Mentorship within Doctoral Research Assistantships: A Canadian Case Study

Prof. Ewelina K. Niemczyk

North-West University, South Africa

This article explores research assistantship (RAship) experiences of doctoral students in one program in a Faculty of Education at a Canadian university in the province of Ontario during a specific period of time. Doctoral students' development as researchers is a key objective in higher education institutions nationwide. RAships provide opportunities in which doctoral students can be mentored and nurtured as future researchers. However, few scholars have investigated mentoring relationships within doctoral RAships, which are rooted in research assistants' (RAs') lived experiences. Data for this case study were drawn from personal interviews with six doctoral students and complemented by the voices of five research supervisors and two administrators. Findings show that although RAships offer the potential for mentorship, not all RAships involve mentoring relationships. Some of the uncovered relationships between RAs and their supervisors were positive while some seemed exploitative. Results indicate that, to various degrees, research supervisors control the experiences to which RAs are exposed. Given the results of this research, more comprehensive studies are needed to identify how research supervisors might engage more effectively in inherently unequal collaborations with RAs.

Cet article porte sur les expériences de doctorants travaillant comme assistants à la recherche dans un programme de la faculté d'éducation d'une université canadienne dans la province de l'Ontario pendant une période déterminée. Partout au Canada, les établissements d'études supérieures ont comme objectif majeur de développer leurs doctorants en chercheurs. Les postes d'assistants à la recherche offrent à ces étudiants un encadrement et un mentorat qui les soutiennent alors qu'ils sont en voie de devenir chercheurs. Toutefois, peu de recherches se sont penchées sur les expériences des doctorants dans la relation de mentorat découlant des postes d'assistants à la recherche. Les données de cette étude de cas proviennent d'entrevues personnelles auprès de six doctorants, et de contributions de la part de cinq directeurs de recherche et deux administrateurs. Les résultats indiquent que si les postes d'assistants à la recherche offrent la possibilité d'une relation de mentorat, cette relation n'est pas présente dans tous les postes. Certaines des relations entre les assistants à la recherche et les doctorants se sont avérées positives alors que d'autres semblaient abusives. Les résultats indiquent que les directeurs de recherche contrôlent, à divers degrés, les expériences auxquelles sont exposées les assistants à la recherche. Compte tenu de ces résultats, il serait important d'entreprendre des études plus approfondies pour identifier les façons dont les superviseurs pourraient mieux s'engager dans des collaborations, qui sont inégales à la base, avec les assistants à la recherche.

Governments' commitment to enhance research and development creates expectations with regards to graduate education. Increasingly, graduate education worldwide is expected to

prepare highly skilled researchers capable of engaging in the diversified global research environment (Niemczyk, 2018). McWey, Henderson, and Piercy (2006) argued that research development in graduate programs encompasses more than research methods courses and completion of a thesis; it also involves graduate students' participation in educational opportunities that connect and apply theoretical content to research practice. Such educational opportunities may arise in research assistantships (RAships), during which time students can become involved in diverse components of research under mentorship of experienced researchers.

Mentoring the next generation of researchers is fundamental to an innovative, successful, and well-educated society. Researchers are leaders who are competent and able to think critically, communicate effectively, and implement ideas productively. Competent researchers are needed to face the social changes and challenges of today and tomorrow. Nicolas (2008) described doctoral students as future creators of knowledge and stated that such "researchers-in-the-making are by far the most important 'vehicles' for the transfer of university research to society" (p. 10). To that end, RAships are educational venues designed to provide practical space for research assistants (RAs) to acquire research competencies while assisting faculty members with their research projects.

Existing literature indicates that research partners—scholars, students, institutions, and funding agencies alike—recognize the importance of mutually beneficial outcomes when graduate students work as RAs (Grundy, 2004; McGinn, Niemczyk, & Saudelli, 2013; Moore, Scarduzio, Plump, & Geist-Martin, 2013; Rossouw & Niemczyk, 2013). RAs working alongside research supervisors on research projects may participate in diverse research tasks, ranging from designing a study and applying for ethical clearance to writing reports and presenting at conferences. The development of skill sets through these activities facilitates the acquisition of knowledge that in turn supports RAs' graduate studies and development of their identity as researchers. As articulated by Lee and Roth (2003), "becoming more fully engaged and becoming an expert are two sides of the same coin" (para. 11). Mentoring relationships may develop between RAs and research supervisors engaged in RAships, which can benefit both parties.

The limited literature related to RAships pertains largely to studies from the United States, Australia, the United Kingdom, and Canada. Researchers across disciplines recognize that RAships have been a neglected area in research education (Edwards, 2009; Hutchinson & Moran, 2005; Molony & Hammett, 2007; Turner, 2010). Published literature is composed mainly of papers related to (a) benefits of hiring RAs and becoming RAs, (b) supervisory relationships between RAs and professors, and (c) challenges within RAships. A small collection of writings, however, is rooted in the lived experiences of RAs. Turner (2010) accurately asserted that "a key partner in the research process has been rendered invisible and effectively silenced" (p. 206). In order to bring RAs' voices to the fore, this study explored doctoral student RAs' experiences of mentorship (or lack of it) and sought to provide recommendations to enhance mentoring practices in RAships within and beyond the program under investigation. The findings along with recommendations are meant to be informative rather than generalized.

In the following text I will first clarify some of the key terms used in this article. Second, I provide a brief overview of existing literature about RAships and mentoring within RAships is provided. Third, I explain the methodology and theoretical framework. Fourth, I present the findings in connection to the scholarly literature and theoretical framework. Then I conclude with a discussion of findings and recommendations for practice.

Terminology

Research assistantships refer to the positions doctoral students undertake to expand their research competencies while assisting research supervisors with their projects. RAships are understood as practical educational spaces that provide research opportunities and have the potential to foster the growth of confident and competent researchers. Doctoral students who accept RAships (paid by the university or individual research supervisors) are known as *research assistants*. In this study, doctoral research assistants are considered novice researchers.

Research supervisors* are researchers who employ RAs to support their research agendas or to provide practical research training for future generations of researchers. Research supervisors are expected to nurture the development of novice researchers (Strike et al., 2002) and provide them with educational opportunities that advance their research skills and self-identities as researchers (Grundy, 2004).

Mentoring is a relationship in which the research supervisor (an experienced researcher) is willing to invest time and energy in the educational experience of a research assistant (a novice researcher). It is not an easy task to clearly define the difference between training, supervision, and mentorship because these concepts share several elements. However, in this study, mentoring goes beyond research training or supervision since it tends to be focused on broader scholarly development. In fact, mentoring relationships surpass teaching, learning, and reflective practice. As evident in scholarly literature (Niemczyk, 2015; McGinn et al., 2013), mentorship should contribute to development of novice researchers' identity and allow them to gain not only competence but also a sense of belonging to a research community.

Mentorship within Research Assistantships

RAships provide a distinctive space where graduate students can put their theoretical knowledge into practice and where novice researchers can be effectively shaped as competent researchers. Students engaged in RAships can acquire valuable skills since they learn how to conduct research projects that ultimately could result in publications or conference presentations. RAships also represent an opportunity for students to contribute to knowledge creation while obtaining financial support for their studies (Steward, 2010). At the same time, researchers are able to mentor students and engage them in research activities through co-authoring journal articles or co-presenting at conferences.

Although there is no consistent definition of mentoring (Crisp & Cruz, 2009), *mentoring relationships* are recognized within the scholarly literature as highly influential for the development of future scholars (Barnett, 2008; Johnston & McCormack, 1997). The mentoring relationship between a mentor and a mentee goes beyond engagement in basic research tasks and activities. The University of Michigan's faculty guide (2018) on how to mentor graduate students indicated that "First and foremost, mentors socialize students into the culture of the discipline, clarifying and reinforcing—principally by example—what is expected of a professional scholar" (p. 8). It is also clear from the same guide that the mentor's responsibilities extend to developing mentee's career and well-being, advancing their academic and professional goals, and tailoring a mentoring relationship according to individuals involved.

Edwards (2009) conducted a qualitative research study that explored RAs' experiences to

identify students' motivations, activities, and interactions in RAships. Her results indicated that doctoral students undertake RAships for diverse reasons, including securing financial support, taking advantage of opportunities to work with a specific research supervisor, enhancing research productivity, and learning research skills. The majority of the students in Edwards's study reported being satisfied with their RA experiences and would recommend RAships to other doctoral students.

Hutchinson and Moran (2005) discussed advantages and difficulties associated with the employment of undergraduate and graduate RAs. Based on their pilot study involving academic staff in a law faculty, they reported that academics found time-saving benefits when RAs (a) helped with tasks such as final editing of documents or conducting electronic searches, (b) provided additional critique on written work, and (c) completed some of the tedious and time-consuming work that freed up their time for other tasks. Difficulties identified by research supervisors in employing RAs were related to the quality of students' performance, communication issues, and acknowledgement of RAs' contributions.

Grundy (2004) provided evidence in her master's thesis that graduate RAs working alongside experienced researchers enhanced their research knowledge and skills, increased their self-confidence, and perceived themselves as being part of research communities. Similar results came from Niemczyk's (2010) thesis, which explored seven graduate students' perceptions of their RA experiences. The findings of Niemczyk's study demonstrated that RAs acquired research skills, such as completing research ethics applications, interviewing, transcribing, analyzing data, conducting literature reviews, looking for references, and preparing charts and tables. In addition, some RAs also identified building personal skills including punctuality, independence, organization, and attention to detail. As reported by the RAs in the above mentioned study, these skills helped them with their graduate courses and their theses or final projects. In fact, RAships are recognized not only as spaces in which to learn research but also to acquire personal and transferable skills (Ratković, Niemczyk, Trudeau, & McGinn, 2013). As explained in Ratković et al. (2013), through involvement in a variety of authentic tasks and activities, RAs may gain knowledge and abilities (e.g., prioritizing tasks, negotiating conflict, and networking) that can be transferable across different work environments. Transferable skills acquired through RAship experiences may also be valuable for students' graduate work and for their future careers within or outside academia.

According to Strike et al. (2002), research supervisors should commit to the support, welfare, and progress of student researchers during the latter's academic journeys. Moreover, the authors argued that research supervisors have ethical obligations to nurture, provide proper training, and ensure the competence of novice researchers. The above-mentioned expectations indicate research supervisors' obligations to educate doctoral RAs. On the other hand, responsibility in the relationship between a research supervisor and an RA is not one sided: Research supervisors are expected to mentor students, whereas students have responsibilities toward research supervisors and a duty to adhere to the ethical dimensions of the actual research project.

Scholars across different disciplines have provided evidence that the mentorship and support RAs receive from their research supervisors contribute to the students' graduate work and their transition from RAs to researchers (Grenville & Ciuffetelli Parker, 2013; Maher, Gilmore, Feldon, & Davis, 2013; McBurnie, 2011; McGinn et al., 2013; Niemczyk, 2010). Maher et al.'s (2013) study on the research development of eight science and engineering doctoral students serving as RAs found that interactions between research supervisors and their RAs

were highly influential in students' development of research skills when both parties were fully committed. Nonetheless, as the authors claimed, research development "does not occur by magic; instead, it requires deliberate action by faculty supervisors and students" (p. 19).

Although the benefits of mentoring relationships within RAships are evident, RAs may also experience challenges and a lack of mentorship. Naufel and Beike (2013) discussed unethical treatment of RAs and showed that RAs, as human participants, can be exposed to physical, psychological, and social risks when completing their assigned responsibilities. Informed by regulations included in documents such as the *Ethical Principles and Code of Conduct* of the American Psychological Association (2002), the *Tri-Council Policy Statement on Research Ethics* (2010), and the American Educational Research Association's *Ethical Standards* (1992), the authors proposed a "Research Assistant's Bill of Rights" meant to guide the supervision of RAs. The goal of such a declaration of rights was to suggest several principles—maximizing, if not ensuring—that RAs work in safe and satisfactory environments. Some of the principles refer to RAs' right to choose confidentiality in public acknowledgements, to receive benefits for work performed, to refuse to participate in objectionable data collection activities, to informed consent, debriefing, and feedback.

Hobson, Jones, and Deane (2005) drew attention to the limited recognition of the RA position in knowledge production within Australian universities. According to Hobson et al., RAs represent a low-paid workforce that is vulnerable to intellectual exploitation, because ownership and authorship are often subject to informal arrangements and expectations. Similarly, Hutchinson and Moran (2005) argued that RAs have been a neglected part of many departments' research cultures and called for thorough training of RAs and thus nurturing of future academic researchers. Other scholars (Niemczyk & Hodson, 2008; Rossouw & Niemczyk, 2013) showed that not all RAships are guided well and not all RAs are recognized fairly. For instance, Rossouw & Niemczyk (2013) brought attention to the fact that RAs might be vulnerable to intellectual exploitation, especially if aspects of ownership and authorship are left to informal arrangements and personal expectations. According to the authors, RAs contributing intellectually to research superiors' projects deserve acknowledgement. For the purpose of clear expectations and fair recognition, research supervisors and RAs should discuss and agree early in the project on the completion and division of tasks as well as authorship guidelines. Such practice eliminates future conflicts and provides potential to enhance RAs career.

Diamond's (2010) description of his journey in learning to mentor and be co-mentored indicated that attempts to mentor can be problematic when grounded in the mentor's own past negative experiences. He encouraged educators and researchers to reflect on their personal experiences of mentorship and to explore other and richer forms of mentoring since there is always more than one way to mentor.

Morris (2011) explored doctoral students' experiences with supervisory bullying. Although the study focused on doctoral supervisors rather than research supervisors of RAs, Morris's findings reflect issues in the research supervisor relationships identified by the two dissatisfied students in this study. Morris relied upon data drawn from the personal experiences of doctoral students and bystanders who shared their own or friends' doctoral experiences on publicly available Internet blog sites. The following themes emerged from an analysis of eight blogs: confusion, unrealistic work demands, criticism, anger and rage, inappropriate attention, and abuse of power. Bloggers described several forms of the abuse of power, including physical, emotional, and academic. Many bloggers wrote about supervisors' dictatorial and commanding

attitudes, unrealistic work demands, and the frustrating and condescending tone of their interactions. The bloggers expressed confusion about where to go for advice or assistance. As Morris asserted, it is alarming that such incidents take place in educational institutions and it calls into question the number of unreported cases of power abuse with characteristics of bullying.

Macfarlane (2010), in his work about values and virtues in qualitative research, called attention to the virtues of researchers as a way to live research ethics. He referred to virtues as actions and behaviours based on ethical principles and argued that "virtues are closely connected with human emotions and personalities. Nobody is perfect, and it is important to recognize that a virtue approach is about realizing the importance of trying to improve through practice" (p. 23). Macfarlane's argument leads to a deeper reflection about what kind of research supervisors' behaviours, attitudes, and practices should be considered acceptable.

Methodological and Theoretical Approach

This case study involved semi-structured interviews with six doctoral student RAs, five research supervisors, and two administrators from a Faculty of Education at an Ontario university. The main focus was on the voices of doctoral students complemented by the voices of research supervisors and administrators from the same faculty. Considering that "the methods and sources should be chosen based on their ability to provide insights into the phenomenon of interest" (Gondo, Amis, & Vardaman, 2009, p. 135), participants were recruited through maximal variation sampling. This sampling strategy is meant to build complexity into the research when sampling participants or sites (Creswell, 2011).

In alignment with the typical demographics in education, women were overrepresented in the three participating groups: students (five women and one man), research supervisors (three women and two men), and administrators (two women). With permission from participants, the interviews were audio recorded and then transcribed. The transcripts were then sent to the participants who had the opportunity to verify their accuracy and to volunteer new information. All participants responded to the member-check request, in some cases contributing additional information. As stated by Harrison, MacGibbon, and Morton (2001) member checking is a method of ensuring transcripts' trustworthiness.

The analysis was treated as an ongoing process (Miles & Huberman, 1994). Transcribing the interviews and reading the documents served as a preliminary exploratory analysis that generated a general sense of the data (Creswell, 2011). An inductive approach followed to develop detailed data (transcribed interviews and relevant documents form the institution's site) into general codes and themes. Transcripts were imported into NVivo (Version 8) software to facilitate systematic data analysis. Miller and Salkind (2002) explained that qualitative data analysis software enables researchers "to systematically analyze text or image files, categorize and code information, build descriptions and themes, sort and locate important data segments, and provide visual display of codes and categories" (p. 164). After coding all of the transcripts, unique codes were identified; from there, comparable codes were grouped to gather a manageable set of themes. The final themes that emerged from the coding process became the basis for writing this article.

In terms of theoretical framework, this study was informed by a social practice perspective on learning as posited by Lave and Wenger (1991), who view learning as a process of participation in communities of practice:

> As an aspect of social practice, learning involves the whole person; it implies not only a relation to specific activities, but a relation to social communities. ... Activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning. These systems of relations arise out of and are reproduced and developed within social communities, which are in part systems of relations among persons. (p. 53)

In this case study, relations among research assistant and research supervisor refer to a mentoring relationship within RAships.

Lave and Wenger's (1991) interest stems from understanding what kinds of social engagements provide an effective context for learning to occur. In their work, they refer to *legitimate peripheral participation* as a particular way of engagement whereby a learner participates in the actual practice of an expert, though only to a limited degree initially and with limited responsibility for the final result. In other words, legitimate peripheral participation is the process by which newcomers become part of a community of practice and eventually become full participants. Recognizing legitimate peripheral participation in this study means considering RAships as potential educational venues for development of future researchers. Doctoral RAs mentored by experienced research supervisors may engage in learning research competencies and can begin the transformation toward becoming independent researchers.

The concept of legitimate peripheral participation is not always a straightforward process leading towards fuller participation for newcomers within a community of practice. Complex multileveled relations between RAs and their supervisors may influence legitimate peripheral participation within RAships. Particular attention needs to be directed toward unequal relations of power that may place students in vulnerable positions (Hinchey & Kimmel, 2000). Considering that participation in social practice under mentorship of experts is the fundamental form of learning (Lave & Wenger, 1991), it is essential to acquire a better understanding of relationships between RAs and their supervisors.

Supportive Appointments and Disappointments

Doctoral student RAs indicated having multiple assistantship experiences; therefore, one student may have reported mentoring relationships (supportive appointments) and lack of mentoring (disappointments). In fact, four doctoral students reported supportive appointments only, while one student reported supportive appointments and disappointments, and another student commented solely on disappointments with research supervisors. The overall experiences of RAs lead to several themes including collaborative learning, reciprocity, researcher identity, and power dynamics. The voices of research supervisors and the administrators complemented and often echoed the doctoral student RAs' responses.

Supportive Appointments

RAs who commented on mentoring relationships with their research supervisors described receiving support from supervisors who they felt were dedicated to their development as researchers. One student explained that her supervisor not only contributed to her development as a researcher, but also created a learning environment that allowed her to feel like a colleague and collaborator: "I developed my identity as a researcher, I would define myself as a researcher,

and I see this professor and I as colleagues that work together…" (RA participant). On a similar note, another student described the relationship with his supervisors as follows: "I will use the words of my doctoral supervisor who said that he considered me 'more of a colleague than a student.' Those are his exact words" (RA participant). Students' statements aligned with comments from most research supervisors who viewed RAships as opportunities for mentoring and collaborative learning. One research supervisor emphasized the importance of mentorship, saying, "for me it's important to have not only the worker bee but it is a part of my job to mentor. And that's the educational component and the training" (RS participant). Pyhältö, Stubb, and Lonka (2009) claimed that doctoral students develop their identities as researchers by engaging in research communities and doing research; however, to do so, they needed opportunities to acquire a sense of belonging to research communities.

One of the students referred to her relationship with one of the research supervisors as co-mentoring. The student valued her relationship with the supervisor because of co-mentoring and working together towards a common goal. The RA brought skills to the project that her research supervisor lacked, which meant that they were able to rely on each other's strengths: "Since my knowledge of statistics is greater, more recent than hers, I'm able to contribute versus just doing a task. There is lots of talking back and forth and asking questions and then me making suggestions" (RA participant). RA's comment illustrates well the idea of working together with a common goal to make a project successful. As one research supervisor expressed, an RA is not working for her, but instead is employed on a project. The research supervisor's approach to collaboration as working together for the project rather than as an RA working for the research supervisor reduces the power differential within RAships. As Garrett (1997) explained, the supervisor "sets the tone" (p. 229) of the relationship and has the ability to maximize or minimize students' feelings of power or powerlessness. As one research supervisor observed,

> I feel that I have responsibility as a research supervisor to make sure that the RA is comfortable with the tasks and the deadlines for their completion. And there is this ongoing monitoring and support. She also knows that she is not working for me, she is working for the project. (RS participant).

Working together, co-learning, and co-mentoring are all elements of a healthy community of practice resulting in a sense of belonging and mutual commitment to reciprocity (Floding & Swier, 2012).

One student expressed gratitude towards her research supervisors for supporting her plans to become an academic and providing her with guidelines for publishing in peer-reviewed journals. She also emphasized the importance of peer mentoring in one of her RAships in which she and another doctoral RA shared their knowledge and relied on each other for support. In contrast to a traditional concept of mentorship where an older and wiser individual supports the development of a younger individual, peer mentorship relies on students receiving support from fellow students (Heirdsfield, Walker, Walsh, & Wilss, 2008). Mentoring involving a more experienced student assisting a less experienced student is based on a less hierarchical relationship (Collier, 2017). Some researchers consider peer mentoring as a best practice for fostering students' learning and success (Badger, 2010; Huizing, 2012). In such a mentoring relationship the power dynamics are limited or even not present, which allows for more open communication.

One student expressed appreciation for having an opportunity to publish with the research

supervisor and to have tangible evidence of her involvement in the RAship. She expressed satisfaction with seeing many months of intense research work manifest into a publication. This appreciation for a publishing opportunity aligns with a statement from one of the research supervisors regarding publishing with RAs: "I think that research assistantship relationship should be quantifiable for a student and able to be reproduced, for example on their CV, as a real contribution as opposed to a support role" (RS participant). Another research supervisor also pointed out the importance of providing publication opportunities for her students: "I like to work with graduate students for the obvious reasons like collecting data, getting as much data as I can but I always have co-published with them … so there is mentoring that happens" (RS participant). Both researchers believed that it is important for them to invest time in students' professional development and engage them in written dialogue within a research community. In spite of this, it is also important to recognize that not every RAship can provide publication opportunities. There are several factors to consider, including the duration of the assistantship, the stage of the project when the RA is hired, and the contributions made by the RA to the project.

Disappointments

As noted in the previous section, several RAships (considering that one RA engaged in more than one RAship) investigated in this study were based on mentoring relationships. However, two RAs reported a lack of mentorship and were disappointed with their respective research supervisors. One of the two RAs described the relationship with her research supervisor as very formal and hierarchical. She explained that although the hierarchical order and high expectations were very clear from the first meeting, she decided to take on the assignment as she wanted an opportunity to grow as a researcher. Early in the project, the research supervisor made the RA promise that she would not quit as the previous RAs had done. Such a request put pressure on the RA and made her feel trapped in a project that she knew very little about at the time. She was not sure what this commitment would entail but stayed on the project as she did not want to upset her research supervisor. The student felt a strong power differential in the way the research supervisor spoke to her and the extent to which every conversation seemed to focus on getting the work done: "I came almost to feel like a second-class like subhuman in the way that I was treated" (RA participant). This same RA emphasized that the research supervisor seemed extremely busy with no intention to become their mentor. Deem and Brehony (2000) argued that academic pressures experienced by researchers leave little time for supervision of research students and some supervisors may transfer their workload pressures onto doctoral students. The systemic demands on academics are an important aspect to consider as they may impact quality of interaction between RAs and their research supervisors.

Another RA also struggled to characterize her relationship with one research supervisor as a mentoring relationship. She reported feeling disappointed because of the lack of communication and guidance. Similarly, two other RAs felt that they were not able to freely express their concerns with their supervisors. Based on the treatment and interaction with their supervisors, both students decided to endure in silence rather than speak up. As one of the students summarized, "overall, [my RAship] I would say was highly negative and over time I came to feel unhappy, unsatisfied, and unfulfilled" (RA participant). Another student said that although the supervisor talked about communication and collaboration, these elements were not evident in practice. The participant said she felt disregarded whenever she made a comment that was not

aligned with her supervisor's opinion. As a result, the participant decided to avoid situations that could create an awkward relationship that could carry over after the project ended. In addition, the two RAs with negative experiences thought that talking with their supervisors or reporting their concerns to someone else could potentially affect their reputations with the department, resulting in other researchers being hesitant to hire them as RAs in the future. These two doctoral students felt unsupported, exploited, intimidated, and powerless when dealing with their situations. One student indicated she feared that reporting the conflict could jeopardize the completion of her doctoral degree rather than solve the problem. This in turn correlates with the issue that students do not feel protected by the organizational structures that are in place to serve them.

The above-reported accounts of feeling pressured—particularly the experience of the student whose research supervisor made her promise that she would not quit the project—connects to Morris's (2011) study about doctoral students' experiences with supervisory bullying. In the findings, Morris reported on supervisors' abuse of power, poor communication skills, and assignment of an unrealistic workload. Such conditions call for further reflection on Macfarlane's (2010) work about values and virtues of researchers and what kind of research supervisors' behaviours, attitudes, and practices should be considered acceptable. Considering that two RAs reported feeling exploited and powerless in one or more RAships, this unfortunate revealing of flaws in potential mentoring relationships should encourage research supervisors to reflect on their virtues and motivate them to improve their supervision practices.

One of the doctoral students recounted asking colleagues for advice on how to approach her research supervisor and voice her concerns but ended up feeling too intimidated to confront them. In one case, the supervisor was also the RA's course professor, which put extra pressure on the student. The student in the latter case was concerned that her relationship with the research supervisor could potentially influence her performance within the doctoral course. The following quotation from a student reflects students' vulnerable positions, which often result in students' silent acceptance of unfair practices:

> You can't voice anything to anyone because you don't know who is connected to whom and if you want to stay in this university you probably don't want to burn any bridges. And the PhD is very long so you are surrounded by the same people for a very long time. So regardless of your experience, I feel that there is really no one you can voice that, even reporting that to a Chair of the program is not an option because at the end of the day you are a student and they are all colleagues. So you can't say anything to them. (RA participant)

The students' accounts are echoed by administrators' responses indicating that working on RAships with doctoral advisors or course instructors may pose additional tensions for doctoral student RAs "because there is a power dynamic and it may put you in a vulnerable position. So it's kind of more tensions there" (Administrator participant). Another administrator explained,

> It can work well or it can be too much reliance on one person. At the end of the day they write your reference letter and they make comments about you if someone is looking for an RA or TA. ... You have to be careful because those are things that are never said but they can influence how things are. It's always true in the workplace but it's even more when you are vulnerable in that regard because you count on good will. (Administrator participant)

The same administrator also added that "the ethical part is the hard part. There are power

differentials and faculty members are their own unique individuals so some are easier to work with than others."

The literature indicates that graduate students employed at universities may find themselves in vulnerable positions, especially when their academic advisors or course instructors oversee their RAships (Skorobohacz, 2013). Although there is a possibility that RAs working under the supervision of their course instructors or doctoral advisors may benefit from their mentorship (especially if their research interests and areas of study interconnect), it is also possible to encounter challenges due to these dual relationships. As Skorobohacz (2013) explained, students may encounter several tensions working as RAs for their instructors: "There can be tensions when mixing money and marks" (p. 210). RAs may find themselves in a vulnerable position and hesitate to ask questions or raise concerns when course grades or thesis progress may also be involved. RAs may feel pressure to accommodate all of the research supervisor's expectations and not to voice their concerns since they depend on researchers for potential future research experiences, positive letters of recommendation, and grades (Naufel & Beike, 2013; Sanders, 2012). As Teeuwsen, Ratković, and Tilley (2012) indicated, "An openness about expectations from the very beginning and negotiation of meaningful roles and responsibilities can help alleviate but not eliminate power differentials" (p. 692).

The relationships that two of the students expressed having with their research supervisors show the potential power dynamics of RAships. In fact, several participants from all three groups (doctoral students, research supervisors, and administrators) recognized the existence of power dynamics within RAships. One of the research supervisors explained that it took time to establish relationships in which students could eventually see themselves as "partners on the projects" rather than as subordinates:

> I felt very uncomfortable starting with this RA a month ago about the power dynamic. I don't think she fully gets it yet but she also has some cultural differences so I sense just from her body language she is still feeling that I'm the one who is telling her … I'm the boss so to speak. So I hope that she will see that's not the case. So about the relationship with research assistants is this power piece, I have to remind myself that it takes time to get rid of some of those assumptions or to work through some of those assumptions. I hope I don't come across that way but they just there, the institutional assumptions. (RS participant)

As evident from the findings, the doctoral students reported different experiences with their research supervisors, which eventually influenced their experiences as RAs and their development as researchers.

Conclusions and Recommendations

Accounts of supportive appointments and thus mentoring relationships showed that engaging in research together could provide space for the development of RAs (Jiao, Kumar, Billot, & Richard, 2011). However, it is also clear that some relationships involved exploitative practices and misuses of power (Grundy, 2004; Hinchey & Kimmel, 2000). It seems fair to state that experts within the research community have the power to confer legitimacy on newcomers (i.e., RAs). Research supervisors may facilitate or limit students' participation in research communities (e.g., through meaningful tasks, conference presentations, workshops, or publications).

The findings indicate that doctoral students' RAships highly depend on their research supervisors' commitments to provide mentorship during RAship experiences. According to the six RAs, the quality of the experiences depended on how the supervisors treated RAs and how much time and effort they were willing to invest in making the RAships beneficial for RAs. Some dynamics within RAships promoted and others prevented or limited students' legitimate peripheral participation and the development of their identities as researchers.

Lave and Wenger (1991) explained that some members are more central than others in communities of practice; newcomers occupy more peripheral yet legitimate positions in the community since they have not yet mastered all practices of the community. In RAships, research supervisors are skilled practitioners who occupy central places whereas doctoral student RAs are less central since they are developing competencies required for full membership. In supportive appointments, an RA does not remain on the periphery for long because the student is drawn further into the community of practice and encouraged to practice research in order to move from being a novice to becoming a competent researcher.

Based on inferences from the data, the development of researcher identities emerged from the co-participation of novices with experts and engagement in a research community. As Pyhältö et al. (2009) argued, doctoral students develop their identities as researchers by doing research and acquiring a sense of belonging to research communities. This sense of belonging can be impeded when students' collaborative participation is limited. As stated earlier, the learning process under the conditions of legitimate peripheral participation (Lave & Wenger, 1991) relied on interactive involvement of the novice (i.e., the RA) and an expert (i.e., the research supervisor). Solitary work of students with marginal collaborative engagement in research and limited connection to research members significantly limited the potential of these learning experiences. Although faculty workload pressures and competing demands for their time are undeniable, research supervisors have the responsibility to support and actively enhance development of students as future researchers, while simultaneously ensuring that their project objectives are achieved (Rossouw & Niemczyk, 2013). It is important to note that engagement in mentorship has the potential to deliver benefits not only for RAs but also for research supervisors. Besides personal satisfaction and fulfilment of academic obligations, supervising RAs provides space for researchers to think more comprehensively about research education and to reflect on their own mentoring practices (McGinn et al., 2013).

Recommendations for Practice Development

The findings of this study result in recommendations for practice development but also call for critical assessment of their complexities. These recommendations are informative in nature and are not generalizable to RAships as a whole. As evident in the following section, responsibly acting upon some of these recommendations might necessitate additional assessment in future research studies across diverse institutional contexts.

There is no doubt that mentoring relationships maximize students' experiences within RAships. As evident from the participants' accounts, sometimes RA experiences are reduced to task completion and irregular meetings between an RA and a research supervisor. As one of the administrators explained, the role of a researcher is very broad and faculty members need many skills in order to assist students. Therefore, researcher supervisors may need to refresh and expand their mentorship skills in order to provide mentoring experiences for doctoral RAs. But the question remains: who is responsible? Is research supervisor mentorship training (a) an

institutional responsibility, (b) an individual faculty member's responsibility, or (c) a shared responsibility?

It would be useful if the program under investigation could introduce workshops or other training resources for research supervisors about how to enhance their mentoring and research training practices. Workshop organizers would need to take into account faculty members' busy schedules and try to be creative in terms of workshop delivery. One possibility would be to video record the sessions and make them accessible online.

Another aspect several RAs struggled with was a lack of recognition for their contributions to the projects. Two students expressed frustration about not being fairly recognized for their work although they performed advanced tasks and contributed significantly to the projects. The students argued that especially at the doctoral level, it should be clear that students need tangible recognition since soon they will be looking for jobs. It is understandable that not all RAships can offer publication or conference presentation opportunities; yet, when applicable, students should receive significant recognition for their contributions with the goal of potentially enhancing their careers. However, it is only fair that research supervisors consider other ways of giving students proper recognition for their contributions.

Research supervisors may consider acknowledging students' input in future publications, participation in future conferences and workshops, assisting students with their doctoral research, helping students to apply for funding opportunities, providing recommendation letters, or recommending students for other assistantships. It is also important to consider that students who are not appropriately recognized for their contributions may get discouraged from future participation in RAships and may discourage other students from participating. The lack of reciprocity may also diminish students' sense of belonging within a research community or reduce their interest in research at large. When RAs see the value of their personal contributions to research development, RAships can become transformational, allowing the assistants to learn research skills and practices, enhance their self-confidence, and envision themselves as members of a research community (Grundy, 2004). One could argue that not recognizing students' contributions is an unethical practice that translates into accepting the exploitation of students' work as a norm.

Acceptance of existing power dynamics is visible in students' reluctance to report challenges and conflicts encountered within RAships. Two students expressed feeling hesitant to report practices that they perceived to be unfair to their research supervisors or to anyone else. They were concerned that reporting any concerns could potentially affect their relationships with research supervisors, their future employment on campus, their reputations within the department, and potentially the completion of their degrees.

The findings show that doctoral student RAs felt themselves to be in vulnerable positions when relationships with research supervisors were overpowering, even more so when research supervisors were also students' course instructors or doctoral advisors. Some of the doctoral students described the nature of their supervisor/supervisee relationships as having unequal power dynamics, which in combination with multiple student-employee roles increased the pressure to perform tasks and introduced hesitation to voice potential concerns. To that end, several participants from all three groups (doctoral students, research supervisors, and administrators) recognized the existence of problematic power dynamics within RAships. One of the researchers explained that it may take time to establish relationships in which students see themselves as partners rather than subordinates. Meanwhile, another research supervisor expressed the need to make sure at the outset of every assistantship that students understood

they were working for the project and not for her. These findings are consistent with the literature indicating that graduate students employed at the university where they also study may experience unequal power dynamics and find themselves in vulnerable positions (Skorobohacz, 2013).

It is essential that research supervisors recognize their collaboration with students is inherently unequal (Fine & Kurdek, 1993; Manathunga, 2007) and consider how their actions may affect RAs' vulnerable positions. Research supervisors have an important responsibility to facilitate the development of students' evolving identities as independent researchers, which comes with the additional responsibility to lead by example and avoid exploitative practices. This points to the necessity for regulations to guide practices within RAships and to safeguard RAs as a vulnerable group (Fogg, 2004; Rossouw & Niemczyk, 2013).

The recommendations for practice development have potential to be informative to the individual researchers and to committees responsible for academic programming to encourage them to make decisions that align with the goals for their program. Program committees need to reflect upon the quality assurance procedures and their responsibilities to assess the extent to which the program is meeting the standards. In order to introduce accountability within the program to contribute to the success of RAships, the evaluation of these research education spaces could be incorporated into Internal Quality Assurance Program reviews. There is no reason to limit these reviews to required program components and ignore co-curricular opportunities such as RAships. It would be important to evaluate RAships, which potentially can be of great value towards fulfilling the promise of the program to educate graduates who can contribute to research and scholarship in Canada and internationally.

References

American Educational Research Association. (1992). Ethical standards of the American Educational Research Association. *Educational Researcher, 21* (7), 23-26. Retrieved from http://www.jstor.org/stable/1176359

American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct*. Retrieved from http://www.apa.org/ethics/code2002.html

Badger, K. (2010). Peer teaching and review: A model for writing development and knowledge synthesis. *Social Work Education, 29*(1), 6-17. https://doi.org/10.1080/02615470902810850

Barnett, J. E. (2008). Mentoring, boundaries, and multiple relationships: Opportunities and challenges. *Mentoring & Tutoring: Partnership in Learning, 16*(1), 3-16. https://doi.org/10.1080/13611260701800900

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada. (2010). *Tri-council policy statement: Ethical conduct for research involving humans*. Retrieved from http://www.ethics.gc.ca/pdf/eng/tcps2/TCPS_2_FINAL_Web.pdf

Collier, P. J. (2017). Why peer mentoring is an effective approach for promoting college student success. *Metropolitan Universities, 28*(3). https://doi.org/10.18060/21539

Creswell, J. W. (2011). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education, 50*(6), 525-545. https://doi.org/10.1007/s11162-009-9130-2

Deem, R., & Brehony, K. (2000). Doctoral students' access to research cultures—Are some more unequal than others? *Studies in Higher Education, 25*(2), 149-165. https://doi.org/10.1080/713696138

Diamond, C. P. T. (2010). A memoir of co-mentoring: The "we" that is "me." *Mentoring & Tutoring: Partnership in Learning, 18*(2), 199-209. https://doi.org/10.1080/13611261003678945

Edwards, B. J. (2009). *It takes a village: Perceptions of the SFU Education research assistant experience* (Unpublished doctoral dissertation). Simon Fraser University, Burnaby, BC.

Fine, M. A., & Kurdek, L. A. (1993). Reflections on determining authorship credit and authorship order on faculty–student collaborations. *American Psychologist, 48*(11), 1141-1147. http://dx.doi.org/10.1037/0003-066X.48.11.1141

Floding, M., & Swier, G. (2012). Legitimate peripheral participation: Entering a community of practice. *Reflective Practice: Formation and Supervision in Ministry, 31*, 193-204. Retrieved from http://www.tandfonline.com/toc/crep20/current

Fogg, P. (2004). Faculty union calls for better treatment of graduate assistants. *The Chronicle of Higher Education, 51*(9), A16. Retrieved from http://chronicle.com

Garrett, T. (1997). Trainer–trainee bullying. *Journal of Community & Applied Social Psychology, 7*, 227-232. https://doi.org/10.1002/(SICI)1099-1298(199706)7:3<227::AID-CASP421>3.0.CO;2-M

Gondo, M., Amis, J., & Vardaman, J. (2009). Case within a case. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 135–138). Thousand Oaks, CA: Sage.

Grenville, H., & Ciuffetelli Parker, D. (2013). From research assistant to researcher: Being wakeful in a mentorship journey about methodology, poverty, and deficit thinking. *Journal of Research Practice, 9*(2), Art. M7. Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/349

Grundy, A. L. (2004). *Learning experiences and identity development as a research assistant* (Unpublished master's thesis). Brock University, St. Catharines, ON.

Harrison, J., MacGibbon, L., & Morton, M. (2001). Regimes of trustworthiness in qualitative research: The rigors of reciprocity. *Qualitative Inquiry, 7*(3), 323-345. https://doi.org/10.1177/107780040100700305

Heirdsfield, A., Walker, S., Walsh, K., & Wilss, L. (2008). Peer mentoring for first-year teacher education students: The mentor's experience. *Mentoring and Tutoring: Partnerships in Learning, 16*(2), 109-124. https://doi.org/10.1080/13611260801916135

Hinchey, P., & Kimmel, I. (2000). *The graduate grind: A critical look at graduate education*. New York, NY: Falmer Press.

Hobson, J., Jones, G., & Deane, E. (2005). The research assistant: Silenced partner in Australia's knowledge production? *Journal of Higher Education Policy and Management, 27*(3), 357-366. https://doi.org/10.1080/13600800500283890

Huizing, R.L. (2012). Mentoring Together: A Literature Review of Group Mentoring. *Mentoring & Tutoring: Partnership in Learning, 20*(1), 27-55. doi: 10.1080/13611267.2012.645599.

Hutchinson, T., & Moran, J. (2005). The use of research assistants in law faculties: Balancing cost effectiveness and reciprocity. *Proceedings of Faculty of Law Research Interest Group*. Retrieved from http://eprints.qut.edu.au/2725/1/2725.pdf

Jiao, X., Kumar, R., Billot, J., & Smith, R. (2011). Developing research skills and capability in higher education: Combining collaborative research with mentoring. *Journal of Educational Leadership, Policy and Practice, 26*(1), 42-55. Retrieved from http://search.informit.com.au/browseJournalTitle;res=IELHSS;issn=1178-8690

Johnston, S., & McCormack, C. (1997). Developing research potential through a structured mentoring program: Issues arising. *Higher Education, 33*(3), 251-264. https://doi.org/10.1023/A:1002943629129

Lave, S., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Lee, S., & Roth W. M. (2003). Becoming and belonging: Learning qualitative research through legitimate peripheral participation. *Forum: Qualitative Social Research, 4*(2), Art. 35. http://dx.doi.org/10.17169/fqs-4.2.708

Macfarlane, B. (2010). Values and virtues in qualitative research. In M. Savin-Baden & C. Howell Major (Eds.), *New approaches to qualitative research: Wisdom and uncertainty* (pp. 19-27). Abingdon, UK: Routledge.

Maher, M. A., Gilmore, J. A., Feldon, D. F., & Davis, T. E. (2013). Cognitive apprenticeship and the supervision of science and engineering research assistants. *Journal of Research Practice, 9*(2), Art. M5. Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/354

Manathunga, C. (2007). Supervision as mentoring: The role of power and boundary crossing. *Studies in Continuing Education, 29*, 207-221. https://doi.org/10.1080/01580370701424650

McBurnie, A. (2011). *Research assistants at Kwantlen Polytechnic University: Positioning and training for success* (Unpublished master's thesis). Kwantlen Polytechnic University, Surrey, BC. Retrieved from http://kora.kpu.ca/islandora/object/kora:36

McGinn, M. K., Niemczyk, E. K., & Saudelli, M. G. (2013). Fulfilling an ethical obligation: An educative research assistantship. *Alberta Journal of Educational Research, 59*(1), 72-91. Retrieved from http://ajer.journalhosting.ucalgary.ca/index.php/ajer/article/view/1112/961

McWey, L. M., Henderson, T. L., & Piercy, F. P. (2006). Cooperative learning through collaborative faculty–student research teams. *Family Relations, 55*(2), 252-262. https://doi.org/10.1111/j.1741-3729.2006.00374.x

Miles, M. B., & Huberman, M. A. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Miller, D. C., & Salkind, N. J. (2002). Basic research design. In D. C. Miller & N. J. Salkind (Eds.), *Handbook of research design & social measurement* (6th ed., pp. 13-16). Thousand Oaks, CA: Sage.

Molony, T., & Hammett, D. (2007). The friendly financier: Talking money with the silenced assistant. *Human Organization, 66*(3), 292-300. https://doi.org/10.17730/humo.66.3.74n7x53x7r40332h

Moore, J., Scarduzio, J. A., Plump, B., & Geist-Martin, P. (2013). The light and shadow of feminist research mentorship: A collaborative autoethnography of faculty–student research. *Journal of Research Practice, 9*(2), Art. M8. Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/343/309

Morris, S. (2011). Doctoral students' experiences of supervisory bullying. *Pertanika Journal of Social Sciences and Humanities, 19*, 547-555. Retrieved from https://espace.library.uq.edu.au/view/UQ:247499/UQ247499_OA.pdf

Naufel, K. Z., & Beike, D. R. (2013). The ethical treatment of research assistants: Are we forsaking safety for science? *Journal of Research Practice, 9*(2), Art. M11. Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/360/318

Nicolas, J. (2008, January 7). Researchers for tomorrow. *University Affairs*. Retrieved from http://www.universityaffairs.ca/features/feature-article/researchers-for-tomorrow/

Niemczyk, E. K. (2010). *Expanding the research horizon in higher education: Master's students' perceptions of research assistantships* (Unpublished master's thesis). Brock University, St. Catharines, ON. Retrieved from https://dr.library.brocku.ca/handle/10464/3078

Niemczyk, E. K. (2018). Developing globally competent researchers: International perspective. *South African Journal of Higher Education, 32*(4), 171–185. https://doi.org/10.20853/32- 4-1602

Niemczyk, E. K., & Hodson, J. (2008). After frustration comes determination: Considering the effectiveness of research assistantships through diverse epistemic lenses. *Canadian Journal of Native Education, 31*(1), 279-292. Retrieved from https://search.proquest.com/openview/16db4e09180fb067d6d0ca7adaef1d5a/1?pq-origsite=gscholar&cbl=30037

Pyhältö, J., Stubb, J., & Lonka, K. (2009). Developing scholarly communities as learning environments for doctoral students. *International Journal for Academic Development, 14*(3), 221-232. https://doi.org/10.1080/13601440903106551

Ratković, S., Niemczyk, E. K., Trudeau, L., McGinn, M. K. (2013). *Faculty of Education research*

assistantship handbook. St. Catharines, ON: Brock University.

Rossouw, J. P., & Niemczyk, E. K. (2013). A dual perspective on risks and security within research assistantships. *Journal of Research Practice, 9*(2), Art. M10. Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/358/317

Sanders, C. E. (2012). The graduate school application process: What our students report they know. *Teaching of Psychology, 39*, 128-132. https://doi.org/10.1177/0098628312437697

Skorobohacz, C. (2013). Intersecting roles: Tensions of employee-graduate students. In M. Kompf & P. Denicolo (Eds.), *Critical issues in higher education: The next generation* (pp. 199-224). Rotterdam, Netherlands: Sense.

Steward, D. (2010). "Important, if true": Graduate education will drive America's future prosperity. *Change: The Magazine of Higher Education, 42*(1), 36-44. https://doi.org/10.1080/00091380903449110

Strike, K. A., Anderson, M. S., Curren, R., van Geel, T., Pritchard, I., & Robertson, E. (2002). *Ethical standards of the American Educational Research Association: Cases and commentary*. Washington, DC: American Educational Research Association.

Teeuwsen, P., Ratković, S., & Tilley, S. A. (2012). Becoming academics: Experiencing legitimate peripheral participation in part-time doctoral studies. *Studies in Higher Education, 39*(4), 680-694. https://doi.org/10.1080/03075079.2012.729030

Turner, S. (2010). The silenced assistant: Reflections of invisible interpreters and research assistants. *Asia Pacific Viewpoint, 51*(2), 206-219. https://doi.org/10.1111/j.1467-8373.2010.01425.x

University of Michigan. (2018). *How to mentor graduate students: A guide for faculty*. Retrieved from https://rackham.umich.edu/wp-content/uploads/2019/06/Fmentoring.pdf

---

Prof. Ewelina Niemczyk has experience in a variety of teaching and research positions in Canadian and South African contexts. Her scholarly work focuses on research education and practice as well as BRICS education. In terms of the former, she explores current research realities and demands related to research productivity, research collaboration and researcher development. The other line of research is across the BRICS (Brazil, Russia, India, China and South Africa) member states to learn from each other and exchange educational practices. As the President of the BRICSEd Association—under the BRICS@NWU— she is dedicated to promote academic excellence across the BRICS countries, the African continent and beyond. Prof Niemczyk's scholarly interests are reinforced through the modules she teaches in international and comparative education at North West University, as well as her publications. She also serves as a journal and conference reviewer, book editor, conference chair and keynote speaker at international conferences.