD-Rom, which is included with the thesis. I used the linear electronic storyboard presentation format because I wanted to be able to continue the momentum of the previous three participant chapters by including elements of poetry, journal style writing, and recipes, but also include visual forms such as photographs of my past and current artworks. By using a linear storyboard, I was able to suggest the passage of time as a series of events that are interactive and built upon previous events or previous experiences. The movements across time and situation were
easily created through hyperlinks to detailed written passages, and through the use of colours and differently arranged text.

I felt that using electronic media in my representation of my research learning and researcher identity development made sense because I am an avid technological enthusiast, an artist, a hard-of-hearing person who uses technology to hear better, and a research assistant who uses technology to learn about research. Again, I have included a paper-based version of the CD-Rom content in the text. Essentially, this paper version looks like a series of slides with graphics and text.

Limitations

To add to the small discussion on Limitations in Chapter 1, there were some limitations that related to research methods. The biggest limitation with regards to methods was time. The time frame (December 2002-June 2003) to collect data allowed for only data that were available to the researcher and participant at a given time. For example, a participant who was working on a research assistantship contract may have been finishing one contract and getting ready to begin a new one. This limited me to participants’ activities and supervisors that were available at the time.

The situations and environments where data were collected posed difficulties that I tried to minimize. Although, I do not think the following situation was problematic, I thought I would indicate how it might have affected my ability to acquire detailed data. For example, in a noisy computer lab, I was observing a participant coding and sometimes I was not able to hear information that was being communicated during the research assistantship activity. I relied on my lip-reading skills to try to hear through the
noise, but I wonder if I was missing pertinent information that may have helped me to understand better what I was observing.

Another limitation surrounded the use of the participant-as-transcriptionist method. I anticipated that my participants would be busy people and that acquiring transcripts from the interview tapes would take time. In some cases, I didn’t receive transcripts until a month after the actual interview took place. This required that I take detailed journal notes immediately after the interviews took place in order to record information that would help me analyze the transcripts.

Ethical Considerations

As the researcher of this study, I believe the biggest challenge for me was maintaining participant confidentiality in my written reports and within the data collection stages. I needed to make sure that I acquired consent from the participants before any information was used in my analysis and to seek consent for interviews with other people related to the participant being studied. Also, ethical considerations needed to be heeded in terms of the confidential work of the RA participants and where possible I needed to ask for clarification and permission to use any information that related to the research projects upon which the RAs worked.

A written request and consent form asking my participants to act as transcriber was not presented to the participants until the second interviews took place. This meant that the monetary compensation for transcription services would not be considered “undue enticement” and could not affect participants’ decisions to participate in my research.
CHAPTER 4: MOVING AWAY FROM THE PERIPHERY – ELLEN’S STORY

Figure 1. Ellen Starr’s learning journey as a Research Assistant
Figure 1 is a visual representation of Ellen Starr’s research learning journey as a research assistant over time. During my narrative explorations of Ellen’s data, I utilized Creswell’s (2002) re-storying techniques (p. 528) and Clandinin and Connelly’s (2000) three-dimensional narrative inquiry space (p. 49). Creswell’s (2002) re-storying techniques allowed me to organize the data chronologically. Clandinin and Connelly’s (2000) three-dimensional narrative inquiry framework (inwards, outwards, backwards, forwards, and situated within place) allowed me to create drawings, poetry, and narrative idea-maps of Ellen’s experiences that included information about situation, continuity, and interaction (p. 49). Figure 1 is the culmination of several drawings created during the interview process and portrays aspects of Ellen’s learning that occurred throughout and over time.

The diagram is basically made up of straight lines, circles, curves, and hexagonal shapes. The overall effect and placement of shapes and colours is to provide the viewer with a sense of movement or continuity across time (past, present, and future) beginning in the lower left corner and progressing upwards to the right-hand corner (Clandinin & Connelly, 2000). The diagram is intended to remain an abstract representation of Ellen Starr’s learning and is subject to multiple interpretations. However, there are a few elements in the diagram that are intended as real-life representations of Ellen’s learning and may help the viewer to understand this chapter. The smaller blue circle represents Ellen’s cool and outwardly intellectual being. The larger red circle represents Ellen’s warm and inwardly emotional being. The thick black lines concentrated in the lower left corner represent organization, bureaucracy, and fractured communication and community. The sterile blue-green backdrop signifies the general wall colour of most
public institutions. The large black thickly-outlined circular blue-to-red backdrop is intended to contrast the sterile square underlayer. It is the welcoming hole of colour or community toward which the smaller circles will move and eventually enter. The hexagonal shapes in both cool and warm hues signify the intellectual and emotional "connections" that Ellen has made over time. Notice that some of the red and blue hexagons, in the upper-right corner, touch perfectly on one side. This perfect alignment is intended to demonstrate connections between Ellen's head and heart, which is one of the three over-arching themes found in Ellen's story.

This chapter depicts Ellen Starr's learning as a research assistant through the use of narrative poetry (Bean, 2001; Bender, 1998; Bugeja, 1994; Hulme & Guthrie, 1996; Oliver, 1994). There are three characters in the following poetic excerpts. Ellen is the main character throughout this chapter. Julia Holmes, one of Ellen's research assistantship supervisors emerges towards the end of story. As the storyteller and a co-participant in this study, I am the third character in Ellen's story. My presence interweaves in and out of Ellen's story much like a vine grows on a trellis. During our interviews and on-going conversations, Ellen and I were able to draw significant connections between our research learning and identity development.

I chose narrative poetry to tell Ellen's story for two reasons. First, Ellen has used autobiographical poetry as part of her participation in one of her research assistantships. It therefore seemed fitting to carry over this characteristic in depicting her research-learning journey in this study. Second, I felt that writing narrative poetry was the most effective way to translate the visual narrative poetry of the post-interview drawings that I created as part of my analysis.
As you read the subsequent narrative prose, some pointers may help you in exploring Ellen’s journey. First of all, the poetry is quite dense and multi-meaning laden. I invite you to read and re-read the passages several times in order to get a sense of Ellen’s research learning and identity development over time.

Second, as you become familiar with the passages, pay attention to the perspective of voice. Overall, the poems allude to Ellen’s voice in direct quotations and in reference to “I,” “you,” and “we.” Julia’s presence of voice is indicated clearly in the text through the use of her name integrated as part of the poetry. However, my presence of voice is intertwined with Ellen’s throughout the poetry because Ellen and I shared similar viewpoints and perspectives on research learning and researcher identity during our interviews. Please note that direct quotations will always be Ellen’s words in the poems. Words that are represented as contrasting fonts, throughout the poetry, can be interpreted as my voice. However, the references to “I,” “you,” and “we” are blurred in some areas and can be interpreted as Ellen or me.

Third, be cognizant of the three overarching themes found throughout the text: (a) Making New Connections, (b) Moving Towards the Centre, and (c) Connecting Head and Heart. These themes allude to the overall passage of time and the situation of Ellen’s learning experiences in two very different research assistantships.

Fourth, the visual placement of the poetry text on the pages suggests a sense of movement across time and space, and actually mimics the movements displayed in Figure 1. Please, take a moment to leaf through the pages of poetry and look carefully at the visual arrangements. Remember that there are two distinct research assistantship experiences explored in Ellen’s story. The relationships between shapes, lines, and
positive and negative spaces may help you to make connections between the poetry text and the underlying meanings in Ellen’s story. It may be useful to think about how past experiences may have shaped Ellen’s current learning experiences and how these research learning encounters may have affected the flow or movement throughout the diagram.

Finally, as you read the poetry keep the following research questions in mind:

What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Making New Connections

Ellen
Warm, thoughtful, reflective, and gentle
Thought-provoking friend and colleague to many
Lover of research, writing, and sharing ideas
Who feels lucky, challenged, and fulfilled
Who needs to feel trust in order to share herself
Who fears, not the magnitude, but the fleeting time to complete her work
Who provides feedback and praise to colleagues freely
Who would like to learn, to connect, and to identify with participants
Citizen of the present
Starr
According to Ellen, Research Assistantships are:

A place to learn,
A place to make mistakes,
A place to develop research skills.
They’re the practice side of theoretical learning.

Ellen knew she wanted to be a Research Assistant
When she began her Ph.D. program
And when she inquired, two positions she acquired, and pleased with both, she is.

Ellen didn’t do a research assistantship
When she was completing her master’s degree
And she is sorry she didn’t.

Ellen has revitalized her research language core
While searching through electronic databases
And now familiarity ensues as Ellen conducts literature reviews.

Ellen has learned how to trust
When she shares her writing with her colleagues
And currently she feels a sense of participation, connection, and belonging.

Ellen feels challenged in her research assistantships
Where one requires her to work at things she does well…outwardly
And the other requires her to contemplate herself…inwardly.

As indicated by Ellen, Research Assistantships are:

A place to experience,
A place to make revelations,
A place to develop social skills.
They’re the realistic side of abstract learning.
Imagine.

A cold and dreary December day at Brock University.
The wind is blowing. The campus is barren.
And there are no students to be found in their seats.
Exams are finally over and the holidays have begun.
But Ellen still had research work to complete.
Ellen's supervisor arranged for a pass
And keys for the library.
Ellen had consent, but one challenge loomed.
On campus, the heat is turned down to conserve energy.
Ellen knows from past experiences that while she is working
She gets cold very easily.
Therefore, she decided to stay at home and work using proxy.
On she worked through the holidays to complete her tasks.
Searching through government library databases gathering information
She stayed in touch with her supervisor by connecting technologically.
Re-negotiation of information ensued. Continuous feedback was given.
And time was scheduled from established meeting priorities.
Ellen was successful with her RA activities.

Short Contracts

Task-oriented, Routine

Changing, Searching, Negotiating
Furniture is shifting around above our heads
Like thunderous traffic traveling over a road overpass.

As I observe, a research meeting is underway.
Ellen is hesitant, but she presses on through the commotion.

Suddenly it is calm, except for barely discernible sounds of rustling
Tsk....thunk...tink, tink
Like nuts dropping from a tall tree to the ground.

Belonging means to trust.
It also means to instill trust in others.
Ellen is opening herself up.

Ellen’s voice is soft...subdued.
Chronological images emerge fleetingly, but clearly, and then disappear,
Like scenery flitting by while looking out of a traveling vehicle.

“layers of armour”
“head and heart disconnected”
“battlefield”

The room’s inhabitants are quiet.
Ellen makes eye contact with me.
I am aware of the silent comprehension.

And the chinking of metal breaking away
Into the abyss.

Moving Towards the Centre

Ellen

Responsible, autonomous, caring, involved, but wary

Chairperson, consultant, and visioning writer to hospitals and community

Lover of innovative projects, new environments, and numerous relationships

Who feels blessed and rewarded, but also conflicted and buried

Who needs movement to grow and diverse experiences to thrive

Who fears the disconnect between her head and her heart

Who offers her free time for volunteer activities, family, and friends

Who would like to put herself first for a change

Resident of the past

Starr

Remembering,
Straight lines, bureaucratic
Slashing, cutting, bleak
Buried heart

Withdrawing

No communication,
Intellectual, technical

Disconnected
Wearing a mask –
Hiding feelings well

Rewarding
Project tasks, independent
Structured, fixed, organized time
Satisfaction from short-term goals

I see blues, pure,
   it's not hostile in colour - blue, very cool, cold and then it's not,

and then more
structure.

The task might be mundane –
Routine
But there is something good that comes out of it.
After a while you get tired of thinking about the same thing
And you'd be surprised how you come up with something
And you say - “Hang on a second, how do I change that?”

Changing
“Start with yourself first”

It has sort of moved,
   and there's another piece.

I've had to push myself....
I can't say that it's been terrible,
But in fact it's been quite positive
It's forced me to do other things that I might not have done.

I'm still working on it.

The colours are very different - it's more circular.

Hoping
Moving...
Pockets of life...murmurs

“I think that's what's sort of beginning to happen with this,
it's moving closer,

and allowing me
to connect within me,
the heart side,
that I learned
to cover up
during
really difficult times”

Stretching, awakening...
“Layers of armour”


A revival.

The colours. I can visualize the colours coming through it.
Glinting through the cracks.

life, growing, thriving, nurtured...

I see more yellows and oranges and a bit of red in there
and more circular.

I see it as a fine line

seamlessness

you don’t realize it.

you get exposure

you don’t realize that this is part of the job as well

move back and forth I’ve found

just take a step back
what does this mean? take the time to explain

You talk about inclusion.

We're no longer included any more –

We are.

We are piecing our ideas together –

We are a community.

I think this project
When I went into it
When I felt others learned like that
I loved it even more

I think maybe in my background
That is actually a painful time for me
What I produced had to reflect me
And reaching inside I found my work was more successful because of this aspect
A lot of others, they were disconnected

A lot of self-portraits were shallow,
Very external and my work was very abstract.
It was very personal.
I had to take a deep breath; I had to really say,

“OK”

“I’m just going to have to let it out”

“Talk about it”

“Sort of put myself out there”

And this project,
when I learned that I liked that

Oh wow

Keep doing that,

It makes me feel better.

It makes me feel, more like me....

alive!

Connecting Head and Heart

Ellen

Confident, knowledgeable, open, and enthusiastic

An honoured member of a small research community

Lover of learning, narrative methodology, and meaningful experiences

Who feels content and a sense of belonging

Who needs to tell her story in order to identify with herself and others

Who welcomes the re-joining of her heart and her head

Who gives ideas, support, and consideration

Who would like to hold a university faculty position

Pioneer of the future

Starr

Past work is lateral work,

Project and research focused.

Future work builds on the present.

Organizationally, it has prepared Ellen in learning about research.
Project and research focused,
Ellen is creating her own library using EndNote: Her own database of learning.
Organizationally, it has prepared Ellen in learning about research.
Ellen is learning about narrative textual analysis.

Ellen is creating her own library using EndNote: Her own database of learning.
“Narrative is a very attractive methodology, I need to learn more about it.”
Ellen is learning about narrative textual analysis.
She feels connected to her research and she anticipates the connections with others.

“Narrative is a very attractive methodology, I need to learn more about it.”
The learning stems from the research team approach.
She feels connected to her research and she anticipates the connections with others.
Each person is an equal and a valuable member: a team of researchers.

The learning stems from the research team approach.
Each person has the opportunity to be involved, to publish or co-author articles.
Each person is an equal and a valuable member: a team of researchers.
Ellen had identified interviewing as a way for her to connect with some of the stories.

Each person has the opportunity to be involved, to publish or co-author articles.
“Being a part of this research experience is valuable just in processing living...”
Ellen had identified interviewing as a way for her to connect with some of the stories,
“I think I’ll use everything. It’s part of my training, part of the development process.”

“It actually is that sort of practice side, if you will, to some of the theories you learn...”
“I think I’ll use everything. It’s part of my training, part of the development process.”
“It’s such an important place to be able to see how some of the theories play out.”

“It actually is that sort of practice side, if you will, to some of the theories you learn...”
The techniques and practices that Ellen is developing will be used along the way.
“It’s such an important place to be able to see how some of the theories play out.”
“I’ll use all of the skills that I am learning right now and will continue to learn…”

The techniques and practices that Ellen is developing will be used along the way.
Future work builds on the present.
“I’ll use all of the skills that I am learning right now and will continue to learn…”
Past work is lateral work.

Ellen Starr
Self-directed, Conscientious
Researching, Writing, Practicing
Learner, Narrator, Mentor, Motivator
Teaching, Sharing, Inquiring
Wise, Down-to-earth

Julia Holmes

Julia would never
supervise a graduate RA the way that she was supervised.

Julia would never
ask a RA to hole-punch a stack of tests.

Julia would never
ask a RA not to give students an A+ because “no student deserved that mark.”
Julia would never
ask a RA to spend hours in the library finding articles for her.

Julia would never
expect many more hours from a RA than were paid.

Julia would never
teach a RA not to trust students to learn or excel.

Julia would never
expect nor allow “distance” to occur between professor and graduate student.

Julia would never
make anyone feel that no amount of work was enough.

Julia would never
let a RA feel that there was no reason to be given to stop early or change a time.

Julia would never
let a RA feel like a slave.

Julia would never
ask a RA to teach classes with an hour’s notice.

Julia would never
make a RA feel that he/she were wrong for thinking differently from her.
Julia would never teach students the way she was taught.

Julia would never treat people who might support her learning and research, the way she was treated.

Julia would never ask a RA to do jobs that are disembodied or reduced to tasks.

Julia wants...

“students to replicate what I feel education is all about – connection to others, rich conversation around research tasks that hold a great deal of meaning for me as researcher. I want my RA to feel welcome and valued as a person and an equal – we are all learners in my mind.”

Ellen Starr

Insightful, Pleasant

Discussing, Conveying, Musing

Educator, Interviewee-

“I didn’t really think about it until now.
I hadn’t thought of it until you asked the question.
I feel myself in a different place now in the curve

…it’s like a dialogue...
“It really helped me
To experience, to feel, to remember
What some of this literature is talking about.
Moving from the periphery into the centre,
In this team,
That’s very seamlessly done.

“What really is happening here?
This is something that’s far subtler.

“After our last interview,
I went home
And I did a lot of thinking.
About one of the things that a colleague said to me
When I first met with him about joining the team,
He said, ‘This is the highlight of my work here.’
I was really intrigued by that.

“There are some fundamental things underneath the surface that are played
And something is happening.
I think so much of what I do with this team
Has probably been the most extraordinary experience for me.

“And then
When I was thinking
After our first interview,
I’d say,
‘You know, this is one of the highlights for me too’

...your thoughts just triggered...
“I wouldn’t have made that observation myself. I’m not sure I would’ve necessarily thought about it that way. Some of these interviews actually have helped me to think more deeply.”

-Interviewer, Learner

Listening, Responding, Understanding
Subdued, Attentive
Annabelle Grundy

Conclusions

Ellen’s research learning experiences are rich and insightful. Interpreting the interview and observation data through narrative analysis was a challenge, but a worthwhile process as it revealed a multi-dimensional portrait of Ellen’s research learning and researcher identity development.

Overall, Ellen’s experiences were very positive. Ellen’s research assistantships were unique because they allowed her the opportunity to learn about research in a supportive environment, but also the freedom to explore herself as a researcher and as a person. Reflecting on past experiences was important to Ellen’s development as a researcher because those reflections helped her to make connections over time, and to understand her current learning experiences. In one of her research assistantships, belonging on a small research team helped Ellen to feel like an equal and valued member of her research community.
CHAPTER 5: MAKING RESEARCH LEARNING "FIT" FOR ME – LAURA’S STORY

Figure 2. Laura Reid’s learning journey as a Research Assistant
Figure 2 is a visual representation of Laura Reid’s research learning journey as a research assistant over time. During my narrative explorations of Laura’s data, I utilized Creswell’s (2002) re-storying techniques (p. 528) and Clandinin and Connelly’s (2000) three-dimensional narrative inquiry space (p. 49). Figure 2 is the culmination of separate computer-generated components created after the interview and analysis processes.

The diagram is basically made up of squares, circles, and curves. The overall layering effect and placement of shapes and colours is to provide the viewer with a sense of connected movement and continuity across time (past, present, and future) (Clandinin & Connelly, 2000)

The diagram is intended to remain an abstract representation of Laura Reid’s learning and is subject to multiple interpretations. However, there are a few elements in the diagram that are intended as real-life representations of Laura’s learning and may help the viewer in understanding the newsletter layout of this chapter. From a literal perspective, the two large grey curves represent Laura’s arms crossed over her chest cradling the shapes as if holding them to her. Notice that the red circle is located on Laura’s left upper body where her heart is. In Laura’s arms are three major shapes and their shadows: (a) a large light blue square with a white outlined shape overlapping; (b) a smaller dark blue square moving towards a white opening of the same size within the black area; and (c) a red circle moving towards its white circular opening, which overlaps the black area and light blue area. Each of these three major shape clusters represents a set of research assistantship activities upon which Laura has worked and for which she had a different supervisor. The following newsletter includes the individual visual components of the whole diagram throughout and represents the passage of time and
overlapping of research assistantship contracts. The fractured diagrams throughout the newsletter can be likened to a video-camera that is set up in a corner of a room to record ongoing activities and movement within that room where at any given moment the viewer could "freeze" a frame of activity to reveal an activity pattern or set of interactions. The complete diagram (Figure 2) is a freeze frame representing sets of research assistantship activity and interactions. The separate elements of the diagram that appear throughout the newsletter reveal the passage of time and overlapping of research assistantship contracts. Take a moment to flip through the newsletter pages to view the visual elements in the outside margins. You will recognize the different shapes as part of the larger diagram (Figure 2). Imagine the coloured shapes slowly moving towards their "shadow opening" or their "fit" in the whole scheme of things. Hence, the title of the chapter: "Making Research Learning 'Fit' For Me."

This chapter-newsletter depicts Laura Reid’s learning as a Research Assistant (RA) through the use of newspaper-style expository writing (Ball, 2003; Buckley, 1994). There are five characters in the following article excerpts. Laura is the main character throughout this chapter-newsletter. Melissa Simpson, one of Laura’s research assistantship supervisors, is a character who emerges throughout the chapter-newsletter. Francine Dubois, Laura’s field supervisor for an off-campus research assistantship, is also a character in this chapter-newsletter. Although, Francine’s presence is minor in this chapter, she does play a large role in Laura’s development as a researcher at an off-campus learning site. The fourth character is one I am going to identify as the “phantom” supervisor. Laura did work with the phantom supervisor on a couple small contracts administering tests and coding these tests, but the learning that occurred was less
significant than with the previous research assistantship supervisors and the work was
often “busy work” as Laura calls it. However, work with the phantom supervisor should
not be discounted as Laura did learn while she worked with this person. I have only
limited space to write about all of Laura’s experiences, so I am focussing on research
assistantship experiences that Laura discussed with me in more detail during the taped
interview sessions. As the storyteller and a co-participant in this study, I am the fifth
character in Laura’s story. My presence is evident not so much in the article excerpts but
more in the artistic creations such as the newsletter design, the pictures, and the poem.

I chose a newsletter format to tell Laura’s story for three reasons. First, Laura
Reid has had many different Research Assistantship contracts. In order to address the
snippets of her experiences that Laura discussed, I needed a space that would allow me to
write shorter essays in an organized, but interesting manner.

Second, as I was trying to figure out a representative way to showcase Laura’s
experiences, it occurred to me in re-reading her stories that they were explained in a very
logical, clear, and professional manner. I felt that the newsletter format reinforced these
unique characteristics well.

Third, I wanted to find a way to engage readers in Laura’s story that was separate
and personal. I felt that by having the newsletter a removable section of the thesis binding
that readers could take a relaxed, leisurely meander through Laura’s journey.

As you read the subsequent narrative prose, some pointers may help you in
exploring Laura’s journey. First, the excerpt sections are written using formats of
narrative prose such as poetry, journal entries, and research notes. Please remember some
of these writing formats such as poetry may include dense and multi-meaning laden
passages. I invite you to read and re-read complex passages several times in order to get a sense of Laura’s research learning and identity development over time.

Second, be cognizant of the fact that the main articles found throughout this publication address two major categories: (a) specific Research Assistantship tasks or learning, and (b) research learning themes that emerged during the analysis. These categories allude to the overall passage of time and the situation of Laura’s learning experiences in several research assistantships.

Finally, as you read the newsletter excerpts, please keep the following research questions in mind: What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Please note that if the newsletter is missing from the sleeve located at the back of the thesis that there is a printed back-up copy bound in Chapter 5 of this thesis on the following pages 82 – 91. Additionally, there is a full colour, electronic back-up copy located on the accompanying CD-Rom that you may wish to: a) read from their computer screen, or b) print in colour. Please insert the accompanying CD-Rom into your computer. Double-click on the folder labeled “Chapter 5-Laura’s Newsletter” and then double-click on the file LR-Newsletter. You will recognize the diagram Figure 2 on the first page of the newsletter. I invite you to read the newsletter using the “forward” arrow button and the “back” arrow button at the top of your Acrobat Reader window (or if you have the complete Acrobat program the “forward” and “back” arrow buttons may be located at the bottom centre of the Acrobat window).
Laura Reid's Research Learning Journey and Researcher Identity Development: A Visual Portrait

The inset picture is a visual representation of Laura Reid's research learning journey as a Research Assistant over time. The diagram is intended to remain an abstract representation of Laura Reid's learning and is subject to multiple interpretations. However, there are a few elements in the diagram that can be interpreted as real-life representations of Laura's learning and may help the viewer to understand the newsletter layout of this chapter.

From a literal perspective, the two large grey curves represent Laura's arms crossed over her chest cradling the shapes as if holding them to her. Notice that the red circle is located on Laura's left upper body where her heart is. In Laura's arms are three major shapes and their shadows: (a) a large light blue square with a white outlined shape overlapping; (b) a smaller dark blue square moving towards a white opening of the same size within the black area; and (c) a red circle moving towards its white circular opening, which overlaps the black area and light blue area. These three major shape clusters represent a set of research assistantship activities upon which Laura has worked and for which she has had a different supervisor. The large diagram (insert) can be likened to a video-camera that is set up in a corner of a room to record ongoing activities and movement within that room where at any given moment the viewer could "freeze" a frame of activity to reveal an activity pattern or set of interactions between people. The diagram is a freeze frame of activity and interaction. Throughout this newsletter, elements of the diagram are broken down into separate components (or research assistantship activities with one supervisor) to reveal the passage of time and overlapping of research assistantship contracts.

Take a moment to flip through the pages to view the visual elements in the outside margins. You will recognize the different shapes as part of the larger diagram. It is intended that the viewer understand the coloured shapes to be slowly moving towards their "shadow opening" or rather their "fit" in the whole scheme of things. Hence, the title of the chapter: "Making Research Learning 'Fit' For Me."

Why be a Research Assistant? Laura Reid's view

Graduate students choose to become Research Assistants for different reasons. Whether it is to obtain research learning experience or for financial gain, there are benefits to taking on research assistantships as Laura indicated during our interviews.

Initially, Laura Reid opted for a research assistantship contract over off-campus work primarily for financial reasons, that is, to pay for graduate student expenses. Laura also knew that she wanted to continue her studies beyond the master's level to acquire her Ph.D. degree. She saw research assistantships as an opportunity to gain valuable experience in the research field and meet contacts in her field of interest. She especially wanted to learn what it was like to be a professor in a university setting.

Over the course of a year and a half, Laura has taken on several assistantship contracts, which have allowed her to experience new research-related activities, and also new working environments outside the university setting. Laura revealed to me in our interview that she had a tendency to shy away from social arenas; so taking on many assistantship contracts was a big step for her. However, she is glad that she accepted the many research assistantship jobs because not only has she obtained experience interacting with faculty, staff, students, and research participants, but she has also gained several close supportive friends in the process. Laura is still working on research assistantship jobs as she begins her own thesis work. Asked if she will continue with her contracts, she answered "my time is now very limited because I do so many jobs so I have to be more selective now."

Inside this issue:
- Communities of Practice B
- Data Collection B
- Administrative Tasks C
- Laura's Past Experiences C
- 78+ Hrs of Photocopying D
- Interviewing D
- Effort and Self-Esteem E
- Situated Learning E
- Learning by Doing F
- Meaningful RA work F
- Observing G
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- Journal Writing H
- Chronological Parallels H
- Learning a New Skill I
- A New Research Method I
- Conclusions J
- The Last Word: Q & A J

Special points of interest:
- Visual elements of Laura's research learning journey throughout the Newsletter.
- What does the Newsletter logo mean? Find out on page B
- How does the participant-as-transcriptionist method work? See page 1
Forming Identities and Relationships within Communities of Practice

When I asked Laura if she felt like a researcher, without much hesitation she replied, “I’d say I do, yeah, I think it’s part of me, it something that I’ve done for four years now really and so, yeah, I’d say I do feel like a researcher.”

Throughout the interview, Laura also identified herself as a research assistant, an intern, a colleague, an assistant, and a co-researcher, depending on which research assistantship she was describing. Laura’s “multiple identities” fit Lave and Wenger’s (1991) proposed theory that “Peripheral participation is about being located in the social world. Changing locations and perspectives are part of actors’ learning trajectories, developing identities, and forms of membership” (p. 36).

When I asked Melissa Simpson, an interviewee for this study and one of Laura’s supervisors, if she thought Laura would identify herself as a researcher, Melissa responded, “I think that [Laura] would feel like a co-researcher, researcher with me.” This response further suggests another notion that “learning and a sense of identity are inseparable: They are aspects of the same phenomenon” (Lave & Wenger, 1991, p. 115).

So how did Laura become a member of Melissa Simpson’s research community? What was the eventual outcome of her participation in Melissa’s community? The following excerpt details Laura’s perceptions of her involvement with Melissa and how her initial participation as a newcomer in Melissa’s research community changed:

“I think when I think back to it I remember that I wanted to work with Melissa Simpson because I was familiar with her work, so I went to meet her, and I almost didn’t think that she would want somebody who wasn’t experienced but I really wanted her to like me, and I really wanted to get involved with her and get to know her, so I think that’s how I originally thought of it... Now it’s almost like snowballed where you have become a part of it and you can’t stop it. I think it will be hard to let go eventually because you’re a part of it.”

The following articles in this newsletter will substantiate this snowballing effect described by Laura in the previous excerpt, as well as Laura’s ongoing “movement toward full participation in practice” and “increasing sense of identity as a master practitioner” when she involves herself in her many research assistantship contracts (Lave & Wenger, 1991, p. 111).

Collecting Data: Making a Contribution to Research

Laura Reid is no stranger to the difficulties and rewards of data collection. Laura has considerable experience in collecting data in a variety of settings and situations. In our interview sessions, Laura described her data collection experiences in a very structured, detailed, but understandable way. It was very apparent as she spoke that Laura understood the research process well, and undertook her role as a data collector seriously and with a high level of attention to detail.

Laura’s data collection has taken place at on-campus and off-campus locations where she has pursued her research interests involving adults, children, and adolescents. Broadly speaking, the data collection tasks ranged from administering tests and questionnaires, conducting assessments, observing interactions, and interviewing. Laura’s most rewarding data collection experiences have been the authentic pieces of work with high levels of responsibility. The rewards are significant as Laura noted in one of our interviews, “I’m given a case and get to work on it, and I feel really like I’m making a contribution. I feel positive about myself, you know like wow, I can do this kind of work.”

While in the field collecting data, Laura enjoys the numerous settings and diverse interactions with her colleagues and participants. Laura has gained practice and insight from her data collection experiences and this has allowed her a first-hand glimpse into some potential future career options.
Doing Administrative Tasks

By participating in several research assistantships, Laura has had the opportunity to compare research learning experiences across contracts. One feature that she has encountered continuously is the administrative aspect in conducting research. Laura exclaimed, "I've been really surprised at the amount of administrative tasks that are involved in the research process. There is so much that has to be done in order for things to run smoothly."

The administrative tasks in Laura Reid's research assistantships are numerous and diverse. Laura described a number of administrative tasks including attending meetings, administering tests and questionnaires, organizing data to be analyzed, coding, talking with participants at research sites, compensating participants for their participation in the research, maintaining complicated codes and accurate methodology in longitudinal research studies, analyzing statistical data, photocopying, writing letters to editors, searching for journals and journal requirements for future publication, editing papers, and running errands.

During our interview sessions, Laura made it clear that the administrative tasks involved in her research assistantships were not all created equal in terms of useful research learning. Administrative tasks that were very time-consuming and didn't require much intellect were described as "fiddly," "joe jobs," and "boring." Photocopying, running errands, and organizing data fell under this classification.

Other administrative tasks (that were also considered time-consuming but were more enlightening research learning experiences) were described as being ones that "we really do have to work on," "if you make a mistake...the data is lost so it's really important," and "not an easy thing." These tasks included writing letters to editors, maintaining codes in longitudinal studies, and administering tests and questionnaires.

Whether necessary or mundane, Laura has recognized the importance of administrative tasks as a reality of conducting research.

Laura's Expanding Knowledge Base: Building on Past Experiences

As a research assistant, Laura Reid's learning has not been limited to administrative tasks and social interactions. Melissa Simpson, Laura's research assistantship supervisor noted that Laura has learned not only how to conduct research, but "has definitely expanded her area of expertise" in her chosen field of specialization. Laura also supported this claim when she explained what she has learned about administering tests to participants, "I've learned about a lot of different tests, and the biggest thing to know about the tests is when to use them because there are so many. That's a really difficult skill that I'm still working on."

Laura pointed out that her undergraduate degree really prepared her for graduate-level research and also helped her to better understand the content studied in her discipline. As part of her undergraduate program, students in Laura's program had to complete a fourth year thesis that included a large research component. Fortunately, Laura was prepared for this huge task as she and her peers were expected to participate in the research studies being conducted by the current fourth year students (who were completing their theses). As Laura exclaimed, "It's a really good system," because through this arrangement, junior students get to learn about research by being participants, and the senior students are able to tap into a pool of participants.

As a seasoned research assistant, I was also able to contribute to this discussion by suggesting that Laura had the added opportunity and advantage during her undergraduate years to conduct a study from beginning to completion. This is an important observation as Laura currently works on several longitudinal studies where she works on only a small part of a large research study. Having the opportunity to experience the whole research process prior to being a research assistant most likely aided Laura in her research assistantship work. When I suggested this point, Laura quickly agreed, "Oh, OK, that's true, I had never thought of that, yeah."

Laura clearly demonstrated in the interviews that her knowledge base is continuously growing and sometimes without her realizing it. When prompted to give some examples of new vocabulary learned during her research activities, Laura had a hard time providing examples on the spot, "I am trying to think about what lingo, I think maybe it's become such a part of my lexicon that I don't even realize it." Obviously, Laura's expanding knowledge base is continuously growing and to the point where it is not only directly affecting her understanding as a learner, but also her identity as a researcher. As Laura commented, "I think it's part of me, it's something that I've done for so many years now really, and so yeah, I'd say I do feel like a researcher."

"I've really been surprised at the amount of administrative tasks that are involved in the research process. There is so much that has to be done in order for things to run smoothly." - Laura Reid

"I think maybe it has become such a part of my lexicon that I don't even realize it."

- Laura Reid
An Ode to 78+ Hours Photocopying

"Photocopying:
Literally 78 hours of photocopying.
Time-consuming, mental - redundant.
In one of my RAships, that's pretty much all that I do.
It's not something that I'm learning - it's boring.
And something that I, certainly, don't need to be doing.
I am not really using my skills or my education.
All I'm doing is pressing a button.
I just feel like a bit of a peon,
You know, someone who is just there to do sort of Joe jobs.
A busy task, a mindless task - a resented task.
Photocopying:
I hated it."

-excerpts extracted from Laura Reid's interviews

Interviewing

Laura Reid has participated in many different interviews and interview situations working at various levels of participation as a full interviewer to a participant-observer. When Laura discussed her interviewing activities, that took place during her research assistantships, it became evident that she found the task of interviewing difficult. As Laura Reid indicated clearly, "I don't consider myself the best interviewer. To be honest, I don't like doing it, it's hard." However, that is not to say that she hasn't learned from her interviewing experiences. As a full interviewer, Laura has learned much about the intricacies in probing participants for information and eliciting thoughtful responses. Laura describes how she learned to "anticipate" what the participant would say:

Learning how to kind of go with the interviewee, kind of find out what's going to get them talking, and learning to talk about that. It's difficult because it's not really something that you can prepare for - you can either do it or you can't.

(interview transcript)

While working with younger participants, and disabled participants, Laura found it particularly wearing some trying to carry out interviews because responses from participants tended to repeat and travel in circles. In times of frustration, Laura said, "Sometimes the conversation seems so redundant but, anyway, you try your best."

In addition to working to the best of her ability, Laura's most essential way of handling complex interview situations was to remain positive and learn from inherently negative experiences. Laura recounted a particularly difficult situation where a group interview was underway with several participants and interviewers. Unfortunately, one of the interviewers believed that Laura's role as a research assistant, a student, and an observer, didn't warrant her full participation in the interview circle. Laura describes her predicament:

The [interviewer] felt, that because I'm a student, that I should not be seated in the circle of the interview and asked that my chair be placed directly behind the [participant's] and I found that really did not contribute to a positive therapeutic environment because the [participant] is sort of glancing over their shoulder wondering what that person is doing back there and I felt very uncomfortable, like I had no place. I was really uncertain of my role at that point. It made me feel terrible. So that was certainly something I learned not to do in the future. (interview transcript)

Even though Laura's interviewing experiences have been challenging, Laura has improved her interview techniques and skills. She is appreciative of the opportunities that her research assistantships have afforded her to learn effective interviewing skills.
Making an Effort for Improvement and Self Esteem

Laura Reid has attributed the "effort" part to participating in research and carrying out tasks as a learning process on its own. Laura tries to do the best that she can do in all aspects of her research assistantship activities. In doing so, positive events have occurred whereby Laura's self-esteem has been affected. For example, while on site collecting interview data, Laura finds interviewing participants to be a very difficult task for her. She doesn't consider herself to be the best interviewer, but she has improved and gained confidence from making the effort when she says, "one of the things I've really appreciated from that [research assistantship] is learning the interview techniques, because that's something that I find very difficult, it's challenging, so it's been great, I can see how I've really improved from that."

Laura has indicated that the social aspects of engaging in research are challenging. Gaining access to participants in public institutions and organizations has forced Laura to deal with social barriers to accessing research data collection sites. In one research assistantship, Laura learned how to interact with public schools:

Schools are very sensitive to people coming in. It's kind of like, who are you? What do you want from us? So really learning how to be, explain who you are and what you are doing, and that you know you don't want to interrupt them in any way, is really important I think. So I've kind of learned that a little bit. (Interview transcript)

Laura describes herself as a shy person in social situations that involve working with participants. However, some of her most rewarding experiences have occurred while working closely with her participants as Laura says, "yeah that's been very rewarding to be able to spend time with the participants and establish rapport with them and that sort of thing... I feel positive about myself, you know like wow, I can do this kind of [work]."

From conducting her research tasks, Laura has reaped the benefits of high self-esteem and improvement in her research and social skills.

Situated Learning and the Publication Process

In their book entitled Situated Learning: Legitimate Peripheral Participation, Lave and Wenger (1991) proposed a social learning model "by which newcomers become a part of a community of practice," gradually shifting from the role of partial participant through to full participant (p. 29).

It is a model of learning that Laura Reid seems to have benefited from as she participated in certain research assistantships activities. As indicated by Melissa Simpson, Laura's research assistantship supervisor, Laura's participation in the publication process began as a verbal description of the process which then progressed to include publication-related activities:

We've had talks about the whole process of submitting to journals and we have talked about the actual content of preparing a poster or a paper presentation at a conference and then writing it up for publication... it's the process in that you know there isn't really an explicit guideline that says you know, you first present at a conference, and then you write it up for publication, you know it's not really sort of explicit, but we talked about a lot of the ways that the process usually does follow that way and there's different ways you know, different sort of hints and things, and ways to save time, and things like that so I think that's part of the learning. (Interview transcript)

Laura recounted the same learning experience and described how her role over time has evolved from a partial contributor to a full participant:

[In one research assistantship], a lot of the learning I've done there has been surrounding publications, the process you go through to get a publication out, and although a lot of my work is very administrative for [my supervisor], I have learned a lot in terms of writing letters to editors, and when you go to a conference, what kinds of things you need to do... or occasionally she would have me edit a paper for her, so I just go through and look for errors or give suggestions for how it could improve, that kind of thing. (Interview transcript)

Lave and Wenger (1991) suggest that "as a place in which one moves toward more-intensive participation, peripherality is an empowering position" (p. 36). As evidenced in other research assistantship activities, the more responsibility Laura was granted in her assignments, the higher her confidence, self-esteem, and enjoyment in research increased. Laura describes one activity in the publications process that she was partial to, "I liked doing the editing and there I felt like I was part of the research process and that I had a little more input."

“One of the things I've really appreciated from that [research assistantship] is learning the interview techniques, because that's something that I find very difficult, it's challenging, so it's been great, I can see how I've really improved from that.” - Laura Reid

“Occasionally she would have me edit a paper for her, so I just go through and look for errors or give suggestions for how it could improve, that kind of thing.” - Laura Reid
The Research Process: Learning by Doing

Many of Laura Reid’s research assistantship contracts tended to be focused on longitudinal research projects “in progress.” Melissa Simpson, Laura’s supervisor, confirms this assertion when she says, “There were different stages that Laura worked on in the research process. . . . [but] she’s gone through all the stages.”

This means that Laura often worked on a particular section of a research project where her role as a research assistant was usually quite specific. Laura stated that on a large project, it is necessary to have a huge team with people who have specific roles. Laura indicated that she understood the intricacies of managing a large project when she said, “I’m not that involved with it because they have meetings, and all different things that I am not able to attend. . . . Everybody has their specific role and I think it’s probably quite difficult to get it all running.”

In such a large project, Laura indicated that communication across all research parties needed to be frequent and consistent, especially with regards to research methodology. As Laura said during our interview, “I’d say we talk about [the research methods] the most because it’s so important that we maintain accurate methodology because we really do have to work on the coding and getting that done properly.”

During the interviews, Laura was very thorough in her descriptions of the research she conducted. She presented the research process much like an itemized list:

We drive to the research location. The first thing that we do there is to introduce ourselves to the participants. The next challenge would be to find a place where we can work, like a home base kind of thing where we can put all of our stuff down and organize things. We would get the participant list and find out who was interviewed last year, because it was a longitudinal project. There were a lot of organizational things to do and many technical issues. (interview transcript)

Engaging in the research process across many different projects has been an enlightening experience for Laura. The interviews that Laura participated in for this thesis study provided Laura with occasions to pose questions about her roles as a research assistant and reflect upon the learning that took place over time. Talking aloud, in a manner that was almost mystical, Laura pondered the research process in the following excerpt:

I’d say one of the things, I went into it thinking was that [participants] would like to talk about their [thoughts and experiences], and having done it realizing that sometimes I wonder if we are really getting at what we are meant to be getting at? I wonder if we are really learning about the truth, like what they really do and whether the questions that we ask are really getting at their actual experiences, and what they view, so has it changed? Maybe in a sense it’s kind of made me see the difficulty in designing questions, and designing a project that actually looks at what it’s meant to be looking at, rather than many different things. That’s a very difficult task. (interview transcript)

Meaningful RA work = Enjoyment

What does it mean to do meaningful research assistantship work?

For Laura Reid, meaningful work is a key ingredient for motivation and enjoyment while doing a research assistantship activity. As indicated earlier in this newsletter, photocopying is one example of research assistantship work that Laura clearly did not enjoy.

Why?

Because Laura did not feel like she was contributing anything valuable to the research process. As Laura indicated during our interview, “[With one research assistantship,] I’m given a case and get to work on it, and I feel really, like I’m making a contribution.”

In another research assistantship, Laura enjoyed editing papers because she felt like she was part of the research process.

The end result?

Laura feels competent and confident about herself.

“It’s kind of made me see the difficulty in designing questions, and designing a project that actually looks at what it’s meant to be looking at, rather than many different things. That’s a very difficult task.”

- Laura Reid

“I’m given a case and get to work on it, and I feel really, like I’m making a contribution.”

- Laura Reid
Observing: The Act of Learning through Seeing

Observing has dual meaning in Laura’s research assistantships with regards to participation in research activities. For purposes of data collection in her research assistantship projects, Laura observed her research participants and recorded concrete observation notes. For Laura, the data collection observation process usually occurred over several days where she would visit the participants at a research site and observe their behaviours and interactions over short periods of time. As Laura stated, I’ll usually go three or four times, and then I go back to the office, and start a write up. [After each observation session], I do all my [analysis], and then type up all my observations, and then once I’ve done a few visits with the [participant], I write up my [report]. (Researcher’s Interview Notes)

While going about daily research assistantship activities, Laura also engaged in another form of observation that ranged from passive to active participation. While working on her research assistantship activities, Laura learned by doing the research, and she learned by watching other researchers conduct their research. For example, Laura could observe her research assistantship supervisors while working alongside them during her research assistantship contracts. Laura concluded, “just seeing what [professors] have to do kind of tells me what I’d have to do and what I might be doing if I was in that position.”

For Laura, being an observer of research and researchers is a valuable experience. As Laura indicates in one of her interviews, it’s an opportunity to “glean what’s really going on” in the research community and “to really understand what’s being said, even though it’s not being [spoken literally].”

“Just seeing what [professors] have to do kind of tells me what I’d have to do and what I might be doing if I was in that position.”
- Laura Reid

Future Directions

Laura would like to do her PhD.

Laura would like to be a consultant to a school board.

Laura would like to continue doing research.

Laura would like to be a scientist-practitioner —
That’s her dream.

In the meantime, Laura wants to continue working as a research assistant on research projects that interest her and that provide her with rewarding learning experiences. She will continue working on research studies that are longitudinal in nature because she thinks “it’s really neat to look back at the [participants] and see what’s changed and you can see differences... it’s something that I will continue to do.” However, Laura did indicate that, with her final thesis work underway, she is being more selective with her contracts.

When Laura was asked how she would utilize what she has learned from her research assistantships in her own future research, Laura stated:

I’ve learned a lot there. In my thesis work, I am going to be doing a lot of interviews, so I feel more confident interviewing. With publications, I’ve had the opportunity to see the process of setting things up, writing a letter to the editor, all the checks it goes through finding out where to send it. (Interview Transcript)

And will she continue her studies? Laura indicates that further education is definitely on her list of goals: “Yeah, I would like to do my PhD. Hopefully, I’ll get it.”

“Yeah, I would like to do my Ph.D.”
- Laura Reid

When Laura describes her future career goals and directions to me, the notion of being a life-long learner becomes clear when she says, “I will certainly continue to read, research, and be involved in that way.” It seems that regardless of her career path, Laura is determined to continue building upon her current research learning experiences.
“We actually sit down at the end of the day, and write what I’ve learned that day.” - Laura Reid

Journal Writing and Reflecting with a Mentor

Journal writing and reflection are behaviours that Laura adopted while working with one of her research assistant supervisors. Laura feels that the act of writing her daily learning experiences alongside an experienced researcher offered her unique opportunity to reflect and to understand more about her herself as a researcher and practitioner. Laura describes her experience:

"[On this research assistantship], I've learned so much because first of all, the [supervisor] that I work with, her name is [Francine], she guides me, she's almost like a mother figure, and we actually sit down at the end of the day and write about what I've learned that day. (Interview transcript)"

By reviewing her written learning experiences, Laura's supervisor, Francine, is able to address important issues in a timely fashion, and provide feedback and suggestions for improvement on Laura's research practices. Also, it is an opportunity for Laura to ask questions. Upon reviewing sample journal entries written by Laura, I could fully understand the unique opportunities that journal writing must have provided for Laura. She asked many questions in her writing and clearly demonstrated understanding and learning in her thoughtfully written journal notes.

As the researcher of this study, I was particularly struck by one observation written by Laura where she displayed her strong appreciation for her supervisors who help her and guide her learning. I also appreciate the help and mentorship I receive from my supervisors.

Melissa Simpson's Research Assistantship Experiences: Chronological Parallels

As part of my data collection for this thesis study, I interviewed Melissa Simpson, one of Laura's research assistant supervisors. Besides providing triangulation for Laura's story, Melissa Simpson's interview was an opportunity for me to inquire about Melissa's past research assistantship experiences and how those experiences may (or may not) have shaped her identity as researcher and practitioner. As I suspected, Melissa's interview was indeed an interesting exploration of learning and research development.

One of the most prevalent characteristics of this interview were the striking parallels I was able to make during the interview between Melissa's past research learning experiences and Laura's current ones. Much like Laura in her undergraduate degree, Melissa acquired a considerable amount of research experience as an undergraduate student. Even though Melissa gained her research practice as an undergraduate research assistant and Laura gained her research practice by participating in her peers' research (as well as her own), both experienced many aspects of the research process before their graduate degrees. Melissa said, "I participated in various stages of the research process...those experiences play a large role in my learning to work as a graduate student as a researcher, teacher, and a learner." During her master's and doctoral degrees, Melissa was a research assistant on a several projects that incidentally included longitudinal studies. Similar to Laura's responsibilities, Melissa was required to work on smaller parts of larger research studies. As Melissa described, "I would help collect data, I interviewed [participants], I helped write up things, helped analyze things, it was a complete mixture of things and I actually prepared some findings for conference presentations."

The most interesting portion of this interview occurred when Melissa was asked about whether her past research learning experiences were positive or not. Melissa responded:

"I think in general they were...I really try to work from my experiences and learn from them, because you are meant to learn something from them, that's why they happen to you. I'm thinking well, I didn't go through this not to help me in my journey, so I really think back to those times when as a student RA, I did feel uncomfortable or I wasn't sure where my ideas were going or if I was helping, or my competencies were being put to the best use, so as a professor, I really try now to create a positive learning environment. There were a few times where I felt, like I was photocopying a lot, and you know, I know there are a few sort of menial tasks that Laura does and part of me does think, I wish I could do all of these tasks myself." - Melissa Simpson
Learning a New Skill: Laura’s Introduction To Transcription

Because I am a hard-of-hearing student, it is impossible for me to transcribe audiotaped interviews. I rely on third-party transcribers to transcribe my audiotapecs for monetary compensation. It is not the best way to acquire good transcripts because third-party transcribers can occasionally be unreliable and inaccurate with their transcription services. I have the added disadvantage of not being able to check my transcripts because I am not able to hear what is being said on the audiotapes. However, recently, I have discovered a different approach to acquiring a transcript: the participant-as-transcriptionist method (Grundy, Polon, & McCann, 2003). By asking my participants to transcribe for me, the third-party influence on my final transcripts is eliminated.

When I asked Laura, in writing, if she would be willing to transcribe her interview tapes for monetary compensation, it occurred to me that I was hiring Laura to be my “research assistant” as she is a research assistant to her professors. Laura had “never done transcribing” before, but she readily agreed to the challenge. By acting as my transcriptionist, Laura was provided with an opportunity to try out and practice her transcription skills and earn some money while doing it.

The results have been most rewarding and beneficial to both Laura and myself. The transcribing process allowed Laura to review what she had said in her interviews and to realize that she had accomplished a lot over a period of time. The actual transcripts were testament to her successes and a great self-esteem boost. As a hard-of-hearing researcher, this arrangement provided me with a transcript that was personally written and approved by Laura. I believe that this process made my research collection richer, more collaborative, and far more accurate than any third-party transcriptionist could replicate.

A New Innovative Approach to Interview-Based Research: Participant-as-Transcriptionist Method

What is this new-fangled research method? An article published in the International Journal of Qualitative Methods details the new method that was discovered by Annabelle Grundy as she struggled to transcribe interviews despite her hearing disability.

In two research studies, plus her thesis study, Grundy hired the participants to transcribe their own interview tapes. This approach, which was labelled the participant-as-transcriptionist method, arose out of Grundy’s need to find an alternate way to engage in research that accommodated her hearing disability. In the participant-as-transcriptionist method, the participant serves as the transcriptionist, with editorial control to create a transcript from an interview. Based on the results of the initial two studies, Grundy and her co-authors realized the methodological advantages provided by the participant-as-transcriptionist method and its appropriateness for a wide range of researchers, with or without disabilities.

There are three key methodological advantages of the participant-as-transcriptionist method. First, the participant-as-transcriptionist method is inclusive for a range of researchers: those who are hard of hearing, those with other disabilities, and those who lack the time or other resources to create their own transcripts. Second, the participant-as-transcriptionist method can incorporate a sense of collaboration in the researcher-participant relationship. Third, participant-transcriptionists can create quality transcripts that represent the participant’s voice. The participant-as-transcriptionist method presents a credible and effective methodological approach for interview-based research that relies upon transcription.

The following two quotes are statements attesting to the benefits of using the participant-as-transcriptionist method:

In the interview, knowing that I had total control to edit and soften my comments gave me the courage to freely express my thoughts. The ensuing freedom meant that I was not just going through the motions; I had the emotional experience of really, truly caring. Because I cared, my relationship with the interviewer developed into a dynamic of intimacy that I have never before experienced as a research participant. This is when I became invested in the research project and began to see myself as a co-researcher. (Participant-Transcriptionist’s Fieldnotes)

As a hard-of-hearing researcher, I am dependent on a third party to transcribe any interviews that I conduct. This creates added pressure for me to find a trustworthy person to do a “good” job transcribing interview material to my satisfaction and, more importantly, to the participant’s satisfaction. By having my participant transcribe for me, I felt that added responsibilities were taken off my shoulders because I didn’t have to find a third party to transcribe. I knew that the participant would be satisfied with the transcript because she had created it. (Interviewer’s Fieldnotes)

Excerpts from Grundy et al. (2003).

"I’ve never done transcribing."
- Laura Reid
Conclusion

Examining Laura Reid’s research assistantship experiences through narrative analysis was fascinating and valuable. The fact that Laura had so many experiences to draw from made this participant study unique in this research thesis. Although, time restraints on completing this thesis did not allow me to acquire more detailed accounts of her numerous experiences, I was able to glean enough information to understand Laura’s research learning experiences and her researcher identity development through Lave and Wenger’s (1991) situated and social learning theories.

Overall, Laura’s experiences were very administrative in nature. I question how some administrative tasks, that are not conducive to valuable research learning, were so excessively and indisputably assigned. However, Laura did learn through her participation in all of her research assistantships, even those experiences that were negative. Also, in the cases where she was not a “full” participant, Laura did indicate that she learned through observation and partial participation. For example, Laura learned much about the publication process through editing her supervisor’s papers and corresponding with editors of journals, even though she, herself, did not publish an article from conception to completion with her supervisor.

When Laura accepted the task of transcribing for me, I believe our interviewer-to-interviewee relationship fused into a more collaborative relationship. By working together, we were able to generate interview transcripts that both parties were happy with and learn from each other as researchers and individuals. Not only did I learn about Laura’s valuable research learning experiences, Laura acquired another paid research-related skill to add to her research-learning repertoire, as Laura had never transcribed as part of her research assistantship training.

Q & A (The Last Word with Laura Reid)

A: Do you think that being a Research Assistant has been a worthwhile experience?

L: Oh definitely, overall yeah, I mean I’m so glad, I think being an RA really involves you in the university and the process of research. If I wasn’t an RA, I think I would feel very removed from the school because it gives you a real sense of connectedness or connection with the whole university, environment.

A: Would you recommend that other students participate in research assistantships?

L: Yeah, absolutely, I think that it’s really contributed to my experience here as a graduate student. I can’t imagine not being an RA and a student taking a master’s degree because it teaches you about the research process, about the process of publication, going to conferences and those have been really positive experiences that I think I’ll carry forward as I go on to do my PhD. And hopefully in my career I’ll be able to use all of those skills. And just to get connected to faculty and other students, I think it’s extremely important.

References


Figure 3. Claire Johnson’s learning journey as a Research Assistant
Figure 3 is a visual representation of Claire Johnson’s research learning journey as a research assistant over time. During my narrative explorations of Claire’s data, I utilized Creswell’s (2002) re-storying techniques (p. 528) and Clandinin and Connelly’s (2000) three-dimensional narrative inquiry space (p. 49). Creswell’s (2002) re-storying techniques allowed me to organize the data chronologically. Clandinin and Connelly’s (2000) three-dimensional narrative inquiry framework (inwards, outwards, backwards, forwards, and situated within place) allowed me to think about Claire’s literal research assistantship working space as a metaphor for understanding her learning and to incorporate information about situation, continuity, and interaction (p. 49). Figure 3 is an abstracted representation or re-creation of Claire’s workspace as she worked alongside her research assistantship supervisor, Donna Knowles. This arrangement is similar to the one that I observed during a data collection session and is a common setup for their research meetings.

The diagram is intended to be a semi-abstract representation of Claire Johnson’s learning over time and is subject to multiple interpretations. It is also the layout for a website homepage where the objects in the diagram are clickable features that document Claire’s story as a research assistant. The website is stored on the CD-Rom included with this thesis. After reading this introduction, insert the disc into a computer drive and explore Claire’s story from a computer monitor.

The diagram is made up of coloured circles, arrows, and a stylized clipart computer monitor and mouse. In front of the computer monitor (which has a blue arrow pierced through it) are three circles connected by white arrows. Behind and above the computer monitor are five coloured circles connected by white arrows. Just behind the
monitor is a horizontal diffused line that mimics a receding horizon of colours. This line divides the upper and lower parts of the diagram in a mirror-like fashion. The overall effect and placement of shapes and colours is to provide the viewer with a sense of movement or continuity across time (past, present, and future), beginning in the lower right corner with the trio of circles and progressing leftwards and upwards following the blue arrow through the monitor to the upper central cluster of circles (Clandinin & Connelly, 2000).

The horizontal line that flows behind the computer monitor symbolizes a reflective surface. It separates the two communities of circles located at upper and lower ends of the diagram. The upper set of circles represents Claire’s electronic community where she learns about technology and how to conduct research. The lower trio of circles represents Claire’s human community as she works on her research assistantship activities. The thick white arrow between Claire and her supervisor, Donna Knowles, signifies a strong connection of learning and interaction. The thin arrows connecting myself, the storyteller, to Claire and Donna signify weaker interactions, but a clear learning dynamic. The three layers of paper to Claire’s left represent the journal entries that Claire was asked to keep as part of her research assistantship duties. The upper and lower communities of circles are connected by way of a blue arrow through the computer monitor.

The varying colours in the upper part of the diagram parallel the lower parts of the diagram as if they are reflections and are used to remind the viewer that the interactions that take place in the lower part of the diagram mimic those in the upper parts (and vice versa) as indicated in the writings.
My inspiration for this diagram and the title "Through the Looking Glass" came from Lewis Carroll's (1998) book *Alice's Adventures in Wonderland and Through the Looking Glass*. In simplest terms, the computer monitor in Figure 3 symbolizes the "mirror" that Alice entered and where she lived out her adventures (Carroll, 1998). Much like Alice, Claire looks through the computer screen (mirror) to learn about research and the characters she meets while conducting her research. The reflective properties of an actual mirror also symbolize Claire's self-reflection as a student and a researcher.

This chapter depicts Claire Johnson's learning as a research assistant through a mixture of narrative poetry (Bugeja, 1994; Oliver, 1994), newspaper-like expository writing (Ball, 2003; Buckley, 1994), journal writing, and standard social science prose. There are three characters (plus the reader) in the following excerpts. Claire is the main character throughout this chapter. Donna Knowles, one of Claire's research assistantship supervisors is a key figure in Claire's learning and her development as a researcher. As the storyteller and a co-participant in this study, I am the third character in Claire's story. My presence is one of a participant-observer and storyteller. Readers are also considered co-storytellers or co-directors who provide chronological shaping of the story based upon the order in which they explore the diagram and corresponding texts through the website.

I chose the website format for two reasons. First, Claire used the computer and software technologies as the primary learning tool in her research assistantship. It therefore seemed fitting to represent this characteristic as part of her research learning journey in this study. I encourage readers to experience Claire's story from Claire's point of view as a research assistant sitting at a computer station. Second, I wanted to provide readers with the power and opportunity to re-tell Claire's story by clicking the objects in
the homepage as they feel fit. I felt that re-positioning readers as active participants in Claire’s story, rather than as passive readers, would help these readers to understand and appreciate the richness of Claire’s research learning experiences. By doing this, a certain parallelism emerges. In her research assistantship, Claire used qualitative analysis software to code students’ reflections about their learning. As Claire worked as a research assistant, she learned not only about the research she was conducting, but also about the participants in the study and their reflections on their learning processes. In short, the student reflections that Claire was coding initiated her discussion about the questions and learning that she wanted to address for herself. In this way, Claire explored the students’ experiences through the looking glass of her computer monitor. The website format for this case allows readers of this thesis to each become an “Alice” exploring the characters and learning experiences of Claire’s story like Claire explored the students’ experiences. I invite readers to step through the looking glass and discover Claire’s learning adventures as a research assistant and her researcher identity development.

Please insert the accompanying CD-Rom into your computer. Double-click on the folder labeled “Chapter 6-Claire’s Website.” Scroll through the list of files and double-click on CJ-Website-HOMEPAGE. You will recognize the diagram Figure 3 from the introduction. Take a moment to move your cursor across the diagram. You will notice that most of the objects in the diagram are “clickable.” I invite you to explore the objects in the diagram and the links to website sections. After you have finished reading a website selection, please use either the “back” button on your Acrobat Reader, or the “HOME” computer icon located in the lower right corner of each website section, to return to the CJ-Website-HOMEPAGE to continue Claire’s story.
As you read the subsequent narrative prose, some pointers may help you in exploring Claire’s journey. First of all, the excerpt sections are written using many formats of narrative prose such as poetry, newsletter style writing, recipes, journal entries, and research notes. Please remember some of these writing formats such as poetry may include dense and multi-meaning laden passages. I invite you to read and re-read complex passages several times in order to get a sense of Claire’s research learning and identity development over time.

Second, be cognizant of the four overarching ideas found throughout the webpages of this chapter: (a) Time, (b) Place, (c) Reflection, and (d) Learning Interactions. These themes allude to the overall passage of time and the situation of Claire’s learning experiences in a research assistantship with Donna Knowles, her research assistantship supervisor. These themes also encompass Donna Knowles’ past research assistant experiences and research supervision philosophies.

Third, the visual placement of the text in the webpage passages suggests a sense of movement across time and space, and often includes elements from Claire’s “Learning Journey” diagram (see Figure 3 or CJ-Website-HOMEPAGE). One notable and recurring visual word placement formula found in several webpages references mirror-like reflections. It may be useful to think about how Claire’s past experiences may have shaped Claire’s current learning experiences as an international student in Canada and how her research learning encounters may affect the flow or movement throughout the visual texts and the diagram (see Figure 3 or CJ-Website-HOMEPAGE for the “Learning Journey” diagram).
Finally, as you read the website excerpts, please keep the following research questions in mind: What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Please note that if the CD-Rom is missing that there is a printed back-up copy bound into Chapter 6 of this thesis on pages 99-127. In the printed copy, you will recognize Figure 3 as the first page of a series of documents. Following a website format, the first page represents the Claire’s website HOMEPAGE and includes letter or word identifiers throughout the diagram. Choose what parts of the HOMEPAGE diagram you would like to explore and then use the letter or word identifier to locate the matching document for that HOMEPAGE diagram item. For easy reference, the letter identifiers are located in the bottom right corner of the subsequent documents.
Choose what parts of the diagram you would like to explore and then use the letter or word identifier to locate the matching document for that diagram item. For easy reference, the letter identifiers are located in the bottom right corner of the subsequent documents.
Through the
Looking Glass...

Claire sees
students struggling to understand how research works
Claire knows
this experience will be useful to her
Claire feels
she has to understand

Claire sees
herself in their struggles to understand
Claire sees
reflections of her learning in their questions
Claire sees
what students wrote
Claire sees
their feelings - they were the reflections
Claire sees
who has agreed to participate

Claire knows
that her perspective is that of a student
Claire knows
she tends to make mistakes
Claire knows
she has to be specific
Claire knows
she must have an eye for detail
Claire knows
that experience is what she wanted to achieve

Claire feels
this thing sometimes happens, that’s learning
Claire feels
Research Assistantships give you some experience
Claire feels
she should have an eye for detail
Claire feels
they are going through the same kind of process
Claire feels
it’s interesting to know that other people are also thinking like her

Claire sees
codes are developing
Claire sees
a new kind of message
Claire sees
so many words, new words have come up
Claire sees
a lot of files missing
Claire sees
it was so simple - she learned herself
Claire knows
she had never worked on this kind of software

Claire knows
what kind of problems can come in the software

Claire knows
she likes to work on those fast computers

Claire knows
she has to do analysis on her own

Claire knows
she can learn from her research assistant supervisor

Claire feels
coding is very interesting

Claire feels
she doesn’t see herself what Donna is able to see

Claire feels
she is unable to see the confidence, the competence level

Claire feels
like a researcher when she sits with Donna

Claire feels
that to know about Canada’s education system, the best thing
is to learn it yourself

Claire sees
Canada’s experience

Claire knows
she really liked working with Donna

Claire feels
when she works with Donna, she gets Canada’s experience
Annabelle’s Journal Entry #1:

It was interesting that just before the interview Claire and I were talking about transcription and I mentioned that I wasn’t able to transcribe my own tapes. Claire offered to transcribe my tapes for me for free. I told her that I thought that was a nice gesture, but that it was unnecessary, as I usually hired third-party transcribers to transcribe for me. I felt that I couldn’t leave out a fact about my project when I was going to ask for her transcription services at the next interview, so I did mention that I was thinking about asking my participants to transcribe for me and described the “participant-as-transcriptionist” method (Grundy, Pollon, & McGinn, 2003) very briefly and informally. I felt that it was okay to talk about the participant-as-transcriptionist method with Claire as she had already agreed to participate in my research and that she was not accepting the participant role based on the money that I pay my transcriptionists. Hopefully by next week, when we have a second interview I will bring up this participant-as-transcriptionist method again and formally ask her to transcribe for monetary compensation.


Annabelle’s Journal Entry #2:

Claire and I had our second interview today. After the interview, I asked Claire if she would transcribe and she said, “Yes.” Claire agreed to allow me to interview her research assistantship supervisor, Donna Knowles. Claire also agreed to allow me to observe her and Donna during a research assistantship coding session.

Annabelle’s Journal Entry #3:

I finally received the second interview transcript. I am going to continue with my analysis of Claire’s first and second interviews, as well as the observation tomorrow. While I analyze, I am going to keep a pad of paper going to jot down possible questions for the third interview. Just from reading the transcripts and observation notes through a couple times, I noticed there were some descriptions of learning experiences that I need Claire to elaborate on.
Annabelle’s Journal Entry #4:

Claire transcribed the interview tape I recorded during my interview with Donna. I will send this transcript to Donna for a member check. Claire expressed that she might be able to transcribe the final interview tape (since it wasn’t that long). But she did ask me if she couldn’t transcribe, if I had someone else that could transcribe instead. I told her that I could probably find someone else, but that it would be nice to have Claire transcribe so that all the transcripts are consistent. I also encouraged Claire to re-read the transcripts and add anything that she would like to while she transcribes. She did give me a date (two weeks from now) for being able to finish the transcribing and that she would most likely have time after that date to do it...I am going to wait until that day to inquire about the transcript and hopefully she will have it ready.

Annabelle’s Journal Entry #5:

Claire just got back to me regarding the transcribing of her final interview tape. She is not able to transcribe the last one, so I asked Rachel Berry if she would transcribe it for me, and she said “okay.” The last interview with Claire was quite short but a good review of her learning experiences. Claire also elaborated on a couple of her experiences that she thought would help in my analysis-most notably her difficulties being able to recognize the competence-confidence level of students in the research data, and the problem with downloading the files into the qualitative analysis software.
Collecting and Downloading Data

As a research assistant for Donna Knowles, Claire Johnson has learned much about coding and using qualitative analysis software. Claire’s overall major assignment involves the analysis of electronic reflections written by students.

Before Claire could proceed with the analysis of the electronic reflections, several steps had to be completed.

First, Claire needed to understand the qualitative analysis software and its capabilities. Donna explained the tasks involved in compiling the collected data, downloading the information into the software program, and analyzing the data.

Second, Donna and Claire re-formatted the electronic reflections created by the students to allow straightforward processing.

Third, Donna demonstrated to Claire how to download the information so that Claire could continue downloading the rest of the collected data. As Claire indicates, “Initially, she told me how to do it, then I worked on my own...downloading, I did myself.”

After the downloading was complete Donna explained to Claire that both of them would begin the coding process together. This research learning process allows Claire an opportunity to grasp the coding process with Donna’s assistance so Claire can continue coding on her own. As Claire indicates, “I think after 3-4 sittings, I will be doing the coding myself.”

Claire describes how having the choice of computers helps her work to the best of her ability:

"You have to copy everything, sometimes, things will not work on the computer I work on [at home], it’s slow or something..., then I come to Brock to do that. The computers in the [main lab] are very fast and especially when I am downloading, I like to work on them. (interview transcript)

When asked where she likes to work, Claire responses, “I work in the big computer lab in the university. It has a good view outside and I like to sit there and work there.”

The Lost Files

Donna Knowles, Claire’s research assistantship supervisor assigns tasks to Claire that are essentially all computer based. Therefore, Claire spends a lot of time learning not only the benefits of using technology in research analysis, but also some of the drawbacks.

As indicated by the sub-title, The Lost Files, an incident occurred concerning files that Claire had inserted into the qualitative analysis software. Claire explains, “It seems that when we first downloaded everything and transferred it to [the qualitative analysis software] a lot of files were missing. Now I have AGAIN downloaded the files and they have transferred.”

It seems that Claire doesn’t mind too much when technology works in a noncompliant way. Looking on the positive side, Claire says, “As long as we get things done on time and time does not get wasted because of the technology, it’s okay.”

So what actually happened to the lost files? Claire replied, “I had all those files in the original data, I don’t know what happened and why it did not transfer.” The mystery of the lost files was eventually solved. To find out more about lost files, follow the link to the “Mystery Solved” article.

Fast Computers and a Good View

When I asked Claire where she works, she listed off three places: (a) home, (b) the M.Ed. lab, and (c) in the big main computer lab. Being able to work from any computer workstation allows Claire not only the freedom and flexibility to get her work done as her schedule permits, but allows her to take advantage of different computers suited for different parts of the downloading task.
Learning About Technology

Claire Johnson feels that the biggest advantage to working on her research assistantship is learning about qualitative research analysis software. As a researcher, Claire has never previously conducted research using this type of software so she is appreciative of the experience to do so. As Claire said, "This experience will be very useful to me."

How useful will this experience be? Claire feels that taking the time to work on qualitative analysis software is a learning experience in understanding how analysis programs work and the kinds of problems that occur while using them. During an interview, Claire mentioned,

Sometimes I get stuck over very small things, which are very simple, which any person who is using computers should know that. But I get stuck, sometimes in my mind, the mindset is "Oh I will ask [Donna]" or "I will go and ask the computer person when I reach Brock." then I realize, it was so simple. I learned myself. (interview transcript)

Donna Knowles, Claire’s research assistantship supervisor, is careful to include her research assistants in all aspects of the research process. Using technology is one of many important ways to conduct qualitative analyses. In Claire’s research assistantship, using technology is obviously important as Donna points out, “The qualitative coding is the real research stuff. The other part, the transferring of files, is more using the technology, which is obviously an important part – an essential part [in this research].”

Claire’s view on technology is also positive, despite some of the drawbacks she has experienced using technology in research. As Claire indicated, “Sometimes it so happens that we end up spending more time because of the technology. Why are we doing it on [qualitative analysis software]? So, that towards the end, the technology will help us. I think it really will help us.”

Computer-Based Research Assistant Skills

Claire has some previous research experience as a researcher in her home country. Claire’s previous research knowledge directs her inquiries as a researcher currently in her research assistantship with Donna.

When asked what skills she has learned as a research assistant, Claire immediately interjects, “New software that I will use for my project. I can use this kind of software.” Although Claire has learned much about analysis from learning a new type of software, she is clear that using this qualitative analysis software does not exempt her from conducting quality analysis. Claire indicates,

Analysis: you have to do it on your own. I have worked before also as a researcher. I know in analysis, you have to be very specific and you should have an eye for detail. You should try to read everything. You can’t miss a single point; otherwise you will miss the essence of the thesis. (interview transcript)

However, Claire acknowledges that she has learned much about analysis while working with Donna Knowles. Claire stated, “I really liked working with Donna. I don’t see much myself that Donna is able to see.” Working together, Claire has learned from Donna’s strengths as a researcher and as a learner.
This is Claire who plans everything accordingly.

This is Claire who if she has a meeting on Tuesday, will have her work finished the previous Sunday.

This is Claire who is coding the students' reflections on her own

This is Claire who was asked by Donna to keep track of issues that came up as she worked on the coding

This is Claire who writes her questions in her research log to ask Donna on another day

This is Claire who is hard-working, productive, and independent
<table>
<thead>
<tr>
<th>Annabelle:</th>
<th>Do you think that being a Research Assistant has been a worthwhile experience?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claire:</td>
<td>Yes, definitely it is, look at the practical things we are doing, you know. And the combination of doing a research assistantship and coursework is very good. My coursework is the theory, and what I do with Donna Knowles, my research assistantship supervisor, is the practical part. My experience has been very valuable and very interesting. I hope I will continue to keep learning lots of new things from Donna because she has such a good knowledge of research. (interview transcript)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annabelle:</th>
<th>Would you recommend that other students participate in research assistantships?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claire:</td>
<td>Yes, first of all they can know about things such as qualitative research analysis software. Secondly, they can use what they have learned from their research assistantship for their own thesis or project. As an RA, it has given me some experience. I feel prepared for my own thesis. I have learned from my research assistantship supervisor. The way I see it, is that the professor has already worked on many such research projects. They have much experience and students can learn from working with experienced researchers. If I decide to become a professor this experience is going to be helpful when I go for a job of this kind. I have learned so much. (interview transcript)</td>
</tr>
</tbody>
</table>
Collaborative Analysis

Analyzing students’ reflections using qualitative research analysis software is an enjoyable and collaborative effort between Claire Johnson and Donna Knowles. Claire describes the overall process:

We are coding the reflections [that students wrote about their learning]. First we read the text, then we try to pick out the meanings and we try to assign codes. We have standard codes and we make new codes when we see a new kind of message and it is interesting. (interview transcript)

There are three major reasons why the research analysis needs to be carried out in a joint manner. First, Claire and Donna are working together on a first set of data as a way for Claire to learn about the coding process. This is preparation for the second set of analyses that Claire will be completing on her own. This process of teaching and learning is called scaffolding where three steps of teaching and learning occur: (a) teacher models practice, (b) teacher and student engage in guided practice, and (c) student engages in independent practice (Mackeracher, 1996, pp. 160-161). Teachers use their knowledge of a subject to initiate discussion and ask learners questions that prompt them to answer in a logical way. As Donna explains, “It’s conversations about how to determine the codes. Because we are sitting next to each other at the computer screen, I hear her thinking because we’re talking aloud as we do it.”

Second, the collaborative arrangement allows for discussions between Claire and Donna in order that the best codes be assigned to each section of data. This is especially acute when new codes need to be created for new data that don’t fit the established code structure. Claire describes the collaborative procedure as being a necessary one:

We have to read the text together, and we have to understand what it is and what it means. The code structure is developing continuously and if additional information comes up we give those new codes. We have the codes, and we discuss it before we assign it a code and sometimes we may differ. For example, Donna may say it is one code and I say, “no, this is the code.” We continue to discuss to reach a consensus. That’s the reason we are doing it together. (interview transcript)

Third, conducting analyses jointly allows Donna to help Claire to recognize codes that might otherwise be missed due to different educational and social perspectives. As Claire describes:

When I code for the second section myself, there is one particular code that suggests the confidence level of the student. When we were discussing our different perspectives, Donna pointed out that as a professor she may be able to see some characteristics that I might not necessarily see and vice versa. I don’t see what Donna is able to see. I’m a student here, and in this particular example, I am unable to see the confidence, the competence level in the students’ reflections. (interview transcript)

It is clear that the collaborative arrangement is not only a productive undertaking, but also a satisfying learning experience for both parties involved.

Mentorship as a Form of Learning and Collaboration

When Donna Knowles works with research assistants, it is not just about the research. As she explains. “I’m concerned with their overall experience as a graduate student, about teaching, research, service commitment. And certainly emotional and maybe even spiritual help in that whole process.”

It is these additional attributes that Donna offers that have provided Claire with the guidance that
she needs to succeed and thrive as a research assistant and a graduate student at Brock University. As Claire indicates:

I have numerous questions since I’m an international student and I really do not know many rules here. So through Donna I come to know about the rules and also various Education professors. For example, I really didn’t know the spring term was for only two months. Or, that the summer term is actually for one month. Because of this I can plan my program more effectively. That’s been very useful. (interview transcript)

While working on her research assistantship tasks such as the downloading of data into the qualitative research analysis software, and the coding of a second analysis set, Claire looks to Donna for guidance and feedback on a continuous basis. Donna mentions, “At the beginning of our meetings occasionally [Claire] might ask a question about her [analysis progress].” Claire claims that the meetings are a great learning opportunity for her when she says, “[Donna] is a learned person in the way that she analyzes. Sometimes, I catch myself thinking, ‘I never thought of that’ and that’s great.”

Claire feels that while she has worked on her research assistantship tasks that she has learned a lot about the research process from Donna. Claire explains that sometimes while she codes the students’ reflections that she has trouble assigning certain codes that involve a multitude of options. For example, while assigning codes to students’ reflections that signify negative, positive, or mixed feelings, Claire might be thinking that the code is “mixed.” As Claire explains, “Donna will [respond] with a specific thing and she will give some reasons. [When this kind of intervention occurs], this thing sometimes happens – that’s learning.”

Donna describes another situation that validates this reflective learning and understanding process:

In those conversations, when she would look at their message and say the same things that I had listed, that gave me confidence that she had learned a coding technique. Then she can go away and do that separately in the other section. Hearing her respond to and being able to identify the codes is part of that. (interview transcript)

Benefits to Working Collaboratively

When asked if her experiences have been rewarding, Claire states that it has been very positive, and that she has learned a lot. It seems that when she started an in-depth coding of the students’ reflections, that the research project became very interesting and relevant to her personally. Donna explains:

In our conversations, [Claire] sometimes compares her experiences to what she’s hearing from the students as she’s reading their [reflections]. So, she’s commenting about how she wished she could have done some more - get involved more- which she hears the students talking about how they’re learning and we’re evaluating. And at the same time she’s sitting next to me doing research. So indirectly I see that as a statement from her that the experience is positive. (interview transcript)

Additionally, Donna describes how the analysis process has probably been rewarding for Claire in that it has provided Claire with new and exciting experiences. Donna says:

We’ve sat together and done some coding. So, I think that’s been rewarding for her. And she’s getting a grasp for how to do that kind of coding to now engage in the software program that we’re using. And because of the content of the research it’s also reflecting on student’s learning, which I think has indirect positive benefits for her. (interview transcript)

Claire also feels that her experiences have been very worthwhile because she has not only learned how to use qualitative research analysis software, but she plans on using it for her exit requirement for the M.Ed. program. In that respect, she has learned about the software and what kinds of problems may come up while using this type of software in her own research. It has also been an enjoyable experience for Claire working collaboratively with Donna. As Claire shares, “I learned about analysis and I really liked working with Donna.”
This is Donna who

is Claire Johnson’s research assistantship supervisor.

This is Donna who

has had many experiences as a research assistant.

This is Donna who

had a research assistant supervisor who was a mentor and continues to be one.

This is Donna who

had a research assistantship supervisor who organized the environment to connect Donna with other students who became mentors and engaged in mentoring relationships with her.

This is Donna who

tries to provide some of the same kinds of support and welcoming to incoming research assistants that Donna’s student mentor had provided for her.

This is Donna who

believes that the interactions and research learning should not just be with the individual faculty member, but in a community setting.

This is Donna who

was at the university every day interacting, particularly with the rest of the research team, but also being part of the community and conversations in the hallway.

This is Donna who

was always treated as a colleague and an important part of the research team.

This is Donna who

attended a conference in her first year of graduate school, although she didn’t present anything.

This is Donna who

began writing and working on papers with her research team where intellectual engagement resulted.

This is Donna who

was always treated as a key part of the research team and actually engaged in all of it.

This is Donna who

was rarely asked to photocopy.
This is Donna who had a research assistantship supervisor who really believed that graduate students needed to engage in the whole research projects from the beginning to end, all of the components.

This is Donna who had a research assistantship supervisor who always pushed all of the other faculty members to match the teaching assistant wages for research assistants so that no students would make a choice between teaching assistantships and research assistantships for financial reasons.

This is Donna who was able to live off of what she received as a research assistant and as a teaching assistant where she could engage in the opportunities that were available to her.

This is Donna who took extra time to complete her degree because of the many opportunities available to her to engage in research.

This is Donna who had a number of conference presentations, publications, and had been engaged in several different research projects as a student.

This is Donna who had a research assistantship supervisor who would introduce her to everyone in the field during conferences.

This is Donna who had very positive research assistantship experiences overall, but had some really challenging experiences as well.

This is Donna who knows others who had more negative research assistantship experiences.

This is Donna who didn’t want to be the kind of academic that one of her research assistantship supervisors was.

This is Donna who wanted to be a good teacher, be a good researcher, and be engaged in service.

This is Donna who would like to think that she involves her students in the same ways that her research assistantship supervisor involved her.
This is Donna who...  

This is Donna who is continually concerned about the kinds of financial compensation that she is allowed to provide for her students.

This is Donna who does the best that she can to involve students in all capacities to try and support them.

This is Donna who learned from both the positive and the negative experiences of being a research assistant.
Donna knows that it’s not just about the research when she works with RAs. Donna learned from both the positive and the negative components of being an RA. Donna does the best that she can to involve students and to try and support them in all capacities. Donna hopes that she involves students in the same ways that her first supervisor does.

Donna learned from both the positive and the negative components of being an RA. Donna is concerned about overall experience as a graduate student- about teaching, research, service commitment, and emotional and maybe even spiritual help. Donna hopes that she involves students in the same ways that her first supervisor does. Donna provides opportunities for students to present at conferences with her and to write and to submit publications.

Donna is concerned about overall experience as a graduate student- about teaching, research, service commitment, and emotional and maybe even spiritual help. Donna wants to recognize and value all the stuff that she can learn from the students and not just what they can contribute to her. Donna provides opportunities for students to present at conferences with her and to write and to submit publications. Donna knows Claire is really keen to be a research assistant.

Donna wants to recognize and value all the stuff that she can learn from the students and not just what they can contribute to her. Claire expressed interest in Donna’s research and Donna selected her because Claire came up to her and said that she was really looking for work. Donna knows Claire is really keen to be a research assistant. Donna learned that Claire had quite a bit of research experience from elsewhere.

Claire expressed interest in Donna’s research and Donna selected her because Claire came up to her and said that she was really looking for work. Claire wanted to learn about research while she was here. Donna learned that Claire had quite a bit of research experience from elsewhere. Claire has some skills behind her from previous work in her home country.

Claire wanted to learn about research while she was here. Donna and Claire are sitting next to each other at the computer screen. Claire has some skills behind her from previous work in her home country. Donna knows Claire’s tasks are all essentially computer based.

Donna and Claire are sitting next to each other at the computer screen. Donna sees that saving some files into text files might not be very rewarding but that it is sort of a mundane task that needed to be done. Donna knows Claire’s tasks are all essentially computer based. Claire input all of [the reflections] into the [qualitative research analysis] software.
Donna sees that saving some files into text files might not be very rewarding but that it is sort of a mundane task that needed to be done. Donna and Claire have sat together and done some coding. Claire input all of [the reflections] into the [qualitative research analysis] software. Donna has really noticed Claire’s increase in confidence.

Donna and Claire have sat together and done some coding. Claire doesn’t look to Donna to identify the codes. Donna has really noticed Claire’s increase in confidence. Donna knows that she’s learned from doing coding together.

Claire doesn’t look to Donna to identify the codes. Donna hears Claire’s thinking because they’re talking aloud as they code. Donna knows that she’s learned from doing coding together. Claire is asking Donna questions about graduate student life and other things.

Donna hears Claire’s thinking because they’re talking aloud as they code. Donna thinks that Claire may be considering further studies. Claire is asking Donna questions about graduate student life and other things.

Donna knows it made more sense for Claire.

Donna thinks that Claire may be considering further studies. Donna knows that there are issues that come up for Claire. Donna knows it made more sense for Claire. Donna asked Claire to keep a kind of like a mini research journal to keep track of where there are issues that come up.

Donna knows that there are issues that come up for Claire. Claire sometimes in their conversation compares her learning experiences to what she’s hearing from the students’ reflections. Donna asked Claire to keep a kind of like a mini research journal to keep track of where there are issues that come up. Claire is commenting about how she wished she could have done some more to get involved and at the same time she’s sitting next to Donna doing research.

Claire sometimes in their conversation compares her learning experiences to what she’s hearing from the students’ reflections. Claire is getting a grasp for how to do that kind of coding to now engage in the software program that she and Donna are using. Claire is commenting about how she wished she could have done some more to get involved and at the same time she’s sitting next to Donna doing research. Claire is doing [the coding] on her own in the second data set and she’s started with the same list of codes.
Claire is getting a grasp for how to do that kind of coding to now engage in the software program that she and Donna are using. Claire has been doing that coding on her own, based on what she’s learned from doing it together. Claire is doing [the coding] on her own in the second data set and she’s started with the same list of codes. Donna is confident that Claire had learned a coding technique.

Claire has been doing that coding on her own, based on what she’s learned from doing it together. Donna knows there are indirect positive benefits for Claire. Donna is confident that Claire had learned a coding technique. Donna indirectly hears from Claire that the experience is positive. Donna knows there are indirect positive benefits for Claire. Donna thinks that Claire has increased her confidence. Donna indirectly hears from Claire that the experience is positive. Donna thinks that Claire wants to feel like she can do research in Canada.

Donna thinks that Claire has increased her confidence. Claire has had some other offers to engage in some research at Brock. Donna thinks that Claire wants to feel like she can do research in Canada. Donna feels that giving Claire a chance helped open the door to other opportunities.

Claire has had some other offers to engage in some research at Brock. Donna does the best that she can to involve students and to try and support them in all capacities. Donna feels that giving Claire a chance helped open the door to other opportunities. Donna knows that it’s not just about the research when she works with RAs.
When Annabelle observed Claire,
Annabelle was aware of Claire’s confidence.

When Annabelle observed Claire,
Annabelle could see that Claire was on the right track.

When Annabelle observed Claire,
Annabelle sensed a back and forth motion.

When Annabelle observed Claire,
Annabelle heard Claire verbalizing her thinking.

When Annabelle observed Claire,
Annabelle thought that Claire seemed to feel comfortable.

When Annabelle observed Claire,
Annabelle witnessed a lot of dialogue.

When Annabelle observed Claire,
Annabelle noticed Claire and Donna straining to hear amidst the din of the computer lab.

When Annabelle observed Claire,
Annabelle felt like she was in an approachable environment.

When Annabelle observed Claire,
Annabelle found that she was able to get a sense of Claire outside of a semi-formal interview environment.

When Annabelle observed Claire,
Annabelle noted that Claire settled quite easily into her role as RA and that she handled the computer and functions quite smoothly.

When Annabelle observed Claire,
Annabelle was a passive observer who interacted in a limited way, mostly to ask questions about the program.

When Annabelle observed Claire,
Annabelle wasn’t able to ask Claire how she felt about what she was working on and what kinds of things she was talking about during the observation.

When Annabelle observed Claire,
Annabelle made notes on the interaction between Claire and Donna and how they coded together as a team.
When Annabelle observed Claire,
Annabelle saw Donna explaining features and information to Claire.

When Annabelle observed Claire,
Annabelle noticed that Claire asked lots of questions and, where she was unsure about information, she inquired about it.

When Annabelle observed Claire,
Annabelle saw that Claire had the role of inserting information or codes into the computer.

When Annabelle observed Claire,
Annabelle observed Donna overseeing the codes and making sure that they matched with the criteria that had been established prior to the coding sessions.

When Annabelle observed Claire,
Annabelle caught sight of new codes and criteria as they were established.

When Annabelle observed Claire,
Annabelle noted that Claire questioned the actual content of the messages that were coded, which signified that she was reading to really understand what the messages were about.

When Annabelle observed Claire,
Annabelle was beginning to understand the gist of the program and the coding.

When Annabelle observed Claire,
Annabelle could see that Donna is a very patient and encouraging supervisor.

When Annabelle observed Claire,
Annabelle noticed that after about an hour that she had observed much repetition and a certain rhythm to the work.

When Annabelle observed Claire,
Annabelle got the sense that these two people worked together and understood how to talk about issues and make things work smoothly.
A dynamic at play much like a ping-pong ball bouncing across the net in a match.

Ideas and thoughts flow from side to side equally.

questions and explanations affirmations and agreements

**There were times**
Claire questioned the content of the reflections that were being coded.

**It was obvious**
Claire was reading to understand what the reflections were about.

**Just a moment to ask**
Donna about an issue that she is reading about.

answers and clarification

answer these questions and clear up misconceptions

**Donna is a very patient and supportive supervisor.**
The motion of fleshing out codes and meanings is ongoing.

quite fast and surprisingly smooth much repetition and a certain rhythm to the work

Claire and Donna worked together and talked about issues.

The work is completed in a consistent manner.

Claire is learning and she is understanding the research process using qualitative analysis software.
No Previous Experience Using Analysis Software

When Donna Knowles, Claire Johnson’s supervisor, offered Claire a position to work with her on a research project that utilizes qualitative research analysis software, Claire became very excited and anxious to begin her work. As Claire explains:

I had not used any software earlier [in previous research]. We used to have a computer person who designed our questionnaire things himself [and distributed them to us]. We hired this person to do the computer jobs where he would insert the codes, take out the tables, and put everything wherever we told him to. I, as a researcher, had never used computer software for this. (interview transcript)

Previous Quantitative and Qualitative Work

Claire has done quantitative as well as qualitative research in her previous work as a researcher. Before working for Donna Knowles, Claire had some familiarity with coding techniques, and she used specific codes most frequently in quantitative research. In past qualitative research, Claire indicates, “There was no requirement of using codes for qualitative work. I did my qualitative work manually and I did not use coding as part of my analysis.”

Claire also indicated that during her past work in quantitative data collection, that when the information was collected they gave it to a computer operator to insert into the computer for analysis. The computer person would produce tables and from those tables, Claire [and her co-researchers] would try to prepare new tables and interpret the data themselves.

In her current work with Donna Knowles, Claire has learned about coding and its application in qualitative research. Claire indicates that she had never considered coding to be a “new word,” as she was already using it in her quantitative research. However, since working with Donna, the word coding has new meaning for her. Claire explains, “Research means...coding. I never thought it to be a new word, as I was already using it [in my previous work]. So when I did my first assignment [with Donna’s research] at that time, it [became] a new word.”
Why did Claire Choose Education-Based Research?

Listening to Claire talk about her past work as a researcher, it became clear to me that Claire’s interests in education were far-reaching. Claire views the term “education” broadly. When Claire initially explored the course offerings at Brock, she wanted her master’s program to include other areas of interest such as social justice or child development because these were important to her past work. However, Claire also has an interest in Canada’s education system and felt that enrolling in the M.Ed. program would teach her much about Canada and education. When she began her M.Ed. program, she realized that she had made a good choice for a couple of reasons. Claire describes, “When I started [the M.Ed. program], I realized that [the Education discipline] is very vast and covers everything. I can choose my topic on women’s issues or child development because those are both a part of Education. Also, I am interested in conducting research in the area of Education so [my research assistantship] experiences are very valuable to me.”

A New Research Lexicon

Old is new again. As indicated earlier, Claire has learned (or rather re-learned) new words and new research approaches because of her research assistantship experiences and her M.Ed. research course work. As Claire says, “Earlier, I had just one concept of research- only one word. Now I have so many words in my dictionary- qualitative, quantitative, ethnographic, historical, etc. So many words, new words have come up.” As Claire’s research language repertoire grows, so does her confidence and her appreciation for the research learning process. Her outlook on research has become new again as she continues her M.Ed. program at Brock University.
Future Skill Use in M.Ed. program?

Claire has learned much about technology and research in her research assistantship work with Donna Knowles, Claire’s research assistantship supervisor. Claire has learned how to use qualitative research analysis software competently and has learned how to conduct coding analysis on collected data. Claire and Donna’s research analysis involves analyzing students’ electronic reflections pertaining to their learning development. When asked what skills Claire might use in her Master of Education program, Claire said that she might use the software that she has learned in her work and thought the coding analysis would be very helpful in her proposed research project.

Inadvertently, Claire also mentions that she discovered much about herself and her learning by reading other students’ reflections on learning, while she worked on the coding analysis in her research assistantship. As Claire describes, being an international student at Brock is difficult as she does not interact much with the other students who are enrolled in the M.Ed. program. The fact that the M.Ed. program at Brock caters mostly to part-time students adds to this difficulty as many students have day jobs and attend classes in the evenings. By reading about students who are trying to understand their learning, Claire was able to look to herself to understand how she learns and what she could gain from the research she was working on. As Claire explains:

I come to know about different ideas about the students because their internal feelings are out [in the form of reflections]. With the reflections, I come to know that other people [learners like myself] are having the same feelings that I am having. I can read that they have the same kind of questions and the same kind of fears. (interview transcript)

Further Education? Future Career Plans?

When I asked Claire if she was thinking about pursuing further higher education, she answered, “You mean to say after master’s [degree]?...I don’t know.” Donna
Knowles felt that Claire did seem keen to engage in further education. As Donna explains:

I don’t think we’ve actually talked about doctoral studies, but certainly she asks lots of questions. So while we’re sitting next to each other doing the coding, she’s also asking me questions about graduate student life, and other things that make me think that probably she’s considering further studies. (interview transcript)

Regardless of her decision to continue her education at the Ph.D. level, Claire did seem certain that she would like to return to work in development in her home country. The projects that she has worked on in the past have required further research skills and research training. Claire also has an interest in Canada and Canada’s education system. So by enrolling at Brock University in Canada, Claire hit two birds with one stone. As Claire says, “I wanted to learn more [research] skills, but I also wanted to know about Canada’s education system.”
Claire’s Recipe for Researcher Identity Development

This recipe was created to outline how Claire realized her individuality as a researcher while working with Donna Knowles, her research assistantship supervisor.

### Ingredients:
- previous research experience
- 1 research task
- 1 supportive research assistantship supervisor and mentor
- 3 computers, with qualitative analysis software installed

### Directions:

1. Combine all ingredients together in a computer lab until a smooth mixture of ability and understanding is created. Slowly nurture the mixture over several weeks until a feeling of confidence emerges.

Please note the following variations of Claire’s recipe:

- a) I have worked as a researcher before.
- b) As a researcher, I have created questionnaires and designed everything on it.
- c) As a researcher, I had never used computer software for qualitative research.
- d) I feel like a researcher when I sit with Donna doing the coding on qualitative research analysis software.
What does it mean to be confident?

Claire seems confident with the qualitative analysis program...
She has worked on it for a while.
There is the sense that Claire knows the qualitative analysis program well.

This coding task is a team effort.
Coding is subjective.
Donna probes and asks Claire questions to make sure that Claire understands what she is coding.

There is one particular code that suggests the confidence level of a student.
Claire isn't able to see what Donna is able to see.
Does one need to have confidence to see confidence in others?

Some of the reflections suggest that the student has gained confidence.
In many cases, Claire misses the presence of confidence.
When Claire and Donna code together, Donna helps Claire to recognize confidence.

Confidence means:
Claire inserts codes with sureness and experience.
Donna feels that Claire has increased her confidence.
Claire identifies with the students in the reflections she codes.
Claire recognizes what Donna is able to see - confidence in others.
Claire didn’t
Claire did

Claire didn’t know she would have so many questions. 
Claire didn’t realize that everyone else was going through the same process as her. 
Claire didn’t ask them.

Claire knew she didn’t have this feeling before. 
Claire realized that she should have been thinking. 
Claire asked herself: What’s going to be my research question or my project question?

Claire didn’t know that all these reflections would be interesting to her. 
Claire didn’t realize that other students’ perceptions regarding things were relevant. 
Claire didn’t see how their learning fit into her learning.

Claire knew that when she started working on a certain project that she would go in-depth. 
Claire realized that when she coded the reflections, that she was going to analyze them. 
Claire asked her supervisor as many questions as she could to understand their learning.

Claire didn’t know that she would actually read on paper how they feel. 
Claire didn’t realize that they were going through the same learning process that she was going through. 
Claire didn’t question if other people were thinking about learning how she was.

Claire knew that when the reflections were downloaded that they might not work on the computer. 
Claire realized that she would be working on those fast computers in the main lab because her computer at home does not download attachments well. 
Claire asked for Canada’s experience working on this research with her supervisor and looking outside the computer lab window.

Claire did have a positive learning experience. 
Claire did learn a lot from her supervisor. 
Claire did learn a lot from the on-line community.
When Donna Knowles member-checked this website manuscript and came across the lost files mystery, she filled me in on what actually happened to the files culminating in this additional link. Here is a quick Q & A with Donna Knowles:

Annabelle: So what actually happened to the “lost files” Donna?

Donna: As it turned out, the qualitative research analysis program that we were using had a limit to the number of files or the total file size that it could simultaneously download for analysis. This means that when Claire tried to download hundreds of files into the qualitative research analysis program at once, only some of the files transferred. There was no warning at the time that the files didn’t transfer and it was only later when we were analyzing files that we realized that some were missing. Claire went back to transfer the remaining files, but once again only some transferred. There is no indication of this limitation in the software manual and we only figured it out after a few attempts and considerable time on Claire’s behalf.

Annabelle: So how did you approach this problem? Obviously you were not able to conduct an analysis of all the files at one time? Did you analyze reflection files in batches?

Donna: We code each file individually and only after going through the entire set can we look for cross comparisons. This is a long process with so many individual files. The individual files are students’ reflections on their learning in a course and they sometimes reference others’ reflections. This is what led us to initially discover the missing files: we encountered reflections that referenced other reflections that we hadn’t seen. We had a list of the original files and printed out a list of the files transferred into the qualitative software. We cross-referenced the two lists and then I sent Claire back to download the missing files. In the interim, we could continue coding individual files, but needed to keep careful notes to keep track of what was or was not coded. That’s all part of Claire’s research log.
Figure 4. Annabelle Grundy’s learning journey as a Research Assistant
Figure 4 is a visual representation of my research learning journey as a Research Assistant over time. During the narrative explorations of my data, I utilized Creswell’s (2002) re-storying techniques (p. 528) and Clandinin and Connelly’s (2000) three-dimensional narrative inquiry space (p. 49). Creswell’s (2002) re-storying techniques allowed me to organize the data chronologically. Clandinin and Connelly’s (2000) three-dimensional narrative inquiry framework (inwards, outwards, backwards, forwards, and situated within place) allowed me to reflect upon my past artworks, create diagrams, and compose poetry that included information about situation, continuity, and interaction. Figure 4 is the culmination of several drawings created after the interview and analysis processes.

The diagram is basically made up of circles, lines, and squares. The overall effect and placement of the shapes and colours is to provide the viewer with a sense of movement or continuity across time (past, present, and future) beginning at the left side curving slightly upwards to the right. Ultimately, the diagram represents an ongoing timeline of events that have occurred and are still occurring in my research assistantship learning. The diagram is intended to remain an abstract representation of my learning and is subject to multiple interpretations. However, there are a few elements in the diagram that are intended as real-life representations of my learning and may help the viewer to understand this case.

The two black loops and lines that look like hollowed-out lollipops represent the hoops at a circus through which animals are often coaxed to jump. These two black “hoops” represent the first two research projects that I worked on as a research assistant and a research participant, respectively. The third red “hoop” is similar in form but
represents a closure and a beginning of a new phase of research learning. The blue-centred red circle is exiting the red hoop to join the large orange circle, which is filled with similar sized yellow-centred red circles. The third red “hoop” represents an independent research project that I undertook with my research assistantship supervisor and another student. The connection between the red “hoop” and the large orange circle (with smaller yellow-centred red circles enclosed) signifies a joining or transformation in my learning.

The large orange circle that includes several yellow-centred smaller circles represents my most current research assistantship community. The blue-centred red circle represents me moving into the community. The blue centre of my circle turns yellow as soon as I am enclosed within the large orange circle. The yellow-centred red circle that is touching my circle represents my research assistantship supervisor and her close guidance as if she is hoisting me aboard. The other yellow-centred circles represent team members on the research project where I currently work. The five team members (including my supervisor and I) are represented as equal sized circles. The fact that these circles are the same size suggests that each member of the team is respected as a valuable team member regardless of status, age, class, ability, or gender. There is also a smaller yellow-centred circle that appears to be emerging near the center of the large orange circle and represents a potential new member to the team.

The film-like backdrop signifies the route that I took during my research assistantship journey over time. The light blue colour to the left represents a cold, sterile, feeling. The change from sterile blue to purple signifies that red (a warm colour) has been infused into the blue, thereby creating the colour purple. As time passes, I suspect that
this purple will transform into even warmer hues. The fact that the backdrop looks like film signifies a series of events that have been placed in a sequence. The electronic storyboard pages that constitute this case are the “sketches” of the story made into a moving picture.

The film-like backdrop is significant for two reasons. First, it ties my past and current interests in digital video editing and storyboarding. I enjoy the movements of splicing and making sense of time as a series of events that are interactive and that influence future events – a method that worked seamlessly with Clandinin and Connelly’s (2000) three-dimensional narrative inquiry framework (inwards, outwards, backwards, forwards, and situated within place). Second, the film-like sections represent six-month blocks of time from September 2001 to February 2004 while I was a research assistant. You will notice that one line approximately halfway through the “film” is dashed and a new film-thread begins. This signifies an important perspective change in my learning trajectory as will be detailed in the case. The two black hoops, and the third red hoop are accurately placed against the backdrop of time in terms of when I stopped working on the research projects. Imagine the two black hoops, and the third red hoop moving along from left to right simultaneously and then stopping at the point where I ended my participation in the different research projects. The orange circle represents the research assistantship where I am still working and is therefore placed further along the film-thread, but does not represent the end of my involvement in that project. The red hoop has the potential to start moving again. The two black hoops have stopped and will not be resurrected.
This chapter depicts my learning as a research assistant through an electronic storyboard that combines a mixture of narrative poetry (Bean, 2001; Bender, 1998; Bugeja, 1994; Oliver, 1994), journal entries, recipes, and social science prose. There are two characters in the following electronic storyboard. I am the main character throughout this chapter and Trisha Dawson, my current research assistantship supervisor, is the secondary character.

I chose a linear electronic storyboard format to tell my story for three reasons. First, my story is an ongoing and changing story because I am the author of this chapter and I have constant access to information about myself including the taped interview data and my research assistantship supervisor’s interview. My understanding of research is constantly changing and the electronic storyboard format is a way to indicate to the viewer how adjustable my story is. That is not to say that my timeline changes or my experience, but that my understanding of my learning over time changes as I move through three-dimensional narrative inquiry space (Clandinin & Connelly, 2000). Through this electronic format, I have “sketched” my learning experiences and my current understandings of them.

Second, I wanted to describe to the reader that I had several research learning experiences that weren’t necessarily all research assistantships, but that were very importantly tied to my research assistantship contracts and influenced my learning during my research assistantships. The sense of time and overlap across all my research learning experiences will indicate to the reader how my current learning experiences were built upon the research learning of previous experiences.
Third, I wanted to be able to continue the momentum of the previous three participant chapters by including elements of poetry, journal style writing, and recipes. In my participants’ stories, my presence as a character is clear. In my chapter, there are no other participants except my research assistantship supervisor and me. By using an electronic storyboard, I was able to include a wide range of writing forms, but also streamline my story to round out the previous participants’ stories. Also, the electronic storyboard format allowed me to include photos of my artworks, other visual forms, and colour.

Please insert the accompanying CD-Rom into your computer. Double-click on the folder labeled “Chapter 7-Annabelle’s Presentation.” Scroll through the list of files and double-click on AG-Presentation-HOMEPAGE. You will recognize the diagram Figure 4 from the introduction. I invite you to explore my story using the “forward” arrow button and the “back” arrow button at the top of your Acrobat Reader window (or if you have the complete Acrobat program the “forward” and “back” arrow buttons may be located at the bottom centre of the Acrobat window). The photos within the electronic storyboard that have a bright red outline are “clickable” links to secondary pages with written passages similar to the webpages used in Chapter 6. When you have finished reading a written passage, use your “back” arrow button on the Acrobat Reader window to return to the photo you clicked to resume your journey through my electronic storyboard chapter.

As you read the subsequent narrative writings, some pointers may help you in exploring my story. First of all, please remember some of these writing formats such as poetry may include dense and multi-meaning laden passages. I invite you to read and re-
read complex passages several times in order to get a sense of my research learning and identity development over time.

Second, be mindful of the three overarching themes found throughout the text: (a) Learning Over Time, (b) Identity Over Time, and (c) Changing Perspectives Over Time. These themes allude to the overall continuity, interaction, and situation of my research learning experiences in four major research projects.

Third, the visual placement of the narrative text, as well as the “clickable” photos, on the storyboard pages suggest a sense of movement across time and space, and mimic some of the movements displayed in Figure 4. You will notice a repetition of certain colours and text used consistently throughout the storyboard. It may be useful to think about how past experiences may have shaped my current learning experiences and how these research learning encounters may have affected the flow or movement throughout Figure 4 and any subsequent diagrams.

Finally, as you view the diagrams, photos, and narrative prose, please keep the following research questions in mind: What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?

Please note that if the CD-Rom is missing that there is a printed back-up copy bound into Chapter 7 of this thesis on pages 136-173. In the printed copy, you will see two slide windows per page. Page 136 is the first page of a series of documents. You will recognize Figure 4 as the topmost window of two slide windows. Read the chapter as it has been bound into the thesis. When you see a slide window that has a “star” shape in
the bottom right hand corner of a photograph, this signifies a "link" to a detailed written passage. In the bottom right corner of each photograph slide, a thesis page number is listed. Locate the matching page number in the top right corner of the thesis in the subsequent documents.
Chapter 7: A Community Within a Community  
– Annabelle’s Story

This chapter is about me.
Annabelle Louise
Inquisitive, creative, conscientious, reflective
Identifies herself as an artist, a hard-of-hearing person, a research assistant, and a co-researcher
Lover of knowledge, art, and technology
Who feels confident, challenged, and rewarded
Who needs guidance to seek knowledge, art to comprehend discoveries, and adaptations to cope with her disability
Who fears time passing too quickly to enjoy the process of learning
Who contributes ideas, encouragement, and a different perspective
Who would like to share what she has learned about learning and identity development as a research assistant
Member of several communities of practice
at Brock University
Grundy

I have learned what to do.
I have learned what not to do.

I have learned what I want to do.
I have learned what I don’t want to do.

Annabelle Louise
Creative, enthusiastic, resourceful, thoughtful
Artist of several media
Lover of cats, art, and technology
Who feels confident, positive, and fortunate
Who needs challenges, goals, and adaptations
Who fears regret and loss of independence
Who gives ideas, encouragement, and smiles
Who would like to travel and experience the world of others
Resident of the visual world
Grundy
I have learned from my RA experiences.
I have learned from my experiences as a participant.

I have learned from my rewarding experiences.

For the detailed passage, see page 155.
I have learned from my unrewarding experiences.

I have learned from my RA supervisor

I have learned from my RA supervisor’s research experiences.
I have learned from my participants' RA experiences.

I have learned from my participants' RA supervisors' research experiences.

I have learned from my past experiences.

I have learned from my recent experiences.

This chapter is about me and my research learning journey.
Research

The word doesn’t have a mystery to it anymore.
I sort of knew what research was before, but now I can actually put names to certain ways of doing research or the different steps involved.

It’s more complicated than I thought.
There’s definitely more to it.
There are lots of things to address.
And many different areas of research.
I think research is clearer for me now.

I can actually put names to certain things that I might have picked up on before, but not really understood.

Being a Research Assistant

Initially,
when I submitted my resume to be a Research Assistant, my goal was to learn as much as I could about research before I actually did my thesis research.

I wanted to be a

sponge

and absorb everything that I could about research.

I am glad that I did.
I learned a lot.
Annabelle Louise
Hard of Hearing, deaf, hearing impaired
Acquaintance of silence
Lover of music, voices, and technology
Who feels fortunate in spite of difficulties
Who needs hearing aids to hear high frequencies, but
Who utilizes lip-reading skills to understand verbal words
Who fears the dark, and missing the punch lines of jokes
Who gives patience to those who ask, and aloofness to those who presume
Who would like to wake up to the song of birds at dawn
Resident of both the hearing and non-hearing worlds
Grundy

"Silence"

For the detailed passage, see page 159
What is Inclusion?
Annabelle's Recipe for Collaborative Research Team Development That Includes Research Assistants As Valuable Members

This recipe was created to illustrate the ingredients (or characteristics) that made up one of Annabelle's research assistantship teams. The recipe outlines how the right mixture of ingredients made it a truly collaborative research team experience for her and how she felt like an equal and valued member of the team.

Ingredients:
- Five researchers with various backgrounds who have high respect for others
- Signed set of principles or guidelines that articulate the roles of the team
- Important section of a large research task
- Meeting per month to discuss progress, share our stories, and talk about our research to others as a team with equal contributions from each team member
- Regular opportunities to co-write papers and co-present at conferences

Directions:
1. Combine all ingredients together in a meeting room until smooth mixture of understanding, trust, meaning, and appreciation is achieved. Slowly nurture the mixture over a couple of years until a sense of belonging and community emerges.

Please note the following variations of Annabelle's recipe:

a) I practice my research language with my team members
b) When I have a question about a certain aspect of the research process, someone takes the time to explain the research to me until I understand, and then the meeting resumes.
c) Research assistants' interests are considered in all aspects of the research project.
d) I enjoy time with my team members outside the research team site such as going for lunch together or for coffee.
I feel like a researcher. I think for me being a researcher is not just doing the research task. I feel like a researcher when I am talking with others about research and when I am participating in the research process with my research team.

Annabelle Louise
Inquisitive, thoughtful, creative, conscientious
Researcher for self and others
Lover of knowledge, new ideas, and stimulating conversation
Who feels challenged, motivated, and rewarded
Who needs guidance to seek knowledge, and independence to comprehend discoveries
Who fears overlooking a crucial piece of a puzzle
Who contributes ideas, encouragement, and a different perspective
Who would like to be an academic, but will choose a more accessible career
Citizen of Brock University
Grundy
End of Storyboard Presentation.

Chapter 8 begins on page 174 of the thesis.
Speaking Through my Art

I believe that my art has been a therapeutic way for me to learn about myself and learn about how I relate to others. Through my art making, I have become more aware of myself as a hard-of-hearing person struggling to succeed in a hearing world. My parents understood the value that an arts-based education played in my educational development. Creating artwork has helped me learn problem-solving skills and enhance my verbal presentation skills. It has also helped me to be resourceful, creative, and thoughtful in my educational choices. Mostly, it has provided me with the confidence to succeed at what I challenged myself to do and has shaped the person that I am today.

My undergraduate years at McMaster University were a transformational experience for me. I was warned before I entered university that as a hard-of-hearing person I would have to actively seek help and resources to make sure that I succeeded at the university level. However, it became increasingly apparent during my first term of my first year at university that I had left “my vision of future inclusion” at the public school doorstep, and that I had entered an era of teaching that was archaic and non-inclusive at university. Not only was the special needs office behind in its support systems for hard-of-hearing students, but the professors were not aware of the difficulties that I had as a hard-of-hearing student in their lectures until I told them about my experiences.

In less than 4 months at McMaster University, I realized through my experiences with professors and other students that I had become the teacher, as well as the learner, teaching others and advocating for my needs and rights in order to get access to the education for which I had paid. It was during my third year in the Honours Art program
that I began to see the value inherent in art as a teaching tool to educate others about my experiences of what it is like to be hard-of-hearing. I began to realize that if I wanted people to understand my experiences, I needed to make my experiences come alive for them. By transforming my experiences into art, I built awareness about my hearing disability. In a way, art making has been a way for me to speak to the world about myself without having to say a word. Through this case and my thesis more generally, I have combined art making and words.
I have learned... 

I have learned how to use a bibliographic database called EndNote. In one of my research assistantships, filing resources into EndNote has been incredibly insightful because I have been able to read the resources as I create a database of those resources. My thinking has changed considerably, and my knowledge of research has expanded.

I have learned about narrative analysis. During my research methods courses, I had difficulties trying to comprehend how narrative analysis was performed. When I worked as a research assistant, I learned how analyzing experiences through textual analysis and interpretations could be done. It was this hands-on learning that encouraged me to use narrative analysis in my thesis work. I’m so glad because it’s such a fabulous way to analyze experiences.

I have learned much about narrative writing. Being exposed to many different authors who do narrative work has informed my research learning. My learning has included reading stories, reading poetry, reading autobiographies, telling my own story, and being able to write clearly.
I have learned about research proposals. I have learned how to put together research proposals by reading the research proposals used in the research I am working on as a research assistant.

I have learned about preparing for conferences a year in advance and about writing conference proposals. I have learned about writing conference papers and how to present research papers at national and international conferences. I appreciated the experience of learning about the different presentation formats used at conferences and how I could utilize these presentation formats to best suit my needs as a hard-of-hearing presenter.
I think that my most rewarding learning experiences have involved talking intelligently with the other co-researchers during my research assistantship meetings. During our meetings, my research assistantship team has shared stories of past and current experiences as faculty members and students. I think getting past the surface and actually learning about what other people are learning about themselves and the people around them has been insightful. Also learning about how my research team is learning about research and developing our research agenda has been very rewarding for me. I have been able to observe others’ learning as well as been able to reflect on my own learning. I feel that I can deeply reflect when I’m talking and telling my story. Interestingly, a lot of what I’ve talked about in my research team meetings has been related to my RA experiences. My RA learning has therefore been tied closely to my thesis work.

I think that another rewarding feature of the research team meetings is the trust that everyone has developed for each other. Everyone speaks about their experiences knowing that whatever we talk about doesn’t leave the room. I think that we are honest about ourselves and honest about reflecting upon other people’s experiences. Learning about some of the not so great things that happen is as insightful as learning about all the good things. I noticed through the casual comments and easy conversation that I pick up on many of the things that are going on in academic settings. For me, I am learning because I understand multiple perspectives from faculty members and students.
I don't really know why I chose my first research assistantship contract.

I think it was just to do it.

Just to do anything and to get started on my learning about research
and see where it would lead.

My first research assistantship supervisor wanted me because I had artistic skills and
because I knew how to use equipment.

I didn’t actually learn a whole lot in that. In fact, the work I did was sort of mundane.

I ran errands.

I photocopied.

I compiled evaluation forms.

I helped set up for presentations.

I created brochures.

I created electronic presentations.

I felt like her assistant.

It was very directed and very task-oriented.

Do this. Do that.

I did feel a little exploited. I put in a lot of hours...long hours.

However, I try to make the most of my learning opportunities and I did acquire skills.

I am skilled at creating electronic presentations.

I am skilled at creating brochures and using templates to create brochures.

I am skilled at organizing data into chart form for easy reference.

And, although my immediate benefits were not realized until later, I did establish a
community network with people that my supervisor introduced me to.
So that was my first experience.

It wasn’t the best one, but I am glad that I have it to compare with my good experiences.

Speaking of networking...

That first research assistantship supervisor recommended me for another research project that would take place in Europe during the summer of 2002.

It was about inclusive practices in post-secondary education, only it wasn’t inclusive because my needs as a hard-of-hearing student were not accommodated.

More details regarding this project occur later in this chapter.

All you need to know is this:

The trip to Europe completed the first circle of unrewarding experiences and I broke the loop.
As I reflect upon my painting, aptly titled “Silence,” from across my living room, I can see why my sister wants to have the painting for her own living room in her new house. My mum has already told her that she can’t have it, but my sister never fails to mention it every time she visits. I am looking at it now and I can see that it really is one of my best paintings. I didn’t know it at the time, but beginning in January 1997, I began a new phase in my artwork. I began to see my artwork as a way to learn about myself and to express what I was feeling. I can see it so much more clearly now. The painting, “Silence” is good because it is meaningful to me. Even though I painted it 7 years ago, I can still feel the frustration, the anger, and that solid heaviness that I had inside me then as if I was experiencing it now. I was grappling with my identity as a woman, as an artist, and as a hard-of-hearing person. I had left home and I was no longer my parents’ daughter. And yet, I wasn’t Annabelle Grundy, the independent student who was away from home living a separate life either. It is evident in my painting that I felt that things would never change. But it seems that when you think that things will never change, they do and they do so before you’ve realized what has happened and how quickly time has passed.

I wrote in my art journal in and around January 1997:

*I want to use colours and texture to depict the heightened senses of touch and sight as well as, emotional fluctuations. I want to use shapes (squares and circles) to depict the enclosed, “trapped” sensations to silence, but also emphasize the infinity and timelessness of silence (respectively). I want the colours to change over time as new non-representational obstacles are introduced. The dark somber colours depict the solid heaviness of silence. Red depicts danger or fear or anger.*
The complementary colours are used in order to depict energy—undulating, vibrant energy. I want the viewer to "see" what is being heard by the deaf and hard-of-hearing person. I want to show people that seeing is also a very important element to hearing and that being able to understand what we are observing, we can clearly fill in the gaps of what our other senses might not be able to do.

I was torn. I was hard-of-hearing. Nobody at university understood me like they had at public school. Nobody wanted to know what I needed. I had to learn to advocate for myself. I had to learn quickly what I needed and how to get the things that I needed so that I could succeed. I can see that I was grappling with my need to be away from my family and immerse myself in my newfound freedom. And yet, I was still very dependent and connected with my family. I needed their support because I wasn’t getting it from my professors or my peers. I needed my parents’ advice as well as their resources and their unconditional love and support. I was naïve. I was protected and yet I learned a lot about life in that first year of university. More when I entered my second year. My family life and my university life were separate and yet wholly intertwined. It was a fine balance of push and pull. It was a balance that I finally recognized in my last year at McMaster University in the Honours Art program. I had to learn to speak up. I had to learn to let go of the silence that I had kept inside of me for so long. I was not being heard. Yet could I really hear myself until I opened up? My parents are a very important part of my life. It took me a while, but I finally started to understand who I was and that being independent didn’t mean being totally estranged from my family. Being independent came to mean
that I could make my own decisions, be responsible, and be confident about my values, ideas, and thoughts knowing that my family would respect my decisions and that any resistance from them came out of caring and not distrust.

What does it mean to be deaf, deafened, or hard-of-hearing? I can only answer the question from my perspective: What does it mean to me to be hard-of-hearing? I think I am a better person for it. My disability has strengthened some of my other abilities. I may not be able to hear, but I can certainly see and I can see better than most people. I can see the sounds, the colours, the energy of others. I believe that people have auras. I think that animals can see them. I know that I can sense them. I know when I have met a person who is sincere and one who is not. I can tell by the way people strike their feet on the ground while they are walking what kind of people they are. I can feel it somehow, in their vibrations. It is funny how a sound that is not significantly noticeable to someone else is very loud and reverberating for me. I am aware of my surroundings. I know what is around me all the time. I also see the people around me, and I glimpse the momentary lapses of their façades when they think that no one is watching. These are the times when I really wish I had a sketchbook handy or a photographic memory. I wish I could draw my thoughts now too. It is so hard to put into words what I am thinking or feeling or seeing. Being able to combine words with images really helps me to make sense of my thoughts and I think it helps readers to understand what I am thinking too.
Making Research Inclusive for Me and for Others

As a graduate student who has a hearing disability, I have had many opportunities to explore inclusive research practices during my research assistantships and my other research activities. One notable inclusive research method that I developed during my tenure as a graduate student was the participant-as-transcriptionist method. As indicated throughout this thesis, and my publication describing the participant-as-transcriptionist method (Grundy et al., 2003), this new method was successful in allowing me to acquire the transcripts I needed to conduct my interview-based research, but also in allowing me to retain my independence from third-party transcribers.

Inclusion is an important part of the philosophy that guides my learning, teaching, and research. My research learning experiences were not always positive and not always inclusive. I am learning from my experiences and I am committed to doing my part and helping others to make learning, teaching, and research inclusive for me and for others.

What is Inclusion?

The following passages describe a project that I was involved in that studied inclusive practices at the post-secondary level. It was a perspective-changing event in my academic career.

April 26, 2002

I have been thinking about the Inclusion Project a lot lately. I will be leaving in exactly 18 days and I feel very unsettled about how I am going to cope while I participate in this project.

The past few days, I have been trying to figure out how I am going to operate in foreign countries without the technological support and advocacy that I rely upon so much here in Ontario. I have been thinking about my needs as a hard-of-hearing person and the irony of my participation in an Inclusion Project where my needs have not been considered (without my speaking out). In fact, it seems that I am experiencing exclusion before I have even departed Toronto, as one question has not been asked of me: What do you need while participating in this project that will ensure your independence and your full inclusion?

I am concerned about my role in this Inclusion Project as I have not been informed of my duties as a graduate researcher. I only found out last Monday and in a subsequent email from my project leader what activities I may be engaged in. We even discussed some ideas of what types of data collection may be possible. My project leader suggested a focus group around a dinner table in a busy, noisy restaurant. How am I
supposed to cope in this type of situation? I will barely be able to hear the person beside me due to the noise and the fact that we will be eating. I cannot read lips while someone is eating. My question is: What research activities will I be expected to engage in that I can complete without dependence on others?

If I were the project leader and I were to make sure that my students were able to cope to the best of their abilities as independently of others as possible, I would ask each one of them what they needed.

Therefore, I am going to ask myself the question: What do I need while participating in this project that will ensure my independence and my full inclusion?

I need:

1. a portable flashing strobe fire alarm in case of a fire in the hotel rooms whereby my roommate may not be present to wake me up or warn me of a fire.

2. Back-up hearing devices such as an F. M. microphone and F.M. System in case mine are stolen or broken.

3. A notetaker as I cannot lip-read and take notes at the same time.

4. An alarm clock with a vibrating device to wake me up in the mornings when I may want to do research or take notes while my roommate sleeps.

This is not an exhaustive list. It doesn’t even include the research materials and preparations that I need to consider in order to conduct good research during the Inclusion Project independently of others.

It seems that the Inclusion Project is not about inclusion as I envision inclusion. Inclusion as I understand it from this project is one where people support others’
participation. This means that the needs that I have stated above will be addressed through my dependence on someone else. After talking with the project leader, the following list describes how my needs (as stated above) will be addressed:

1. I have been assured that the person I room with will wake me up in case of a fire. What happens if that person stays out half the night and is not present when a fire occurs? What happens if that person is sleeping so soundly that she doesn’t hear the alarm?

2. There has been no mention of back-up hearing equipment for me in case mine get stolen or lost or broken. If I don’t have my aids, this means that I will not be a full participant and that more measures will have to be taken to make sure that I hear without my hearing aids. This puts stress on everyone else, singles me out, and lowers my self-esteem. My independence and relationships with others may be marred by technological failures. I don’t care how nice the people are…. I know (from my past experiences) that when people are tired and can’t think straight, it’s difficult for them to make sure that I am included (and compensate for possible technological failures). People naturally feel irritated when I have to keep asking them to repeat answers and repeat what they have said.

3. I was told that one of the Brock students could take notes for me. Is that realistic? Do they take notes for me while we are in the midst of an activity? While we are talking at a restaurant and they are trying to eat their dinner? Are they getting paid for their services... because my note takers that are hired at Brock University do.
Although I didn’t ask about this, I assume that if my roommate will be waking me up in case of a fire alarm, that she will wake me up every morning as well because I can’t hear an alarm clock. What if I want to get up at 6am while she wants to get up at 7am? Does she have to wake up at 6am to wake me up? Is that fair? Is that inclusive when other roommates may not have to do this?

These are questions that I ask myself now before I go, and I wonder if it is worth it to go. I feel so stressed out at the moment and the departure date is still nearly three weeks away. Could I just tell my leader to choose someone else to go? Would that be irresponsible of me? I know the answer: I know it would be selfish of me not to go as it is an opportunity for me to explain to other people (people who are participating because they really WANT to be there) my difficulties so that any hard-of-hearing person who doesn’t have the confidence to state what they need will at least have a chance when they come into contact with the participants of this Inclusion Project. If it means that other hard-of-hearing people will benefit, I want to be there. I want to make a difference! I want to learn as much about the other participants and their stories as I hope they will learn from mine. But at what costs? Is it fair to ask others in the project to limit their freedoms because of my difficulties? Why do other participants have to put themselves out and take on the responsibilities of another’s life when technological assistive devices have been developed to help disabled people live more independently of others?

Is this project about moving forward? Or is it cementing the age-old practices of oppression where disabled people have to depend on able-bodied people for their
survival. I see this project not as a celebration of inclusion and independence, but as another form of oppression. I feel oppressed because I haven’t been heard.

First week of May

After much deliberation, I have made a decision. I have decided not to act as a research assistant in the Inclusion Project. My participation in the project will be strictly as a participant. I sought advice from a neutral party regarding the questions and concerns that I had about the Inclusion Project and was advised not to take on additional research work if I didn’t feel that I could cope. I feel relieved. I feel like a load has been lifted off my shoulders. I think I have made the right decision because I feel so much better about myself.

May 8, 2002

One thing that I have learned about myself is my need for independence in my personal and academic life. Although, I want to participate in academic projects and do well, and belong to the research community, I find that I do not want to change who I am to “fit in” when my hearing disability has not been taken into consideration. I do not want to make do with resources or “wing it” because others may not have the work ethic that I have. I want to do the best work that I can do utilizing all the resources available to me. I also want to know that when I have completed a project or an assignment that I have done the best I can do and that I can do it.

The other day, my research assistantship advisor, Trisha Dawson, commented on my need for independence and personal fulfillment. She noted that she saw that I
needed to complete projects independently so that I knew that I could complete them, for my own satisfaction. She is right. It may not be a tangible feeling or a concrete thought, but I know when my independence is being disregarded and that I am not being given the chance to be an independent thinker and achiever. I feel good about the tough decisions that I have had to make the last few weeks. I may have disappointed and even jeopardized my relationships with others, but I know that through the turmoil, I have remained true to my needs, to my identity, and to myself.
Journal: November 12, 2002

I haven’t written a journal reflection in a long time. I haven’t felt very comfortable writing my thoughts and feelings on paper since I returned from Europe in June. Perhaps, it was just burnout from the constant daily journal writing I did while participating in the Inclusion project. Or maybe writing just didn’t portray how I have felt the past 5 months.

That is not to say that I haven’t done any reflective storying. In fact, I have painted two canvasses. The latest painting is a diptych or rather one painting that covers two panels. This painting originates from a drawing that I completed during a seminar we attended at one of the universities we visited. I drew this picture because I couldn’t follow the discussion that was being translated by a translator who spoke broken English. The 2-hour discussion about inclusion was lost on me, so out of boredom and frustration I drew a picture of the event.

As part of the Inclusion Project, participants were required to write about and reflect upon the site visits we made. I wasn’t able to write a journal entry about the discussion that took place that day, so I submitted the original drawing instead. The past couple of months, I have been able to translate my visual experience into a finished piece that depicts the layers of disappointment and frustration that I felt on May 31, 2002.

The diptych is a flat and simplified version of the realistic drawing that I submitted to my project leader. In reality, three women plus the translator (who translated) gave a seminar. They sat at a long desk with a large, arched window in the background. The four figures couldn’t have been in a worse position for me to lip-read. The bright window in the background created a silhouetted effect upon the women’s
faces and I wasn’t able to lip-read them or the translator, hence the faceless shadows representing the figures. The yellow shape in the lower left corner represents an overhead projector resting on a table that, symbolically speaking, never shed light on the women’s faces.

I chose to represent the figures in a dark blue-purple colour. Purple is the complementary colour to yellow (which means that yellow and purple situated side-by-side create the effect of the two colours at their brightest hue). Metaphorically speaking, the bright yellow light that is made brighter by the purple becomes flat and meaningless just as the details of the event remain concealed.

In my mind, the positioning of the overhead projector across from the figures represents a gun (from my angle) shooting anger and frustrations at the figures lined up at the table. The set-up was modelled “in reverse” after a painting by Spanish painter Francisco Goya (1814) called *The Shootings of May Third 1808*. Although, it would seem that I was shooting them down with my “gun,” it is really the reverse: the presenters were shooting people like myself down with their talk about “theoretical” inclusion models. I thought it was fitting that a Spanish painting represented the frustration and loathing I felt because, in reality, I wanted to fire a gun of rebuttals at the people who talked about inclusive practices but did little to include disabled students who attended the session. The bright cheerful colours belie the darkness I felt that day.

It has been about 5 months since I returned from Europe. Initially, I felt that the Inclusion Project was negative, but as time goes on, I am beginning to recognize interesting signs that I didn’t see before. Could the Inclusion Project be a glaring aspect to the realities of the academy? When I spoke of the Inclusion Project to one of my
research assistantship co-researchers, it appeared so. It would seem that my trip had a name. It was a theoretical trip or rather a trip that was all theory and no practice.

I thought about that for a moment. Yes, I could say that my trip was very theoretical. It had been a theoretical trip about practice. My co-researcher added, “I know exactly what you are talking about, I have been on loads of those.”

“Oh.” All of a sudden, I was disappointed again. Not only has someone been on a “theoretical trip” similar to what I had described, they had been on more than one. I am disheartened. I have worked towards an academic career for so long and now I am not sure it is what I want to do. I know one thing: I don’t want to go on another “theoretical trip.”

The Pocket Oxford Dictionary describes a diptych as “a painting…on two boards…hinged so as to close like a book” (Sykes, 1978, p. 236). This is a fitting analogy, as I think after 5 months that I can finally close the book on my disappointing trip to Europe. I have decided that I am not going to let one bad experience ruin my outlook on research and education at Brock. I am going to move on. I am going to start a new chapter of my story as a researcher in training.

Goya, F. (Artist). (1814). *The Shootings of May Third 1808* [Oil painting on canvas].

Identity Development: Research Assistant to Co-Researcher

I created this black sculpture (five feet by five feet by six feet) in my final year of my undergraduate Honours Art program at McMaster University. It consisted of three components that were made to fit together in order to complete a multi-sided installation piece, incorporating three televisions and a looped video. The three components represented each member of my family with reference to age and gender from tallest to shortest. The tallest piece represented my father and the shortest represented myself. My mother is shown connected to me as I am still very reliant on her for support and guidance as a teacher and a mother. My sister was represented as the third tallest piece. Each angle of the piece is different, and depicts the diversity in character of every member of my biological family.

I included this sculpture in my chapter because I feel that it represents my identity development from a research assistant to a co-researcher. Over 2 years, I have established close working relationships with all the members of my research assistantship team. In some ways, the sculpture that represented my biological family could be dismantled and pieces added in a way to represent my current research team. As each member of my family has influenced my identity as a person, each member of my research team has influenced my growth as a researcher. Trisha Dawson, my research assistantship supervisor clearly describes how she felt my researcher identity had developed over time and how she helped nurture that process, during her interview:

I do think [Annabelle] feels like a researcher. I think she also feels like a student at the same time. I don't know whether she would say "I am a researcher," but I can really see some of the confidence and that sense that "Yes, she can do it." For
me, that's a big part of how I like to involve students, by allowing her to come in and be part of the team. Supporting her to be part of the team lets her see that she can be part of the team and she can do those things. So not just be an assistant to the project but be a key member of the team and also be able to take that away in her thesis work and in this other sideline research project on participant-as-transcriber. So I think her emergent experiences in all of those ways allow her to see for herself some of the evidence of her progress or development.

When I first joined this research assistantship team, I was just finishing up my first "not so great" research assistantship contract. Although, I still didn't have much research experience after doing my first assistantship, I felt excitement at the prospect of working on a new project that was at the beginning stages of the research process. I felt confident about my role as a research assistant in my second research assistantship because I knew Trisha from taking a course with her in my first term in the M.Ed. program. I had established a working relationship with her in ways that she knew the way I worked and I knew that she had knowledge regarding the difficulties that I have as a hard-of-hearing person. I basically had a good sense of what to expect in terms of research learning and involvement in the research development because I knew that Trisha would take my needs and interests into consideration and she knew that I would do the best work that I could.

Over time, my role as a research assistant has changed from being an assistant doing research to a co-researcher working on a team. My contribution as a team member and participant has evolved where I have learned about research and the research process, but in doing so I have also helped my co-researchers to understand my difficulties as a
hard-of-hearing person in ways that have been very beneficial to the project. So, where my co-researchers have influenced my research learning and researcher identity development, I think that I have also influenced the way that my co-researchers identify with me and with others. I feel that the way that everyone includes each team member as a valuable contributor of knowledge and experience works in congruence with my views of inclusion. I feel like I belong. I feel that I am being heard. And, I definitely feel like a researcher.
Figure 5. A top-view model representing research assistants’ research learning and researcher identity development over time and as a collective.
Figure 6. A side-view model representing research assistants' research learning and researcher identity development over time and as a collective.
The previous four chapters described the individual stories of each participant using a narrative inquiry approach (Clandinin & Connelly, 2000; Creswell, 2002). Chapter 8 provides a broader explanation of research learning and researcher identity development for all the participants using an emergent qualitative research design emphasizing the constant comparative method, grounded coding, and grounded analysis (Creswell, 2002; Freeman, 1998). Figures 5 and 6 are two views of a visual model representing the research assistants’ research learning and researcher identity development over time and as a collective in this research study.

I chose an emergent grounded analysis (Creswell, 2002) for two reasons. First, I wanted to investigate the overall similarities and differences between the participants’ research learning experiences and researcher identity development within a Faculty of Education. Second, I wanted to initiate discussion regarding research assistantships and their viability as valuable research learning sites for graduate students. Please note that the examples I use to illustrate the points of interest throughout this chapter are not exhaustive. This chapter is intended to complement the individual stories that were presented in Chapters 4-7 of this thesis and provide the reader with an overall examination of the research learning and researcher identity development process that occurs during a research assistantship over time.

There are 4 participants involved in this chapter analysis: Ellen Starr, Laura Reid, Claire Johnson, and myself (Annabelle Grundy). The following seven paragraphs outline the stages of my cross-case analysis.
Coding

First, I acquired a set of themes for each participant using the constant comparative method as described by Merriam (2001) to make connections among data, categories, and themes. I also used memoing and category development to inform my analysis techniques (Creswell, 1998; Freeman, 1998).

Second, for each participant's case, I created a separate written list of themes unique to each participant. Then I combined the separate lists of participant themes and identified the themes that were most commonly represented across all participants.

Third, in chart form, I re-assembled the single list of participant themes in the order of most common to least common, referring to my notes and, again, using the constant comparative method.

Fourth, as the chart changed and evolved, themes were clumped together and then separated again according to content of categories until a final selection emerged. (See Appendix B for the final list of themes that emerged.) I was somewhat alarmed at the longer than anticipated list of themes, but I felt that I had thoroughly collapsed as many categories as I could without altering the uniqueness of each participant's learning experience in this process.

Fifth, I began to fill in the cross case chart cells with characteristics for each participant using data from the transcripts and categories. In doing so, I noticed a repetition of ideas that prompted me to separate the themes into two categories: those that were most common to the participants and those that were least common. In Appendix C, the reader will notice that I made this distinction by labeling the top half of Appendix C as CHART A: COMMON THEMES and the bottom half of Appendix C as CHART B:
INDIVIDUAL THEMES. Chart A houses the broader themes that are common to all or most of the participants. Chart B shows themes that were most prevalent to individual participants.

Sixth, I began filling the theme boxes of each participant in Chart A using the individual themes from Chart B, as well as code words from the categories, and transcript data. Slowly, ideas began to emerge regarding the individual themes that were initially found for only certain participants. I recognized that the individual themes that seemed quite prevalent for some participants were also relevant as characteristics for other participants. As indicated in Appendix D, individual themes were appropriately collated and listed under each common theme and labeled details that represented participants in all or most of the common themes listed. Overall, 10 common themes were identified that represented most of the participants’ learning experiences.

After much deliberation and a few false starts on my chapter writing, I finally concluded, with the help of my advisor that additional information from Appendix D needed to be reorganized. The final step in the evolving chart development of the cross-case analysis common themes was a two-part procedure. The first part entailed refining the information to effectively convey the overall research learning and research identity development process of the participants. Table 3 is the final culmination of this refinement whereby a new column representing Major themes was added to the left side of the chart, and the common themes column was renamed Minor themes.
### Table 3
Cross – Case Analysis Chart

<table>
<thead>
<tr>
<th>MAJOR THEMES</th>
<th>MINOR THEMES DETAILS</th>
<th>ELLEN</th>
<th>LAURA</th>
<th>CLAIRE</th>
<th>ANNABELLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE/ BENEFITS</td>
<td>FINANCIAL</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>LEARNING BY DOING</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>MAKING CONNECTIONS</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>POSITIVE BENEFITS</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RELATIONSHIPS</td>
<td>COLLABORATIVE GROUP WORK</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>COLLABORATIVE ONE-ON-ONE WORK</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>AUTONOMY</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>RA LEARNING</td>
<td>TASKS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TASK-ORIENTED VS. SELF-DEVELOP.</td>
<td>X + X</td>
<td>X + X</td>
<td>X + X</td>
<td>X + X</td>
<td></td>
</tr>
<tr>
<td>GROUP VS. INDIVIDUAL WORK</td>
<td>X + X</td>
<td>X + X</td>
<td>X</td>
<td>X + X</td>
<td></td>
</tr>
<tr>
<td>REWARDING VS. UNREWARDING EXP.</td>
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<td>X + X</td>
<td>X</td>
<td>X + X</td>
<td></td>
</tr>
<tr>
<td>SKILLS:</td>
<td>TIME MANAGEMENT</td>
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<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>RESEARCH METHODS</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>TECHNOLOGICAL TOOLS</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>LEARNING PROCESS:</td>
<td>CHANGING SELF</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>MAKING CONNECTIONS</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEARNING &amp; IMPROVING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REFLECTING</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHANGING PERSPECTIVES</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEARNING OVER TIME</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOGNIZING TRANSPARENCY</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>KNOWLEDGE:</td>
<td>PAST EXPERIENCES</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>SELF-KNOWING</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>IDENTITY</td>
<td>SOCIALIZATION</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IDENTITY OVER TIME</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>MEANINGFUL WORK</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>CONFIDENCE &amp; SELF-ESTEEM</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BELONGING TO A COMMUNITY</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
The second part of this procedure involved the development of a visual model based on Table 3. Figures 5 and 6 are two views of a visual model that represents the research assistants' research learning and researcher identity development process over time and as a collective in this research study.

Figure 5 is made up of a series of differently coloured rings surrounding a circle centred in a grey ring. The overall effect is reminiscent of a cross-section of a tree whereby a tree trunk has been cut to expose the inner rings. On a tree, the movement of growth is from the centre outwards. In this diagram, the movement is intended to begin at the outer rings and move inwards. If you scan the labels from top to bottom in Table 3, you will notice that the major themes and minor themes are presented in the same sequence as the model's labels in Figure 5 (from outside inwards). Figure 6 shows the visual model from a side view, which displays the rings as interconnected in such a way as to mimic, a "springy" platform. The movement in this diagram is from the bottom to the top and once again the labels in the diagram correlate with the sequence of themes in Table 3. If you can imagine the rings moving in a circular motion, a spiral effect is created. The purpose of showing the top and side-views of the model is to convey that research learning and researcher identity development were dynamic, continuous, interlinking, and overlapping experiences for the participants in this study. I will discuss the significance of the visual model and describe the different aspects in more detail throughout the rest of this chapter.

As you read the subsequent prose, some pointers may help you in exploring the major themes and minor themes of this chapter. First of all, remember that the four major themes are the overarching concepts that emerged in this study and that the minor themes
and the details (in Table 3) indicate the particulars of research learning and researcher identity development. I invite you to refer to Figures 5 and 6 as you read through the chapter in order to get a sense of the progress and movement over time that occurred for the participants of this study as they learned about research and developed identities as researchers.

Second, although they appear to be distinct areas of interest in the charts (Appendixes B, C, D, and Table 3), the following major themes and minor themes are invariably interconnected in the research learning and researcher identity development of the participants (as indicated in the individual stories of each participant). This means that some overlap may occur throughout the ensuing discussion. For example, meaningful RA experiences (a Learning detail) frequently generate feelings of increased confidence and higher self-esteem in learners (both Identity details) as they work on their research assistantship responsibilities. As indicated, when I discuss the major theme of RA Learning, I may make reference to minor themes and details that form a later part of the overall discussion. Again, reviewing Figures 5 and 6 will help you understand visually the interconnections between research learning and researcher identity development.

Finally, keep the following research questions in mind as you read: What research learning experiences do current students have as research assistants in the Faculty of Education at Brock University? How do the experiences of research assistants contribute to the formation of a researcher identity and influence future research plans?
Pallas (2001) argues that "the preparation of educational researchers in research-intensive universities largely takes place within local communities of research practice that are smaller than the faculty of a particular school of education" (p. 6). The participants of this thesis study engaged in research assistantships within the Faculty of Education at Brock University, thereby gaining access to local research communities of practice. The following text details the major themes and minor themes that emerged in my analysis of each participant's experiences over time and as a collective during their research assistantship activities at Brock University.

**Purpose and Benefits**

In Figures 5 and 6, the large grey loop forms the frame or structure for the whole model. The grey loop is labeled *Purpose and Benefits* with black arrows linking the two ideas. The movement from *Purpose* to *Benefits or Benefits* to *Purpose* is to simultaneously convey the beginning and the end of a research assistantship contract, where participants' reasons for doing research assistantships change over time.

In Figure 6, you will notice that two grey lines connect the lower grey loop to the upper grey loop and signify time. These two lines also connect the *Purpose* to *Benefits* and *Benefits* to *Purpose* located in the lower and upper grey loops. This movement over time indicates the progression of learning and is intended to convey how the *Purpose* for doing a research assistantship relates to the *Benefits* that are derived from doing the research assistantship. In short, the reader should know two things: (a) the *purpose* of (or
reasons for) participating in a research assistantship varied from participant to participant, and (b) the benefits of participating in a research assistantship also varied from participant to participant.

Brown-Wright et al. (1997) state that “one of the major purposes of graduate education is to develop research and other professional skills among graduate students and to assist them in becoming socialized into the academic culture” (p. 410). For the participants in this study, the purpose or reasons for choosing to engage in a research assistantship were mixed. For Laura and Claire, financial considerations were cited as foremost reasons for doing a research assistantship but both women also recognized that they would most likely learn valuable skills during their research assistantship, which was an additional incentive. Although financial incentive wasn’t Ellen’s major motivation for doing a research assistantship, Ellen said:

[the research assistantship] is actually, in some ways, a training ground for, not for just doing a dissertation or a research thesis, but what you’ll eventually need to do. So, actually, they’re paying you to develop the skills that you’re going to need to have anyway, is how I look at it. (interview transcript)

Ellen’s sentiments are echoed in Takata and Leiting’s (1987) research findings. They concluded that “providing students with ‘hands on’ research experience is extremely valuable,” and that “such an approach provides students with firsthand knowledge of the various research methods and techniques employed by sociologists and other social scientists” (p. 145).

It is clear that all the participants in this study wanted to, not only put into practice their theoretical knowledge about research from past experiences or from required
research methods courses, but also learn about the research process by doing research. Bunch’s (1995) research suggests that there are many ways to learn the discourse of a certain discipline, but that collaborative activities such as assistantships and working on research projects afford opportunities for collaboration and “the opportunity to learn the research process by doing it” (p. 14). For myself taking on a research assistantship was an opportunity to compensate for the difficulties that I have as a hard-of-hearing student. My hearing disability presents challenges for me to participate in traditional classroom discussions, so participating in a research assistantship allowed me to reinforce the things I learned in class. As I mentioned in my interview:

I learn best by doing. I knew that before I came to Brock, and I knew that I wanted to do a RAship because I don’t glean much information from my class discussions. In order to understand research, I knew I needed to start doing research activities, collaboratively in groups, and working one-on-one with people, and talking about it. (interview transcript)

Making connections during the research learning process was something that occurred often for Ellen, Laura, Claire, and I. For Ellen, making connections occurred on different levels: physically, emotionally, spiritually, intellectually, and technologically. Because Ellen had not participated in a research assistantship prior to attending Brock, Ellen tried to make sense of her research learning by drawing from her past experiences. This meant much reflection and coming to terms with past and present experiences in order to fully participate in and engage in the process of learning. As Takata and Leiting (1987) state, “Students are asked to grapple with ‘real world’ issues such as the politics of research, the power games in the community, ethical dilemmas in the workplace,
personnel and people problems, and so forth” (p. 145). For Ellen, this meant re-visited these “real world” issues in the past to connect them to the present.

For Laura and myself, the physical presence of being at the university and participating in the university environment and at research sites on a daily basis presented us with the opportunities to “make connections” with other students, faculty members, staff, and our research participants. As Laura states,

I’m so glad [I am a research assistant]. I think being a RA really involves you in the university and the process of research. If I wasn’t a RA, I think I would feel very removed from the school because it gives you a real sense of connectedness or connection with the whole university environment. (interview transcript)

All participants mentioned that they had or were having positive and worthwhile research assistantship experiences, overall. Claire mentioned that being a RA gave her experience in preparation for her own thesis and project work and that she learned much from her research assistantship supervisor. For Laura, being a research assistant has contributed to her overall experience as a graduate student at Brock University.

**Relationships**

*Relationships* are represented as a large red and black circle in Figures 5 and 6. Figure 5 shows the large red circle as an all-encompassing shape that encircles the inner rings. In Figure 6, the large red circle acts as the base from which the inner rings move and spiral. The importance of relationships in a research assistantship are that they form the basis for *RA Learning* to occur. Before, a student becomes a research assistant, he or she has to establish relationships with faculty members in some way. This might occur
during coursework, at faculty and student meetings, or through connections with other people. Once students begin their tenure as research assistants, the large red circle begins to move in a circular motion signifying the ongoing relationship-building that occurs throughout the research assistantship.

Forming relationships with others appears to be an important aspect of research learning and researcher identity development for the participants of this study. All the participants in this thesis study had collaborative relationships or felt a sense of collegiality with peers, co-researchers, and supervisors during their research assistantships.

The overall theme Relationships includes three details: (a) collaborative group work, (b) one-on-one work, and (c) autonomy. These three details are important elements to discuss in terms of research learning and researcher identity development because they allude to the multiplicity of interactions that can occur during a research assistantship.

In their study, Cummings et al. (1997) found that students involved in collaborative research efforts reported mostly positive and some negative experiences with working as a research team. Overall, the participants in my thesis study reported positive collaborative research experiences (and occasional negative experiences) in one-on-one relationships and larger collaborative groups.

In her research assistantship, Ellen Starr described that collaborative group work had multiple implications for her that were positive and changed her view of collaborative teamwork. For Ellen, past collaborative group work used to mean disconnectedness, lack of communication, and lack of trust, but now after working as a research assistant, collaborative teamwork has new meaning. It means to belong, to
exchange information, to learn from other people, to provide and receive ongoing feedback, to listen deeply, to reflect, to make connections, and to trust. Although she was distrustful and disbelieving at first, Ellen has slowly established close working relationships with her co-researchers and has learned to open up and share her thoughts and eventually her written work. Learning to trust and feel safe within her small research community has helped reshape Ellen’s view of collaborative team research and helped her to feel like an equal and valued member of the team.

Miller and Stephens (1998) found that expanding their collaborative supervisor and research assistant relationships beyond the professional realm helped them to create mutual trust in their collaborative research activities: an outcome which they felt was an important component of their dynamic reciprocal relationship. For Laura and I, relationship-building activities such as chatting in the car to and from research sites; having mealtimes or coffee-breaks together; or even stopping to talk in the hallway in between classes with our supervisors, peers, and colleagues made positive collaborative research learning experiences enjoyable and meaningful.

While Claire was learning how to code data using qualitative research analysis software, ongoing communication and feedback with her supervisor aided Claire in her learning and contributed to her researcher identity development. Following a “cognitive apprenticeship” process that Mackeracher (1996) describes as a process where learners can perform skills under supervision, Claire and her supervisor, Donna Knowles, collaboratively downloaded, organized, and coded data so that Claire could eventually perform her new skills autonomously. For example, when Claire was learning how to code data in a qualitative research analysis software program, the following learning
steps occurred: (a) Donna modeled the coding skill that Claire needed to learn, (b) Claire tried to approximate the coding skill by doing it with Donna observing, (c) Claire tried the coding skill alone, in a safe but realistic environment with Donna watching and Claire verbalizing her thinking when she had troubles, and (d) Claire coded on her own with little supervision and assumed responsibility for requesting assistance if the coding skill performance was not working (Mackeracher, 1996).

Although Claire’s research assistantship work was autonomous in nature, the content of the research allowed Claire to develop a unique relationship with the project data, which focused on the learning process of students. During her research assistantship work, Claire gained much insight into her learning process and her identity as a researcher while she simultaneously read the reflections of her “electronic acquaintances” and learned how to conduct research analyses.

Takata and Leiting (1987) suggest that “the concept of teamwork is something that is rarely experienced at the university, and yet, it is very much a part of the working world” (p. 148). My study confirms that research assistantships are a valuable resource to learn, not only authentic “working world” research activities, but to learn how to work collaboratively in groups, to work collaboratively one-on-one, and to work autonomously as valued members of communities of practice.

RA Learning

In Figures 5 and 6, RA Learning is represented as four differently coloured rings. Figure 5 shows the differently coloured rings as overlapping shapes that get subsequently smaller as they near the centre of the diagram. In Figure 6, the differently coloured rings
are connected at left and right edges mimicking a spring or spiral. The importance of RA Learning in a research assistantship is that it forms the basis for researcher identity development. Before, the research assistants began to establish researcher identities, they learned about research by doing research tasks. While the research assistants mastered the skills of conducting research tasks and interacted with other researchers, they began to learn about the research process. In doing so, the research assistants constructed a knowledge base for building identities as researchers.

For the participants in this study, learning about research during a research assistantship appears to have been a multifaceted process. RA learning is a major theme that I attribute to the process of learning about research. Under this broad theme of RA Learning, I identified four minor themes: (a) Tasks, (b) Skills, (c) Learning Process, and (d) Knowledge. The following passages discuss these four minor themes as the individual components of the whole RA Learning process in terms of research learning and researcher identity development.

Tasks. During our interviews, all 4 participants discussed RA tasks upon which they had worked or were working as research assistants. As a collective, the overall tasks that the participants engaged in included: (a) data collection such as literature searching, interviewing, taking observations, transcribing interview tapes, and downloading data into qualitative analysis software; (b) administrative tasks such as photocopying, administering questionnaires, developing database libraries, and developing project management structures; (c) analysis tasks such as coding, grounded analyses, narrative analyses, and pictorial analyses; and (d) writing-related tasks such as editing papers, journal writing, and co-writing papers for publication. The above list of RA tasks is
numerous and varied and not to be understood as isolated events or activities. These tasks varied along three dimensions: (a) task-oriented versus self-development oriented, (b) group work versus individual work, and (c) rewarding versus unrewarding experiences.

All the participants experienced RA tasks that were either task-oriented or self-development oriented. Ellen, Laura, Claire, and I defined task-oriented activities as tasks that required skills and knowledge, but often did not require creativity or sustained intellectual thinking. Also, the supervisor usually assigned task-oriented activities to their research assistants with specific results or goals in mind. For example, Ellen was asked by her research assistant supervisor to conduct a literature search on a broad topic of interest as part of an initiative to see what kinds of information were available. With some initial meetings to discuss scope and goals, Ellen used the information from the meetings to guide her literature searches in electronic databases that she had not used previously. She utilized the skills and knowledge she gained from past literature searches to navigate through the new electronic databases. This activity required Ellen to listen carefully to instructions, and to use some creative thinking to guide her in her RA tasks.

On the opposite end of the spectrum are self-development oriented tasks, which were defined by Ellen, Laura, Claire, and I as RA tasks that required creative thinking and initiative on the research assistant’s part. Usually, the supervisor loosely assigned these tasks to their research assistants to allow them the freedom to construct meanings regarding the research and to contribute to the overall outcomes or shape of the research project. For example, in my own research assistantship, I was asked to write narratives about my experiences as an aspiring academic as part of the research project data
collection. Because of my artistic background, I was encouraged to include creative artworks as part of my narrative because the project allowed for that freedom.

It should be noted that a task identified as “task-oriented” by one participant might have been considered a “self-development oriented” task by another participant depending on the participant, the learning situation, and the supervisor.

RA tasks included both group work and individual work. Group work is defined as a task or set of tasks that were completed in a group of three or more research assistants or co-researchers. Individual work is defined as research assistantship work that was completed single-handedly.

In terms of group-related research tasks, Claire was the only one who did not experience group work. The other participants experienced group work in ways that meant working side-by-side on tasks with three or more research assistants or co-researchers and working on group tasks individually. For example, Laura experienced group work at research sites where she and her fellow co-researchers worked together on large group data-collection tasks distributing questionnaires and interviewing participants. The completion of this group task often required working side-by-side and individually.

Ellen engaged in self-reflective poetry writing as part of her research assistantship where group work was completed individually. The task of writing poetry was part of group research exercise in her research team where each member would contribute poetry for inclusion in a conference presentation.

All participants engaged in individual research tasks that required no collaboration or consultation with other researchers or larger group task initiatives. These
tasks included photocopying, conducting a literature review, conducting observations, or writing journal entries.

As indicated in Table 3, all participants found their learning experiences doing most research tasks or activities to be rewarding. Laura and I were the only participants that specifically identified some research tasks as unrewarding. However, regardless of whether a task was interesting or mundane, rewarding or unrewarding, it was quite clear that each participant tried to find value in her learning activities. This is consistent with the theories of adult learning and motivation. Wlodkowski (1990) explains that an adult learner may not necessarily find a learning activity to be pleasurable or exciting but that he or she will take the learning activity seriously and try to “get the intended benefit from it” so that it is a worthwhile and meaningful experience (p. 100).

All participants were able to derive some meaning or worth from both rewarding and unrewarding tasks. However, having meaningful RA experiences appears to be a direct effect of rewarding experiences and held a higher level of importance for Laura and me in the RA learning process. Wlodkowski (1990) proposes “adults feel much better [about learning] when they are successfully learning something they want to learn as well as something they value” (p. 100).

During our interview, Laura mentioned that she enjoyed editing Melissa’s papers because she felt like she was learning something valuable and that she was contributing to Melissa’s research. As Laura said,

Occasionally [Melissa] would have me edit a paper for her, so I would just go through and look for errors or give suggestions for how it could improve. I liked
doing the editing because I felt like I was part of the research process and that I had a little more input. (interview transcript)

I felt that my learning experiences were most meaningful when my research assistantship supervisor took the time during meetings and collaborative work to answer my questions and concerns. Together, my supervisor and I worked on making the research process more inclusive for me as a disabled research assistant so that I could be productive, but also derive as much meaning from the research process as possible. Although all participants derived meaning from their RA experiences, it was clear that meaningful learning was a particularly important aspect for Laura and me.

Skills. The RAs described skills related to: (a) time management, (b) research methods, and (c) technological tools. Ellen, Laura, and Claire described time management as large parts of their work as research assistants. Ellen provided me with a time management chart she created that included managing her research assistantship activities along with her day-to-day personal and professional activities. This chart included her predictions for the number of hours required to complete allotted research assistantship tasks in connection with the number of hours she had been contracted to work. Over time, Ellen used the charts to help her in her future time management planning. Laura and Claire also talked about how they managed their time during research assistantship activities and balanced their time outside their research assistantships. Claire discussed how she constantly re-arranged her schedule to fit in research assistantship tasks using due dates for completion markers.

Learning about research involves actively participating in the methods of conducting research at all or different stages of the research process. Each participant
identified specific research skills (e.g., interviewing skills, literature searching skills, coding skills) that she had acquired in order to fulfill her RA obligations. These skills were often taught through cognitive apprenticeship processes and refined while participants engaged in the research. The trial-and-error process usually required participants to exercise good judgment to aid them in their RA tasks.

Like in Takata and Leiting’s (1987) study, “it was difficult for some students to realize that often there were no absolute right or wrong answers, but that the answers depended upon which avenue was selected and why... They [the students] had to take responsibility for their decisions and actions” (p. 147). Ellen found it challenging navigating through new databases to conduct the requested literature review. Using a trial-and-error approach, Ellen made sense of her journey through the databases by documenting her decisions based upon the information provided by her supervisor at meetings, knowing that she would need to justify her approach to her supervisor.

For Laura, interviewing participants in her data collection required her skills in anticipating what participants would say and her skills in thinking quickly on her feet. Using a trial-and-error process, Laura reflected upon and learned from her interviewing approach to improve her interviewing skills.

All participants in this study actively used or learned to use technological tools in their research assistantships. Brown, Collins, and Duguid (1989) state:

People who use tools actively rather than just acquire them... build an increasingly rich implicit understanding of the world in which they use the tools and of the tools themselves. The understanding, both of the world and of the tool, continually changes as a result of their interaction. (p. 33)
The understanding that the participants acquired while using or learning about technological tools in their research assistantship activities was paramount. For Claire, learning to use qualitative research analysis software meant learning a new way of analyzing qualitative data. Ellen, who had heard of EndNote bibliographic software but had not used it before her research assistantship, learned the value of building and storing her references for future use in her own research work.

Learning Process. The participants described eight important aspects of the learning process: (a) changing self, (b) making connections, (c) learning and improving, (d) experiencing meaningful RA work, (e) reflecting, (f) changing perspectives, (g) learning over time, and (h) recognizing transparency. These aspects are important because they illustrate how the research assistantship became the venue for the ongoing interconnection of research activities, interactions, and new ways of thinking for the participants in this study.

Change is an important aspect of Ellen's story because it was the ensuing dynamic in nearly all aspects of her research learning process. Learning about research in a research assistantship became a constant inward and outward learning dynamic where she discovered something about herself, inwardly, while she participated in research activities with others, outwardly. Leonard (1968) states: “To learn is to change. Education is a process that changes the learner” (as cited in Takata & Leiting, 1987, p. 149). This was true for Ellen as she refocused, re-negotiated, and re-connected her inner and outer self through her learning as a research assistant.

Making connections was an important aspect of both Claire and Ellen's research learning. For Ellen, making connections was a way to understand how past experiences
fit in with current experiences as a research assistant. For example, in our interviews, Ellen made references to several dichotomous “disconnects” she felt in her previous experiences as a learner such as (a) the disconnections between theory and fact, (b) the disconnections between theory and practice, and (c) the disconnections between her head and her heart. Making connections was the symbolic metaphor of her change as a person and as a learner: physically, intellectually, and emotionally. As a research assistant, connections between theory and fact, theory and practice, and her head and her heart were made.

Similarly, Claire experienced some of the connections that Ellen did. Cumming et al. (1997) report findings that suggest that graduate students thought “their participation in [a] research project afforded them various opportunities to make links directly between this ongoing research and their graduate courses and theses” (p. 430). In our interview conversation, Claire conveyed that her research assistantship provided her with the opportunity to put the theoretical knowledge that she gained in her research methods courses to use and allowed her to learn the practice side of research learning.

For Laura, learning interviewing skills, developing interviewing techniques, and improving upon them were important aspects of the research learning process. Laura found interviewing to be a difficult skill to develop, but over time and with practice, she improved. In turn, improving upon a difficult skill meant Laura felt confidence and a boost in self-esteem.

Ellen and Laura discussed how reflecting was a frequent and significant aspect of their research learning process. Reflecting was a way for Ellen to understand herself as an aspiring researcher and reflect upon her current learning as it related to her past
experiences. For Ellen, reflection also became a form of therapy or renewal as she wrote journal entries and shared her personal narratives. Laura also used a daily journal to reflect upon her research assistantship experiences. Laura shared her journal with her supervisor in order to gain more insight and feedback about her research learning process.

All the participants indicated that their perspectives changed over time. I designed this research study hoping that the interview sessions would be useful reflective activities and spaces for the participants to share their knowledge and to be “heard,” so that others could benefit from the participants’ experiences. During the interview process, I couldn’t help but notice that there was at least one instance where each participant (myself included) uttered the words, “I never thought of that…” This aspect of the interviews was significant because it justifies the need for graduate students (including research assistants) to have space to talk and to develop their research language by sharing their research learning experiences as researchers and practitioners. Talking about our research learning experiences during the interviews not only helped us to reflect on our moments of realization but also provided us with a chance to share our perspective changes as students and as researchers. In Takata and Leiting’s (1987) study, the supervisor of a major study had expressed pleasure about witnessing the research learning experiences of her students: “It was exciting for the students to reach the many levels of understanding as their metamorphosis continued throughout the project. Moments of realization were especially welcomed” (p. 147).

Learning over time was an aspect to the RA learning process that presented itself as a way to discuss how Ellen and I learned about research over a period of time and how we advanced our understanding of the research process. Although, all the participants
learned about research over a period of time, the others worked on shorter contracts than
the ones that Ellen and I worked on. Winn (1995) suggests that students derive the
greatest potential gains when they can participate in a research project “from its early
stages to its conclusion” (p. 7). This statement is applicable to the two of us because we
both began research assistantships at the beginning stages of a research project. Our
participation in these projects is ongoing, so neither of us could discuss the completion
stages of these projects.

Ellen alluded to time in her learning as a building block of multi-layered
meanings and interactions. Over time, Ellen has not only simultaneously learned new
tasks, new skills, and new knowledge about the research process, but also about herself as
a researcher as she interacts with her co-researchers and reflects upon her past and current
learning experiences. In my research assistantships, learning over time, meant actual time
and support to practice research learning as a disabled person. Working on a project from
beginning through to completion has provided me and will provide me with a broader
understanding and a clearer sense of transparency regarding the research process as a
whole. Transparency is defined by Lave and Wenger (1991) in the following quotation:

Transparency in its simplest form may just imply that the inner workings of an
artifact are available for the learner’s inspection: The black box can be opened, it
can become a “glass box.” But there is more to understanding the use and
significance of an artifact: Knowledge within a community of practice and ways
of perceiving and manipulating objects characteristic of community practices are
encoded in artifacts in ways that can be more or less revealing. (p. 102)
Recognizing transparency appeared to be a significant aspect of the research learning process for Laura, Claire, and me. For Laura, learning about the publication process didn’t actually involve writing a full paper and submitting it to a journal. Laura learned through legitimate peripheral activities such as researching journal submission information, editing papers for her research assistantship supervisor, writing letters to editors, and discussing the process in detail with her RA supervisor. Roth and McGinn (1998) propose that when students are trying to learn “to write papers, chapters, articles for publication, or grant applications” that students should “begin with more manageable tasks such as editing, commenting and critiquing. Later, they take on increasing responsibility for producing manuscript drafts” (p. 227). In Laura’s case, the tasks were manageable and enlightening at the same time.

Claire and I learned about the research process by observing our supervisors and other researchers, by actually doing the research, and by discussing the process with our supervisors. Cumming et al. (1997) reported how one student described the learning process as being one where “the [research] steps became clear” and one where that student “became more conscious of the whole process of the research, from designing to reporting” (p. 428). For Claire and me, the mixture of peripheral and full participation in many stages of the research process allowed us, as research assistants and co-researchers, to interact with participants and other researchers, allowing us to understand how smaller research components fit into a whole research plan.

Knowledge. The participants described past knowledge and self-knowledge. Throughout their individual stories, the participants revealed that they relied upon their past knowledge as they learned about the research process and developed their identities
as researchers. Past experiences were a significant aspect of the research learning process for Ellen, Laura, Claire, and me. Mackeracher (1996) suggests that prior life experiences are used by adult learners as a way to “develop a personal model of reality which includes both meanings and value (constructs and concepts) to make sense of past experience, impute sense to current experience, and predict future experience” (p. 33). As suggested by Mackeracher (1996), Ellen contemplated her experiences as a researcher, collaborator, teacher, and learner by considering similar and successful learning experiences in her past work, including her interactions with other people, and how she structured her time to complete research projects and applied these personal management skills to current experiences as a research assistant.

For Claire, Laura, and me, our past experiences doing research directed our current research learning as research assistants. Claire reflected on her previous research experiences working on community projects in her home country. Laura built on her well-established research-learning journey, which began in her undergraduate program. I reflected on my previous research attempts during my undergraduate degree and thought about what did and did not work for my peers and me, in order to inform my learning in my research assistantship.

Self-knowing appeared to be a key aspect of research learning for all participants except Claire. Self-knowing is an important part of RA learning because the act of doing research seemed to translate into a sense of awareness or knowing about self during the research learning process. Laura knows that she is naturally a shy person and that she has to work hard at being an active participant in social activities. By working as a research assistant, Laura was able to learn about research as well as work on overcoming her
shyness in social situations. In my case, self-knowing meant knowing my limitations as a disabled person and learning about the research process and what I would need to consider while working as a research assistant. Working through difficulties with my supervisor and building awareness helped me to learn about research in a way that allowed me to be a full participant in the research process and helped me to establish my identity as a researcher.

Identity

If you look at Figures 5 and 6, you will notice that *Identity* is represented as the small red and white circle. Figure 5 shows the small red circle as the central entity within the differently coloured rings. In Figure 6, the small red circle appears to be hovering just above the topmost coloured ring (Knowledge). The importance of *Identity* in a research assistantship is that it signifies the full participation of a research assistant in a research community of practice. You will notice that the small red and white circle has a red outline that mimics the red outline of the large red and black circle. The colour red signifies a reflection of the social learning that has occurred over time. The white centre of the small circle is different from the black centre of the large circle to signify that, although a research assistant belongs to a community of practice, he or she still retains a sense of individuality within that community.

McGinn, Dunstan, and Faulkner (2001) suggest that graduate students “begin to develop identities as practitioners” when they have “opportunities to engage in authentic [research] tasks” (p. 1). Negotiating an identity during a research assistantship appeared to be an important and ongoing feature of research learning and researcher identity
development for the participants of this study. Some participants stated that they felt like a researcher while working as research assistants. Other participants identified themselves as researchers during the interview conversations. Participants who didn’t identify themselves as researchers, showed evidence of identity formation while discussing their learning during the interview conversations and through my observations.

For the participants of this study: (a) socialization, (b) identity over time, (c) meaningful work, (d) confidence and self-esteem, (e) belonging to community, and (f) language, indicated the complexities of negotiating an identity while learning about research as a research assistant in one or more research communities.

Socialization appeared to be an important aspect of researcher identity development for all participants. Each participant made reference to the fact that in order to learn about research, she needed to participate and get involved in research with other researchers. The research assistantship allowed each participant a venue for learning about research in a realistic and practical way. Brown et al. (1989) propose a model of enculturation or socialization that seems to support the participants’ views on how they needed to become socialized:

The activities of many communities are unfathomable, unless they are viewed from within the culture. The culture and the use of a tool act together to determine the way practitioners see the world; and the way the world appears to them determines the culture’s understanding of the world and of the tools. To learn to use tools as practitioners use them, a student, like an apprentice, must enter that community and its culture (p. 33).
For Laura, who would like to pursue post-graduate work, participating in a research assistantship meant she could learn about the culture of being a professor, and get involved working with faculty. Even though socializing was a difficult activity for Laura, she participated as much as she could in order to gain entry into the university culture and involve herself in the process of learning about research.

For Ellen, reflecting on past experiences to inform her current and future research assistantship activities formed the basis for socialization into her current research assistantship communities and eventually her identity as a researcher.

For Claire and me, socialization meant learning the tools and the culture of the research upon which we were working. Our researcher identity formation emerged through the “doing” of research and working alongside our supervisors and other researchers.

In addition to “doing” research and working alongside other researchers, Wenger (1998) proposes that building an identity over time “consists of negotiating the meanings of our experiences of membership in social communities” and “includes our ability and our inability to shape the meanings that define our communities and our forms of belonging” (p. 145). Although, all participants showed evidence of building an identity over time in the individual narratives of Chapters 4-7, I was the only participant that seemed to have grounded evidence suggesting the importance of time in researcher identity development. For me, developing an identity as a researcher, over time, was directly related to meaningful research assistantship activities. I shared the following thoughts in one of my interviews:
I always try to put my best into everything that I do. However, I’ve noticed from the two RAships that I’ve done, that the one that was task-oriented didn’t mean very much to me even though it was very time-consuming work. When it was done, it was done. In the other RAship, the work is also time-consuming but everything I do becomes meaningful. I want to put meaning into it because I am getting so much out of it. I find my best learning experiences as an RA have been the ones that have required the most out of me intellectually and creatively.

(interview transcript)

As indicated in the previous quote, meaningful work is a factor in my researcher identity development. Ellen and Laura similarly discussed the importance of meaningful work to their researcher identity development. For Ellen, being a researcher and feeling like a researcher were two different things. Doing meaningful research assistantship work has allowed Ellen the freedom to reflect upon her past experiences doing research and allowed her the opportunity to rejoice in feeling like a researcher. In her research assistantship work, Ellen has been able to establish a researcher identity that feels more like her true self. For Laura and me, doing meaningful work meant having the opportunity to do work that wasn’t just task-oriented research activities, but also involved activities that allowed for intellectual stimulation and creativity.

The combination of confidence and self-esteem appeared to be a factor in the development of a researcher identity for Laura, Claire, and me. During our interview, Laura indicated that when she edited her supervisor’s papers, she felt that she was learning something worthwhile and contributing to the research process, which made her feel positive about herself and feel like a capable research assistant and a co-researcher.
In their study, Takata and Leiting (1987) reported that “students were confident about their presentation because they had become well versed in every aspect of the project” (p. 149). Over time, Claire’s confidence with the qualitative analysis research software and the coding tasks increased as she worked alongside her supportive supervisor.

For me, the role of confidence and self-esteem in developing my identity as researcher came from two perspectives. From one perspective, I felt increased confidence and self-esteem through my RA work, but in another way, I had the pleasure of acting as a mentor and knowledgeable old-timer to a new research assistant who joined my research team. By acting as a mentor to the newcomer, I shared my knowledge of the research project, but also the culture of the small research community, thus strengthening my identity as a researcher.

Wenger (1998) proposes that learning is a process of social participation where “we learn and so become who we are” by engaging in social practice (p. i). Belonging to a community of practice seemed to be an important aspect that emerged for Ellen and me in our research learning process and researcher identity development.

Ellen enjoyed her past experiences doing research projects for her community and workplace, but the environment in which she worked was enveloped in organizational chaos, negative feelings, and limited interactions. In this pessimistic environment, Ellen did do research, but did not feel like a researcher. Wenger’s (1998) notion that “we learn and so become who we are” by engaging in social practice (p. i) became quite real for Ellen as she worked as a research assistant in a safe, meaningful, and mutually beneficial environment. Ellen discussed how belonging on the research team made her feel like an equal and valued member of her research community. In a similar way, I also
experienced feeling like a researcher and a valued member of my research community during my research assistantship.

For all the participants, having the opportunity to meet as a research team or with other researchers to discuss research and research learning was as crucial to our research learning and identity development as doing the research. In their study, Bunch (1995) reports,

One of the most important things [the] students came to recognize was the conversational nature of the discourse they were attempting to learn. The opportunities they had to experience the conversation were critical to their development...and a defining characteristic of their graduate experience. (p. 12)

For all participants, attending regular research assistantship meetings or annual conferences provided not only venues to talk about research, but also instilled a sense of identity as researchers belonging to research communities.

Cummings et al. (1997) reported that “the graduate students thought their participation in the research project has helped them to develop more profound conceptualizations of educational theory than they had previously held” (p. 430). For Laura, understanding the “theoretical” language of the research she was working on was as important as learning the research language because she was able to understand and participate in theoretical research-related discussions.

Conclusions

The purpose of this chapter was to explore the kinds of research learning and researcher identity development that occurred over time for the participants in this study
based on the themes that emerged during my grounded analysis. Using the visual model in Figures 5 and 6 as a sequence throughout, I discussed the overall similarities and differences between the participants’ research learning experiences and their researcher identity development within a Faculty of Education. I also tried to initiate discussion regarding the viability of research assistantships as valuable research-learning sites for graduate students by using selected examples throughout the chapter from my analysis.

I hope that this chapter complemented the individual stories that were presented in Chapters 4-7 of this thesis, and provided readers with an overall examination of the research learning and researcher identity development process that occurs during a research assistantship over time.
The aim of this thesis was to investigate and describe the research learning experiences of 4 research assistants who participated in one or more research assistantships in the Faculty of Education at Brock University. Using a qualitative collective case study (Merriam, 2001; Stake, 2000), I discovered what the research assistants learned while engaged in their research assistantships and explored how their different experiences shaped their identities as new researchers.

The following chapter is divided into four headings to review the assortment of information that I revealed through my thesis research. Under the first heading, Research Learning and Identity Development: Two Central Questions, I review the two research questions I posed at the beginning of the thesis and discuss what I learned from my participants regarding research learning and identity development. Under the second heading, Research Learning and Researcher Identity Development of 4 Research Assistants, I provide a summary of the individual participant’s cases and each participant’s research learning and researcher identity development as a research assistant. Under the third heading, Methodological Features of the Study, I review the methods that I used in the thesis research and how those methods contributed to the outcomes of this study. Under the concluding heading, Final Thoughts, I discuss the limitations of my study and provide the reader with suggestions to consider in response to the limitations. Additionally, I discuss the theoretical implications as a result of this study and outline recommendations for specific groups involved in research assistant development. Lastly, I pose possibilities or questions for future research.
Research Learning and Identity Development: Two Central Questions

What Research Learning Experiences do Current Students Have as Research Assistants in the Faculty of Education at Brock University?

The research learning experiences of the participants were numerous and varied. All participants held more than one research assistantship and acquired research experience in more than one research setting. Participants were able to reflect upon and compare research learning experiences across research assistantships.

Utilizing past learning experiences to inform current research learning and research practices in the projects was a common practice for all the participants as they worked on research assistantship tasks. The tasks that participants were asked to work on included data collection tasks, administrative tasks, and writing-related tasks. While conducting their research tasks, each participant acquired a selection of research skills related to time management, research methods, and technological tool use.

Each participant gained valuable knowledge of the research process through her work as a research assistant. In particular, participants learned about research through trial and error, through reflection, and through observing their research assistantship supervisors. All participants improved their research skills and techniques by practicing research and through the continuous feedback that they received from their research assistantship supervisors.

Learning to work collaboratively with others and establishing relationships were important aspects of the overall research learning experience of each participant. All the
participants realized and appreciated the benefits of participating in a research assistantship regardless of their initial reasons for deciding to become research assistants.

How do the Experiences of Research Assistants Contribute to the Formation of a Researcher Identity and Influence Future Research Plans?

Participants reported that working on meaningful research tasks in small communities of practice contributed to their well being as research assistants and contributed to their identities as researchers. Specifically, each person described her research learning in terms of how meaningful the experiences were. In other words, doing meaningful research translated into increased confidence and higher self-esteem for each participant and ultimately contributed to her identity as a capable researcher.

Belonging to a research team provided the research assistants with a community in which to learn and practice their newly acquired research language. Also, working in small research communities provided the participants with opportunities to become socialized where they learned social, political, and economic norms of the research process. I mentioned, during one of my interviews, that being a mentor to a new member (or newcomer) in my research community contributed to my overall research identity development.

Each participant learned about herself as a person, student, and researcher throughout the research learning and identity development process. Overall, being a research assistant was a positively enlightening and rewarding learning experience for the 4 participants of this thesis study.
Research Learning and Researcher Identity Development of 4 Research Assistants

Because I was interested in exploring the individual experiences of research assistants, this research design used a collective case study format as described by Stake (2000) and Merriam (2001). My research design provided a separate case study for each participant RA, including me. This format allowed me to discuss each participant’s research learning and identity development as a research assistant at Brock University, as summarized below.

**Ellen.** Ellen Starr’s research learning and identity development process proved to be one of transition and renewal. By reflecting upon her past experiences as a researcher and practitioner, Ellen was able to make sense of her current learning experiences as a research assistant. Ellen’s research assistantship provided her with an opportunity for deep reflection and communication in a mutually supportive and trusting environment: an environment that was lacking in her previous experiences and one that altered her view about collaborative research team work.

I used narrative poetry to represent Ellen’s story as a way to try to capture the sense of transition and renewal in Ellen’s learning. Ellen used narrative poetry in her research assistantship work as a way to make sense of her past experiences and to inform her current practices as a researcher. I felt that using poetry in my representation of Ellen’s research learning and researcher identity development made sense especially in capturing Ellen’s insightfulness and eloquence during our interviews.

**Laura.** Laura Reid’s research learning and identity development process was diverse and enlightening. The fact that Laura had so many research assistantship contracts meant that she had occasions to reflect and compare her learning experiences in
terms of meaningfulness and mutual benefits. Laura’s keen attention to detail, methodical ways of approaching tasks, and determination to improve her research learning skills, demonstrated that she was becoming a confident and capable researcher.

I used a newsletter format to represent Laura’s story as a way to capture the clear, concise, and logical way in which Laura described her learning during our interviews. Laura had many research assistantship experiences and anecdotes to share regarding her research learning and researcher identity development, and I felt that the newsletter format allowed me the space and layout to include the variety in Laura’s experiences without compromising the meaning of her experiences.

**Claire.** Claire Johnson’s research learning and identity development process was a mixed process of acquiring research skills and understanding the research process from the perspective of an international student. Socializing and interacting with other students and researchers was difficult for Claire, so developing her researcher identity was a process that occurred predominantly while working alongside her research assistant supervisor. Additionally, the technological focus of her research assistantship allowed Claire opportunities to engage in the content of the research, reading the reflections of other students’ learning processes to inform her own learning. As a result, Claire learned about her learning through the research process and furthered her understanding of Canadian research culture.

I used a website format to represent Claire’s story as a way to capture technological aspects of Claire’s learning. Figure 3 depicts the learning arrangement of Claire’s research assistantship and forms the basis of the website homepage. I felt that by engaging readers as active storytellers in Claire’s story development that readers would
appreciate the parallels of using technology as a learning tool as Claire did. Also, readers would better understand that Claire learned about research using technology, but also learned about herself as a learner and a student by understanding the content of research in the form of electronic reflections.

*Annabelle.* My research learning and identity development process occurred from my perspective as an artist with a hearing disability. Research methods that rely on hearing limit my abilities to conduct certain research tasks in a traditional manner. Fortunately, many of my research assistantship activities capitalized on my strengths and allowed me the space and flexibility to exercise alternate ways of conducting research that were meaningful for me and contributed to my emerging identity as a capable researcher.

I used the linear electronic storyboard presentation format because I wanted to be able to continue the momentum of the previous three participant chapters by including elements of poetry, journal style writing, and recipes, but also include visual forms such as photographs of my past and current artworks. By using a linear storyboard, I was able to suggest the passage of time as a series of events that are interactive and built upon previous events or previous experiences. The movements across time and situation were easily created through hyperlinks to detailed written passages, and through the use of colours and differently arranged text. I felt that using electronic media in my representation of my research learning and researcher identity development made sense because I am an avid technological enthusiast, an artist, a hard-of-hearing person who uses technology to hear better, and a research assistant who uses technology to learn about research.
The skills and confidence that I developed as a research assistant made this thesis research possible. For instance, the practice I had using arts-based representational forms in my research assistantships gave me the confidence to include different representational forms in my thesis. Additionally, the participant-as-transcriptionist method that I developed and practiced in earlier research projects (Grundy et al., 2003) allowed me to the opportunity to use this method with my thesis participants. As discussed in the next section, the inclusion of arts-based and participant-as-transcriptionist methods in my thesis work helped me to capitalize on my strengths and circumvent my weaknesses.

Methodological Features of the Study

In this section, I highlight the use of alternate methods in my thesis research and discuss some of the ethical complexities that I encountered throughout my thesis research from the research design phase to completion.

Arts-Based Representations in the Research to Depict the Participants’ Research Learning and Researcher Identity Development Journeys

I used arts-based representations as a way to visually translate the connections that I had made in my narrative analysis and to tap into my creative artistic abilities. By carefully composing diagrams and models, I created a visual means to discuss my participants’ research learning processes and the interconnections inherent in each participant’s learning and researcher identity development. I found that by creating visual representations, I could not only make sense of large amounts of data, but also look at the data from multiple viewpoints.
Mullen (2000) suggests that too much “alternative” engagement in arts-based and literary approaches can pose problems for new researchers. She repeats Eisner’s (1997, as cited in Mullen, 2000) words of warning that “when the terrain is new, we need context [so] that we are not substituting novelty and cleverness for substance” (p. 11). I think these words of caution are worth noting because I made a careful attempt to include my artistic visions without jeopardizing the validity of my research. As an artist, I believe that it is impossible to create a convincing abstract work if I can’t create a literal visual representation of an idea or thing. In my thesis, I followed a similar process where I ensured that my narratives were as clearly written and as complete as I could make them before I introduced visual interpretations of my narratives. This process worked well for me because it not only allowed me the opportunity to conduct research following an established analysis approach, but it also allowed me the opportunity to make further connections in my writing through my art making.

I feel that my artistic creations are viable representations because the context for creating the diagrams and models was the narrative analysis that I conducted. By creating visual representations, I wanted to show and tell my readers what my participants learned by allowing readers opportunities to experience the self-reflective learning that my participants experienced. For example, I included a CD-Rom with Claire’s website so that readers could have opportunities to view research learning as Claire did while working at a computer. I formatted Laura’s chapter as a pullout newsletter so that readers would have opportunities to read Laura’s story in a way that was enjoyable and suited their reading style. I believe that by creating visual representations, I have captured my
readers’ attention in a way that invites them to engage with the information that I have discovered about my participants.

*Participant-as-Transcriptionist Method*

The participant-as-transcriptionist method (Grundy et al., 2003) proved to be a mixed blessing in this research study. I really appreciated the benefits that my participants and I gained through this process of obtaining a transcript. When my participants transcribed the interview tapes, I received transcripts that were personally approved by the participants and eliminated the added step of checking accuracy of the transcripts against interview tapes: a task that I cannot do because of my hearing disability. Through the transcription process, my participants had opportunities to reflect upon their learning experiences and amend their responses, if needed, which I think contributed to an overall sense of accomplishment and positive self-esteem for the participants. Also, my participants benefited from the monetary compensation that transcribing the interview tapes allowed.

A limitation of the participant-as-transcriptionist process was the time involved in acquiring a transcript from the participants. Because my participants were busy students and research assistants, the turn-around time in obtaining transcripts was sometimes lengthy. In some cases, I didn’t receive a transcript until a month after the interviews took place. This not only prolonged my research completion date, but it also required that I write very detailed post-interview journal notes in order to inform my analysis of the transcripts when I eventually received them.
The participant-as-transcriptionist method was an effective method for acquiring transcripts from my participants because when I had finished interviewing my participants, I could hand them the interview tapes to be transcribed. When I received the transcripts, I paid my participants for their services using a bursary account, which is money set aside by the university to pay for disability-related costs. However, when I needed to collect interview data for my participation as a participant in this study, I had to make decisions about how I would approach the data collection. I decided to hire someone to interview me and my research assistantship supervisor because (a) I didn’t think it was appropriate for me to interview my supervisor and (b) because I wanted to make sure that the data I collected for all the participants consistently followed a pre-planned interview schedule.

In the process of hiring an interviewer, I also needed to find a transcriptionist to transcribe the interview tapes. It just so happened that my interviewer was willing to transcribe the tapes as well as conduct the interviews with my supervisor and I. However, this working arrangement became temporarily confusing for me in terms of paying my interviewer for her interviewing services and for her transcription services. After a brief conversation with my supervisor, it became clear to me that hiring an interviewer to interview my supervisor and I was a methodological decision and not a decision related to my hearing disability. Therefore, I decided to pay my interviewer-transcriptionist for her interviewing services from my pocket and pay for her transcription services from the bursary account. After I spoke with my interviewer-transcriptionist about payment for her services, she decided that she didn’t want to be paid for interviewing but that it was a favour for which I could repay her in kind at a later date. This scenario is a good example
of the kinds of decisions that I needed to consider in the development of my research plan and data collection. The following section describes some ethical complexities I faced while conducting my thesis research and the decisions I had to make, which were not unlike the scenario I just described.

_Ethical Complexities of Conducting the Thesis Research_

The ethical complexities of conducting a research study like this one involved many considerations such as careful planning, confidentiality issues, payment of participants for transcription services, and time-consuming records of research-related activities.

It is worth repeating here that a written request and consent form asking my participants to act as transcribers was _not_ presented to the participants until the second interviews took place. This meant that the monetary compensation for transcription services could not be considered "undue enticement" and could not affect participants' decisions to participate in my research.

The reimbursement of my participants for their transcription services required managing a disability bursary fund on behalf of the financial aid office at Brock University to pay for the services that I needed. Accounting for and distributing the funds to my participants required the additional tasks of creating consent forms, maintaining a balance for transactions, and creating receipts to be signed by the participants for submission to the financial office at Brock. Also, organizing the distribution of transcription equipment, tapes, and recording devices required careful planning and the assistance of my thesis supervisor.
I knew before I conducted this research study, that I would be dependent on others to help me complete tasks that required being able to hear. The complexities of involving my participants in the production of transcripts, as well as having them as my participants, further cemented my dependency on them to relate their stories accurately and to produce quality transcripts in order that I could complete my work on time.

The member checking process also presented an additional challenge in terms of making sure that information that participants shared during the interviews remained confidential. Through trial and error, I recognized that, although my participants’ supervisors were also participants in this study, I needed to be careful in heeding the requests of my participants so that information not intended to be read by their supervisors remained confidential. This required an additional member checking step where I received feedback from my participants first and then their consent to proceed with sending the written manuscripts to their supervisor for a member check. In instances where power imbalances exist in research assistant and supervisor relationships, careful attention needs to be paid in order to avoid disturbing power balances or making power imbalances worse.

Final Thoughts

Thesis Study Limitations

There were some limitations in this study. In particular, selecting participants who were willing to share their experiences was challenging with such a small participant pool in the Faculty of Education at Brock University. Finding participants that would most inform the field added to this difficulty, as did finding participants who represented
variety of backgrounds and perspectives (according to degree completion stage, race, age, differently-abled bodies, and research interests). The participant pool was limited to those who chose to participate and who were available during the period of time that I collected data (December 2002 – June 2003 with periodic participant contact in the Fall 2003 and Winter 2004 terms).

One recommendation that I have in terms of selecting participants is to create a participant profile to inform participant selection choices (see Table 1). With this information, it is possible to recruit administrators, family, friends, and colleagues to assist in acquiring a heterogeneous participant sample.

The biggest limitation with regards to collecting data in this thesis was time. The time frame to collect data was limited to the availability of participant activities at any given time. For example, one participant had just finished a research assistantship contract when I interviewed her and wouldn't be beginning a new one in time for me to observe her in her chosen observation site. The time frame for collecting data limited me to the participants' activities and supervisors that were available at the time of the interviews.

In terms of the participant-as-transcriptionist method, a lot of time was required to accommodate participants' busy schedules in the transcription of the interview tapes and in the acquisition of transcripts following the interview. I recommend that anyone who wishes to use the participant-as-transcriptionist method accounts for the extra time needed to acquire transcripts from participants.

Limitations in terms of using the participant-as-transcriptionist method with inexperienced participants not only meant that the quality of some transcripts may have
been compromised, but I also lacked the “transcription” experience to advise my participants on proper transcription practices, due to my hearing disability. I found that I could assist my participant-transcriptionists in other ways such as providing them with the opportunity and flexibility to amend the transcripts and explaining to them how to set up and use the transcription equipment. I encouraged my participants to make changes to the transcript as they felt appropriate in order that I receive the most complete record of their experiences.

Participants who did not speak English as a first language may have had additional challenges in transcribing interview tapes in terms of accurately “correcting” the language of the transcripts and accurately representing the actions of the interaction recorded on the tape (such as laughing, sneezing, pausing in sentences, and so on).

I recommend that researchers who have participants who are willing to transcribe tapes take the time to explain the transcription process and assist participants in acquiring and using the transcription equipment to create the transcripts.

Theoretical Advances

This research allowed me to apply and extend the notions of participation in communities of practice and identity with respect to research assistants’ learning experiences through the use of a case study format (Merriam, 2001; Stake, 2000) and through the application of Wenger’s notion of communities of practice (Lave & Wenger, 1991; Wenger, 1998).

Participation in Communities of Practice. Lave and Wenger’s (1991) notions of legitimate peripheral participation helped me to understand how the each research
assistant participant learned about research in this thesis research. For example, Lave and Wenger (1991) suggest that newcomers who partially participate in a community of practice have an opportunity to gain “access to sources for understanding through growing involvement” in that community (p. 37). The participants in this study learned about the research process through their involvement in many research tasks that allowed them to work individually and negotiate meanings alongside experienced researchers, such as their research assistantship supervisors or other research team members, to acquire the skills and knowledge they needed to conduct thorough research.

Identity. For the participants in this study, there was clear relationship between participating in research learning activities and developing researcher identities. Lave and Wenger’s (1991) assumption that “engagement in social practice [was] the fundamental process by which we learn and so become who we are” (p. 1) was clearly articulated by the participants in this study who stated that they felt like researchers when they were working alongside their research assistantship supervisors and when they were doing research with other researchers. Wenger (1998) suggests that “our identity includes our ability to and our inability to shape the meanings that define our communities and our forms of belonging” (p. 145). Based on the results of this study, it seemed that participants who felt they were meaningfully contributing to their research projects identified themselves as researchers and seemed to exhibit increased confidence and feelings of belonging to their research communities.

Using a case study format (Merriam, 2001; Stake, 2000), I was able to explore the unique characteristics of each participant’s research learning experiences and learn how my participants’ learning contributed to their identities as researchers. It was evident that
research assistants who worked on more than one research assistantship contract had the added advantage of being able to compare research learning experiences, as well as belong to more than one research community. Based on the results of this study, it appears that research assistantships are a viable and complementary site for students to learn about research. For the participants of this study, the most beneficial and meaningful research learning experiences occurred when they worked on research assistantship tasks that engaged them intellectually and allowed them to contribute significantly to the research process, thereby increasing their confidence and self-esteem.

Recommendations

Using a case study format (Merriam, 2001; Stake, 2000) and Lave and Wenger’s (1991) theories greatly contributed to my understanding of the research learning experiences and identity development of my participants and helped me to create the following three sets of recommendations for consideration by students, faculty members, and departments who develop policies.

Recommendations for students. Based on the results of this study, four recommendations can be made. First, I recommend that students establish a way to communicate with their supervisors while working on research assignments such as through email correspondence or regularly scheduled meetings. Second, I recommend that students advocate and communicate their learning and development goals to their research assistantship supervisors so that their supervisors can think about ways to coordinate tasks that contribute to the students’ development as researchers. Third, I recommend that research assistants take any opportunities to participate in activities
related to the research project such as attending conferences and writing papers for publication. Finally, students should also be aware that doing menial tasks, such as photocopying and running errands, are a necessary part of the research process, but should not comprise a whole research assistantship contract. I recommend that research assistants ask their supervisors ahead of time what will be expected of them while working on research assignments. If co-writing papers is a research assistantship task, students should ask their supervisors how their contributions will be recognized and know ahead of time what their intellectual rights are as student researchers.

Recommendations for faculty members. Based upon the results of this study, it is clear that research assistantship supervisors who showed an interest in their research assistant’s research learning and identity development greatly contributed to the research assistant’s well-being and self-esteem. I recommend that faculty members take the extra time to engage students in a balanced variety of research tasks that illustrate the complexities of the research process, including knowledge-building activities, along with some of the menial tasks involved in conducting research. Also, introducing the ways that technology can be used in research is a valuable means for students to learn about research because access to technology and resources outside the classroom are limited. I recommend that faculty members hold regularly scheduled meetings with their research assistants to give them opportunities to ask questions and discuss issues that arise during the research learning process. Additionally, providing research assistants with an office space or a working space to work on the research with other research assistants is very helpful. I think that if faculty members can contribute to the student’s skills, self-efficacy,
and interest that they will be rewarded with students who are concerned with doing a good job as research assistants and students who want to continue to learn about research.

Recommendations for departments and for policy development. Based on the results of this study, several recommendations can be made for departments in developing policies that encourage research training and development of their students. First, I recommend that policies be created that encourage faculty to participate in the research training of students. Guidelines outlining the types of research activities in which students could participate should be made available to faculty members who create and allocate research assistantship responsibilities. Opportunities to encourage students and faculty members to interact and share research interests at small social functions and mini-conferences should be planned on a regular basis. Also, students, faculty members, and staff should participate in the development of policies governing research learning and research development to the benefit of all parties. Second, I recommend that spaces, such as graduate student offices and lounges, be established for students to work on their research assistantship tasks, as well as interact with other students. These spaces offer students opportunities to meet other students and opportunities to share information and practice research language development. Students should also have access to technological tools and other research learning opportunities such as mini-conferences, seminars, and workshops. Third, departments should consider cross-department research assistantships where students work on specific tasks or projects whereby their contributions from a student’s perspective could enrich the project content, but also allow students to network and learn about research outside their department or faculty. For example, a student could be invited to serve on the Research Ethics Board to help process
applications for ethics clearance, or to serve on adjudication committees to help evaluate research proposals to ensure that substantive contributions to research training are incorporated in all funded research projects.

**Future Research**

The information that the participants shared regarding their research learning and researcher identity development offers a look at how research assistants acquire experience regarding the research learning process, not only by participating in their research assistantships, but also through their reflections during the interviews. My request for participants’ transcription services had the additional advantage of inviting participants to learn about the transcription process through participation in my study.

This study provides a springboard for further discussion and further questions in relation to research learning and the research process of research assistants and research participants. For instance, how are the transcription styles of several participant-transcriptionists similar or different in terms of translating their stories from interview tape to paper? What insights and ideas do research assistants bring to the research process when they transcribe interview tapes in the role of participant rather than interviewer? How does researcher knowledge differ from participant knowledge in terms of the transcription process?

Additionally, this study also provides a context to inform future research development in other case studies of research assistants or broader surveys that investigate research assistantship learning, thus complementing the narrative details presented in this research.
I intended this thesis to be a resource for current and future research assistants who can learn from the research assistant experiences presented in the research. I hope that faculty members who hire research assistants to assist them with their research will benefit from reading about research assistants’ learning experiences from the research assistant’s perspective. I also hope the information provided in this thesis document will be a resource to inform future policies and research training initiatives in faculty departments and offices at universities. Finally, I hope that this thesis informs researchers (experienced and inexperienced) about how to conduct research in ways that benefit all parties and provide insight into potential ways to improve research assistantship practices.

I have learned much about the research learning and research identity development process from my participants and their research assistant supervisors. I have also learned that research assistants are not just a cheap labour pool for faculty members and that research assistantships are not just a quick funding source for students. I believe my study demonstrates that research assistantships are important and viable site for students to learn about research and develop their identities as researchers.
REFERENCES

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http://www.stanford.edu/~arnetha/expowrite/info.html


Goya, F. (Artist). (1814). *The Shootings of May Third 1808* [Oil painting on canvas].


Appendix A: Brock University Ethics Board Approval

Brock University
Senate Research Ethics Board  Extensions 3943/3035, Room AS 302

DATE: November 29, 2002

FROM: Joe Engemann, Chair
Senate Research Ethics Board (REB)

TO: Michelle McGinn, Education
Annabelle Grundy

FILE: 02-089, Grundy

TITLE: Being a research assistant: Research learning experiences and researcher identity development during a research assistantship

The Brock University Research Ethics Board has reviewed the above research proposal.

DECISION: Accepted as is. However, please make the following two revisions to your consent form and forward the final copy to our office for filing:

- Provide further detail about the observation procedures on the informed consent form (particularly the difference between active and passive observations).
- Include a statement to remind participants to keep one copy of the Informed Consent form for their own records.

This project has been approved for the period of November 29, 2002 to August 30, 2003 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The approval may be extended upon request. The study may now proceed.

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and approved by the REB. The Board must approve any modifications before they can be implemented. If you wish to modify your research project, please refer to www.BrockU.CA/researchservices/forms.html to complete the appropriate form REB-03 (2001) Request for Clearance of a Revision or Modification to an Ongoing Application.
Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and approvals of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council. Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects, with the exception of undergraduate projects, upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form


Please quote your REB file number on all future correspondence.
Appendix B: Evolving Cross-Case Analysis Chart – Stage 1

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<td>Learning and Improvement</td>
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Appendix C: Evolving Cross-Case Analysis Chart – Stage 2

### CHART A: COMMON THEMES:

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### CHART B: INDIVIDUAL THEMES:

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### Appendix D: Evolving Cross-Case Analysis Chart – Stage 3

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Laura Reid's Research Learner
Researcher Identity Development

The inset picture is a visual representation of Laura Reid's research learning journey as a Research Assistant over time. The diagram is intended to remain an abstract representation of Laura Reid's learning and is subject to multiple interpretations. However, there are a few elements in the diagram that can be interpreted as real-life representations of Laura's learning and may help the viewer to understand the newsletter layout of this chapter.

From a literal perspective, the two large grey curves represent Laura's arms crossed over her chest cradling the shapes as if holding them to her. Notice that the red circle is located on Laura's left upper body where her heart is. In