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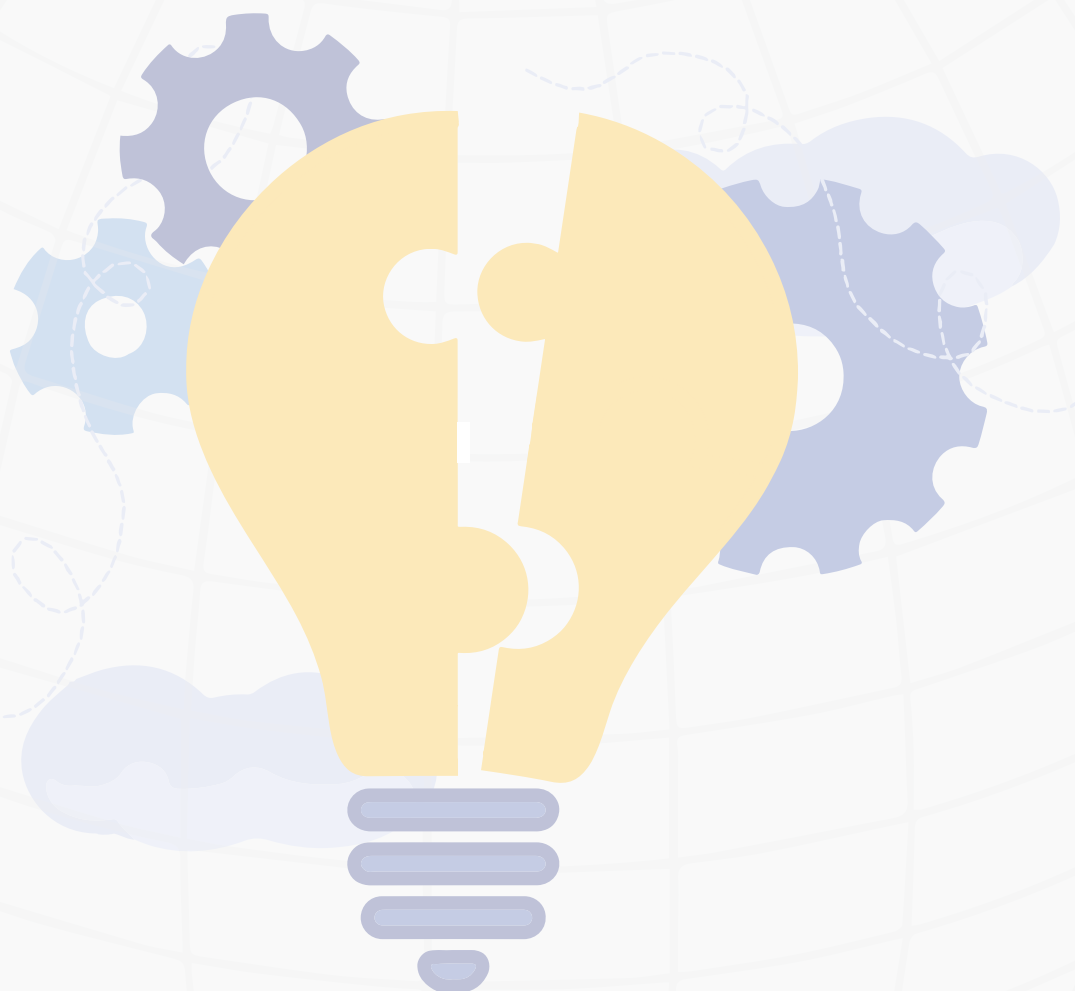
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Journal of Research Administration



FROM THE
EDITOR'S DESK





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From the Editor's Desk

Jennifer E. Taylor

Tennessee Tech University

The *Journal of Research Administration* (JRA) is the premier scholarly publication in research administration and management. We publish timely work that covers all facets of our discipline. In addition, the Journal is an important educational and career development platform. Our authors share research on best practices, innovative means of performing research administration and management work, and thoughtful discussions of cases and their experiences solving pressing concerns in our fast-paced, ever-changing environments. Their hard work and important submissions also help them enhance their careers and obtain feedback from colleagues through publishing peer-reviewed scholarly journal articles.

As the current Editor-in-Chief of JRA, I am always aware that the current success of JRA is built on the hard work and dedication of our incredible staff, editors, reviewers, and the SRAI communication committee members, as well as all of those who served in those roles previously. The continuing excellence of the contributions we receive for inclusion in JRA reflects the growth of the field that so many in SRAI and our field, more broadly, have nurtured over the more than 50-year history of JRA and SRAI. As we move further into our second half-century of JRA and face the changed landscape and new challenges that research administrators and institutions confront in the post-COVID world, we hope you will continue to turn to JRA as a source of new ideas and valuable suggestions for the ongoing enhancement of your work.

For the current issue, we have been fortunate to receive contributions from our authors that address the broad range of topics, challenges, and contexts that frame the work of research administrators. I am grateful to our authors, editorial board members, and staff, for all the time and effort they have provided as we put together what we think is another exceptional issue of JRA. As in previous issues of JRA, it draws on the work of research administrators from across the globe, working in institutions that reflect a broad array of research activities. Again, the high-quality, important manuscripts will enable another step forward in the knowledge base for Research Administration and those who depend on that work.

This issue's manuscripts range from those whose focus is on the recent challenges and complications that a sudden pandemic brought to our work and the work of those we support, to others that are more closely focused on some of the most important issues that research administrators continue to address as we seek to enhance the efficacy and success of the investigators we support, of our own work, and that of collaborators in other units. As always, we hope that researchers and research administrators across the international membership comprising SRAI will continue to view JRA as a preferred outlet for their work and a source of critical conceptual and practical scholarship to guide that work.

Our first article comes to us from South Africa. In their article "Knowing, Doing and Being: Transferable Competencies for the Research Management Profession," Williamson and Dyason

start from a research management (RM) professional competency framework, anchored in continentally anchored RM praxis in Africa, and they focus on the transferable (soft) skills articulated in that framework. Building on the Southern African Research and Innovation Management Association (SARIMA) Framework (2016) that includes nine key ‘technical’ competencies for respective RM organizational levels (administrative, management, and leadership), they extend and enhance the focus to more “human” transferable, “soft skills.” They argue that their article provides a timely shift in focus to what RM practitioners offer as ‘human-being’ professionals, not only knowledge experts, and more fully integrates the personal into the professional practice architectures. Critically, they underscore that it will more fully enable us not only to “know” and “do” within our profession but also to “be” a professional.

Natasha Wiebe, Heather Pratt, and Nicole Noël address how research offices can support investigators in responding to pressure to “publish or perish” in higher education. In their article, “Writing Retreats: Creating a Community of Practice for Academics Across Disciplines,” they discuss an effort by the Office of Research and Innovation Services at the University of Windsor (Canada) to provide a cost-effective biannual, interdisciplinary writing retreat for faculty and staff across the disciplines, along with the results of evaluations of that effort. A central finding was that participants developed a supportive community of writing practice that reshaped the ways they write elsewhere and increased collaboration on projects with other retreat participants. Additional benefits identified in the evaluation were significant and included but were not limited to protected writing time and developing a sense of community. The paper also provides further detail on developing and implementing these successful professional development efforts.

Our third offering addresses the issue of how research administrators can address barriers to compliance within the context of liberal arts colleges and predominantly undergraduate institutions. In the article, “Building a Culture of Compliance at Liberal Arts Colleges and Predominantly Undergraduate Institutions,” Beth Jager from Claremont McKenna College notes that all academic institutions that receive government funding must abide by the same federally imposed rules and regulations for financial assistance, whether for student aid or sponsored projects. She argues that universally imposed grant requirements are fundamentally flawed because they assume that all colleges and universities operate with similar structures. Although less research-intensive, predominantly undergraduate institutions must meet the same grant and other compliance requirements imposed on larger institutions, research administrators at these establishments often lack the infrastructure and institutional investment to manage compliance effectively. The author goes on to discuss a survey of the field that shows that a culture of compliance can be achieved through a shared commitment at the individual, institutional, and federal levels, offsetting, at least in part, a lack of structural support and resources in addressing compliance requirements.

Dr. Karen Scarpinato and Jeanne Viviani, MPH, from Florida Atlantic University and Research Ingenuity, LLC, argue that research administrators operate in a context in which the ever-growing and changing external demands to adapt to rules and regulations of sponsors along with the pressures to increase research numbers make it difficult to look at how we operate rather than just what we do. In their article, “Is It Time to Rethink How We Support Research: Teams, Squads

and Mission? – An Opinion,” they point out that these pressures may also lead us to lose sight of our mission and goals, which arguably are not to be found in metrics and rankings but are rooted in our researchers and the support we provide them. They go on to underscore the importance of making an effort to make changes that address our core behaviors rather than just focusing on our rules and regulations. Such changes are posited to be essential for the sustained long-term success of academic research and its support infrastructure. Finally, they suggest that the global trend toward team-based approaches may be helpful in accomplishing these shifts, proposing a change in how we operate to embrace a non-sequential workflow that focuses on mission and objectives.

Our final article, "Understanding the Impact of the COVID-19 Pandemic on Research Administration in Canada," is from Dr. Anita Sharma at Thompson Rivers University in Kamloops, BC, Canada. This piece provides us with a study of how research administration professionals dealt with the disruptions from the sudden changes brought on by the COVID-19 pandemic 2020 in Canadian post-secondary and affiliated organizations. She goes on to offer some possible lessons for how we might adapt to a similar situation in the future and the ongoing challenges brought on by the pandemic. Through a national survey, the research administration community reflected on the following themes: i) Challenges experienced in setting up the new working environment; ii) Technostress; iii) Workload, productivity, and work-life balance; iv) Relationship among colleagues and with faculty; and v) Adaptability to the reality and future work culture desire. Among the multiple key results of the survey were findings that indicate that although Canadian research administration professionals experienced challenges due to abrupt shifts in their workplace, they were creative, resilient, and flexible enough to steer through this testing period. In addition, the inherent/acquired technological capabilities, efficient communications among coworkers and faculty, and strategies they used to stay productive and efficient helped most of them adapt well to this situation. These and additional findings provide important data to help us move forward as research administrators in the years after the initial adaptation to the ongoing COVID-19 challenges.

IMPORTANT NOTICES: I want to draw your attention to two process issues regarding the operation of JRA.

1. I am pleased to inform you that after a long and complex process of negotiations and clarification of operational processes, JRA will be moving to a new process for the submission and review process. In the near future, we will be moving to the use of the ScholarOne system for processing manuscripts. This will lead to a significant increase in efficiency, speed of review, and ease of communication with both authors and reviewers. Please watch our webpage for notice of when we will “go live” with this new manuscript handling system and for email and webpage notices about changes in the review process that may accompany that milestone.

2. Updated author guidelines will soon be taken into effect as we release the ScholarOne System. Please refer to the journal webpage below to ensure you are using the guidelines that are in effect if you are submitting a manuscript or intending to do so in the future.

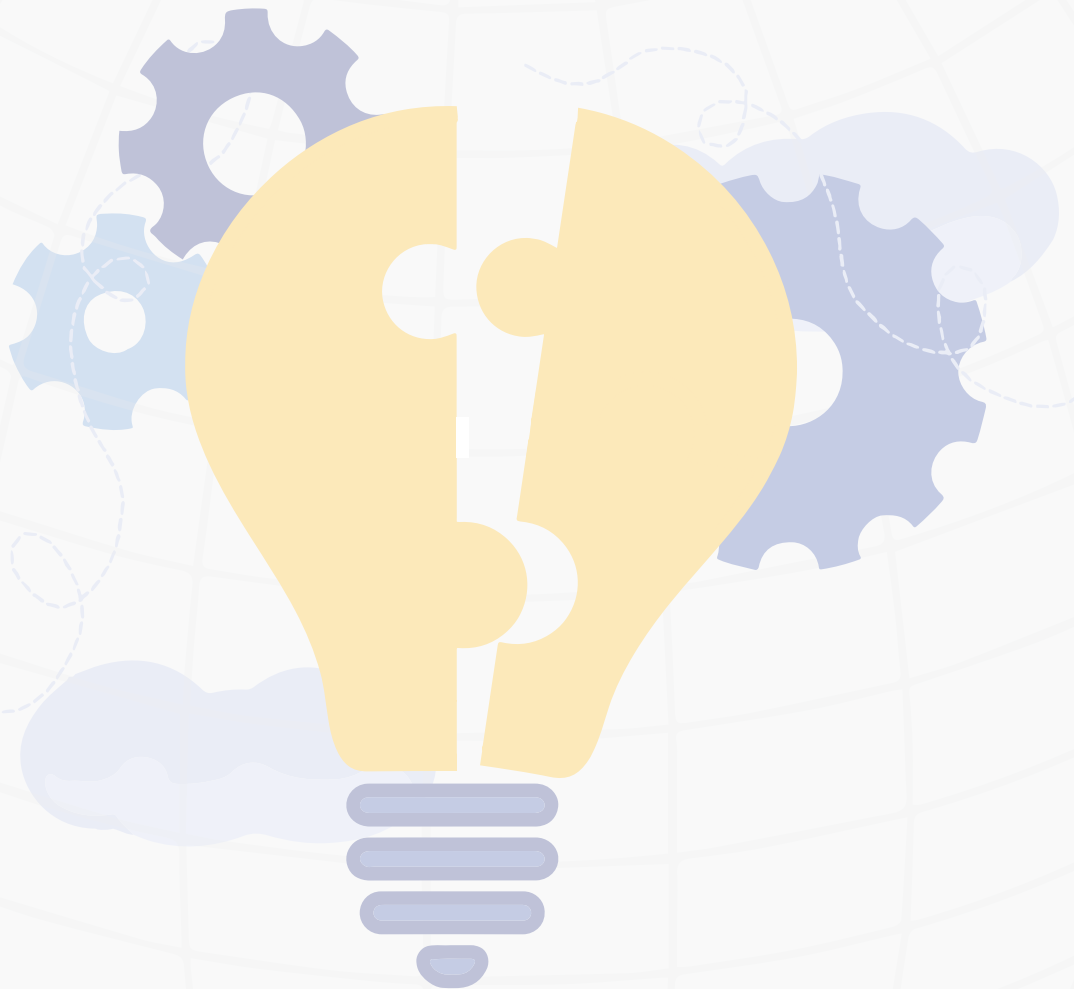
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As Editor-in-Chief of JRA, I continue to be excited about the opportunity to work with our authors and reviewers who make such significant contributions to moving the knowledge base so essential to our field forward. We continue to receive submissions that provide guidance for continuously improving the work that has been core to our field, responding to new challenges for implementing new technologies, addressing emerging policies and processes required by sponsors, and areas where research administrators are increasingly providing leadership. In addition, we are fortunate to receive and be able to present to our readers the incredibly diverse and exciting array of manuscripts we receive that reflect the work of so many talented and committed professionals.

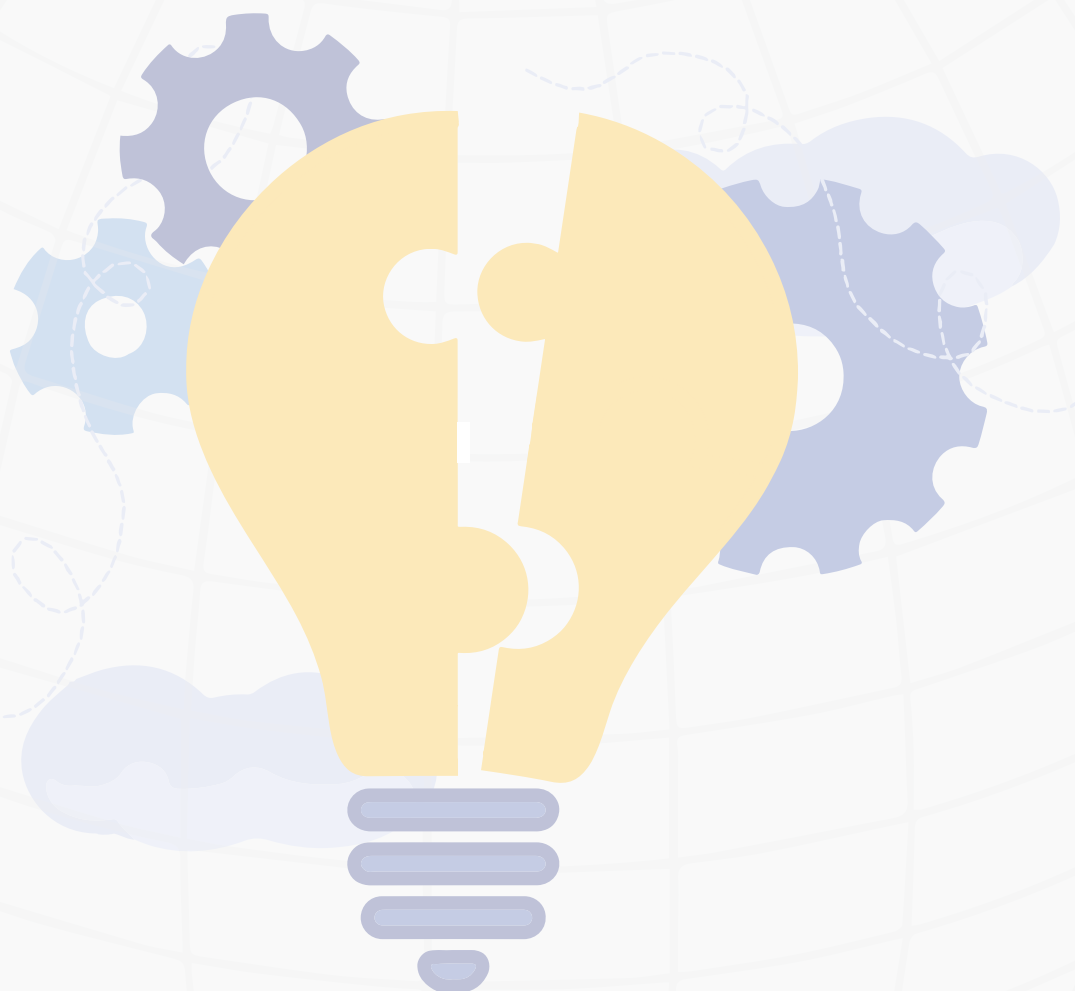
Please email me directly with any input, questions, or suggestions you may have. Once again, I want to highlight how critical the hard work and contributions of the many people who support the production of JRA are. Producing the JRA, constantly reviewing and improving our policies and procedures, and developing our infrastructure for the future require a broad and committed team. I have been privileged to have their collaboration in continuing the tradition of excellence of this journal. It is the team behind the Editor that is essential to the success of the Journal. The administration of SRAI and the communications committee of JRA provides essential guidance and input on all phases of the Journal, both for intentional efforts and as a vital resource for addressing unique situations. Holly Zink, who serves as Deputy Editor, is a full professional partner and an important source of personal support in what would otherwise be an overwhelming task. Holly's hard work and willingness to always take on whatever task we ask of her, on the shortest of notice, is critical to moving the journal forward on a day-to-day basis and in unexpected pinches. The Editorial Board members are unflagging in their willingness to provide time and guidance in ensuring that the manuscripts that appear in the Journal are exceptional and that they make valuable contributions to the work of our readers and the field of research administration more broadly. They are true partners in this process. As the journal submissions have increased, our Editorial Board members have gone far beyond what is reasonably expected in responding quickly and with great expertise. The Author Fellowship Committee and the Author Fellow Advisors, now under the guidance of Holly Zink, provide essential support and advice to the Author Fellows as they develop and publish their first scholarly articles. I am grateful they will continue providing this unique and vital work for JRA. Many behind-the-scenes SRAI staff have shared their knowledge, guidance, and expertise to my work as Editor-in-Chief. Although behind the scenes, it is impossible to thank Gina Snyder for her essential contributions to all aspects of getting JRA produced. She works tirelessly, always quickly, thoughtfully, and with kindness. I have been very fortunate to have her as a partner throughout my editorship. As always, she merits special recognition and thanks. She is, as I have said previously, and I continue to believe, the day-to-day beating heart of JRA – who ensures the production of the Journal meets the highest professional standards

Lastly, and as always, if you are a non-SRAI member and wish to have the journal delivered to you via email, please sign up through the online system at <http://www.journalra.org>.

Journal of Research Administration



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ARTICLES



Knowing, Doing and Being: Transferable Competencies for the Research Management Profession

Charmaine Williamson

University of South Africa

Karin Dyason

Southern African Research and Innovation Management Association

Abstract: *This article focuses on the transferable (soft) skills articulated in a Research Management (RM) Professional Competency Framework (PCF). The Framework was developed, prior to COVID-19, from continentally anchored RM praxis in Africa. While the Southern African Research and Innovation Management Association (SARIMA) Framework (2016) includes nine key ‘technical’ competency areas for respective RM organizational levels (administrative, management and leadership), it is the RM transferable skills that have been brought to the forefront in the current complex COVID-19 environment. This article is therefore a timely focus on what RM practitioners offer as ‘human-being’ professionals and not only knowledgeable experts. The paper therefore contributes to novelty in terms of mindfully integrating the personal into the professional practice architectures, and, as such, reinforcing work-life integration based on what it means not only to “know” and “do” within a profession, but also to “be” a professional.*

Keywords: *Professional Competency Framework; Research Management and Administration (RMA); transferable (soft) skills; RMA praxis; Practice Architectures; COVID-19; sociomaterial praxis*

Introduction

The debate should be settled in terms of whether research management and administration (RMA), a term recorded by Kerridge and Scott (2018, p. 2) and Viragh, Zsar, and Balazs (2019, p. 9), is an occupation or profession (Kirkland, 2005), and whether Research Managers and Administrators (RMAs) are professionals or practitioners. RMA does not lack the criteria required for a profession (Williamson et al., 2020), instead, its “visibility and recognition”, as such, should be “formalized” (Viragh et al., 2019). What is therefore perhaps overdue, then, is to lay bare some of the praxis (practical application of know-how in the furtherance of action) of RMAs. As such, the study intends to provide a consciousness about how the RMA profession and professionals “act in the[ir] world, to practise, and to do” (Kemmis, 2010, p. 11), and expand on their work identities (Allen-Collinson, 2007). Given the proliferation of research, and the rapidly changing praxis and practices of research, precipitated by the COVID-19 pandemic (Dinis-Oliveira, 2020; Hedding et al., 2020), the people and systems of RMA are under pressure. There is a recent view that RMAs practicing the “fundamental research management principles

formulated in the past” might “no longer satisfy the changing research environment of today” (Viragh et al., 2019, p. 4). Noordegraaf (2020, p. 205-6; 219) has additionally recommended the “reconfiguration of professionalism.” This is advocated through going beyond the technical qualities required by professionals, and exploring identity work (Allen-Collinson, 2007; Hockey & Allen-Collinson, 2009; Whitchurch, 2008; 2012; Shelley, 2010; Lintz, 2008). This article therefore advances the above-cited authors’ work and delves into the domain of transferable skills that make up the identity of RMA professionals. Andersen et al. (2017) and Derrick et al. (2014), in their review of RMA competency models, also call for improved analysis of RMA frameworks. Additionally, in a systematic review on the role of RMAs (Derrick et al., 2014, p. 33-34), research gaps are highlighted, of which two motivate this study. First, they argue that a strong divide exists between the respective practice, alongside academic-based cultures in RM literature, which for RMAs might make them feel they exist in these parallel worlds—the importance is to bridge these worlds. In bridging these worlds, it would thus be useful to explore some of the less overt characteristics of successful research management (RM), such as the repertoire of soft competencies that achieve RM outcomes and impact in “evidence-informed research management practices” (Derrick et al., 2014, pp. 33-34). For the purposes of this article, and expanded on in the next paragraph, we coin the dimensions of these study gaps conceptually, specifically, as probing praxis as a sociomaterial expression (Hultin, 2019; Orlikowski, 2007), and broadly, how soft competencies populate RMAs praxis architectures.

Praxis, in this study draws from Kemmis (2010, p. 9) who melded views of Aristotle and Marx on praxis:

Praxis has two principal meanings. According to the first, following the usage of Aristotle, praxis is ‘action that is morally-committed, and oriented and informed by traditions in a field’ (Kemmis, 2008, p. 4). According to the second, following the usage of Hegel and Marx, ‘praxis’ can be understood as ‘history-making action.’

For RMA, we contend that praxis, therefore, is activity-based development that through both routine actions and reflection shapes a ‘change-making’ enactment of the RMA profession better to perform its role in a dynamic world. Praxis occurs in a sociomaterial world (Hultin, 2019; Orlikowski, 2007). The remit of sociomaterial, for this study, is adapted and appropriated from Hultin (2019) and refers to the inter-relationships between the social-human dimensions of a professional, and then the university which, from this viewpoint, is an academic and physical/material institution. The specific praxes we analyze are the transferable or soft skills (used interchangeably) that are advised for RMAs’ competencies. Andersen, too, has made a recent contribution on ‘Transferable Skills’ (Andersen, 2017, p. 319-329; 320). In a book chapter, he reflects on RMAs who are often caught between a “rock and a hard place”: the ‘hard’ material world of academia alongside the ‘rock’ of administration. He shows how RMAs adapt along the continuums of formal and informal power bases, drawing on their proficiencies to navigate such intersecting, and oftentimes, diverse worlds. In navigating these interstices and contradictions, RMAs employ a repertoire of ‘soft/transferable’ characteristics and skills, and therefore research should highlight the value of codifying these intangible assets such as we intend in the PCF and the article.

This article follows Jakkola's (2020) distinctions around conceptual, as opposed to empirical, articles, to attempt "theory adaptation". The "domain theory" is thus praxis (Kemmis, 2010, p. 9), where we revisit the extant praxis architecture of Kemmis to "provide an alternative frame of reference to adjust or expand [praxis architecture's] conceptual scope" (Jakkola, 2020, p. 23). Our intention is to translate Kemmis' model (See Figure 3) into a new field, RM as well as to highlight how RMAs may believe in the importance of what they personally bring to their work, in terms of transferable competencies, as system-changing praxis (See Table 2 as well as Figure 4).

The study, therefore, follows "praxis-related research" which Kemmis (2010, p. 17) indicates is "research nearer" to the discipline or profession's praxis, as per the Swedish conception of "praxis-close research". Kemmis (2010, p. 17), referencing a paper by Mattsson and Kemmis (2007), indicates that praxis-related research intends to problematize the traditions or patterns of a discipline, and, through practical interrogation, empower the disciplinary community through communication, solidarity, and reflection to advance that discipline. As such, there is potential or impetus for changes in accepted praxis. Kemmis is echoed by Jakkola (2020, p. 23) who states that theory-adapting papers should problematize "a particular theory or concept" in order to expand the application of that theory for different disciplinary communities to achieve theoretical and practical value. Kemmis (2010, p. 17; 21) nuances the argument further by stating that 'traditional' research develops knowledge and theory "about praxis rather than in praxis". Research done by those within the praxis is thus different from conventional research, based on their unique insider insights and their "collective care" inculcated by that very closeness to their praxis.

As a research aim, the study takes the form of a conceptual mapping of the 'insider' views of transferable skills included in a competency framework for RMA professionals (SARIMA, 2016) against an existing praxis framework (Kemmis, 2008, p. 21). We inquire into these soft skills, following praxis-related research (Kemmis, 2010), which is explained more fully in subsequent sections. Praxis-related research is used as both a methodology and theory for this exploration. While transferable skills have been conceptualized for different professions and for RMA, as provided by Derrick et al. (2014, p. 33-34), a review that makes specific philosophical-praxis linkages has not been covered to date. The article also contributes to praxis-related research within a specific profession, and its professionals (Derrick et al., 2014, p. 33-34), as opposed to a discipline (Kemmis, 2010).

The SARIMA RMA Framework

The study focusses on transferable skills of the Southern African Research and Innovation Management Association (SARIMA) Professional Competency Framework (PCF) (2016). The PCF emanated from a credible RMA Association (Kirkland, 2005, p. 65) that investigated RM dispositions, engagements and activities and then systematized the findings. The PCF followed a project cycle that included: a needs analysis, consultation with RMA professionals, action research methodologies, quality assurance, reporting, peer review and accountability to governance structures. Williamson et al. (2020) covered the rationale for, and development of, the framework. Their article also explains the contents of the framework and makes the case for its role in scaling up the professionalization of RMA. With hindsight, we propose that the research

informing the PCF was praxis-close in that the professionals drove it themselves, through action research, and has contributed to developing a spirit of inquiry as well as creating system changes to modes of praxis (See Annex B for the methodology for the development of the framework, drawn from Williamson et al., 2020). This article will not cover that ground again.

The PCF covers 1) key (substantive knowledge and performance areas of RMAs), and 2) transferable (cross cutting) competencies. The latter are further identified as “soft/interpersonal skills” (SARIMA, 2016). The framework identifies three levels of RMA: 1) leadership/strategic; 2) management; 3) administrative/operational. For each of these levels, key, and transferable competencies (cross cutting, soft skills) are provided in distinct detail. In addition to differentiating the competencies for each level, the PCF also provides a composite list of transferable skills that are assumed to be practiced at all three the levels (See Annex A). The Williamson et al. (2020) article includes a stronger focus on the nine key competencies. Their article, however, does not cover the second dimension of the framework, the transferable skills in any detail. Yet, Matteson et al. (2016, p. 71) emphasize the importance of attending to such skills in understanding people at work and in professions. They highlight those transferable skills often fall into “fuzzy” or “murky” formulations. It is therefore important to clarify this domain of competencies. Matteson et al.’s work (2016) explains the meaning of “soft skills”, and how it is a struggle to fit these skills into typologies and taxonomies (such as frameworks), notwithstanding that there might be a commonly ‘agreed-to’ list and documented evidence of such skills. They conclude that there are apertures in intellectually grasping these skills, how they contribute alongside the more technical skills, and, discerningly, what are their meanings and impact. This means that it is a struggle to attain their recognition, standing and traction in workplaces. Therefore, from a professionalization perspective, RMA soft skills do need to be tabled and debated in the repository of knowledge related to RMA. We therefore recognize their inclusion in the SARIMA PCF and hone in, conceptually, on these very skills.

Given the limitations of space for this article, we have focused on the composite list of skills in the SARIMA PCF and not the skills at the various levels of RMA. See Figure 1 which includes the numbering of the skills for ease of reference (For the expanded explanations of the skills, See Annex A).

1. Interactive communication
2. Negotiation
3. Conflict resolution
4. Personal effectiveness
5. Researcher focus/stewardship approach
6. Organisational awareness
7. Manage resources/stewardship of resources
8. Attention to detail
9. Value diversity
10. Plan and organise
11. Adaptable
12. Team work and collaboration
13. Leverage technology
14. Nurture innovation

Figure 1. Transferable/Cross Cutting Competencies Across All Levels of RMA

Lester (2005) indicates the importance of practical frameworks within research and disciplines as presenting the accumulations of practice-based knowledge, drawn from lay and academic sources. These models, however, he claims, should also be complemented by conceptual frameworks so that the practice-based work is framed for external role-players and macro perspectives. In the furtherance of this idea, the conceptual framework for the study therefore is hereto shown and explained.

Literature Review and Conceptual Framework for the Study

The conceptual framework folds into the review of relevant literature (below) as well as being a 'softly-constructed' depiction of the relationships of justification and motivation for the study (Lester, 2005, p. 460). Some central concepts of Figure 2 have already been introduced above, with Figure 2 additionally providing a bird's eye orienting view. The review of the literature of the conceptual framework follows, excluding the section on praxis-related research which is covered in the methodology segment

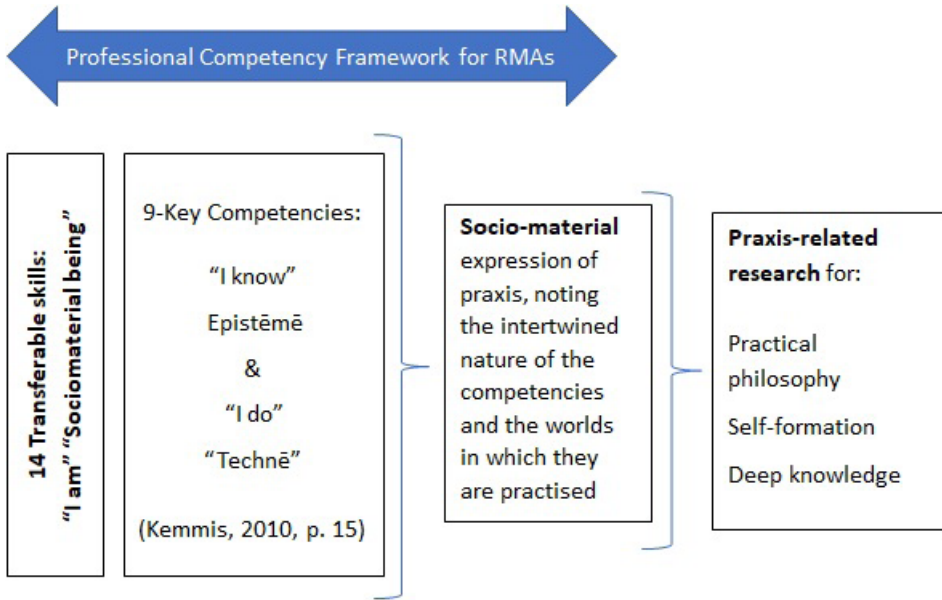


Figure 2. Conceptual Framework Informing the Study

Review of Frameworks and Professional Competency Frameworks

Frameworks, it is posited, place RMA in managerial and “quasi-market” actions (Shelley, 2010) with research integrally linked to productive forces of capital, therefore making it necessary to examine the philosophies behind RMA praxis. Frameworks are also linked to social innovations and their successes (Williamson & Shuttleworth, 2021; Olsson & Meek, 2013).

As was established by Williamson et al. (2020, p. 64), both the Associations that develop frameworks and the frameworks themselves formalize professionalization and provide a departure from RMA as an occupation. They show how documenting elements of a profession as well as making competencies explicit, gives agency and definition to a profession (Williamson et al., 2020, p. 51). The PCF was confirmed as responding thus to membership and broader stakeholder needs. The SARIMA PCF took its place alongside other RMA frameworks (See Table 1 as sample), thus complementing the architecture that guides RMAs in specific contexts (See SARIMA’s claim for [Southern] African dynamics), as well as the profession, globally. SARIMA thus set out to develop a framework that was “regionally relevant as well as globally applicable” (Williamson et al., 2020, p. 53; 64), and, as such,

...embolden[ed] the agenda of research management... [through] 1) providing a defined professional and practical competency framework as well as 2) tracing the meta narrative of the project to build the bodies of knowledge on professionalization [and the] methodology of framework development.

Table 1. Purposive Sample of RMA/related frameworks

Sample of Organizations	Name	Differentiated technical and soft competencies named as:	
		Key	Transferable/crosscutting
SARIMA	Professional Competency Framework	Key	Transferable/crosscutting
Association of Research Managers and Administrators (ARMA)	Professional Development Framework	Functions	Indicative skills Underpinning knowledge Examples of behaviors which underpin effective performance
European Association of Research Managers and Administrators (EARMA)	Professional Development scheme (follows ARMA)	Functions	Indicative skills
Society of Research Administrators International	Programs/Courses	Integrated: Micro-credentialing on programs and courses	
TDR, the Special Programme for Research and Training in Tropical Diseases ESSENCE on Health Research	Various toolkits and manuals	Integrated	
VITAE	Researcher Development Framework	Integrated: Domains and sub-domains that integrate 'technical' and 'soft' competencies	
National Council of University Research Administrators (NCURA)	National Standards for an Effective Research Compliance Program; Unit-Level Standards for Effective Sponsored Program Operations: Research Unit/School/College Focus; and Central-Level Standards for Effective Research Administration	Standards: The standards are differentiated per National, Central and Unit levels. Technical and soft competencies are integrated into the different standards	

The SARIMA Handbook for RMA (Johnson et al., 2017/2018, p. 19) covers a range of frameworks and/or professional standards to enable RMA. In terms of SARIMA's own PCF, the Handbook recommends that "stakeholder organizations and individuals may use the PCF to help them assess skills levels, write job descriptions, plan professional development and career paths, benchmark practices, design organizational training interventions, ensure considered succession planning, and guide individual professional development". Derrick et al. (2014), in a comprehensive systematic review that covers 98 articles, note that frameworks provide a basis for strategy, monitoring and evaluation towards research and RMA success. Green and Langley (2009, Section 4.13), in a seminal commissioned study on RMA frameworks, report on the intentions of developing RMA frameworks, as well as on the lack of standardization of RMA frameworks. They conclude that there is "appetite for... a... comprehensive framework... that engages with current providers and senior staff... to develop good practice, greater consistency and a network of Research Management professionals". Yet, they assert that the substance of frameworks is "less obvious," as this article explores in depth, specifically, in terms of the intangible skills. Furthermore, through our viewing frameworks as sociomaterial, the work of Hockey and Allen-Collinson (2009) is pivotal. They reflect on the ingenuity of RMAs' informal and tacit knowledge, and practices, which are used alongside the formal, technical job descriptions. Their work states that it is the soft skills (and characteristics) that are critical for success, yet these are often overlooked, when people see the task performances of RMAs

Review of Transferable Competencies and Deep Knowledge as Sociomaterial Expressions of Praxis

Somewhat divergently, but with a strong invocation to "stay in sync with the pulse of our time," Macher et al. (2019, p. 151) focus on a transferable skills competence framework in the automotive industry. COVID-19 has profoundly underlined the necessity for society to remain relevant and 'in sync' with turbulent times (Lund et al., 2021). In noting the need to remain current, and how soft skills might be a vehicle for relevance, we therefore review briefly how transferable skills (noting the interchangeable naming) are seen as central to the RMA profession. To this end, however, we note the implications of COVID-19, but do not focus specifically thereon.

Andersen (2017, p. 320) indicates that transferable skills acumen goes beyond the technical proficiency of RMA. Aside from interpersonal communication and presentation abilities, he highlights "diplomacy, team-working, a good sense of humor and self-insight." Transferable skills enable RMAs to be versed in the complexities of their work environments, and, he argues, are strongly needed for ambiguous, in-between spaces, as well as along the task continuum of formal and informal dynamics that are inherent in the profession. UNICEF (2019, p. ix; 1) defines transferable skills interchangeably "as life skills, 21st century skills, soft skills, or socio-emotional skills" which enable people "to navigate personal, academic, social, and economic challenges; [they] include problem solving, negotiation, managing emotions, empathy, and communication". Notwithstanding the practice, UNICEF (2019, p. ix) does opine such skills are the "magic glue" that connects skilled people systemically to other skills. Additionally, the World Economic Forum (2020) covers the top ten skills needed for workers by 2025, all of which are higher order thinking and soft skills, such as those found in the SARIMA PCF for RMAs.

Authors such as Whitchurch, 2012; Williamson et al., 2020; Viragh et al., 2019; Andersen et al., 2017; Kerridge and Scott, 2018; Cloete et al., 2015; Campo, 2014; Deng et al., 2014; Derrick et al., 2014; Hockey and Allen-Collinson, 2009 respectively cover specific and convening views that argue that the quality and essence of professionalism is compromised without a substantive employment of a range of interpersonal attributes including those in leadership roles of RMA (Campo, 2014). The central message is that such skills are paramount for survival, to the success of academic endeavors as well as being energized and committed to the work at hand. In this light, transferable skills have been taken up in summative terms such as “broker”; “diplomacy”; to “mirror and match” stakeholders (Andersen et al., 2017, p. 330); “third space” professionals (Whitchurch, 2008, p. 378; 2012); “invisible intermediaries” (Derrick et al., 2014, p. 11), and in creative ‘elastic’ (Williamson et al., 2020) and “balancing” roles (Lintz, 2008, p. 78). In his book for RM leaders, Johnson (2013) details that RMAs often must use the skills of corporate executives, while also being exacting bureaucrats. Over and above these two demanding yet opposite roles, RMAs are also expected to be academically inclined and produce publishable research. Skills are even placed on par with being a prophetic Odyssean mentor (Mullen, 2009). On a more applied level, these vivid demands lead to a consideration that transferable skills may equate to having “deep expertise” (Ramachandran, 2010, p. 27; 34). Deep expertise is developed through deliberate practice which evolves over time and stages (likened to the medieval apprentice-to-mastery model) and hones specialization. Yet, it also specifically exceeds specialization and skills to “encompass behaviors, experiences, connections and [powerful] networks” (Ramachandran, 2010, p. 27; 34).

The practicing, and robust existence of transferable skills within frameworks for professions and RMA, points to sociomaterial praxis. Sociomateriality includes “the intimate entanglement of non-human and human elements in the construction of sociomaterial realities” (Hultin, 2019, p. 23) with “practices of knowing and being” as inseparable (Barad, 2007, p. 185). Therefore, knowing, doing and being, within a university system, are all mutually constitutive in living out the role of an RMA professional. Kemmis (2010), referencing Aristotle, and critiquing Flyvbjerg, highlights how knowledge and practice may be shaped by *epistēmē* (‘we know’: knowledge based on theory or contemplation) and *techniquē* (‘we do’: practical doing, technical craft). We state that transferable skills (‘we are’: interpersonal relational skills) are the sociomaterial expression of praxis, noting the intertwined nature of the socio-based competencies and the material worlds in which they are practiced.

Methods: Praxis-Related Research

The research is framed in the paradigm of praxis-related/close research which attempts to bridge the theory-practice divide. Such research straddles and encompasses praxis and research as concepts. The mode is to do action research intricately endogenous to the practice community which informs it. It intends to both draw on everyday life, while also informing everyday life with universal principles. As such, it allows academic and practitioners to enter one another’s “province of meaning.” There is a “praxis-knowledge” that is co-created with theoretical knowledge and which extends both into transformative outcomes (Mattsson & Kemmis, 2007, p. 5; 10).

The methodology for the development of the PCF including the transferable skills is provided in full in Williamson et al., 2020 (see also Annex B). This current paper clearly draws on the outcomes of the action (praxis-close) research used for the PCF's development. Where we do diverge from this afore-cited paper, method-wise, is the new focus on the transferable skills and mapping those skills upon Kemmis' (2008, p. 21) practice architectures, as reproduced (with permission) below.

The Dialectic (Mutual Constitution) of Action/Praxis and Practice Architectures

Action and praxis	Dimension/medium	Practice architectures (mediating preconditions)
"Sayings" (and thinking)	The cultural-discursive dimension (in the medium of language)	Cultural-discursive structures, practices and relationships
"Doings" (and 'set-ups')	The material-economic dimension (in the medium of work)	Material-economic structures, practices and relationships
"Relatings"	The social-political dimension (in the medium of power)	Social-political structures, practices and relationships

Kemmis, 2008, p. 21: Used with permission

Figure 3. The Dialectic of Action/Praxis and Practice Architectures (used with permission)

Findings

We reviewed the numbered transferable competencies (See Figure 1: 1-14) in relation to the theory of practice architectures advanced by Kemmis (2008, p. 21). Given the intertwined conceptualization of this study, we advance that all competencies apply to all of Kemmis' dimensions (See Figure 3, specifically, column 2). We conclude this from working within the connotative meanings of all the competencies. The competencies are interrelated in a complex system of what and who make up RMAs, as human, and as engaging in a sociomaterial world.

Yet also, interpretively, we 'stick out our necks' to rationalize the competencies around definitiveness or primacy of the respective competence, based on the full wording as denotatively most applicable to the respective three existing dimensions of Kemmis' theory (2008, p. 21). We provide an additional fourth dimension as postulated through our conceptual analysis. We link the specific competency to the now-four dimensions, through using the bold numbers. We also offer, in line with praxis-close research, a synoptic explanatory narrative in terms of our inferences.

Table 2. How the Transferable Competencies Integrate with Kemmis (2008) Practice Architecture with the Additional Dimension of ‘Being’ Included

No.	“Action and Praxis” drawn from Practice architectures 1-3 (Kemmis, 2008, p. 21)	Dimension and Medium (Kemmis, 2008, p. 21, column 2)	Transferable competencies (SARIMA, 2016)	Explanatory narrative
1	Sayings (language)	The cultural-discursive dimension (in the medium of language)	All and with primacy of 1 and 6	Interactive communication clearly aligns to sayings; with negotiating, valuing diversity, and teamwork and collaboration also being strongly reliant on cultural-discursive dimensions
2	Doings (work) with inclusion of sociomaterial elements	The material-economic dimension (in the medium of work)	All and with primacy of 5; 6; 7; 10; 12; 13; 14	This dimension, in its action orientation and work ethic, would prioritize a number of primary competencies
3	Relatings (power)	The social-political dimension (in the medium of power)	All and with primacy of 2; 3; 9	If we follow the emancipatory premise that ‘power’ underpins all dimensions, then All in bold makes sense, together with specific consideration of how power mediates negotiations and diversity issues
Novel contribution: Additional dimension of “being” included to extend the conceptualization of Kemmis (2008, p. 21)				
4	Being (sociomaterial) (Additional to Kemmis, 2008, p. 21: Practice Architecture)	“Practices of knowing and being” as inseparable (Barad, 2007, p. 185); & Interrelated competencies constituting a complex human and sociomaterial system	All and with primacy of 4; 8; 11	If we follow the premise that ‘being’ cuts across all the dimensions, then All in bold makes sense, together with specific consideration of how personal effectiveness, attention to detail and adaptability refer acutely to the state of being of a professional

Discussion

Based on managerialist framework-thinking (Shelley, 2010), there is the potential to review the competencies within a framework adopting a technical orientation. This could entail offering commentary on the actual competencies selected and included their suitability for the job at hand, and speculations on how they are applied in practice. This is not the intention of the current review. The praxis-related research methodology already asserts the substantive credibility of the contents, suitability, and application in practice. Williamson et al., (2020, p. 64) indicate thereto that a “bold process of self-determination” for RMAs included “expert views... purposively sampled. The voices of the participants are translated into the text of the PCF. [As such it is a] consultative framework that may be used with ease.” Therefore, the article does not challenge whether RMAs have these transferable skills, but contends that, given that RMAs themselves have identified and included these skills, that they deeply know that they use all, or some of these abilities, in the outcomes of their profession. RMAs therefore provide ‘insider’ praxis, as argued in this article. Independently, Andersen (2017, p. 319-332) and Viragh et al. (2019, p. 30) confirm the relevance of all these competencies.

The study sought instead to probe into philosophy of practice of RMA, moving beyond the technical knowledge and craft (nine key competencies) and into interpersonal attributes (transferable, cross cutting competencies) of what makes RMAs as ‘human-being’ professionals and not rooted, simply, in literal functionary roles, within their expertise. In doing RMA, therefore, the professional is a ‘saying-being,’ adaptively communicating within discursive-cultural contexts that include different media, active listening and engaging open, cross-functional communication using appropriate channels. Additionally, RMAs intricately interpret, and are “into play in the doing” (Kemmis, 2010, p. 25) of social-political dimensions, as ‘relating-beings’. On a day-to-day level, RMAs lead, as well as manage or administer around the nine key competency areas. Additionally, RMAs prevent or resolve conflicts; “do” politics; and explore alternatives to negotiate outcomes with diverse parties. Daily work includes strategic and operational material-economic outputs, outcomes, and impact. As such, RMAs practice research stewardship for productive relationships within the goals and systems of their respective organizations. They are aware of, and work within, inter- and intra-organizational relationships. Inclusive to these workings is the accountable, discreet, and sound management of resources. In doing so, the RMAs work, as individuals or, collaboratively, within teams, within a planning and organizing framework. Their work involves technological acumen and a nurturing of innovation, both for the research that they support and within the performance of their dedicated functions. They are ‘doing-beings.’

These dimensions are integrated into a complex system of human and sociomaterial dynamics as RMAs are ‘being-beings.’ Specifically, they show personal effectiveness and resilience and achieve RMA through attention to detail, while also remaining open to being adaptable. This has specifically been shown in the current environment of COVID-19 that has entailed dramatic paradigm-altered work contexts. While we have noted that this article is not targeted specifically at a COVID-19 focus, proximate media such as blogs and organizational reports did reflect on how human adaptivity was pushed to the limit. From a positive perspective, challenges were

reframed as resilience and adaptability including the notion of re-creating or re-generating. The Society of Research Administrators International specifically reflected on how value-driven work took center stage, with people drawing on deeper value systems to render services. RMAs not only anchored value principles to fulfil their work, but also had to make difficult decisions about which services could still be provided, the degree of services and who could provide them to whom. These decisions brought change management to the level of daily struggles and clearly drew on human ecological skills beyond the technical application of such skills, in both routine and crisis circumstances (Zink, 2021a; b). The application of their skills amounts to deep expertise (Ramachandran, 2010, p. 27; 34). While the above rendition might appear to present the RMA professional as a ‘super-being’, self-reporting would indicate that these competencies are a combination of realized as well as aspirational reality (Viragh et al., 2019). The competencies also do confirm Kemmis’s (2008) theory of practice architectures that includes culture, politics, and economics in a discursive, social, and material world.

The most critical finding relates to muddling the neat and linear conceptual framework to show that RMA displays “messy” (Williamson et al., 2020, p. 54), “hybrid” (Noordegraaf, 2020, p. 205-6; 219) and inter-connected ways of professing and being. As such, the conceptual framework has thus been updated to show the broader systemic manifestation of RMAs knowing, doing and being in the fulfilment of their profession.



Figure 4. The Conceptual Contribution of the Current Study as a Re-Worked Conceptual Framework

Figure 4 sums up the contribution of the article. It shows cascading personal and professional identity propelling both inward to the individual and outward to broader forces. At the core, are the subjective attributes of the persona, who enters the field with the ability to be or become the RMA professional, envisaged in the PCF's transferable competencies. Through a process of socialization (practice architecture), experience, training, and education/qualification, the RMA professional additionally acquires the nine key competencies, which enable the person to know and do, alongside living out their transferable skills to perform their complex work successfully. Their composite work creates foundations for system changes akin to history-making paradigm shifts. RMAs, providing services in support of the vision of others, namely academia, perhaps seldom see their agency in bringing about grander scale change. Following Jakkola (2020, p. 23), we therefore have used "theory adaptation", addressing an extant grand theoretical term such as 'praxis' and its architecture (Kemmis, 2010), to illustrate how RMAs' transferable competencies indeed set up service-oriented cascading ripples for research that does change the world (See Figure 4).

We posit that RMAs may, through the Framework and this study, become more conscious of the weight and significance of their transferable skills and therefore develop these more deliberately and/or use them with enhanced insight, knowing that soft skills are as much a part of their jobs as are their knowledge and expertise. They may usefully review the transferable skills in the SARIMA PCF and use the list to assist them to plan for their professional development, deliberately to demonstrate their solid value and worth to the university, to populate job specifications and CVs as well as to argue, if necessary, for deepened insights into why they hold a credible place within the organizational structure. Their stakeholders may also usefully recognize the same as they receive the RMA services and are recipients of RMA outcomes and impact.

Limitations and Recommendations

In working referentially (using the previous paper which reported on the SARIMA PCF) and conceptually, the research team lay themselves open to empirical challenges that require a more grounded approach to explore or 'test' the assumptions and claims made in the article. There is room for research projects that engage with RMAs directly in terms of their current and anticipated articulations of the transferable skills in their respective and current/future COVID-19 contexts. Some skills might even be seen as redundant. A conceptual study prompts thought and reflection, yet also prompts a petition for actual, 'hard' cases obtained through qualitative, quantitative, and mixed methods research. Furthermore, while the study describes different soft skills frameworks, there is no direct comparison in terms of their contents or underpinning philosophies. Comparative studies of this nature would provide valuable benchmarking evidence for the profession. In addition to the skills that apply across all competences as SARIMA posited in the PCF and contained within this article, is the differentiated application of different competencies to various levels of RMA. The description of the various levels of RMA (leader, manager, administrator), exists in a variety of the frameworks described in Table 1. Additional studies may build on this descriptive base to extend the work of the organizational responsibilities of professionals within their institutions. There is also ample impetus to compare the transferable

competencies across a range of different professions and their respective frameworks. As often noted, different conceptual frameworks provide different lenses and there is a plethora of theories in relation to competency frameworks that would add to the body of knowledge.

Conclusion

This study has provided a contribution to transferable skills in the RMA profession in terms of exploring these skills in relation to “practice architecture” (Kemmis, 2008, p. 21), which included a sociomaterial lens. It has therefore explored early and modest insights as to how skills may be viewed through change-making traditions inclusive of mindfulness of how culture, discourses, economics, materiality, politics, and the social are integrated into daily and strategic work. Furthermore, it reminds the profession not to atomize the work of a professional when confronted with competency frameworks, and to position and enact their work through deliberately considering fluid, complex, sociomaterial interpretations of the world of work. It has extended the work of Kemmis (2008; 2010) through including, within praxis-related and practical philosophy research, the notion of “being”, alongside “saying” and “relating” (Kemmis, 2008, p. 21) as well as the “knowing” and “doing” (Figure 2; Kemmis, 2010) in disciplines and professions.

The study was predicated by two areas of recommendation for future research which it has addressed in terms of practical philosophy. The first was how to ensure academic studies provide pragmatic evidence from the professionals themselves as co-contributors to the knowledge base. Transferable skills data drew exclusively from the action research project that formulated the PCF. We extend the knowledge base of transferable skills through fully incorporating that data in this paper. The second was to probe attributes of RMA teams and individuals so that the contours of professionalization are expanded. We therefore build on Andersen’s (2017) work to bolster not the kinds of transferable skills that are present or needed, but to argue for their complex interplays within the system of RMA. These skills extend professionalization in terms of rupturing the technical-epistemological surfaces of professionalization frameworks to suggest deep knowledge that also comes from a state of being in a sociomaterial world.

At the time of this study, the SARIMA PCF has been several years in the making, fielded six years of existence (2016-2021), and now encounters a world that has irrevocably changed in terms of the competencies required for RMA. While there is always room to learn and adapt, the PCF provides a viable basis for consolidating the gains of the profession while providing spaces for re-imagining RMAs, and their being, within the ever-present and contradictory churns of traditional and historical forces.

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Annex A: Full verbatim description of the transferable/cross cutting competencies across all levels of RMA (SARIMA, 2016)

1. Interactive communication (listening to others, clearly conveying information and ideas through different media to individuals or groups in a manner that is engaging, foster open communication).
2. Negotiation (effectively exploring alternatives and positions to reach outcomes that gain the support and acceptance of all parties).
3. Conflict resolution (using a variety of approaches to manage and resolve concerns, disagreement, and conflict, facilitate the prevention, management and/or resolution of conflicts).
4. Personal effectiveness (maintaining effective behaviour in challenging situations having the resilience to bounce back in the face of setbacks; demonstrating a strong desire to advance, recognising personal strengths and gaps and engaging in ongoing development, self-motivated, honesty, and integrity in professional conduct).
5. Researcher focus/stewardship approach (strong commitment to responds to and anticipates needs of researchers, striving to ensure satisfaction with the delivery of services and support and developing and sustaining productive relationships).
6. Organisational awareness (awareness of organisation's research goals, understanding the organisation's formal and informal systems, maintains cross-functional focus, and uses the most appropriate channels to communicate within and between departments/divisions/units, awareness of organisational relationships and external influences).
7. Manage resources/stewardship of resources (demonstrates accountability, discretion and sound judgement in managing organisational resources for research).
8. Attention to detail (thoroughness in accomplishing tasks, monitors and checks work or information, and plans and organises time and resources efficiently).
9. Value diversity (appreciate and leverage capabilities, insights and expertise in an inter/multi/trans-disciplinary manner, values and incorporates contributions, demonstrates respect for opinions and ideas of others).
10. Plan and organise (ability to effectively plan and organise to achieve goals, sets priorities, allocate time and resources to achieve maximum productivity).
11. Adaptable (maintaining effectiveness when experiencing major changes in the work environment; adjusting effectively to work within new work structures, systems, processes, requirements, or cultures).
12. Teamwork and collaboration (fostering teamwork, working toward solutions which generally benefit all involved parties, developing and using collaborative relationships to facilitate the accomplishment of goals).

13. Leverage technology (seeks out ways to employ technology to optimise organisational and individual research performance).
14. Nurture innovation (applies original thinking to job responsibilities to improve processes, methods, systems, or services).

Annex B: Methodology for the formulation and write up of the SARIMA Professional Competency Framework (Williamson et al., 2020, p. 55).



Writing Retreats: Creating a Community of Practice for Academics Across Disciplines

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Abstract: *The writing retreat has been positioned as an effective response to the pressure to “publish or perish” in higher education. An academic writing retreat is a professional development event that allows scholars to immerse themselves in writing for publication and to receive on-site support for that writing. In 2012, the Office of Research and Innovation Services at the University of Windsor in Windsor, Ontario, Canada introduced a biannual writing retreat for faculty and staff across the disciplines. This program evaluation examines 252 retreat evaluations submitted between 2015 and 2019. Our goal is to identify what participants perceive to be the benefits of the retreats. A review of the international research literature suggests primary benefits of retreats include protected writing time and space, the development of a sense of community, increased motivation to write, increased productivity during retreats, and organizational investment in follow-up support. These findings are consistent with our study. However, the overarching benefit of our retreats lies in their development of a supportive community of writing practice that extends back to campus. Participants report their retreat experience is reshaping the ways that they write elsewhere, and that they are collaborating on projects with other retreat participants. This research contributes a Canadian example to a growing body of evidence that suggests retreats can help academic writers prioritize the task of writing over other conflicting demands. A unique contribution of the study is its cost-effective, flexible, interdisciplinary, day-away retreat model, which is an alternative to the discipline-specific, residential retreats within the literature.*

Keywords: *Community of practice; academic writing retreat; research administration*

Introduction

Academics in higher education are required to publish for promotion and tenure. However, many academics find it difficult to focus on writing because of competing administrative, research, and teaching priorities, limited collegial support, and the isolation of writing (Kornhaber et al.,

2016). The academic writing retreat has been positioned as an effective response to the pressure to “publish or perish” in higher education (Kornhaber et al., 2016; Swaggerty et al., 2011), particularly for groups with additional competing demands, such as women (Swaggerty et al., 2011), early-career faculty (Kent et al., 2017), and faculty in health sciences, who have heavy teaching and clinical workloads (Bullion & Brower, 2017).

An *academic writing retreat* is a professional development event that provides scholars with the opportunity to immerse themselves in writing for publication, and to receive on-site support for that writing. The retreat contrasts with writing groups and workshops by providing intense, dedicated time for writing over one or more days. Retreats also offer the likelihood of engaging with colleagues across research fields and disciplines, which can have the additional benefit of developing new collaborations (Noone & Young, 2019). In an integrative literature review of 11 peer-reviewed studies from around world, Kornhaber et al. (2016) found evidence that retreats “facilitate measurable increases in publication outputs including grant applications, ... book chapters and number of peer-reviewed articles submitted and accepted” (p. 1212). This is of interest to postsecondary research offices who support academics in securing research funding, because “building a publication profile is pivotal to developing and increasing an academic’s competitiveness to win grants” (p. 1211).

In 2012, the Office of Research and Innovation Services at the University of Windsor in Ontario, Canada introduced an off-campus writing retreat to provide dedicated time, space, and support for academic writing for researchers in the social sciences and humanities. When the first retreat was announced, available spots were taken within a few hours. Due to demand, the retreat immediately became biannual and extended to all disciplines, with ratings consistently scoring excellent. This program evaluation examines 252 retreat evaluations submitted by participating faculty and staff between 2015 and 2019. The goal of our study is to identify what participants perceive to be the benefits of the retreats. Our research question is *What are the benefits of writing retreats for participants?* Findings are presented within the context of international research on the benefits of writing retreats for academics in higher education, as well as the theoretical framework of community of practice.

Literature Review

In March 2020, we conducted a systematic search of the Canadian Business & Current Affairs (CBCA) Complete, Educational Resources Information Center (ERIC), Google Scholar, OMNI, and ProQuest databases for publications between January 2009 to 2020. Boolean connectors were used to combine search terms (“writing retreat*” AND “writers retreat*”) AND (“academic” OR “higher education” OR “postsecondary”). This search yielded 32 discrete publications. We sought original research that investigated writing retreats in higher education settings and was published in English in peer-reviewed journals. Because we host retreats for faculty members, we excluded studies on retreats for graduate students, as well as studies on other writing strategies such as workshops and groups. Excluded from our search were academic publications outside of peer-reviewed journals, such as conference proceedings, theses, opinion pieces, reports, and book chapters. The reference lists of the final set of articles helped us identify additional publications

not captured through the search strategy that proved useful for context setting, identifying a theoretical framework, and interpreting findings.

Our search culminated in nine studies published in peer-reviewed academic journals, plus an integrative literature review (Kornhaber et al., 2016). Studies were mixed methods or qualitative (excepting Bullion & Brower, 2017). Sample sizes were small, ranging from 4 to 53. The retreats under study were in Ireland (1), the United States (3), and the United Kingdom (5). All retreats were attended by academics from single units or disciplines, primarily health sciences and education, with two retreats in psychology. Retreats averaged 3 days in length, and most were residential; that is, participants slept and ate their meals at the off-campus retreat site. All retreats had structured writing programs with planned activities such as goal setting, mandatory writing workshops or discussions, peer-feedback groups, meals, and social activities.

Benefits of Retreats

In keeping with our research question, our literature review paid close attention to findings on the benefits of retreats. To guide our analysis, we used themes and subthemes identified in the integrative literature review of Kornhaber et al. (2016). The list below describes each theme and associated subthemes (*italicized*):

1. Protected time and space: Retreats provide legitimate, justifiable time to write, away from conflicting demands and priorities; they give participants permission to dedicate time and space for writing over other conflicting priorities (legitimizing time and space for writing). An effective retreat is offered in a space that is supportive, comfortable, and quiet (writing sanctuary). The retreat space is free from the usual interruptions and distractions—such as colleagues, family, and even wifi—which encourages the writer to focus or enter the flow of writing (uninterrupted time).
2. Community of practice: Retreats help to develop an ongoing writing community that is characterized by the shared vision or purpose of participants, leading to a sense of connectedness with other writers. The community is further developed by collegial support or encouraging feedback on writing from peers; by access to mentorship from experts in academic writing; and by social interaction during shared meals and other group activities.
3. Development of academic writing competence: Retreats include supports to strengthen participant writing ability (writing pedagogy). These supports may include workshops, structured writing time, and goal-setting sessions.
4. Intra-personal benefits: Some intra-personal benefits of retreats include increased self-awareness of the barriers and enablers to one's own writing, increased writing confidence and motivation to write, and reduced writing-related anxiety.
5. Organizational investment: Organizational investment in writing retreats influences their success, sustainability, and publication outcomes. Examples of this investment include ensuring the availability and willingness of experienced mentors, such as senior academics, who can provide support for junior writers; the allocation of resources such as space rental and staff to organize and facilitate the retreats in a cost-effective manner; the provision of

funding to attend retreats; and follow-up support to sustain writing momentum, such as ongoing mentorship or writing days.

- 6. **Increased productivity:** The integrative literature review conducted by Kornhaber et al. (2016) positions the above benefits of retreats as cumulating in increased publication outputs by participants (p. 1221). For our analysis, we positioned productivity as its own theme, and looked for studies that reported increased productivity during or after the retreats.

Table 1 summarizes the appearance of the above themes within the nine studies that we reviewed. We identified the themes from the foci of each article’s discussion and conclusion, paying attention to such cues as subheadings and the topic sentences of paragraphs. When deciding on themes, we also considered the title, keywords, and abstract of each article. The primary themes of the reviewed studies were

- benefits of the protected time and space afforded by retreats
- development of a community of writing practice as demonstrated by the shared vision, social interaction, and collegial support of retreat participants
- intrapersonal benefit of increased motivation to write due to retreats
- organizational investment in follow-up writing support
- increased writing productivity during retreats.

Table 1. Themes in Literature Review (themes based on Kornhaber et al., 2016)

Themes	Sub-themes	Bultion & Brower, 2017	Casey, Barron & Gordon, 2013	Eardley, Banister & Fletcher, 2020	Kent, et. al., 2017	Murray & Newton, 2009	Macleod, Steckley & Murray, 2012	Murray, Steckley & Macleod, 2012	Noone & Young, 2019	Swaggerty, et. al., 2011
Protected time and space	Legitimizing time and space for writing			x		x	x	x	x	x
	Uninterrupted time	x		x	x			x	x	x
	Writing sanctuary		x					x		
Community of practice	Shared vision		x	x	x	x			x	x
	Social interaction									
	Mentorship								x	x
	Collegial support		x	x	x	x			x	x
Development of academic writing competence	Writing pedagogy					x				
	Goal-setting								x	x

Intra-personal benefits	Increased self-awareness of barriers to individual writing									x
	Increased self-awareness of enablers to individual writing						x			
	Increased writing confidence								x	
	Increased motivation	x	x	x	x				x	x
	Reduced writing-related anxiety			x			x	x		
Organizational investment	Availability and willingness of experienced mentors							x		
	Allocation of resources	x				x		x		
	Follow-up support	x	x	x	x	x	x	x		
Increased productivity	Reported at retreat	x	x		x	x	x	x	x	x
	Reported after the retreat									x

Theoretical Framework

Several studies in our literature review suggest that retreats can develop communities of writing practice (Eardley et al., 2020; Kent et al., 2017; Kornhaber et al., 2016; Murray & Newton, 2009). A community of practice is a group of people who share a concern or passion for something they do, and they learn how to do it better as they interact regularly (Wenger & Wenger-Traynor, 2015). According to the framework developed by Wenger and others, a community of practice has three characteristics:

1. **Domain:** Members of the group share a domain of interest (Wenger & Wenger-Traynor, 2015). In case of the retreat, that shared interest is academic writing, which includes grant proposals, conference papers, journal articles, book chapters, course syllabi, research reports, and research-creation texts such as poetry.
2. **Community:** Group members build a sense of community by regularly engaging in shared activities (Wenger & Wenger-Traynor, 2015). In the instance of retreats, these common activities can include shared meals, social activities, peer review groups, co-writing in the same room, and collaborative work that carries over beyond and between retreats. Table 1 includes themes designated as community-building by Kornhaber et al. (2016): the *shared vision* or purpose of writing, *social interaction*, *mentorship* by senior writers and other writing experts, and *collegial support* through both informal and formal peer feedback on writing. Our literature review suggested additional themes related to developing a sense of community among retreat participants. These additional themes include the practice of designating protected time and space in which to engage in uninterrupted, side-by-side writing, which helps retreat participants to *legitimize time and space for writing*. The theme of *organizational investment* in follow-up support is also characteristic of a community of practice which extends back to campus.
3. **Practice:** Through their ongoing activities, community members eventually develop new knowledge and capabilities related to their shared interest (Wenger, 1998; Wenger et al., 2002; Wenger & Wenger-Traynor, 2015). Accordingly, participants in ongoing writing retreats may report positive change in their writing practice; they may observe that they are becoming more confident, competent, or productive writers over time. Related themes in the retreat literature include *development of academic writing competence*; intrapersonal benefits, including increased self-awareness of the enablers and barriers to individual writing; and *increased productivity*.

Setting: Writing Retreat Hosted by University of Windsor

The University of Windsor is Canada's southernmost university, located in the city of Windsor on the Ontario-Michigan border. This mid-sized comprehensive university has over 16,000 full-time and part-time students, and 9 faculties with over 500 members (University of Windsor, 2021). In 2012, the Office of Research and Innovation Services hosted the first of what became a biannual writing retreat. The primary objective of the retreats is to facilitate the mobilization of research knowledge by providing space and uninterrupted time for the development of publications and grant proposals. The secondary objective is to offer writing support; that is, to bring researchers together with experts who, through informal consultations and workshops, can provide constructive suggestions for writing improvement. The final objective is to create a space for researchers to cultivate working relationships that will lead to new and interdisciplinary research collaborations (Wiebe, 2018). When conducting this study, we recognized that each retreat objective is aligned with a characteristic of a community of writing practice. The first objective expresses the domain of the community of writing practice—academic writing. The second objective of offering support is prerequisite for strengthening the writing practice that

characterizes the community. The third objective prioritizes creating the sense of community that is a feature of a community of writing practice.

The retreat is offered for two consecutive days every April, between final exams and the onset of conference season, and for two consecutive days every August, before the start of the new academic year. The research office provides funding for catering and rents rooms in Willistead Manor, a historic building that has become a popular conference centre in Windsor, Ontario. There are 34 seats available to faculty members and staff from across the university, which is the most we can comfortably fit into the rental space. We designated a conference room on the second floor of the Manor as the quiet (no-talking) writing space. The grounds and dining room are available to participants who prefer background noise to write, or who wish to discuss their work with co-authors or with experts who typically include the workshop facilitators, consultants in the scholarship of teaching and learning from the Centre for Teaching and Learning, consultants in grant writing from the Research Office, and the Associate Dean, Research from the Faculty of Arts, Humanities and Social Sciences. The dining room is also used for a buffet lunch and workshops. Some workshops are open to faculty and staff who are not attending the retreat. This efficiency enables our small research office to concentrate its workshop-development efforts at times when faculty are most likely to attend and when they have grown to expect workshops to be offered. Opening select workshops to non-retreat participants also enables staff from the Research Office to meet new faculty and introduce them to the retreat with the hope that they will be more apt to reach out with questions about research funding or to register for retreats in future.

Unlike the single-discipline retreats that dominate the literature review, the event is attended by faculty from across disciplines at the University of Windsor—arts, business, education, engineering, humanities, human kinetics, law, library sciences, nursing, natural sciences, scholarship of teaching and learning, and social sciences. While our initial retreats included peer-review groups and compulsory workshops, participant feedback quickly led to more independent writing time and optional workshops and writing consultations. In contrast with the structured and residential retreat programs described in the literature, our participants build their own writing programs from the itinerary provided (see Appendix 1). They choose their own start and end times between 8:00 AM and 4:30 PM, and return home at day end. Nearly half arrive before 9:00 AM, many to secure their favorite writing spot, and most stay for the full day. We no longer have a morning orientation session because, on average, two-thirds of participants are returnees (Wiebe, 2018). Return participants help to acculturate newcomers, as does the itinerary. Moreover, staggered arrivals mean the retreat facilitators can introduce newcomers to the retreat facilities and practices. Follow-up support includes one-Friday-per-month retreats in a welcoming new building on the University of Windsor's vibrant downtown campus (introduced in 2017), as well as the opportunity for ongoing consultations with experts met at the retreat.

Retreat workshops have traditionally been focused on reducing writing-related anxiety (meditation, yoga), grant writing, and research practice. We have facilitated 50 workshops over the past 5 years, of which 18 were opened to University of Windsor faculty and staff from outside the retreat. Workshops are coordinated by the same staff who organize the retreat, and sometimes led

by them as well. Two-thirds of the workshops have been led by retreat participants. Some repeat workshops include insider looks at grant review committees, collaborating with community and international partners, writing knowledge mobilization plans, writing policy briefs, surviving and thriving as early-career researchers, and decolonizing and Indigenizing teaching and research. See Appendix 2 for all workshops offered during the retreats under study.

Methodology

Data Collection

Our qualitative study is a program evaluation of 10 retreats hosted at Willistead Manor by the University of Windsor between 2015 and 2019. The study uses two sources of data to assess the benefits of the writing retreats for participants: attendance records and anonymous post-retreat evaluations. Attendance records for the retreats and the workshops within them are used to demonstrate the interdisciplinary nature of the retreats and to interpret findings related to the theme of mentorship. The evaluations completed by participants at the end of each retreat form the primary source of data (see Appendix 1). Evaluation questions pertinent to this study include:

1. What did you work on? (select answers from grant proposal, journal article, conference presentation, and/or book chapter, and/or specify any other writing projects)
2. What was the most useful or effective feature of the retreat? (open-ended question)
3. What did you accomplish or learn? (open-ended question)

Beginning in 2016, participants who had previously attended a retreat were asked:

4. How many writing retreats at Willistead have you attended in the past?
5. Have you noticed any long-term benefits of the retreats?

This last question provided several options for answers and space to comment, including:

- Not yet
- I rely on the retreats to help me move my writing projects forward
- I count on the retreats to help me plan my research program or courses
- Connections made at a retreat lead to a new working relationship
- A workshop changed my writing or teaching practice
- My retreat experience has reshaped how I write in other environments
- Other.

Reminders to complete the evaluations were given in the itinerary, during the retreat lunches, and in a post-retreat email. Evaluations were initially completed on paper, with the option of submitting an online evaluation form created in Qualtrics survey software offered in 2016. By 2019, evaluations were submitted entirely online. In this study, we numbered the hard-copy evaluations Arabically (e.g., 1, 2, 3), and we numbered the online evaluations with a short form of the identifier assigned by Qualtrics (e.g., #ymy). We received 252 retreat evaluations from 335

faculty and staff who participated in one or more of the retreats during the 5-year period of our study, giving a 76% response rate.

Data Analysis and Additional Themes

To analyze the attendance data, we totaled the number of participants in each retreat and in each retreat workshop, and calculated participation averages. To analyze the retreat evaluations, we conducted a thematic analysis. We began by using the themes in the codebook from our literature review. We coded each evaluation response against these themes and recorded our determinations in Excel worksheets. Through the coding, we identified two additional themes to those named in Table 1: new collaborations developed through retreats, and planning of research programs and courses during retreats.

Findings

Attendance

As previously noted, the retreats are open to all faculty and staff from the University of Windsor, regardless of discipline. We averaged 35 different participants at each retreat under study. There are 34 seats available, but sometimes participants were able to attend only one day and gave away their seat on the second. Eighty-nine percent of participants came from the nine faculties, or groups of departments, within the university: Business, Education, Engineering, Human Kinetics, Law, Library, Nursing, Science, and Arts, Humanities and Social Sciences. Eleven percent of participants were from administrative units such as the Research Office and Centre for Teaching and Learning. Most participants (39%) were from Arts, Humanities and Social Sciences, which is the largest faculty at the University of Windsor, with 11 of its 13 academic departments represented in our sample: Communication, Media and Film; Creative Arts; Dramatic Art; English and Creative Writing; History; Interdisciplinary Studies; Political Science; Psychology; Sociology, Anthropology, and Criminology; Social Work; and Women's and Gender Studies. Sixteen percent of retreat participants were not permanent faculty members at the time of registration, holding limited term, adjunct, or staff appointments.

Each retreat offered an average of five workshops for which attendance was optional rather than required. See Appendix 2 for a complete list of workshops. The number of retreat participants at each workshop averaged 10, meaning roughly one-third of retreat participants opted to attend each. Workshops were organized by the retreat facilitators, who were two staff from the university's Research Office. These staff were also available for grant-writing consultations primarily related to the Social Sciences and Humanities Research Council (SSHRC), a Canadian federal funding agency. The staff met with an average of 7 grant writers during retreats for which consultation records were kept. Records were not kept concerning the number of writing consultations with other experts such as workshop facilitators, Associate Deans, members of the Research Ethics Board, and staff from the Centre for Teaching and Learning, most of whom attended the retreats. However, one representative from Mitacs, a Canadian federal funding agency, who has an office at the university, reported meeting with 20 individual faculty during her first retreat in 2015 (Wiebe, 2018).

Two hundred and fifty-two retreat evaluations were completed during the period of study. Seventy-four percent of respondents reported attending more than one retreat. These respondents attended an average of 3.5 retreats.

Most Useful

In their evaluations, participants were asked about the most useful aspects of the retreat. This was an open-ended question, and respondents identified numerous aspects of the retreat that they found useful. We identified which themes best matched their responses. As shown in Figure 1, more than 80% of responses fell under the theme of *protected time and space*. Thirty-seven percent of responses fell under *community of practice*, describing such things as feeling part of a writing community, feeling “synergy” or “camaraderie” with other writers, socializing over lunch, and appreciating mentorship through consultations and workshops. Twenty-four percent wrote comments that suggested *organizational investment* in staff, space, and food were among the most useful aspects of the retreat.

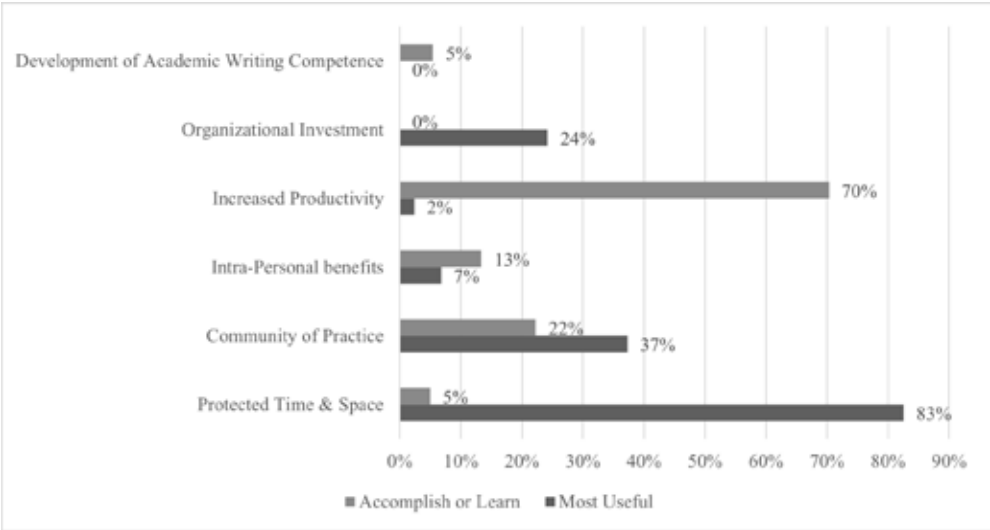


Figure 1. Themes in responses to “What was the most useful feature?” of the retreat, and “What did you accomplish or learn?” at the retreat, 2015-2019.

Most Useful: Protected Time and Space

The quiet space that was available to the participants at Willistead Manor and the lack of interruptions were important. Meeting off campus, in an historic house once owned by a wealthy local family, along with catered lunches, created a sense of excitement and newness. The venue provided writing spaces ranging from a large room where silence was maintained to communal spaces indoors and out where people could write and discuss their writing. One respondent stated, “The most useful part is always the ability—and permission!—to be in a beautiful location

with food and beverages, free of distractions so that I can spend a solid day writing in peace and solitude” (April 2015, Respondent #1). Another described the writing sanctuary of the retreat in this way:

Having a quiet, beautiful space to work in and not having to think about the practical aspects of life, like making lunch [was most useful]. I really appreciate the loveliness of the space and the catering. Also, it feels like a very supportive environment. (August 2015, Respondent #9)

The time and space dedicated to writing was consistently the most valued feature of the retreats. The importance given to writing in a space with others suggests that time and space are not the only useful aspects of the retreat. Even when producing co-authored pieces, writing is often a solitary practice. Although much of their time at the retreat is spent in silent writing, numerous respondents mentioned feeling like they are a part of a community. This was noted in responses that mentioned that it was useful to write in silence, eat, socialize, and exercise with others. These shared practices were valued. For some, writing as a collective, in a supported environment, created accountability and motivation. As an April 2019 participant wrote, “writing is a lonely process but writing in a group and having the right atmosphere—physical space and community—everyone has the same interest which adds not so much peer pressure as peer modelling, helps you persevere” (Respondent #ymy). Co-writing with others, even silently, was found to be energizing and focus-sustaining.

Most Useful: Mentorship Activities within the Community of Practice

In addition to writing in the presence of others, many respondents noted that the presence of staff from the Research Office was useful. These staff facilitated the retreats. They were also available to discuss research funding opportunities and grant writing, as were experts in other genres of academic writing who routinely included associate deans and staff from the Centre for Teaching and Learning. Also valued were workshops facilitated by Research Office staff and others. Topics included knowledge mobilization, the experiences of early-career researchers, and funding programs (see Appendix 2). In response to the question, “What was the most useful aspect of the retreat,” 15% of respondents described specific workshops and/or consultations (see Table 2). Typical feedback included comments such as “Most useful was a conversation with two of the organizers ... about a grant application and the presentation on knowledge mobilization” (August 2016, Respondent #11).

Table 2. Selected Mentorship Activities at Retreats and Percentage of Respondents who Reported Mentorship to be Most Useful

Retreat	No. of Workshops	No. of Workshop Seats taken by Retreat Participants	No. of Grant-Writing Consultations with Research Office ^a	Respondents who Reported Men- torship as "Most Useful"
2015 April	6	64	Unknown	48%
2015 August	3	58	Unknown	4%
2016 April	5	33	6	11%
2016 August	8	65	11	32%
2017 April	5	32	8	15%
2017 August	6	44	7	0%
2018 April	7	78	Unknown	7%
2018 August	4	93	5	12%
2019 April	5	35	Unknown	4%
2019 August	1	7 ^a	Unknown	14%
Totals	50	509	37	15%

^aNote: Records were not kept of the number of writing consultations with other experts.

We observed that respondents from the April 2015 and August 2016 retreats were most generous in volunteering positive feedback on workshops and consultations. Accordingly, we took a closer look at the attendance data for these two retreats. We found that an organized grant-writing group attended the April 2015 retreat (Wiebe & Maticka-Tyndale, 2017), and two workshops were designed with them in mind. The workshop facilitators met individually with most members of the grant-writing group to answer questions and review sections of their writing. We also noticed that the August 2016 retreat had the highest number of presentations and workshops of any retreat, with three geared to grant writing for SSHRC. The SSHRC workshops included one presentation by a review committee member and a research workshop led by two senior sociology researchers, one of whom led the third workshop. In short, the retreats during which most respondents identified workshops and consultations as among the most useful aspects were those that included customized support for a sub-group of participants engaged in the same writing task.

Most Useful: Organizational Investment

The importance of *organizational investment* was an unexpected theme that emerged in the responses about the most useful aspects of retreats. Related to organizational investment was the university's *allocation of resources* to organize the retreats. The university designated two staff from

the Research Office to develop, promote, and lead the retreats. As retreat facilitators, we aimed to create a flexible schedule that allowed participants to create their own writing programs. While each retreat day began and ended at set times, and there was a lunch hour during which a buffet was served, participants were able to choose when to come and go, whether to participate in workshops, and whether to eat lunch in the dining room (most did) or bring a plate to the quiet writing room. As facilitators, we were responsible for establishing and maintaining the schedule and ensuring that quiet was maintained in the quiet writing space. Respondents noticed and appreciated these efforts, with one writing that the most useful aspect was “quiet writing, food provided, ... session [on the Early Researcher Awards funding program in Ontario, Canada], and having Nicole and Natasha readily available” (April 2018, Respondent #1).

In addition to designating staff to facilitate the retreats, the Research Office covered the costs rather than requiring participants to pay. For approximately the amount of sending one person to an international conference, our day-away retreats support an average of 35 participants over two days. Since the retreats are funded by the university, and participants are not charged a fee to attend, their writing was validated. They felt that their institution was giving them permission to separate themselves temporarily from the other responsibilities of their jobs as well as their personal lives. Several respondents mentioned food and activities such as qi gong, yoga and meditation as being among the most useful aspects of the retreat. Thinking about and preparing food and exercise are routine distractions that the retreat eliminated for participants, thus giving them permission to focus on writing. One respondent wrote that the most useful aspects of the retreat included “The uninterrupted time and the lunch provided where I don't need to take time away from my productivity to prepare lunch” (August 2017, Respondent #2CQ). Another noted,

For me—it is a combination of the food being prepared and the ability to work in a quiet space. It provides a tremendously unique opportunity to truly focus and be productive. I have attended many times now and I will continue to return as I find it so useful for my productivity. (April 2017, Respondent #870)

The institutionally-supported nature of the retreat helped *legitimize time and space* to write. Participants were given permission to focus solely on writing. “Permission” contrasts with the obligation of writing. That the institution validated the protected time and space for this activity was noted by many respondents. One respondent noted,

The time and the space [is important], but really it's the culture that makes it effective. The writing retreats are something that I and certain colleagues I have discussed with use as bookmarks in the production of research. I earmark a project to work on. “This one is important, and I haven't gotten a chance to bite into it...ok I'll commit to working on it at Willistead.” But what creates this sense is really the culture of sitting in silence among colleagues with like-minded intention. The writing process in academia is mostly a solitary affair. The writing retreats create a buzz or sense of excitement about work that needs to be done. Colleagues remind each other that retreats are coming up, and this creates a culture that reminds me a bit of the study groups I had during graduate school. There is also something about the location. But it isn't as simple as sitting in a grand old house. I think it's

actually the awareness that the University of Windsor has chosen to invest in creating this space; that the administration sees research as not just in terms of grants and publications but also in terms of the "process" that is required. I usually don't tend to be easily influenced by the setting, but there is something special as well as different in working in that space. The culture is among peers but it is also an awareness that the University has invested in and understands that THIS is how quality thinking and writing is actually accomplished. (August 2016, Respondent #757)

Academics must disengage from other tasks in order to write, which, according to Murray, (2013) raises fundamental questions about the place of writing in academic work. The organizational investment in the retreat allows writers to disengage from other competing activities and prioritize writing.

Accomplished or Learned

In addition to asking participants which aspects of the retreat were most useful, the evaluations asked participants what they learned or accomplished. Some respondents shared diverse lessons related to their scholarship or writing practice, such as learning about funding opportunities for their research, or learning more about what helps them to write better. For example, one respondent noted, "I submitted my paper, learned more about [Canadian Institute of Health Research] grants (including the different funding streams and tips for applying—all very useful!)" (August 2018, Respondent #ByK). Another wrote, "I learned to meditate (excellent event!) and discussed a bit about grant options and funding. I learned and exchanged with colleagues about stresses of writing and research" (August 2016, Respondent #2). Seventy percent of respondents said that they were productive, offering comments such as "I got more done in 2 days than I would have accomplished in 2 weeks if I was in the office, no secret, it is the same every time I come!" (August 2018, Respondent #11). As Figure 1 shows, the open-ended responses mainly addressed the theme of increased *productivity* or producing writing outputs.

When describing their productivity, respondents often mentioned the type of writing they worked on. We collected details about their writing projects in a separate evaluation question. Many worked on more than one project. Fifty-six percent reported working on journal articles, 24% on grant proposals, 18% on conference papers or presentations, and 13% on book chapters. Forty-four percent reported working on other tasks which included a long list of activities that we categorized as research (e.g., peer review, progress reports), scholarship (e.g., book proposals or short stories), teaching (e.g., course development and preparation, thesis review), and administration (e.g., sabbatical applications).

While there are grant deadlines throughout the year, autumn is when most major competitions have their deadlines. Academic conference season in North America is in the spring. Figure 2 shows that at April retreats, more respondents are working on conference presentations than during the August retreats, whereas during August retreats, respondents are often working on grant proposals. At the end of the April 2016 retreat, one respondent reported:

I got notes toward a new short story, I worked with a colleague on edits on an article that has been accepted with revisions (and that was started at a retreat last year), and I worked on a project funded by a grant I'd drafted at a previous retreat. I also had conversations with a colleague about a course we're teaching and a grant we're submitting. Also, remarkably, on the afternoon of [the first day] I drafted a conference proposal and got feedback from my co-presenter. At 8:50 AM on the [second day], I submitted the proposal (using my phone as an internet hotspot!). By 9:10, our proposal had been accepted and by 9:30, I received a copy of the program with our names on it. (Respondent #757)

Responses confirmed what was found by Murray and Newton (2009), that writing is central to the retreat, while at work, writing is just one of many competing demands and is often seen as peripheral to teaching.

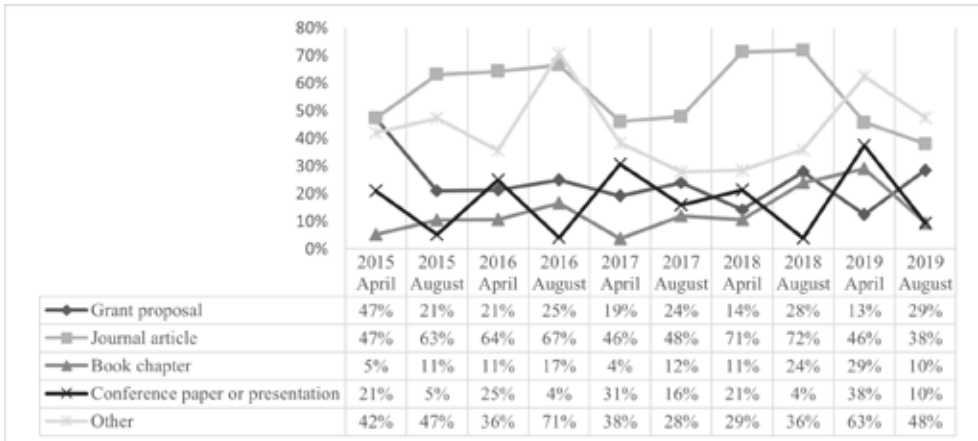


Figure 2. What respondents worked on across writing retreats, 2015-2019.

Long-Term Benefits

The last group of responses analyzed was the responses to a question, “Have you noticed any long-term benefits of the retreats?” Respondents who had previously participated in at least one retreat could choose more than one answer from several options, and they could also add comments of their own in another field. Table 3 provides a breakdown of the responses. Figure 3 organizes the selected responses according to theme. Again, the theme of increased productivity stands out: 66% of respondents chose “I rely on the retreats to move my writing projects forward” and/or “I count on the retreats to plan my research/courses.”

Table 3. Breakdown of Responses to “Have You Noticed any Long-Term Benefits?”, 2015-2019

	No. of responses
Not yet	11
I rely on the retreats to help me move my writing projects forward	122
I count on the retreats to help me plan my research program or courses	81
Connections made at a retreat led to a new working relationship	44
A workshop changed my writing or teaching practice	20
My retreat experience has reshaped how I write in other environments	33
I feel that I am part of a writing community ^a	10
Other	19

^aNote: The August 2019 evaluation was the first to provide this answer option.

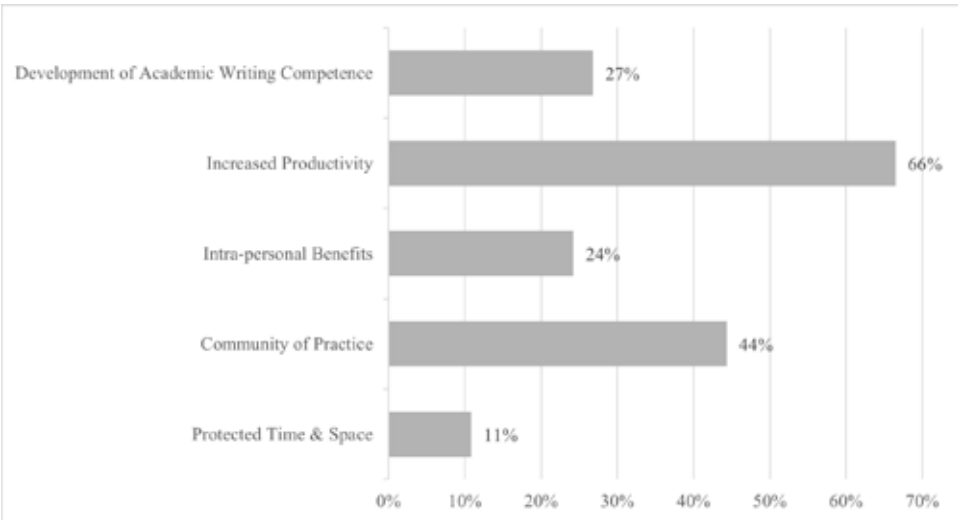


Figure 3. Themes in long-term outcomes of retreat participation, 2015-2019.

Responses related to the theme of *community of practice* are noteworthy. These include “A workshop changed my writing practice,” “Connections made at a retreat led to a new working relationship,” and “I feel I am part of a writing community.” Some respondents reflected on the answers they had selected and wrote remarks that indicate the retreats had helped develop the sense of connectedness—of shared vision or purpose—that characterizes the community of practice. For example, a respondent from the August 2019 retreat stated:

This may sound odd, but the retreats allow me to connect with others and feel a part of a community. Plus, I'm always tremendously productive. In the end the retreats truly change my attitude in a positive way about my work by providing a supportive atmosphere I do not always feel present elsewhere. (Respondent #001)

Similarly, an April 2016 respondent reported how co-writing with others was energizing:

Thank you! This is a brilliant project. The environment, the enthusiasm, and those present gave us a sense that our writing was highly valued. It was an overall refreshing feeling. I particularly enjoyed being among my colleagues at work. The enthusiastic rata tat tat of the neighbouring laptops was invigorating. (Respondent #648)

Over time, some respondents developed new working relationships with others they met at the retreats. An August 2019 respondent reported, "I made a lot of headway on a journal article, analyzed some data for another journal article, and discussed a grant application. I also met a colleague who could be a possible future collaborator" (Respondent #3CD). In addition, an April 2019 respondent noted, "I've traded notes across disciplines with colleagues about the research process and have been invited to review a colleague's work" (Respondent #3ku). Comments such as these suggest that the retreats are developing a writing community that extends between events.

Finally, responses indicate that the retreats have had long-term intra-personal benefits, a theme that corresponds to "My retreat experience has reshaped how I write in other environments." This reshaping of the writing process includes increased motivation and an awareness of personal enablers and barriers to writing. Explanatory comments tell us that some respondents developed awareness of their most productive writing environment and their need for breaks. For one respondent, the guided meditation was motivation to continue their own practice: "[I] need to reinstate quiet time for reflection in the morning to help keep me energized and focused (thanks to two guided meditations)" (August 2016, Respondent #755). Another noted "Being separated from regular life (phone, other communication). Being with, and seeing others also engaged in writing reminded [me of] my own need to focus on my writing projects" (April 2018, Respondent #7). An August 2018 respondent observed, "I usually need a space outside of both home and office (where student and admin duties crop up), [plus] I'm freed up from everyday mundane work, so I try to replicate this in my writing/thinking schedule" (Respondent #1go). Another respondent from April 2019 wrote, "I dedicate other off campus days in a peaceful environment to focus on deep work" (Respondent #2Bn). A few participants have told us that they replicate the retreat structure on their own so that they can continue the progress they made. The findings related to long-term benefits suggest that the retreats create a sense of community that not only motivates writing within the event itself, but also have a positive ripple effect of enabling participants to write in other places.

Discussion: Benefits Perceived by Retreat Participants

Between 2015-2020, the biannual writing retreat hosted at Willstead Manor by the Office of Research and Innovation Services from the University of Windsor attracted 335 participants

from across offices and academic units. The purpose of our study is to identify the benefits of retreats perceived by faculty and staff who attended one or more of the 10 retreats and completed post-retreat evaluations ($n = 252$). The key finding is that the retreats are helping to develop a community of writing practice. The community of practice enables participants to be more productive during and beyond the retreats and reshapes how they write—and with whom they write—in other spaces.

From Wenger and colleagues (Wenger, 1998; Wenger et al., 2002; Wenger & Traynor, 2015), we learned that a *community of practice* is characterized by the sense of community or connectedness that develops as members engage in shared activities. We analyzed our findings by looking at them through the lens of community. Eighty-three percent of respondents suggested that the most useful aspect of the retreats was the *protected time and space* of Willistead Manor, which helped promote focus by safeguarding the shared activity of quiet academic writing from external distractions. Moreover, in response to what they found most useful about retreats, one-quarter of respondents (24%) wrote expressions of appreciation for the organizational investment in the retreats, noting that “The retreats help remind me and other faculty that the University of Windsor values the actual process needed to write up research” (April 2016, Respondent #2). This reminds us of the observation of Macleod, Steckley and Murray (2012), whose retreat participants “saw a relationship between financial support for the retreat and the value [the university] attached to the activity of writing for publication” (p. 669). Finally, when responding to the question about the most useful aspects of the retreat, 37% described the sense of connectedness (“synergy,” “camaraderie”) that they experienced at the retreats. This connectedness was realized through writing alongside others, through the shared vision or purpose of academic writing. Also contributing to the sense of community were receiving *collegial support* or help with their writing from peers, and *social interaction* over lunches or during yoga. In sum, respondents suggest that their writing is facilitated by both the support and the setting of the retreat—by the people who sponsor and facilitate the retreats, by the people who attend, and by the quiet sanctuary of the off-campus location in which the writing and other shared activities occur.

In addition to developing a sense of community and connectedness, another feature of Wenger’s community of practice framework is the development of the members’ shared *practice*. For the retreats under study, the shared practice is that of academic writing, which includes the journal articles, grant proposals, and other academic texts on which respondents worked. We analyzed findings through the lens of strengthened writing practice and productivity. When describing what they accomplished or learned during the retreat, the majority (70%) of respondents described what they had produced. Similarly, when asked about the long-term benefits of retreats, most (66%) reported that they rely on retreats to move their writing projects forward. The finding of increased productivity during retreats is consistent with our literature review (see Table 1). In terms of strengthening writing practice, one-quarter of respondents who attended more than one retreat (24%) indicated that retreats had intra-personal benefits, namely that retreat workshops had changed their writing or teaching practice, and/or reshaped how they wrote in other environments (such as seeking out spaces where one can be “alone in a crowd”—I

get a lot of work done this way” [April 2019, Respondent #ymy]). Moreover, one-fifth of respondents reported that they count on retreats to plan their research or teaching programs (22%). Taken together, findings related to enhanced writing practice suggest that retreats are helping participants to be more productive by providing biannual blocks of time during which participants can plan and significantly advance their writing and by helping them to learn new practices for sustaining their writing between retreats.

Evidence that the retreats are influencing the development of a community of practice includes the fact that one-third of respondents who had attended one or more retreats reported new *collaborations* with other retreat participants. Some examples of which we are aware include the legal scholar who uses and researches mindfulness after attending the retreat meditations led by a psychology researcher; the nursing researcher who joined a human kinetics thesis committee; the legal scholar who collaborated on a political science grant application after overhearing the grant writers and research office staff discuss the proposal in the retreat talking space; the psychology researcher who joined a social work grant application after co-facilitating a retreat workshop with the applicant (Wiebe, 2018); and a retreat workshop that was born during the retreat-lunch conversation of an education researcher, librarian, and research office staff. The development of new and interdisciplinary collaborations may be partly because our retreats, unlike most in the literature review, are not discipline- or department-specific; accordingly, participants may be more likely to meet people they have never met or collaborated with.

Noone and Young (2019) found something similar in their retreats that crossed not disciplinary lines, but organizational ones. In their study of ongoing annual residential writing retreats for nursing faculty and other clinicians from multiple universities and clinical settings, 80.7% of survey respondents agreed that networking was among the strongest elements (p. 67). Similarly, Winters, Wiebe, and Saudelli (2019) observed that connections developed during an ongoing retreat series for education researchers from different universities in Ontario, Canada, led retreat participants to collaborate on writing projects post-retreat (including the authors’ own book chapter). Likewise, our findings suggest that our retreat series is creating a supportive community that reaches beyond the off-campus retreat venue.

We observe that the community of writing practice developed through and by our retreats overlaps with other writer communities. Our retreat series finds its roots in long-running annual retreats initiated by the Faculty of Education at Brock University in St. Catharines, Ontario, Canada, and now co-hosted with the Faculty of Education at the University of Windsor. We are also aware of several retreat series for different audiences that were inspired by our event, including retreats for local teachers and school board administrators, early-career researchers, faculty, and alternative academics (PhDs in non-tenure track positions). Our retreats are part of a larger retreat culture emerging at the University of Windsor, within which several staff and faculty have co-authored research or recommendations for retreats held for mid-career faculty at a single university (Bornais & Andrews, 2020), for retreats held by and for education faculty from different universities (McGinn et al., 2019; Winters et al., 2019), and for retreats held by research administrators for faculty within a single department or across a university (Wiebe & Covanti, 2019).

Limitations

Consistent with the literature review, our study is qualitative. Only one question included a Likert scale (“Overall rating of retreat”), and it was consistently scored 5 out of 5, or Excellent, by respondents. Evaluations did not ask respondents to self-identify by gender, race, or other factors, so the study cannot suggest whether retreats were more or less beneficial to equity-deserving groups including women and racialized faculty. Another limitation is that some respondents completed several retreat evaluations over the period under study, but we are unable to track changes in individual perceptions over time. Moreover, while many respondents worked on grant proposals during retreats, our evaluations do not track the number of related grant successes, which is of particular interest to research offices considering their own retreats. Finally, in our study, the self-reporting of increased productivity is based on participant perception. The study provides no measures of publication or grant success rates before retreats and afterwards.

Practical Implications: Recommendations for Future Retreats

Our retreat model differs from most in the literature review in that it is interdisciplinary rather than discipline-specific, and the program is flexible, rather than structured with mandatory peer-review, workshops, or other activities. This is a deliberate programmatic choice that evolved from feedback after our inaugural retreats in 2012. However, this program evaluation provides a lesson for refining our retreat model. During the April 2015 and August 2016 retreats, sub-groups of grant writers benefitted from tailored workshops and individual consultations that brought them together and helped move their proposals forward. These respondents were particularly generous with feedback about the usefulness of available writing support. From their responses, we note that customizing retreat supports for writing projects on which most participants are working—rather than tempting them with workshops that interrupt their momentum—helps participants to maintain their focus. This finding is consistent with McGinn et al. (2019), who observe of their annual residential retreats that “Over the years, participant feedback has led to fewer workshops and more independent writing time” (p. 141).

Our findings tell us that most faculty work on journal articles during the retreats, with many working on conference presentations during the retreats in April, and many on grant proposals during the retreats in August. Knowledge of these patterns can help us select workshop topics that are immediately relevant to most participants, and to have appropriate experts available to those working on articles, such as senior writers and journal editors. With these adjustments, our retreat model may help strengthen writing competence without losing the emphasis on quiet writing time so valued by participants.

The recognition that writing support at retreats should be immediate and specific helps us better understand our experience of two spin-off retreat series. Between January 2017 and the onset of the COVID-19 pandemic in March 2020, we offered a one-Friday-a-month retreat series on the University of Windsor’s downtown campus to help retreat participants sustain their writing momentum between the biannual events. Moreover, between September and December 2019, we offered a monthly retreat series for early-career researchers working on Insight Development

Grant applications for submission to SSHRC. Each SSHRC retreat began with a workshop, after which participants wrote or revised the sections of the application reviewed during the workshop and received immediate feedback from their peers and retreat facilitators. We observed that the first “write what you want” retreat attracted mostly different people from the biannual off-campus retreats for whom they were created, but that the retreats were not as well attended as the off-campus ones. However, the series appeared to gain momentum when we began promoting them as a means of working with research office staff on proposals toward coming SSHRC deadlines. The second retreat series on the SSHRC Insight Development Grant application was well attended by early-career faculty who appreciated and seemed energized by being with others at the same career stage, and by the opportunity to work on their own grant applications in a piecemeal fashion and to receive immediate support. Our observations of these two day-away retreat series—one flexible in format and one structured—convince us that the support offered during writing retreats is most effective when directly related to participants’ immediate writing tasks. Customizing the workshops and available expertise at our biannual retreats could strengthen participant perception of the usefulness of those mentorship activities and help to develop the writing competencies that characterize an effective community of practice.

Directions for Future Research

Some researchers suggest that retreats are beneficial for faculty who find it especially difficult to prioritize writing, including early-career faculty, who face many new and competing challenges (Kent et al., 2017); and faculty who have extra hidden workloads, such as women, who are more likely than men to be kept off the tenure track by young children and to work in adjunct positions (Swaggerty et al., 2011). Retreats like ours are free of charge, removing the barrier of cost from participants who may be affiliated with universities in adjunct and other alternative academic positions, and who may not have access to funds from their department to support their attendance. Accordingly, future research could include intersectional analyses to explore whether retreats are an equity and inclusion initiative that can be championed by research offices. Researchers could analyze whether intersections among multiple identities of participants (e.g., gender, race, age, precarious academic employment) make retreats particularly beneficial for equity-deserving groups. This research would employ statistical measures that are largely missing from qualitative studies like our own and in our literature review. Moreover, we agree with Eardley, Banister and Fletcher (2020) that while “writing retreats have been shown to enhance productivity, their potential as well-being interventions has received less attention” (p. 183). Studying the impact of retreats on reducing writing-related anxiety is an opportunity for research in an academic environment that has become even more challenging during the era of COVID-19. The pandemic interrupted the biannual retreat series that forms the focus of this study. That pause created space for us to conduct this program evaluation and to recognize that virtual retreats, like the ones through which we co-wrote this article, are another possibility for implementation and research.

Conclusion

Our results represent the first known peer-reviewed journal article of an academic writing retreat series hosted by a research office or at a Canadian university. The retreats under study are unique from many in our literature review in that they are hosted by a research office rather than an academic unit; long-running rather than a single event; offered to an interdisciplinary audience rather than a single department or group; and flexible rather than structured in format. Our literature review suggests that the primary benefits of retreats include the protected time and space afforded by retreats; the development of a sense of community as demonstrated by the shared purpose, social interaction, and collegial support of retreat participants; the intrapersonal benefit of increased motivation to write due to retreats; and increased writing productivity during retreats. The literature also confirms the necessity of sustaining that productivity through organizational investment in follow-up support such as campus-based writing days (Eardley et al., 2020) or ongoing mentoring (Kornhaber et al., 2016). These themes are consistent with our findings.

Our flexible, non-residential, interdisciplinary retreat series offers the same benefits to participants as the structured, residential, discipline-specific writing retreats in the literature. The overarching benefit of our retreat series, however, lies in its development of a supportive community of writing practice that extends back to campus. Return participants report their retreat experience has reshaped the ways that they write in non-retreat settings, with some even creating retreats of their own. Moreover, return participants say they are collaborating on projects with others met at retreats. Findings suggest that we can retain the flexible structure so valued by participants as well as support them in strengthening their writing skills by customizing workshops and expert support to relate directly to the writing projects in which most participants are engaged. The research contributes a Canadian example to a growing body of evidence that suggests retreats can effectively help academic writers prioritize the task of writing over other conflicting demands. A unique contribution of this study is that it provides a flexible, interdisciplinary, cost-effective, day-away alternative to the discipline-specific, structured, and residential retreats common to the literature.

Author's Note

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Appendix 1: Sample Retreat Itinerary and Evaluation



Writing Retreat at Willistead
Willistead Manor, 1899 Niagara St @ Kildare Rd, Windsor
Natasha Wiebe & Nicole Noel, ORIS

How it works	
To bring	(1) Snacks, (2) laptop with extension cord, (3) jacket in case of chill, (4) any resources you need to write (no WiFi = fewer distractions), (5) yoga mat for Tuesday, if desired.
Flexible schedule	Arrive as early as 8:00; write as late as 4:30. If you wish, explore the grounds, discuss your writing with a colleague, or join a workshop (no registration required).
Experts available	Natasha Wiebe and Nicole Noel from ORIS for grant writers; Pierre Boulos from CTL for curriculum planners and those writing about the scholarship of teaching and learning.
Venue	Quiet space: Gallery, please mute devices. Talking spaces: Grounds and foyer, and dining room when not in use for workshops. Parking free.
Refreshments	Coffee, tea, water, and juice all day. Lunch provided.

Tuesday, April 23, 2019		
8:00 – 4:30	Quiet writing – Choose your own start and end times	Gallery
8:00 – 8:45		Dining room
8:45 – 9:15	Guided meditation for writers – Carlin Miller*	Dining room
9:15 – 11:00		Dining room
11:00 – 12:00	SSHRC budgets – Brent Lee with Natasha Wiebe	Dining room
12:00 – 1:00	Lunch	Dining room
1:15 – 1:45	Yoga for writer bodies – Steve Karamatos, some mats available*	Meet in foyer
1:45 – 4:30		Dining room

Wednesday, April 24, 2019		
8:00 – 4:30	Quiet writing	Gallery
8:00 – 8:45		Dining room
8:45 – 9:15	Guided meditation for writers – Carlin Miller*	Dining room
9:15 – 12:00		Dining room
12:00 – 1:00	Lunch	Dining room
1:15 – 2:15	Strategies for sustaining writing practice – Susan Holloway & Heidi Jacobs* (Pre-workshop survey to complete by April 22 noon)	Dining room
2:15 – 4:30	Complete your retreat evaluation – see reverse	Dining room

*Workshops optional. No registration required; just walk in!

Appendix 2: Workshops Offered During Retreats, 2015-2019

April 2015

1. Orientation for newcomers
2. Meditation: Set your intention for retreat
3. Open access & academic publishing
4. Writing policy briefs
5. Writing methodology: Meeting of the Grant-Writing Group
6. Mentoring student researchers: The training plan

August 2015

1. Qigong: Don't forget to breathe...and smile
2. Making your research meaningful for policy makers
3. Mary Walker: The lady of Willistead Manor

April 2016

1. Meditation: Set your intention for retreat
2. Orientation for newcomers
3. Community research opportunities for your grad students & postdocs
4. Talking circle: Reviewing your retreat goals
5. Relax your brain: Yoga sequence

August 2016

1. Meditation: Set your intention for retreat
2. Orientation for newcomers
3. Relax your brain: Yoga sequence
4. Last-minute syllabi writing
5. Collaborating with community & international partners
6. Talking circle: Review your retreat goals
7. The SSHRC Review Committee: An Insider Perspective
8. Knowledge Mobilization Plans: For NSERC & Other Researchers

April 2017

1. Meditation: Set intention for retreat
2. Collaborating with community & international partners
3. Health research: Is this for SSHRC or CIHR?

4. Relax your brain: Yoga
5. Dialogue on research & issues in Aboriginal communities

August 2017

1. Meditation: Set intention for retreat
2. Relax your brain: Yoga
3. Inside the SSHRC review committee
4. Rum Runners Tour of Willistead
5. Meditation: Review your retreat goals
6. Pain-free data management planning

April 2018

1. Meditation: Set intention for retreat
2. Relax your brain: Yoga
3. Research outcomes 101
4. Surviving/thriving as early-career researchers
5. Early Research Awards: Information session
6. Meditation: Review your retreat goals
7. Less time, stronger proposals: Writing REB and grant applications concurrently

August 2018

1. Planning your research program in the social sciences & humanities
2. Breaking into & succeeding with CIHR
3. Relax your brain: Yoga
4. Decolonizing & Indigenizing your teaching & research

April 2019

1. Guided meditation for writers
2. SSHRC budgets
3. Yoga for writer bodies
4. Guided meditation for writers
5. Strategies for sustaining your writing practice

August 2019

1. Relax your brain: Yoga

Building a Culture of Compliance at Liberal Arts Colleges and Predominantly Undergraduate Institutions

Beth Jager

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Abstract: *What barriers to compliance do research administrators face at liberal arts colleges and predominantly undergraduate institutions? What solutions can be offered to overcome these challenges? All academic institutions that receive government funding must abide by the same federally imposed rules and regulations for financial assistance, whether for student aid or sponsored projects. However, universally imposed grant requirements are fundamentally flawed because they assume that all colleges and universities operate with similar structures. Liberal arts colleges and predominantly undergraduate institutions must meet the same grant requirements imposed on larger institutions, but research administrators at these establishments often lack the infrastructure and institutional investment to effectively manage compliance. The existing literature recognizes that compliance with federal regulations requires capacity and additional financial resources. However, recent studies fail to address the challenges faced by research administrators at a micro level. Through a survey of the field, this project ultimately shows that a culture of compliance can be achieved through a shared commitment at the individual, institutional, and federal level.*

Keywords: *Compliance; liberal arts college; predominantly undergraduate institutions; research ethics*

Introduction

Research administrators (RAs) at small liberal arts colleges (LACs) and predominantly undergraduate institutions (PUIs) are faced with two common problems. First, the environment at a LAC or PUI necessitates that an RA be a generalist. Often part of an office of one or two staff members, the RA generalist is tasked with managing grant funding and finding ways to increase grant activity while remaining well-versed on the continually evolving rules and regulations of grant administration (Cuhel-Schuckers et al., 2016). Juggling these responsibilities properly has become increasingly difficult with the adoption of the Uniform Guidance in 2014 and the newly revised Common Rule in 2018, chief among recent overhauls to the rules and regulations that govern the research landscape. Although these changes are intended to streamline federal regulations, the RA generalist needs a way to more easily navigate ever-evolving, unfunded federal mandates.'

RA generalists at LACs and PUIs are often faced with a difficult dilemma. As the institution's sole RA and often the only individual familiar with how to remain in compliance with federal regulations, they must develop new policies and procedures while ensuring old policies and procedures remain up to date. The RA must simultaneously find a way to communicate the

importance of grant compliance to researchers and senior leadership. Doing so provides the RA generalist with necessary support from those who are actually conducting the work in question and from those who have the greatest ability to affect change at an institution.

Problem and Purpose of Study

RAs at LACS and PUIs are faced with the challenging responsibility of single-handedly managing all aspects of research administration, spanning pre- and post-award. Such an obligation can feel like an impossible task as federal grant compliance evolves, becoming increasingly complex. The RA's work grows more difficult without a shared commitment to upholding federal grant compliance as an institutional priority. This research aims to explore how to foster a culture of compliance at LACs and PUIs. While regulatory burden has been discussed at length, there remains a significant gap in the literature on how to address the difficulty of managing federal regulations at PUIs and LACs. By exploring the issues that are inhibiting a culture of compliance and offering solutions to these challenges, the researcher's goal is three-fold: 1) to offer RAs at LACs and PUIs the tools they need to be successful in their work; 2) to better protect LACs and PUIs from the consequences of an audit finding, which can impact an academic institution's ability to conduct research, recruit high-quality researchers and students, and continue to receive and increase external funding; and 3) to advocate for a commitment to a higher standard of research ethics.

Over the past few decades, there have been a number of changes to the regulations that govern the acceptance of federal funding. The impact of these revisions is largely positive, as they promote the responsible conduct of research and attempt to streamline regulations. However, they also pose challenges for the research community, including remaining knowledgeable and fully informed on the ever-evolving requirements. Increased regulation necessitates additional institutional resources to fully comply with federal standards, regardless of an institution's size. A study that addresses how to build a culture of compliance will contribute to scholarship and critical discourse on the subject, and has the potential to reorient creative approaches for RAs at LACs and PUIs.

Project Questions

Addressing obstacles to compliance at LACs and PUIs requires an examination of the current landscape for research administration at these types of institutions. Before it is possible to offer solutions, it is important to understand to what extent the RAs influencing the results of this research are currently engaged in research compliance. Respondents were given the option to indicate varying levels of engagement with research compliance: 1) a significant amount (more than half their day); 2) a fair amount (roughly half of their work day); 3) a fairly insignificant amount (less than half of their work day); or 4) hardly any engagement at all. The researcher acknowledges that the answer to this question may be influenced by pressures associated with the RA generalist's conflicting responsibilities. To account for this, respondents were asked if they would devote more time to research compliance activities if time allowed. With this information, the researcher can gauge if the issue exists and to what extent.

Building a culture of compliance also requires a greater understanding of the current challenges at an institution. Those with an active role in research compliance were asked to identify particular areas of difficulty associated with managing research compliance alongside other duties. Respondents were also invited to share the challenges they have experienced in building a culture of research compliance at their institution. The responses were used to explore the issue at the micro level while also examining trends across institutions.

The researcher aimed to begin the conversation about how a culture of compliance may be established by recognizing that effective models may already exist. Respondents were encouraged to share ways in which they are navigating the challenges and successfully establishing a culture of compliance at their various institutions. Further, preliminary research showed that some LACs and PUIs have successfully advocated for employing a dedicated research compliance officer. Respondents had the option to share more information about such arrangements. These details may prove helpful as other institutions consider similar measures.

Exclusions and Limitations

While LACs and PUIs share many similarities and for the purposes of this research are being considered in one broad category, it is important to recognize that all LACs and PUIs are not the same. Distinguishing characteristics include: campus size; how long an institution has been operating; its endowment and other financial resources; an institution's research environment; the number of active grants and their funding sources (private vs. government entity); as well as an institution's commitment to research and available infrastructure. The researcher acknowledges these differences and the way they may influence the culture of compliance at each institution surveyed.

Further, the researcher realizes the challenges posed by the breadth and generality of this topic. Compliance takes on different meanings for different people. One RA may consider compliance as narrowly focused on research involving human or animal subjects while another considers compliance as responsible conduct in research, broadly defined. Additionally, compliance may also refer to the financial regulations governing an award. For the purposes of this research, the investigator left the definition open for interpretation. Doing so allowed participants to direct the focus of this research, naming challenges that may not have been a previously considered topic for discussion in building a culture of compliance.

Most importantly, this research is intended to create opportunities for future research. It is an impossible mission to set out with the belief that this research will provide the solution to the compliance issues that persist at LACs and PUIs. Considering the exclusions and limitations noted, because of the sheer differences that exist between each LAC and PUI, the challenges unique to each institution, and the generality of this topic, the researcher can only hope to address a fraction of the issues that may present themselves at LACs and PUIs. Nevertheless, she hopes this research will provide RAs with a starting point for considering how a culture of compliance can be established for the benefit of all.

Literature Review

A History of Research Compliance

Compliance, as it pertains to research, is a relatively new term. The research enterprise has grown at an exponential rate since the federal government first began investing in university research and development (R&D) following World War II. By 2018, the United States' investment in R&D had grown by more than 112%, to over \$500 billion (Congressional Research Service, 2022). This influx of funding led to an explosion of new technology and innovation, resulting from an outcropping of federally-supported funding agencies—the National Science Foundation, the National Institutes of Health, and the Department of Defense were a few of the most notable of these agencies.

As federally-funded research evolved, so did the federal rules and regulations that govern the implementation of research. Governmental funding agencies needed policies to ensure transparency with the use of taxpayer dollars to support these R&D initiatives. Regulations began with the passage of the Federal Grant and Cooperative Agreement Act in 1977, which helped outline the broader function of grants, contracts, and cooperative agreements (grants.gov, n.d.). A year later, the Office of Management and Budget (OMB) developed guidelines—the OMB Circulars—to help govern the spending of federal dollars to support work as defined under the Federal Grant and Cooperative Agreement Act.

Beyond the rules and regulations governing the transparent use of federal dollars, funding agencies developed policies to help govern the ethical practice of sponsored research. The absence of such policies was brought sharply into focus in the second half of the 20th century. The Nuremberg Trials—during which Nazi physicians were tried for the inhuman treatment of prisoners of war in medical experiments—called global attention to the lack of international laws governing the treatment of human subjects in research. The Tuskegee Study—in which 400 low-income, African American men with syphilis were intentionally left untreated—brought this international issue to the United States. In response to the atrocity of the Tuskegee Study, the United States government enacted the National Research Act in 1974, which led to organizational oversight through the establishment of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. This commission adopted one of the foundational documents for the protection of human subjects: the Belmont Report, guidelines to systemically address unethical research practices. The National Research Act also led to the adoption of informed consent, which requires researchers to receive voluntary agreement from all individuals before participation in research (Center for Disease Control and Prevention, 2020). The creation of such documents provided a stepping stone toward a more systematic approach of governing the ethical conduct of research.

Through the creation of the Belmont Report, researchers were provided with a needed framework for the treatment and protection of human subjects in research, but it only served as a starting point for the federal government's call to action in addressing unethical research more broadly. High-profile cases of research misconduct in the late 1970s and early 1980s, like that of Andrew Wakefield and John Darsee, made the Public Health Service aware that it needed to do more to

protect the credibility of the research enterprise and the continued advancement of high-quality R&D (Kalichman, 2013). The creation of the National Institutes of Health's Committee on the Responsible Conduct of Research and its Responsible Conduct in Research (RCR) compliance requirement in 1989 was just one response to the damage caused by these prominent cases. Today, there are thousands of pages of information relating to mandates imposed by Congress that all recipients of federal grants must comply with in order to continue to receive federal funding (Task Force on Federal Regulation of Higher Education, 2015). These regulations govern not just the receipt of sponsored research funding, but the financial assistance institutions receive for students as well. Thus, remaining in compliance is not just of importance to researchers and research administrators, but a vital mission that extends across all facets of an academic institution.

The Evolution of Regulatory Requirements

As R&D has continued to expand over the last several decades and the federal regulations governing R&D evolve and intensify in response, issues relating to ethical research remain at the forefront of public scrutiny. Some, for instance, have questioned the impact the rush to respond to health pandemics like the COVID-19 novel coronavirus might have on a researcher's inclination to skirt ethical considerations (Da Costa Thome & Larson, 2020). As research issues emerge, Congress responds with new and increasing levels of regulation to ensure the highest level of ethical research possible. All institutions are required to comply with these regulations, regardless of the organization's size or level of research activity.

The culture of compliance that exists on today's campuses is vastly different, and in many ways greatly improved. Many seasoned RAs can recall a time when there was no ethical code, no animal welfare act, or RCR requirements. Researchers were initially resistant to new formalized requirements, seeing the processes and procedures as yet another layer of bureaucracy impeding research (Freed, L., personal communication, March 5, 2020). The new generation of researchers is more familiar and accepting of these standards as evidenced by new requirements, like RCR, that are a required part of a researcher's formal training as well as the increased number of full-time employees dedicated to research compliance and in-house compliance training programs. The challenge now, particularly for LACs and PUIs, has shifted to one that requires additional resources like time and capacity.

With a focus on the Department of Education, the Task Force on Federal Regulation of Higher Education—appointed by the U.S. Senate—conducted an examination of the growing burden of federal regulation on institutes of higher education. The U.S. Senate was motivated to conduct this study because it recognized the expansion and evolution of federal compliance as a problem “exacerbated by the sheer volume of mandates . . . and the reality that the Department of Education issues official guidance to amend or clarify its rules at a rate of more than one document a work day” (Task Force on Federal Regulation of Higher Education, 2015, p. 1). The federal government understood the growing problem this trend would create. Through campus site visits and interviews, the appointed task force concluded that, despite the value of universities and colleges as drivers of the nation's economic development (as evidenced by federal investment) and the importance of federal oversight of taxpayer dollars, regulations imposed on those receiving government funding were creating a labyrinth of bureaucracy. This maze of

regulation was creating unsurmountable issues with compliance because the many rules and regulations were becoming too overwhelming for RAs to contend with, not to mention problems with confusing jargon, making it difficult to comprehend the extent of the regulations. These issues are exacerbated for RAs at LACs and PUIs who, unlike those at large institutions, don't often have the support of an entire office of individuals to help wade through the many federal requirements and responsibilities or develop a specialty in a particular area of compliance.

Of the many challenges facing institutes of higher education, the task force pinpointed cost of compliance as one of the most prohibitive. According to a study conducted by Vanderbilt University, roughly 11 percent (\$150 million) of the institution's expenditures were devoted to compliance efforts (2015). Researchers at Hartwick College—a small institution more comparable to smaller LACs and PUIs—reported that compliance cost roughly 7% of its operating budget (not counting the portion devoted to salaries and benefits) or \$297,008 annually (Zack-Decker, 2012). Hartwick College also reported that nearly 7,200 staff hours were devoted to gathering data to meet compliance requirements (Zack-Decker, 2012). The Task Force on Federal Regulation of Higher Education found that institutions as a collective were devoting more than 26.1 million hours only to fulfill Department of Education reporting requirements without taking into consideration the time spent implementing compliance requirements (2015). This increased regulatory burden has created the need for additional staffing to effectively comply with federal mandates and, in turn, has led to higher budgetary costs. These costs impact the unsustainable rise in tuition costs at colleges and universities across the country. Without solutions, these indirect challenges may have a lasting effect on higher education that goes far beyond the impact the research office sustains.

Considering the Challenges to Compliance at LACs and PUIs

In the years that have followed the initial creation of overarching national guidelines that govern recipients of federal funding, compliance has become so intertwined with successful sponsored research pursuits that many institutions of higher education dedicate an entire team of individuals to its successful management. Feedback obtained from research administrators by the American Action Forum revealed that within a decade's time, the number of officers at universities and colleges who identified as a "compliance officer" had risen by roughly 33% (as cited by the Task Force on Federal Regulation of Higher Education, 2015). While offices staffed with compliance officers may be common at large research institutions, the same level of resources are not often present at LACs and PUIs. At these institutions, the burden of regulatory compliance typically falls to one individual, who is often also trying to balance the responsibilities of a sponsored research office and sometimes the workload of a combined sponsored research-foundation and corporate relations function (Cuhel-Schuckers et al., 2016). The question is then if all institutions accepting federal funding are held to the same expectations when it comes to compliance with federal rules and regulations, how do RAs at LACs and PUIs—without the same level of dedicated resources—manage the workload that comes along with properly navigating the risk associated with accepting federal funds for research? And how can they help foster a culture of compliance that is truly a shared institutional responsibility?

Balancing the challenges of a small office with the tall task of remaining on top of the need for proper research compliance is a frequent topic discussed by RAs at LACs and PUIs. However, there remains a significant gap in the literature on how to navigate these challenges. The research that does exist largely centers on pleading the case for why compliance is important and why RAs need to build a culture of compliance at their institutions, rather than on how to then address the problem itself. Linda Freed, former Director of Sponsored Programs and Faculty Development at University of Wisconsin-Oshkosh, and Frances Vinal Farnsworth, Associate Director of Grants and Sponsored Programs at Middlebury College, offer a starting point for considering a culture of compliance at LACs and PUIs. In an article published in the *CUR Quarterly*, a publication of the Council on Undergraduate Research, Freed and Farnsworth (2001) recognize that for LACs and PUIs, one major barrier to such a culture is a perceived lack of time. At these teaching-intensive institutions, Freed and Farnsworth note that there is a prevailing attitude that compliance is an extra layer of administrative burden. Instead of viewing compliance as an ethical duty, researchers instead see research compliance obligations as an additional roadblock to research. LACs and PUIs may also see compliance as an added financial burden. At large research institutions, compliance costs are frequently treated as a general operating expense, supported through funds for facilities and administrative costs (F&A), or indirect costs, received through federal grants. This is frequently not the case at LACs and PUIs (Freed & Farnsworth, 2001). The research environment at a LAC and PUI is very different than that of a large research-intensive institution like John Hopkins, the leading recipient of federal research and development funding (National Science Foundation, n. d.). In academic circles, the notion is that research is a primary function of a faculty member at such large research institutions, where the idea that a researcher's career trajectory depends on their publication record. While research and the generation of new knowledge is foundational to LACs and PUIs, researchers do not find their upward mobility at LACs and PUIs to be as interconnected with their research prowess as their colleagues at larger research colleges and universities. Because research is important, but the teaching load greater at LACs and PUIs, research is at times not prioritized in the same way (Ramirez, 2016). It often falls on RAs to convince the college community that the responsibilities that accompany an institution's grant awards deserve the same attention as other institutional priorities.

Developing a Framework for Reducing Regulatory Burden

For more than 70 years, the Council on Government Relations (COGR)—a coalition of research universities, affiliated medical centers, and independent research institutes—has advocated for reducing regulatory burden and building a stronger institutional commitment to research compliance. In 2016, COGR released a guide to assist in its mission to facilitate a culture of compliance at research institutions. For COGR, effective compliance requires “looking at compliance as a systemic enterprise rather than discrete practices in response to specific regulations. Thus, while compliance will take a different form in meeting financial, administration, or performance requirements, all these activities reflect a commitment to compliance across the organization” (COGR, 2016, p. 3). Due to a lack of resources in comparison to larger counterparts, LACs and PUIs tend to adopt a more reactive approach to regulatory requirements. When a situation, like an audit, calls for a greater level of compliance, the institution only then acts to diffuse the problem. Such an approach is inherently flawed, bringing with it risk of audit

findings or worse, unethical research practices that place students, research participants, and the reputation of science in danger.

COGR suggests that institutions can combat these liabilities by putting into place a “comprehensive strategy” that clearly outlines how the university or college will handle federal, state, or local compliance requirements. Such a strategy employs four basic practices: First, the institution must not only develop clear policies and procedures that address the proper program management, but ensure that they are regularly reviewed and updated to reflect new or revised regulations. The ever-evolving research landscape necessitates such reviews as institutional protocols quickly become obsolete with the passage of newly updated regulatory standards. Second, policies are only good if those at an institution use them in their daily work. An institution’s compliance strategy must be widely understood and used by the institution’s senior management and flowed down to the research assistants employed in an institution’s labs. Proper compliance requires different levels of personal responsibility. It’s important that there are “clearly established lines of responsibility, i.e., a delineation of the roles and responsibilities, for all sponsored programs and administrative personnel involved in the conduct of and management for sponsored programs . . . that personnel understand and accept their specific roles and responsibilities” and that “the institution obtains confirmation that the principal investigator understands and accepts their specific responsibilities for financial and administrative management of the proposed project” (COGR, 2016, p. 1). A culture of compliance does not occur in a vacuum. It involves a clearly defined and understood vision and buy-in across the institution. A shared commitment to compliance means RAs at LACs and PUIs are no longer shouldering the unsustainable burden of compliance management alone. A culture of compliance requires community involvement.

Further, a compliance strategy is most effective when the institution’s senior leaders are invested in its success. COGR suggests this involves assigning an individual with senior-level authority to “oversee sponsored programs compliance” (2016, p. 4). It requires someone with power at the institution who is familiar with the intricacies of this strategy, and who is invested and able to ensure it operates most effectively. This individual will serve as a conduit to the institution’s governing board, which is imperative because building a culture of compliance also requires a financial commitment. It takes funding to maintain or receive additional funding. An initial investment in compliance may have a greater long-term payoff. Senior leadership needs to understand and communicate this long-range vision.

An effective compliance strategy involves both training opportunities and educational programming to encourage a culture of compliance. This includes training that is appropriate for different positions (administrator vs. lab scientist) and opportunity for understanding specific areas of compliance (i.e., human or animal research, work that involves hazardous materials, etc.) Similar to the institution’s policies and procedures, these training opportunities must be regularly reviewed and updated to reflect changing regulatory requirements. This is understandably a tall task in today’s frequently changing research environment, but one that is essential to safeguard against the risks associated with falling out of compliance with grant terms.

Compliance Training and Institutional Buy-In

In a case study evaluating research administration training and compliance at the University of Central Arkansas (UCA), a PUI, researchers recognized the burden regulatory compliance places on RAs at institutions that do not have large scale research infrastructure more commonly found at large research-intensive institutions. Smaller operations, still required to conform with state and federal regulations, are forced to do “more with less” and funding agencies fail to make up for the increasing cost of grant compliance (Temples et al., 2012, p. 2). Because research administrators at PUIs are managing heavy workloads—often balancing pre- and post-award duties along with compliance—they may only feel able to simply “push grants through the system,” sometimes at the expense of having a full understanding of the research behind these proposals and the implications of that research (i.e., ethical considerations and potential compliance issues). The authors of this study are not suggesting this is a responsibility of RAs alone. In fact, they acknowledge that RAs cannot and should not single-handedly manage this regulatory burden. Instead, the authors offer that a culture of compliance requires further reinforcement that includes educating not just researchers, but departmental support personnel who are integral to researchers. Faculty often rely on departmental support staff to manage administrative duties, like grant management, in order to focus more fully on teaching obligations and research. By offering targeted educational opportunities for both researchers and department personnel—with the goal of sharing a deeper understanding of the importance of the grant programs they are administering—RAs can foster a greater understanding of the shared responsibility that compliance requires and communicate why institutional investment is needed for sponsored research activities. Whereas departmental support staff in the UCA study noted they were well versed in the basics of hiring grant personnel and fulfilling purchase requests and travel reimbursements, they indicated both a need and a desire for a greater understanding of the basic terminology associated with the grants they were administering, cost principles and allowable costs, and the role they as support staff could play in the grant process. More than 93% of respondents expressed their interest in a training program that involved education on grant compliance. Further, 100% of respondents supported the development of a compliance “checklist” to complement training activities and assist support staff and their faculty with remaining in compliance post-training. Such a strong response shows that there may already be a desire for a culture of compliance in existence at LACs and PUIs, but that there exists a lack of infrastructure to address the issue.

In addressing the issue of infrastructure, respondents also recognized the importance of buy-in that goes well beyond the RAs who manage research administration as part of their daily work function. A culture of compliance requires senior leadership to understand the importance of and commit to infrastructure that supports a culture of grant compliance. Survey respondents suggested including senior institution leaders as part of “roundtables with grantees to discuss impediments to grantsmanship and useful, practical, and more meaningful forms of encouragement of faculty grant writing than an annual recognition Ceremony” (Temples et al., 2012, p. 9). In the absence of such conversations, the efforts of researchers and RAs stop short of achieving the goal of effectively creating change, which often requires an additional financial commitment.

Whereas the need and desire for such programming was clear, significant barriers to implementation exist. To complement their exploration of UCA personnel, the authors of this study surveyed 57 RAs at PUIs through the National Council of Undergraduate Research Administrators (NCURA). A majority of respondents worked at institutions, like small LACs, where there are often no trained grants personnel at the departmental level and only 20% of those surveyed said they provide formal training opportunities to providing grant support. A lack of time was one of the greatest hurdles keeping RAs from offering such programming. Of those who did develop training programs, many noted that it took a minimum of five years to establish training programs while others stated that these training opportunities are continually evolving. To navigate the time commitment associated with developing training programs from the ground up, many of the RAs surveyed emphasized the importance of remembering that those interested in offering compliance training do not have to reinvent the wheel. There are resources available to help PUIs and LACs get started with creating a culture of compliance, offered through NCURA workshops and training materials. Others recommended reaching out to others already engaged in offering educational opportunities through professional organizations for RAs. While recognizing that all programming won't seamlessly fit at all institutions, materials can be modified and adapted to meet an institution's needs.

Federal Partners as Integral to a Culture of Compliance

Advocacy groups like COGR and the Federal Demonstration Partnership (FDP) and professional organizations like NCURA have been vital in developing educational resources that can assist RAs in their mission to build a culture of compliance at their institutions. However, it is important to recognize compliance as a duty that extends beyond the institution. Institutes of higher education are the primary drivers of R&D in the United States and vital to the country's economic diversity. Yet, colleges and universities are also hindered by the greatest level of government regulation (Olt, 2018). Phillip A. Olt, in a study on the cost of compliance on LACs, concedes that regulation to some degree is essential. However, he also argues that the government needs to do its part to work with its institutional partners to strike a balance. By offering financial support to assist institutions, like LACs and PUIs, to make hires associated with compliance, federal funders are helping their institutional partners to build the culture of compliance they seek while delivering a higher standard of research. The result benefits both the awardee, who is making efforts to be compliant and perform good work, and the grantee, who wants to support ethical and innovative research.

Federal grant compliance is relatively new in the history of R&D, but within a short timespan has proven to be immensely impactful to research administration. While in many ways compliance benefits the research enterprise—advocating for better, more ethical work—its exponential growth has also left RAs and institutions scrambling to find effective ways to manage the increasing workload. RAs at LACs and PUIs are further disadvantaged because of the relative lack of compliance infrastructure and institutional investment. Only with institutional buy-in and additional support offered by federal funders can RAs begin to start building a culture of compliance.

Methods

To address the research questions—how to build a culture of compliance at LACs and PUIs and circumvent the challenges posed to creating such an atmosphere—the researcher used a mixed methods approach with both qualitative and quantitative assessments. Through quantitative means, the researcher was able to understand the shared challenges experienced at LACs and PUIs. Further, a controlled survey representative of the field was necessary to draw any sort of conclusion about what stands in the way of research compliance at such institutions. With more detailed information provided through individual interviews, the researcher was able to better understand emerging trends and learn more about particular hardships or strengths experienced by RAs at specific institutions. Qualitative evaluations were necessary to discern the obstacles to research compliance at LACs and PUIs, and to offer solutions to those hurdles. The researcher used the results to identify trends at the micro- and macro-level, ultimately synthesizing a broad series of recommendations from praxis-based investigations.

The researcher developed an online survey to reach the broadest number of RAs working at LACS and PUIs as possible. The researcher focused the inquiry on challenges and best practices for building a culture of compliance at LACs and PUIs, creative ways to address these challenges, and how these obstacles can impact the research environment. Questions took the form of both multiple choice—to more generally survey the environment of research compliance and the ways in which the RAs surveyed contributed to this climate of compliance—and long-form answers, allowing participants to provide more detailed explanations of their specific challenges and successes. The survey comprised a total of 16 questions. Google Forms was the mechanism through which individuals filled out the survey. This format was selected due to the capability of Google Forms to sort information received, providing pie charts to help visualize the responses to multiple choice questions and grouping together responses to assist the researcher in analyzing data for trends and themes.

Individuals who are a part of the Colleges of Liberal Arts Sponsored Programs (CLASP) group were the primary target for the survey. This professional organization is comprised of more than 500 research administrators working at LACs and PUIs across the United States. CLASP members provide a wealth of firsthand experience with the issues specific to this research. Sixty-one individuals responded to the survey. After organizing the responses recorded and checking for incomplete information, all feedback was ultimately included in the analysis. It is important to note that a couple individuals included in this analysis reside at the same institution. The researcher made this decision because, ultimately, the RAs' experiences and duties were starkly different, even if working in the same office or at the same institution.

Notes from these interviews were reviewed and a thematic analysis was conducted. Several themes emerged from these interviews and data was sorted according to its relevance to each topic. After the information was sorted, the researcher examined each theme more closely to achieve a greater understanding of the responses. In particular, these interviews were helpful for providing context as to why certain issues persisted at specific institutions and, for those who are achieving a culture of research compliance, what factors led to their eventual success.

Results and Analysis

Examining the Role of Compliance Within Research Administration at LACs and PUIs

Of the 61 research administrators who participated in this research, a vast majority (75%) indicated that their role involves some level of research compliance. While 61% are responsible for multiple facets of sponsored projects—pre-award and post-award activity in addition to managing research compliance among other responsibilities—only about a quarter of these respondents noted that research compliance makes up a significant percentage (more than 50%) of their work day. An equal number of respondents spend hardly any portion of their day devoted to compliance duties while one said that some portion of each month is reserved to review compliance matters, broadly speaking. The greatest number of survey respondents (36%) stated that less than half their day is spent on compliance. Interestingly, several outliers indicated that research compliance doesn't have a central "home" at their institution. Instead, many different individuals from separate departments handled compliance on a case-by-case basis. However, these individuals lacked a central manager—someone to prevent gaps in compliance or to prevent duplicating work. Only one respondent came from an institution with a central office dedicated to compliance.

Notably, although most of the RAs surveyed said a significant portion of their time is not spent on compliance, just over half acknowledged that they would like to be able to spend more time on regulatory activities if time allowed. Those who did not respond to this question conceded they are simply maxed out and don't feel they have any more hours in the day they could possibly devote to the subject. One respondent shared, "More time needs to be spent on research compliance at my institution, but ideally I would hire another staff person into a dedicated research compliance position." Another shared that their office is currently down a staff member and, given how their office is currently strained, the question was difficult to answer. With little bandwidth, many research administrators find themselves focused on filling vacancies to assist with basic responsibilities rather than considering compliance as a function of their role. This points to a common institutional problem of having a disproportionately strong focus on the number of proposals an RA submits or the amount of research funding received during a given year. There is a tendency to favor quantitative goals over qualitative goals like efforts made to build a culture of compliance, which cannot be so easily quantified. Such a tendency forces RAs to make sometimes costly concessions. A disproportionate focus on pre-award over grant compliance could ultimately risk the grant funding the institution prizes.

In exploring what obstacles are preventing a culture of compliance at LACs and PUIs, four themes emerged:

The Generalist's Dilemma, Compliance as a "Lesser" Priority

The greatest challenge for the RAs surveyed is the persistent struggle in balancing compliance with other duties as assigned. Many expressed a frustration with the RA generalist's "dilemma," managing competing priorities. One respondent shared, "I juggle three jobs and compliance only gets 2.5 days of my time per week. Quite often it is not enough." The trouble remains when serving

multiple important functions at an institution; how does an RA decide which takes precedent? By focusing on post-award issues, an RA jeopardizes a culture of grant seeking. By concentrating on pre-award, an RA might be unable to properly track compliance issues or the proper spending of a grant. Inevitably, when balancing many duties, something is neglected to the detriment of the institution.

For those surveyed, compliance often falls to the bottom of the priority list. This is because deadline-driven grant work trumped less deadline-focused compliance responsibilities. An RA works as a “mediator-expeditor” with three primary goals: 1) assisting grant seekers to increase research success, 2) serving an institution’s overall research mission, and 3) matching a sponsor’s goals with the research being conducted at an institution and ensuring rules governing funding are met (Beasley, 2006, p. 18). However, understaffed and overburdened, many RAs felt unable to achieve all three of these tenants. There is an awareness that failing to deliver on all three goals is problematic, running the risk of missing out on a grant opportunity or letting the institution fall out of compliance with the terms of an award. One RA surveyed—responsible for pre-award, post-award, and compliance—stated that, “Juggling all three [responsibilities] while making sure all awards are in compliance runs the risk of something falling through the cracks.” With one person responsible for all aspects of sponsored projects at an institution, inevitably there is some aspect of research administration that receives less attention. Often, compliance becomes a lesser priority, which exposes the institution to risk when accepting external funding.

As expressed by another participant, “Pre-award tasks such as application submission take precedence over tasks such as subaward monitoring.” One survey participant communicated that this is often the result of management’s prioritization of measurable goals over other more qualitative outcomes. General attitudes at academic institutions favor the number of proposals submitted or amount of grant funding received over other grant activities. Focusing on meeting such metrics can quickly dominate the RA generalist’s time. The perceived value of measurable goals over qualitative outcomes oftentimes is the result of a lack of true understanding of the RA’s function. This lack of understanding leads to an underappreciation of the RA’s role and a lack of awareness about why compliance is important. As one respondent puts it, “the most difficult part is that while I have a role relative to research compliance at my institution, my position is not invested with sufficient authority. Thus, I need to utilize the tactic of ‘convincing’ those with authority that certain things need to happen.”

There is a general misconception that the RA’s work ends when an award is received. Such a misunderstanding has serious consequences. This is not to say that external funding is unimportant. However, concentrating on funding alone without proper stewardship may ultimately result in less funding should the institution be cited for an audit finding. Educating institutional leaders about the importance of and risks associated with award acceptance becomes another responsibility unto itself, and one that many RAs said they simply do not have time to navigate. A greater level of infrastructure or support from across the institution is needed to give compliance the attention it needs to properly protect both the college and research.

Lack of Consistency Across Funders and Lack of Time to Stay Ahead

RAs who have been in the profession for the last several decades recall when there was an overall lack of regulations governing federally sponsored research. Today, the reverse seems to be true. A majority of RAs surveyed acknowledge that they felt bombarded by the overabundance of federal regulation and its complexity. RAs said that understanding what the regulations are trying to communicate is its own full-time job. Some also said they feel overwhelmed by the continually evolving rules and the lack of consistency among federal funders. When managing day-to-day deadlines and other general duties, many felt there would never be enough time in the day to conduct sufficient research to fully comprehend the latest compliance requirements in addition to reviewing, revising, and adding to institutional policies to ensure full compliance. It is difficult to build a culture of compliance when keeping track of what it takes to remain in compliance is so cumbersome. However, failure to do so can place the institution and its researchers at significant risk, including a potential loss of future funding or criminal charges.

While many RAs expressed serious concern that compliance issues would “fall through the cracks” because of the lack of time and lack of institutional prioritization of these issues, they also acknowledged concern over what can be described as “regulation fatigue.” The RA generalist is disadvantaged in trying to remain up to date on general grants policy, regulations governing animal care and use, human subject research, research integrity, etc. As one respondent noted, “It is too much for any one person to be expert on.” LACs and PUIs are further disadvantaged because they operate in a much different way than larger institutions, and the policies and regulations developed by federal funders are often written with larger institutions in mind. Because these guidelines make assumptions about an academic institution’s infrastructure, they are not only difficult for RAs at LACs and PUIs to understand, but also impossible to apply. Due to a general lack of time and because LACs and PUIs don’t often deal with more complex awards—often serving as a subrecipient, for instance—many have adopted a reactive rather than a proactive approach to research administration and grant compliance. However, a failure to invest in compliance training means the institution is ill-prepared and scrambling when, inevitably, it is the primary applicant for a more complex award and is held liable for subaward monitoring and other more advanced, time-consuming compliance responsibilities.

Gap in Oversight and Lack of Compliance Infrastructure

Large institutions have the benefit of infrastructure, like an office of compliance, allowing them to be proactive in developing a culture of compliance. The RAs surveyed share a concern over the absence of such resources. Many LACs and PUIs failed to even have one individual whose main job is to focus on compliance issues. LACs and PUIs do not often handle compliance in a holistic manner. One RA wrote that the finance office handles post-award compliance at their institution, while all other research compliance activity is distributed among various offices: finance, purchasing, and legal, among others. Distributing compliance responsibilities in this way—not uncommon at a LAC or PUI—can be problematic when there is no individual overseeing all compliance activities to eliminate potential gaps or redundancies. RAs said they feel the weight of this burden in addition to a sense of helplessness caused by a lack of “authority” to address the problem. This is one reason why compliance takes a backseat to other priorities at a LAC or PUI—lack of ownership or shared responsibility for compliance. Remaining in compliance

with federal regulation is essential to fulfilling many aspects of an institution's mission, and yet its investment is treated as subordinate to other institutional priorities. It becomes difficult to convince others to take compliance issues seriously unless their hand is forced with an audit finding. RAs struggle to find ways to convince the institution at large that the rules do not just apply to researchers. As the institution is the recipient of all federal awards, the rules apply to everyone connected with the institution. To remain in compliance, the entire college community needs to be invested in some way.

Strategies for Building a Culture of Compliance: Fostering Institutional Allies

A vital part of the RA's job at a LAC or PUI is outreach or building a culture of grant seeking. At large research institutions, a faculty member's research may be viewed as the most important factor when it comes to obtaining tenure and thus creates very enterprising, research-focused faculty. Researchers at LACs and PUIs, however, have many competing priorities. LAC and PUI faculty are expected to manage research plans along with a heavy course load and service to the institution—all of which are part of consideration for tenure. In trying to balance these competing interests, faculty may decide against pursuing sponsored research because they simply do not have the time to deal with the administrative burden associated with finding and applying for external funding.

Additionally, faculty may not realize institutional support exists to assist with their sponsored research pursuits, and thus it becomes the RA's job to educate the community about their existence as an important institutional support system. Through a focus on outreach efforts, many RAs at LACs and PUIs have been able to successfully build both a culture of grant seeking and compliance at their institutions. As one respondent noted, "It's all about relationship building. In this way I have been able to build trust and increase compliance success." Outreach activities include:

- Hosting a faculty luncheon before the start of the school year or introducing compliance topics at faculty meetings, guaranteeing attendance
- Subsequent workshops throughout the academic year
- Hosting a "compliance café" as a "one-stop shop" to get PIs to sign time and effort forms, conflict of interest forms, and to come discuss their Institutional Review Board (IRB) and Institutional Animal Care and Use Board (IACUC) questions in person
- Focused, individual outreach or "check-ins" once a semester

An initial investment of time often reaps rewards. As the RA's presence becomes well-known, less outreach is needed. Further, many RAs surveyed have leveraged relationships built with faculty to encourage others to buy-in to a culture of compliance. These faculty allies help to build capacity for an RA who does not have the institutional funding to support the hire of a dedicated compliance officer.

Communication across institutional departments was also cited as a crucial part of building compliance at LACs and PUIs. Without a compliance office, many LACs and PUIs lack central control over regulatory issues, which creates a gap in critical regulatory oversight. Without a central

compliance manager, how can the RA meet all compliance requirements? One solution might be the development of a system of internal controls that can help facilitate better communication across departments. One survey respondent shared that their institution formed a group called Grants Administration Management (GAM), composed of representatives from sponsored research, finance, the provost's office, legal, and purchasing. GAM meets once a semester to talk through compliance issues. Working across divisions in this way serves to keep compliance issues at the forefront of institutional priorities and helps to alleviate the burden compliance may impose on any one individual. It creates a shared sense of responsibility and can help illustrate to senior leadership the importance of devoting resources to compliance.

A third crucial part of building a culture of compliance at LACs and PUIs is buy-in from leadership. Their support gives authority to matters that might otherwise fly under the radar. Many respondents expressed that they were able to successfully build a culture of compliance once they had one leader, often a dean or associate dean, who could serve as a conduit between the RA, the faculty and other institutional leaders at the highest levels of the institution. RAs were able to convince associate deans of the importance of this work by using peer-reviewed information to provide justification for why they should be following the correct procedures.

Reliance on External Networks for Support

Fostering allies across an institution is vital to building a culture of compliance. However, RAs noted that it often takes additional support systems to make this culture a reality. Through professional networks specifically targeting LACs and PUIs, RAs can lean on others for support, and share best practices for combatting the challenges thwarting efforts to grant seeking and compliance. Organizations like COGR and the FDP offer resources like subaward monitoring templates so that RAs don't have to reinvent the wheel when dealing with compliance issues on their campus. This is particularly helpful for an RA at a LAC or PUI who struggles to find the time to focus on developing such materials. Professional networks like CLASP—of which all survey participants are members—are especially helpful for LACs and PUIs because they provide a forum for discussion tailored to the issues faced by smaller colleges and universities. When in doubt, several survey responders said they have turned to peer college grant managers to provide guidance on compliance issues, often sharing these responses to successfully advocate for additional compliance support. Colleagues at other LACs and PUIs are wonderful resources, offering models for how a culture of compliance may take shape at other similarly structured institutions. An RA may feel limited in what they can achieve in a one-person shop at their LACs or PUIs, but by leveraging a network of PUIs and LACs from across the country, their power and capacity can go much further.

Making Compliance Accessible

Large institutions often have advanced technological infrastructure available to help manage grants and to offer large-scale training programs for researchers. In the absence of time to develop compliance training and education opportunities, many RAs at LACs and PUIs said they are taking advantage of Electronic Research Administration (ERA) systems to make a culture of compliance within reach. Several survey respondents pointed to the Collaborative Institutional

Training Initiative (CITI) program as one of the most crucial ERA tools for building a culture of compliance at their institutions. CITI offers a number of educational courses tailored to different areas of research compliance and ethics training. While online courses alone are not enough since in-person training sessions are a part of compliance requirements, CITI offers LACs and PUIs an important starting point albeit at a cost that might prove to be restrictive for some institutions.

In addition to online training programs, several RAs said that by making as many resources as possible available online, they not only save themselves time, but make it easier for faculty and staff to buy-in to a culture of compliance. One respondent shared, “[I] use compliance as a service or a way to show people that it is a framework in which to work and not administrative red tape. I have worked . . . to make forms/websites/trainings efficient: fillable forms, completely new websites with tools to answer questions (decision trees, drop down FAQs, templates and forms), streamlined CITI trainings, etc.” Though this might seem like a great deal of work, there is no need to reinvent the wheel. Many RAs shared that they once again turn to their professional networks, such as CLASP, to find existing resources like compliance checklists to make it easier to build a culture of compliance at their respective institutions.

Investing in a Dedicated Compliance Officer

Several respondents agreed that to balance research compliance with other responsibilities, their institutions need additional staffing. In particular, staffing devoted specifically to the task of managing compliance as a full-time responsibility. While a majority of RAs surveyed come from institutions that do not have a dedicated compliance officer, roughly 26% (16 RAs) said that they have been successful in advocating for a full-time compliance manager at their institution. A majority of those surveyed said that funding for this position came from institutional funds while roughly a quarter of respondents said they used external funding, like F&A costs, to support the position. Regardless of funding source, several RAs said the existence of this position has made all the difference in building a culture of compliance at their institution. One RA said:

Our compliance officer, who is housed in our three-person office, does a lot of outreach with faculty and students. She gives in-class presentations on compliance issues and provides in-person assistance with IACUC/IRB applications. She requires the faculty mentor of any student researcher to sign off on the protocols before they are submitted for consideration. In this way, we have been able to get the word out about compliance even without much upper administrative support.

For many, this position was not about enforcement, but instead focused on protecting the institution. By dedicating resources to such a position, RAs said their institutions have been able to be proactive instead of reactive, “in front of the issues” instead of scrambling to familiarize themselves with regulations in the event of an audit finding. For one respondent, not only has the addition of a compliance officer allowed them to feel more confident that the institution is covering all of the aspects of research compliance, but it has enabled the sponsored projects office to offload the burden of partially overseeing RCR compliance in order to focus on grant activities with a higher return on investment. An investment in the short term may pay off in the long run, both in terms of allowing the RA to focus on increasing grant-seeking activity while also offering the institution better protection from the damage of an audit finding.

Conclusion and Recommendations

Building a culture of compliance is within reach for RAs at LACs and PUIs and, as evidenced by the research, successfully occurring at institutions across the country. However, systemic issues persist—even for RAs who have experienced some “wins” in the compliance arena. Widespread success requires investment and a concerted effort from RAs, researchers and other institutional leaders, and federal funders.

Whereas the following recommendations address ways in which RAs at LACs and PUIs can find support in compliance at the individual, institutional, and federal level, it is important to acknowledge that the scope of this study does not delve deeper in addressing the question of audits noted by some of the surveyed RAs or the number of LACs and PUIs that have been subject to the consequences of an audit finding due to a lack of institutional compliance. Acute attention should be paid to the financial and practical concerns as a result of compliance failures and the comparison between larger institutions and smaller LACs and PUIs. This broader area of investigation was not addressed in the research conducted for this study, but merits further examination. One of the results of the findings has been to illuminate the need for more research in this area, which the researcher hopes to address in further studies.

First Recommendation

RAs at LACs and PUIs must continue to be active participants in professional networks that influence the regulatory environment for peer institutions. The RAs are more closely aware of the challenges and tribulations faced by LACs and PUIs when it comes to external funding and governmental affairs. It is therefore imperative that they remain engaged participants in a professional community, like CLASP, that has the potential to influence real change in the regulatory landscape. RAs at LACs and PUIs serve as a vital support system to their peers and peer institutions, sharing best practices and well-developed policies, and helping to interpret new regulations and the way they may impact LACs and PUIs—generally holding their colleagues to a higher level of research ethics and grant compliance. Sharing the way in which one institution complies with a requirement like RCR training prompts others to reevaluate how they approach the same issue.

Furthermore, while organizations like COGR and the FDP are imperative to the field of research administration, they are largely comprised of individuals hailing from large institutions. RAs and LACs are generally absent from the conversation about how government regulations impact academic institutions. Through networks like CLASP or the Council on Undergraduate Research (CUR), RAs from LACs and PUIs can ensure their voices are heard. Whereas the internal conversations that occur within organizations like CLASP and CUR are useful and productive, RAs should not underestimate the importance of the leadership roles they can and should take up in the larger arena of research administration. Though the level and type of research activity that takes place at a LAC and PUI may be different than at large institutions, all colleges and universities have a role to play in enhancing shared knowledge and training the next generation of researchers.

Second Recommendation

RAs alone cannot be held responsible for ensuring an institution's adherence to federal regulations. A culture of compliance relies on investment at all levels: administration, faculty, and management. RAs can advocate for a culture of compliance through outreach efforts that may include hosting compliance cafés at least once a semester, sending regular emails with up-to-date information on new compliance policies and opportunities, or participating in regular meetings of representatives from across the institution who can play a leadership role in the enforcement of institutional compliance. However, RA generalists are limited in their bandwidth. To truly safeguard the institution from the potential devastation a lack of compliance can have, a proactive stance is needed. The ability to act proactively requires that institutional leadership make an investment in compliance. The optimal solution is an institution investing in hiring a full-time compliance manager devoted to building a culture of compliance, ensuring the institution is safeguarded against the risks associated with falling out of line with federal regulation, and able to build its federal portfolio in a responsible way. Of course, this is untenable for all institutions of higher education. As a lesser, but improved, alternative, institutions should invest in memberships like CITI to give existing staff the tools to more effectively manage compliance. Programs like CITI make it easier for the institution to track RCR obligations and meet requirements to offer compliance education and training (though it should be noted that federal mandates still require some in-person training). A small investment in programs that help with federal compliance has a payoff—sometimes literally—for faculty, administration, and students.

Third and Final Recommendation

Federal funders play a vital role in the ultimate success of the projects they fund. It is not enough to provide funding for the direct costs of research or to impose a set of guidelines without also investing in the improvement of research infrastructure. Programs like the National Institutes of Health Biomedical/Biobehavioral Research Administration Development (BRAD) Award Program have been instrumental in providing financial support to improve research administration, recognizing that infrastructure is a vital aspect of the continued growth of the nation's R&D. Unfortunately, these funding opportunities are disappearing. Colleges and universities, the drivers of the nation's R&D and economic development, are increasingly left to bear the brunt of the high administrative costs that the acceptance of federal funding requires. Academic institutions need assistance to meet the demand for increasingly sophisticated research infrastructure. Investing in the direct costs of a project alone are not enough. The federal government needs to be willing to continue to collaborate with RAs to improve the research enterprise and the regulations governing its advancement.

These recommendations and concerns are not to suggest that federal regulations are inherently bad or that complying with laws that govern federal awards is not important. To the contrary, compliance is vital to ensure the highest-possible standard of research. The stakes are high, which is why being thoughtful about building a culture of compliance in a way that includes all stakeholders is so imperative. By upholding compliance as a top institutional priority, college and university leaders demonstrate a commitment to ethical work, help to better distribute the burden of compliance in a way that is sustainable, and help situate their institutions to receive more federal

funding. By regularly assessing the way new and increasingly complex regulations impact R&D and by listening to and acting on the concerns of RAs from a wide variety of institutions, the federal government can partner with academic institutions to ensure the continued proliferation of the innovative work that has reaped resounding benefits for institutes of higher education in the 21st century.

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Is it Time to Rethink How We Support Research: Teams, Squads and Mission? – An Opinion

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Abstract: *Research Administration continues to adjust and expand to ever-changing external demands, often in the form of creating new institutional processes for new federal rules and regulations. At the same time, institutions are under tremendous pressure to increase research numbers, metrics, and rankings. In this environment, it is difficult to take a step back and look at HOW we operate rather than just WHAT we do, and few have taken the time to make changes that address our behaviors rather than our rules and regulations. In addition, we can lose sight of our mission and goals, which arguably are not to be found in metrics and rankings but are rooted in our researchers and the support we provide to them.*

We here argue that such review of our core behaviors, the way we do things, and a refocus of the office towards its true mission, is important for sustained long-term success of academic research and its support infrastructure. Here we provide an opinion that focuses on the global trend toward team-based approaches and proposes a shift in how we operate to embrace a non-sequential workflow that focuses on mission and objective.

Keywords: *Research operations, team-based approach, core behavior, core values*

Introduction

As leaders in research administration, we are in charge of providing quality support to the researchers of our institution, ensuring that our units have the personnel needed to provide these services, often under rather dire budget constraints, and making certain that our staff has the skills and knowledge to do the best job they can. While operations in the individual units, such as sponsored programs and post-award activities might have seen slight changes based on changing external mandates and regulations, HOW we provide services to our “customers”, the researchers, seems to have changed little in the last decades. With the fast-paced world of research administration, we often do not stop to evaluate if how we are approaching tasks is still the best way to operate. In addition, without pause and reflection, it is hard to know what is worth discarding or changing in our behavior and what is holding us back.

Preventing such “pause and reflection” is often our mandate to both respond to changing regulations and, maybe more so, the mandate to most research institutions to chase growing

metrics and rankings, and constantly deal with deadlines. While these are important milestones on our way, they are not a goal, though often mistaken as such; arguably, quality and “customer service” should be the goal and mission of the research administration office. How, then, can we integrate all these different pressures and reflect on ways to improve our way of providing services in an environment that, on the research site, focuses increasingly on cross-disciplinary interactions and collaborations?

A Thought Model

Indulge us by considering a different model, at this stage only a “thought model” that is founded in a new way for research administration work to be accomplished effectively and productively in support of our researchers. While the following structure or theoretical framework is not found in the literature, the authors, through decades of experience, have consolidated and refined a model of research administration best practices. Please know that at this stage, this is an invitation to brainstorm with us and reflects an opinion from our decades-long experience. We have organized this process based on our four core principles, symbolized as “STAR”: Strive (identifying existing challenges) – Think (what are we doing or could be done to address these challenges) – Act (suggested solutions) – Read (references and further readings).

STRIVE: Is it time to rethink how we best provide our services to researchers? Has the way we provide our service kept up with the needs of our ever-evolving environment? From the researcher perspective, the “administrative burden” on them is an increasing concern that keeps them (even if only in their perception) from spending more time on the job they were hired to do—conduct research. A survey conducted by the Federal Demonstration Partnership in 2018 demonstrates that, while some of the administrative burden on faculty, measured as “time away from research” indeed did very slightly increase at some institutions (from 42.3% in 2012 to 44.3% in 2018), at others, it did not (Schneider, 2019). Based on these results, the increase in administrative burden for faculty may therefore be a perception that could be addressed via reorganizations and restructuring of services, rather than providing new ones.

In addition, from our perspective, researchers often do not seem to understand or spend the time to understand the workings of the research administration office. However, as already mentioned, faculty researchers are hired to do research. Is it, therefore, fair to expect of the researchers to know the administrative side? They are trained to do their research, not be knowledgeable in what is arguably our job. With these conflicting approaches, the gap between research administration and researchers appears to be ever increasing.

Researchers are getting disgruntled with the administrative demands that appear to be increasing, and research administrators are frustrated with the lack of interest and consideration for the administrative site. In addition to that, the offices and divisions of research have created and are more and more creating their own silos, where each unit defines and protects their “turf,” the tasks they are exclusively responsible for. To make things worse, these different units within an office or division of research may not even work as well with each other as expected, even though, to be truly effective, they would need to collaborate on mostly overlapping responsibilities that

support a research project. Putting this together with the fact that researchers often do not even know that different units exist within the Office of Research, nor do they care to know or explore their different roles, we clearly have a chasm between the service unit (research administration) and our customers (the researchers), and sometimes even between administrative support units themselves. This chasm is further exacerbated by the increasing number of cross- or interdisciplinary projects that require research administrators supporting researchers in different fields to work with each other.

THINK: Research administrators have provided their services to academic researchers more or less the same way for decades, with a workflow of grant applications processing through different, separated units and tasks. Changes that have occurred are in response to increasing and changing regulations and policies that mostly affect WHAT we do, but not truly HOW we provide research support. New units, like research development, may have been created, with every research administrator trying to find their own niche, independent from other units. Rather than following the collaborative, team-based trend that we see in research itself, we are hardening the already existing silos within the divisions and offices of academic research.

Interactions between researchers and their research administrators are also mostly confined to times when researchers have the immediate need for support. Communication from the administrative offices to faculty and back is breaking down, evidenced by several articles and opinion pieces in higher education journals, and the number of tools that are provided online to improve communication. A Delphi study published in 2007 identified improved communication between faculty and research administrators as needed to support growth and collaboration (Cole, 2007).

The way many of our administrative offices are organized, researchers are expected to come to us when they need support. Yes, we send out newsletters and organize networking events, but we only get involved with the administrative side of whatever research project a faculty is working on when the grant proposal is due in a few days, or, hopefully, weeks.

Maybe we need to look further than just improvements to communication tools. Is it time to rethink how we provide our services to our “customers”, the researchers? Should we and could we consider a significantly different approach that does not lean on a step-by-step, sequential workflow through units that get involved on an as-needed basis, but a team-based approach in which, ultimately, the research administrators become part of the researcher’s immediate team, just like any other collaborator? Granted, this requires a “team” and sometimes a “squad”, which could be viewed as a waste of time on the administrative side. Researchers would also be able to view and accept the integration of the administrators into their team. Using a bit of US Military structure as a basis, two teams (of no more than four people) make up a squad (four to ten people). We argue, though, when there is value for the researcher in this integration, they will embrace it.

ACT: Let us think through a model in which we indeed create a collaborative team with the researcher, rather than staying in our far-removed administrative world that gets tapped into as needed and where we focus changes to our best practices mostly on the response to changing federal or state regulations. Let’s, for a moment, focus not on best practices of WHAT we do, but

on the best practices of HOW we provide our services. Here is a suggestion that would follow the idea that a team approach, where everyone sits around the table whoever will be involved in the research project, either on the research OR the administrative side, is involved from the beginning.

STEP 1: Start with a new faculty member entering your university and explore their interests and needs, possibly in a mini questionnaire.

STEP 2: Form a team (example name: Team Orange) that, at a minimum includes one representative from research or proposal development, sponsored programs, research accounting and research compliance (as needed). Other ad hoc members might represent tech transfer, core facilities, college/department research administrators, research communication, export control, etc.

STEP 3: Go and meet the new faculty as a team—ideally in person. Let THEM tell you about their research interests, rather than you telling them how you can help. Make it clear that Team Orange will now always be the point of contact for this faculty. The researcher receives a unique email address (TeamOrange@university.edu) that the individual can use to reach the entire team in one email. Teams can be based on the type of sponsor or the college the faculty/researcher is in.

As mentioned above, it is important not to forget the mission of the research office as a customer support unit. Having the researcher talk about their research gets this sentiment back on track.

STEP 4: Expand on this first meeting with the faculty and continue staying in touch. Appoint facilitators in your division who will be in charge of creating regular reports to the faculty and organize meetings of the team. Each team will be appointed several faculty, which could be based on the type of research, type of sponsor or location.

STEP 5: Team Orange will meet weekly to discuss which step this faculty is at and how the team can best provide support. All team members are required to attend. Ideally, the faculty should participate in the meeting. These can be brief, “stand-up” meetings to simply touch base. If a research team exists, work with the “contact PI”, though communicate to the entire team on a regular basis. We recommend these meetings to run like a “tumor board”, a hospital term in which any caretakers ever treating a cancer patient discuss treatment options. Much like these “tumor boards”, create written documents (which can be online) to document progress of the faculty and their research.

STEP 6: Facilitators put together regular reports to the faculty to provide transparency.

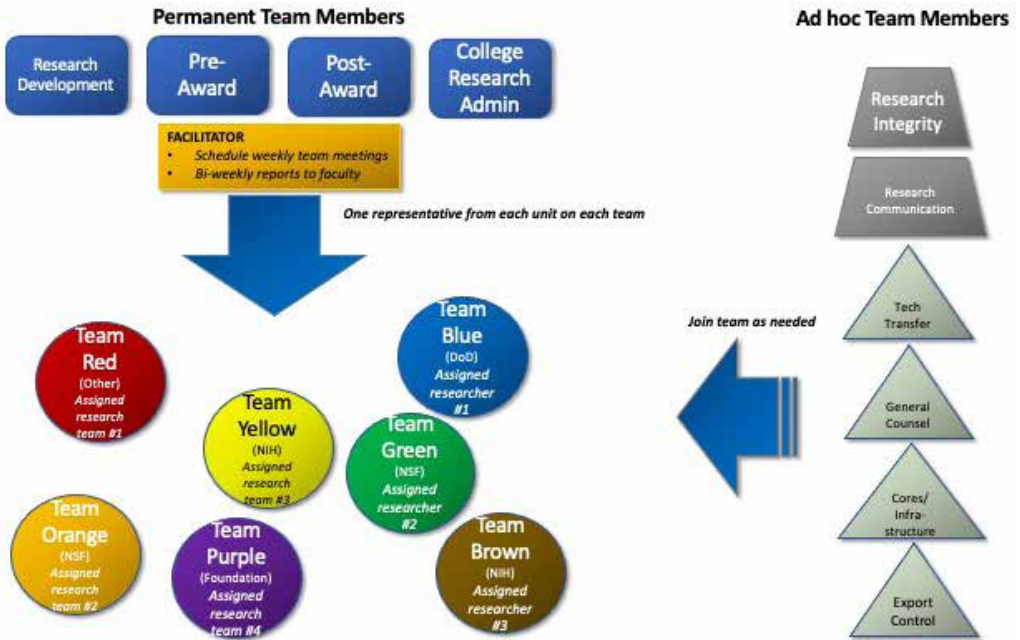


Figure 1. Outline of Team-Based Approach for Academic Research Administration. Teams consist of standing members from research and proposal development, pre- and post-award and a college administrator (if appropriate). Ad hoc members join the team, as needed. These can be representatives from compliance, tech transfer and other support units. Facilitators manage the team interactions and are the direct point of contact to faculty.

Many companies have long since embraced the idea that bringing together teams of people from all different units who at any time will work on a product, idea or service makes them much more successful in the long run. The US Military combat designations have the smallest unit being a Team (four soldiers) and Squads (two teams of four to ten soldiers) and even Platoons (several squads). Each PI would get a Team, each Department would get a Squad, and each College would have a Platoon. All members of the subunits would make up the subsequent larger unit, but each have a critical mission to accomplish for their objective (PI, Department or College). Even our hospitals have recognized that together we are stronger: Tumor boards meet regularly, typically in the early morning, to discuss a list of cancer patients and their best treatment options. Anybody who might ever provide treatment to this patient is in the room, from the surgeon to the geneticist to a radiologist and pathologist, to name just a few.

Most importantly, this approach does not only work for the patient, or, in our case, for the faculty, but also for the team members themselves, as they get to know each other and learn what other units are doing or are able to provide. The Disneys, Apples and Bloomborgs of the world

even went as far as organizing their work environment accordingly, in that it not only supports planned meetings, but encourages unplanned meetings between individuals who do not normally meet, noticing that the best ideas may come out of such interactions. A beginning of such a model in Research Administration is a new way of onboarding new faculty, also referenced as “Step 3” above: Instead of bombarding new faculty with names and contact information, meeting with them as a group representing all core research administrative areas, have the researcher talk about their research interests instead. Automatically, your administrative contributions can be mentioned more organically, to which the researcher will be more receptive. In our experience, this approach has been extremely successful.

READ: We can recommend many books and articles for this focus, but we found these useful:

- *Courage to Execute: What Elite U.S. Military Units Can Teach Business About Leadership and Team Performance* by James D. Murphy (2014)
- *Creativity, Inc.: Overcoming the Unseen Forces That Stand in the Way of True Inspiration* by Ed Catmull (2014)

Further Considerations

This new approach does not require additional time or investment of resources, but it is a redirection. Incremental changes and familiarizing teams with the same information repeatedly is no longer required. We can't always have all the information, and we get stuck in a paralysis of analysis deciding what to do about a particular issue. This new approach requires making proactive support and reducing reactive activities (e.g., long email threads).

Interestingly, even research has embraced this idea of “unplanned meetings” and created interdisciplinary workspaces that cumulate in such buildings and institutes as the Broad Institute and Bio-X. Academic research administration, however, is entirely being left behind. As the world around us shifts toward these team-based approaches, we continue our historically derived mode of operations, divided into different units with sequential workflow. Is it time to rethink the status quo?

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Understanding the Impact of the COVID-19 Pandemic on Research Administration in Canada

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Abstract: *Like many services globally, the sudden work-from-home mandate due to the COVID-19 pandemic in 2020 disrupted research at Canadian post-secondary and affiliated organizations. Research administration professionals, who are an integral part of the research enterprise at these organizations, and who support and manage research activities were no exception and struggled to keep up with this challenging and unexpected situation. Not only adjusting in-house policies and procedures but research administrators were also swamped with distilling information received from external funders who were likewise adjusting their guidelines and policies for current and future funding programs. Moreover, the priority was to keep up with the COVID-19 special calls for funding that usually provided shorter response times. At the same time, research administrators were grappling with adapting to new online communication technology and finding the best ways to maintain work-life synergy. In this chaotic period of uncertainty, emotions were high, and communication was key. This study explores how research administration professionals in Canada adapted to this new reality and what lessons were learned. Through a national survey, the research administration community reflected on the following themes: i) Challenges experienced in setting up the new working environment; ii) Technostress; iii) Workload, productivity, and work-life balance; iv) Relationships among colleagues and with faculty, and v) Adaptability to the reality and future work culture desire.*

Results of the survey indicate that although Canadian research administration professionals experienced challenges due to abrupt shifts in their workplace, they were creative, resilient, and flexible enough to steer through this testing period. The inherent/acquired technological capabilities, efficient communications among coworkers and with faculty, and strategies they used during this time to stay productive and efficient helped most of them to adapt well to this situation. Some of them struggled to keep a work-life balance, especially those with young children, however, flexibility, control over their time, and proven productivity during this time inspired them to desire a remote and/or hybrid work culture even after the pandemic is over.

Keywords: COVID-19 pandemic, Research Administration, Work-from-home, Working environment, Adaptation, Technostress, Workload, Productivity, Work-life balance, Future work culture

Introduction

In early 2020, the world faced a unique challenge when the SARS-CoV-2 virus caused the COVID-19 pandemic that led to global health, economic and social crisis. It forced the sudden shutdown of educational institutions, businesses, and public places to contain the spread of the virus and maximize social distancing. Millions of people were forced to work remotely around the world. Indeed, the organization Eurofound reported that due to the pandemic, approximately 50% of Europeans worked from home (at least partially) as compared with 12% before the emergency (Eurofound, 2020). In Australia, France, and the United Kingdom, 47% of employees teleworked during lockdowns in 2020. In Japan, which did not implement a nationwide lockdown, the teleworking rate increased from 10% to 28% between December 2019 and May 2020 (OECD, 2021). Based on an online survey to measure the impacts of COVID-19 conducted at the beginning of the shutdown (March 2020), Statistics Canada reported that 4.7 million Canadians who did not normally work from home started to in response to the pandemic (Denis, 2020). A year later, as of February 2021, 32% (3.1 million) of Canadian workers between the age of 15 and 69 were still working from home compared with 4% in 2016 (Statistics Canada, 2021).

At the Canadian post-secondary organizations, due to the forced lockdown, classroom learning quickly changed to online learning, non-essential research activities almost stopped, and the staff was sent home to work remotely to contain the spread of the virus and to preserve the health and safety of everyone involved. Research administration professionals were no exception. They had to make significant adjustments in their operations to continue providing quality service to faculty and students involved in research activities. Research administration professionals, being an integral part of an institution's research enterprise, develop, manage, and administer research support activities. They play a variety of roles in supporting faculty through a research grant life cycle, i.e., pre-award phase, award phase, and post-award phase (Grants.gov, n.d.; Cañada College, n.d.). Broadly, the pre-award/grant phase (pre-grant facilitation) involves prospecting for funding opportunities, consulting faculty for proposal development including budget development and various other components of the applications, ensuring compliance with equity, diversity and inclusion requirements of funders, ensuring data management plans, open access plans and knowledge dissemination plans are well written, reviewing and editing applications,

and submission to funders; the award phase involves notification of award and award set-up after receiving the funding; and the post-award/grant phase (post-grant facilitation) involves helping faculty in ensuring research is conducted in compliance with the institution's and sponsors' policies and procedures, supporting the implementation of the project/program, navigating through student hiring, purchasing along with final reporting, assisting with transfer of funds, grant extensions, and grant closeout.

Research administrators at all levels faced challenges from the sudden changes in their focus due to COVID-19. Leadership struggled to develop effective needs assessment plans at the beginning of the pandemic to help faculty evaluate the need to continue their research activities and have *Individual Research Continuity Plans* in place, by keeping in mind the limited or paused access to research space, equipment, facilities, and staff availability and, more so, having a plan in place to quickly ramp down the research activities in the wake of quickly evolving conditions. Along with adjusting in-house policies and procedures, operational research administration professionals were swamped with distilling information received from sponsors who were also adjusting their guidelines and policies for current and future funding programs. Moreover, keeping up with the special rapid calls for COVID-19 research with shorter response times was the priority among the other routine grant facilitation activities.

Before the pandemic, work-from-home (WFH) was not practiced widely and was considered 'a *luxury for the relatively affluent*' (Desilver, 2020). Such an arrangement was voluntary and for those who were able to perform remotely. Studies have shown that planned WFH, in general, has its advantages and disadvantages (Van Steenberg et al., 2017; Konradt et al., 2003). COVID-19, however, induced a sudden shift in the working environment without any opportunity to plan and provide technical training or resources required for most employees who were introduced to this abrupt shift to remote work. Thus, the mandated WFH leading to the sudden shift in the working environment along with the imminent shift in research priorities caused research administration professionals to struggle with adapting to this sudden change to not only keep up with their daily duties but to adjust their family responsibilities. As the work and home boundaries were blurred, notably, for people who were taking care of their underage children because schools and daycares shut down, the situation further complicated their challenges. This becomes more relevant to research administration professionals as research administration is often a female-dominated profession (Clark & Sharma, 2022; Preuss et al., 2020). Similarly, the challenges are exacerbated for people with personal pre-conditions and/or of people in their care.

The current study thus investigates the impact of the COVID-19 pandemic on research administration professionals in Canadian post-secondary and affiliated research organizations to understand their challenges in this unprecedented time, how they adopted and adapted (if so) to this new reality (what factors helped or hindered their adaptation), what lessons were learned and, how this might impact the future work culture and practices. This requires a systematic understanding of the impact of this changed work arrangement on the Canadian research administration landscape. With almost 1,000 members, the Canadian Association of Research Administrators (CARA) is the only national body for research administration professionals in Canada, and therefore, CARA members were surveyed for this study to capture their firsthand

challenges and experience WFH during the pandemic as a representation of Canadian research administration. Specifically, this study explores the following themes: i) Challenges in setting up the new working environment (working space, ICT infrastructure, network availability, and performance issues); ii) Technostress (techno-overload, techno-invasion, techno-complexity); iii) Workload, productivity, and work-life balance; iv) Relationships among colleagues and with faculty; and v) Adaptability to the new reality and future work culture desire.

This article includes a literature review on the impact of COVID-19, WFH in general, and the other relevant literature including the only USA study investigating the remote work experience of research administrators during COVID-19 at the time of conducting this study; methodology; the results of the current survey, which will include both quantitative and qualitative response reflections; and a discussion comparing the study outcomes with the existing literature. Concluding remarks include recommendations for future work culture.

Literature Review

Many studies have reflected on the impact of COVID-19 on remote work affecting various aspects of the lives of teleworkers. These range from stress due to technology dependence (Wang et al., 2020; Donati et al., 2021; Prabhakaran & Mishra, 2012), to impact on employee health, job satisfaction, and well-being (Niebuhr et al., 2022; Sharma & Vaish, 2020; Schade et al., 2021; Xiao et al., 2021), impact on productivity, engagement, and mental stress (Galanti et al., 2021), and work-life balance (Chu et al., 2022) and such. At the time of preparation of this manuscript, only one survey had explored the impact of COVID-19 with the US research administrators (Akioka & Caban, 2020b) on aspects such as their work efficiencies and productivity, frequency of communication, working relationship with colleagues, and feeling of isolation. This current study is the first to explore the impact of COVID-19 with Canadian research administration professionals in a systematic way that encompasses the challenges faced from establishing workstations at home, technological stress, increase in workload and impact on productivity and efficiency, as well as how the social isolation impacted the working relationship with faculty and colleagues, work-life balance and future work-culture perception.

Like most, research administrators were forced to the sudden WFH which they were not familiar with before the COVID-19 quarantine mandate. One of the challenges was establishing their working environment at home. Having a dedicated space for their workstations might not be feasible for all as family members needed to share the space with their working-from-home partners, children taking online classes/working from home, and other members. Moreover, families with young children were impacted by the disruption of childcare support services and as a result, the distractions that were caused by young children. Additional challenges included having appropriate and well-functioning information communication technologies (ICT) infrastructure at home (Niebuhr et al., 2022), having uninterrupted internet access, access to IT support, and access to and adapting to new online virtual platforms, and such. Understanding challenges with workstation set-up is critical as these challenges and satisfaction with workspace indoor environmental factors have been reported to decrease overall physical health and mental well-being (Xiao et al., 2021). A Statistics Canada (2021) survey also reported that teleworkers

who struggled with having inadequate physical workspace or experienced difficulty with internet speed and accessing work-related information or devices had caused people to be less productive during the pandemic.

One of the revolutionary shifts COVID-19 brought was heavy dependence on the use of ICT and the increased availability of various digital/virtual platforms. Modern technological tools have many positive effects on work practices and can enhance employee efficiency (Brynjolfsson & Hitt, 2000) and productivity (Tu et al., 2008). Although suddenly many virtual platforms (such as Zoom™, Microsoft Teams™, and Skype™ for Business) were made available to research administrators, the real challenge was to quickly learn these virtual platforms without any formal training. For some, adopting and adapting to such technology is not easy (Prabhakaran & Mishra, 2012) and this can lead to anxiety (Marcoulides, 1989) and stress (Salanova et al., 2013); better known as ‘technostress’. The term technostress first appeared in Craig Brod’s book titled *‘Technostress: The human cost of the computer revolution’* and he defined it as “a modern disease of adaptation caused by an inability to cope with new computer technologies in a healthy manner” (Brod, 1984). Arnetz & Wiholm (1997) defined it as a “state of arousal observed in certain employees who are heavily dependent on computers in their work”. The latest definition accepted in the literature is “stress experienced by the end users in organizations as a result of their use of ICTs” (Ragu-Nathan et al., 2008, pp.417-18). Tarafdar et al. (2007) and Ragu-Nathan et al. (2008) have described five accepted techno-stressors, namely: techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty. Techno-overload describes situations in which using new and different communication platforms (as was the case during COVID-19) leads to frustration and distress; techno-complexity describes situations where the complexity associated with ICTs leads users to feel inadequate regarding their computer skills and forces them to spend time and effort in learning and understanding ICTs; techno-invasion describes the invasive effect of ICTs in situations where employees can be reached anytime and feel the need to be constantly connected, thus blurring work-related and personal contexts; techno-insecurity refers to situations where users feel threatened about losing their jobs; and techno-uncertainty refers to the constant changes and upgrades of software and hardware that may impose stress on employees. In contrast, in a study with 222 university instructors who shifted to online teaching during the COVID-19 lockdown, Saleem et al. (2021) reported that the technostress worked positively on their performance. However, they found training and creative self-efficacy benefited the employees to cope with technostress and performance issues.

In the current study, research administration professionals were surveyed to understand the impact of the following most relevant types of techno-stressors affecting the profession: i) Techno-overload—as on average, during COVID-19 our dependence on technology became so heavy that it was not unnatural to feel overwhelmed and stressed; ii) Techno-complexity—understanding and learning the complexities of various virtual platforms on the go while performing day-to-day duties to maintain continuity at work further seemed to add to the stress; and iii) Techno-invasion—lastly, employees’ personal and work lives were so integrated that there was an expectation and need to be constantly connected leading to more stress.

Workplace isolation was another key challenge introduced during COVID-19. Face-to-face

interactions were diminished, and the only option was virtual communication. This change had a significant impact on coworkers and clients. Umishio et al. (2022) reported that although it was easier to concentrate on work and refresh at home, workers experienced challenges associated with business communication from home. The US survey (Akioka & Caban, 2020b) with research administrators reported that there has been a decrease in communication between team members and other campus support units, which in part contributed to feelings of isolation. Respondents reported that hallway conversations, drop-ins, coffee/water cooler chats which were part of the daily work environment and quick ways to share information were all things of the past.

In general, there was a perception that the workload has been increased for research administration professionals. There were, however, many obvious reasons to believe this. Increased and timely communication was a top priority during the COVID-19 global crisis as faculty and students needed to be kept informed of the uncertainty and the changing guidelines in a timely fashion more than ever. Canadian federal funding agencies delegated COVID-19-related post-award responsibilities to the university and college research administrators which added to the workload; although research was on hold, the grant facilitation activities increased (for instance, the author witnessed a 35% increase in grant submissions at their institution). In fact, in the US research administrators' survey, 62% reported an increase in their volume of work (Akioka & Caban, 2020b). Funding agencies such as the NIH reported a 10% increase in the number of grant applications received from May to June 2020 compared to the same funding cycle in previous years (Lauer, 2020). Similar situations were also reported in other fields. In a survey conducted in twenty-two offices across two weeks in November-December 2020 in Japan (with 916 workers, two-thirds of whom were technical staff in research and development or design and engineering), Umishio et al. (2022) reported that the average workdays at home increased from 0.1 to 1.1 days/week due to pandemic. In another survey conducted with 988 respondents, Awada et al. (2021) also reported that the number of hours spent at a workstation increased by approximately 1.5 hours during a typical WFH day. Longer hours were reported by individuals who had school-age children, owned an office desk or an adjustable chair, and had adjusted their work hours. In a Statistics Canada (2021) survey, 35% of all new teleworkers (i.e., teleworkers who did not usually WFH before the COVID-19 pandemic) reported working longer hours, with managers doing so in greater proportions (51%).

Among increased workload, change in the routine work environment, social isolation and quickly evolving situations at work, and with the pandemic, one might perceive productivity and work efficiencies impacted negatively and stress levels increased. In a study with Japanese workers, Morikawa (2021) revealed that the mean WFH productivity relative to working at the usual workplace was about 60%–70% and that productivity was affected by both individual and firm characteristics, although WFH productivity for highly educated and high wage employees was slightly reduced. In contrast, in the US survey, 62% of research administrators reported that they have been able to increase work efficiencies and get things done more quickly while working remotely (Akioka & Caban, 2020b). Many reported there were fewer interruptions and reduced distractions while working remotely. Additionally, survey respondents indicated they had more time to dedicate to work and were more productive because they no longer had a work commute. Although, a small portion indicated more interruptions because of new or more home

responsibilities, especially for those dealing with in-home schooling. However, this same group indicated no significant drop in productivity. Statistics Canada (2021) found that over 90% of 'new teleworkers', reported being at least as productive at home as they were previously at their usual place of work. The remaining 10% reported accomplishing less work per hour while at home than at their usual work due to a lack of interaction with co-workers, family care commitments, inadequate workspace, or IT equipment. In a study reflecting on WFH productivity for academics, Abujarour et al. (2021) found that both personal and technology-related factors affect an individual's attitude toward working from home and productivity. Awada et al. (2021) also suggested that the overall perception of the productivity level among workers did not change relative to their in-office productivity before the pandemic. They further suggested that female, older, and high-income workers were likely to report increased productivity and that productivity was positively influenced by better mental and physical health statuses, increased communication with coworkers, and having a dedicated room for work.

Work-life balance is an ability of an individual to keep a balance between time allocated for work and other aspects of life, such as family responsibilities, personal interests, and social or leisure activities. Striking a balance between work and life has been an everyday challenge for working individuals. Work-life balance is an issue that is driven by a set of diverse factors. Workplace stressors might include workload, work intensity, availability expectations, institution culture, and customer service expectations (Costan, 2019). Work-life balance affects both men and women, although, in general, work-life balance is characterized as a balance between work and childcare (Glasgow & Sang, 2016). This can be because gender inequalities remain evident in our societies as most women still struggle more with work-life balance in comparison to men due to the gendered social orders that are sustained through the prevalent ideologies in social discourse (Ruzungunde & Zhou, 2021). Indeed, the research administration field tends to be represented mostly by women with a gender ratio of 4:1 female to male (Clark & Sharma, 2022; Preuss et al., 2020). In a study on the profession of research administration, Shambrook (2012) reported consistent and significant associations between elevated levels of work stress and work-life balance; those with elevated levels of work stress experience poor work-life balance. COVID-19 has further exaggerated this problem. With restricted mobility, families were contained to the house and life presented more responsibilities in addition to childcare, for example, caring for parents, partner/spouse, house chores, and home-schooling among other activities. These responsibilities competed with the demands and stress of sudden shifts in the workplace as discussed above. Moreover, working longer hours as explained earlier likely makes it challenging to achieve a good work-life balance. In Japan, 15% of respondents highlighted overwork due to the blurring of boundaries between work and life as a disadvantage of teleworking during the pandemic (OECD, 2021).

The abrupt shift to WFH during the COVID-19 pandemic, evolution and acceptance of various digital platforms, and self-efficacy to manage their work and life have impacted how employees are thinking about the current and future work culture. In various surveys, employees from many professions are opting for an option for WFH even when the COVID-19 pandemic is over. In the Statistics Canada survey (2020), 80% of new teleworkers (men and women) indicated that they would like to work from home for half of their time, and 15% reported a desire to work

full time from home. Akioka & Caban (2020b) reported that many US research administrators had indicated wanting to continue telework or some sort of hybrid work arrangement after the pandemic ends. Thus, it was imperative to explore the Canadian research administration professionals' desire for future work culture.

Methodology

A survey tool (see appendix) was created and implemented using SurveyMonkey (SM). The portions of this survey tool were adapted from a previous study conducted in the USA (Akioka & Caban, 2020a), which was the only other survey with research administrators known at the time of conducting this study. The survey contained twenty-six multiple-choice questions and five open-ended questions asking for written responses. The questions were divided into the following five study themes: i) Challenges experienced in setting up the new working environment (workspace, ICT infrastructure, network availability, and performance issues); ii) Technostress (techno-overload, techno-invasion, techno-complexity); iii) Workload, productivity, and work-life balance; iv) Relationships with colleagues and faculty; and v) Adaptability to the new reality and future work culture desire. The survey tool was pretested with a few research administrators to check that the questions were reflecting the research objectives and were presented clearly before full implementation.

The survey was shared with the Canadian Association of Research Administration (CARA) community by posting on the CARA listserv for two weeks from March 22 to April 4, 2021, with an email reminder sent at the start of the second week. As a national professional organization for research administrators, CARA provides a critical interface between all stakeholders (universities, colleges, research institutes, and hospitals) in the management of the research enterprise. CARA members perform a variety of roles in supporting research excellence in Canada, including research development, pre-and post-award non-financial contracts and grants management, financial management, industry liaison, research ethics, regulatory compliance, and research communication. Ethical review and approval were not required for the study on human participation per the institutional requirements. The participants provided their informed consent to participate in the study by taking the survey. Responses were collected anonymously, and participation was voluntary. A total of 135 responses were obtained (representing a response rate of about 15%). A few StarbucksTM coffee gift cards were provided as an incentive to respondents, who opted to share their email, by random selection. The multiple-choice question responses were analyzed using the compare rules, filters, and cross-tabulation report in SM. Statistical significance was calculated using a t-test at a 95% confidence level ($p < 0.05$). NVivo was used to analyze open-ended questions. The preliminary results of this survey were shared at the annual virtual CARA conference in May 2021 (Sharma, 2021).

Results and Discussion

Respondents' Demography

The Canadian research landscape spans universities, colleges, research institutes, hospital research centers, federal research laboratories, and other research-intensive organizations. An institutional research enterprise is supported by various stakeholders including staff supporting research development and management, partnership development, compliance, communication, legal, finance, human resource, IT, facilities, marketing, advancement, and such. These stakeholders, as mentioned earlier, play a variety of roles in supporting faculty through the research grant life cycle (the pre-award phase to the award phase to the post-award phase). The survey asked the CARA membership the following four questions to understand the demographic distribution of the survey respondents: organization type, area of work, type of work, and years in research administration.

Most respondents were from Canadian universities (79%, Figure 1A) and working in research (81%, Figure 1B) and were managing both pre-and post-award activities (57%, Figure 1C). Thirty-nine percent (39%) of respondents were within five years of their career, those within 6-10 and 11-20 years were both represented almost equally (26% and 24%, respectively) in the survey, and those with 20 years plus career span represented only 10% in the survey (Figure 1D). One question 'Are you currently working from home?' was asked to ensure that the survey captured the responses and experiences of those working from home during COVID-19, and 99% of the respondents were working from home

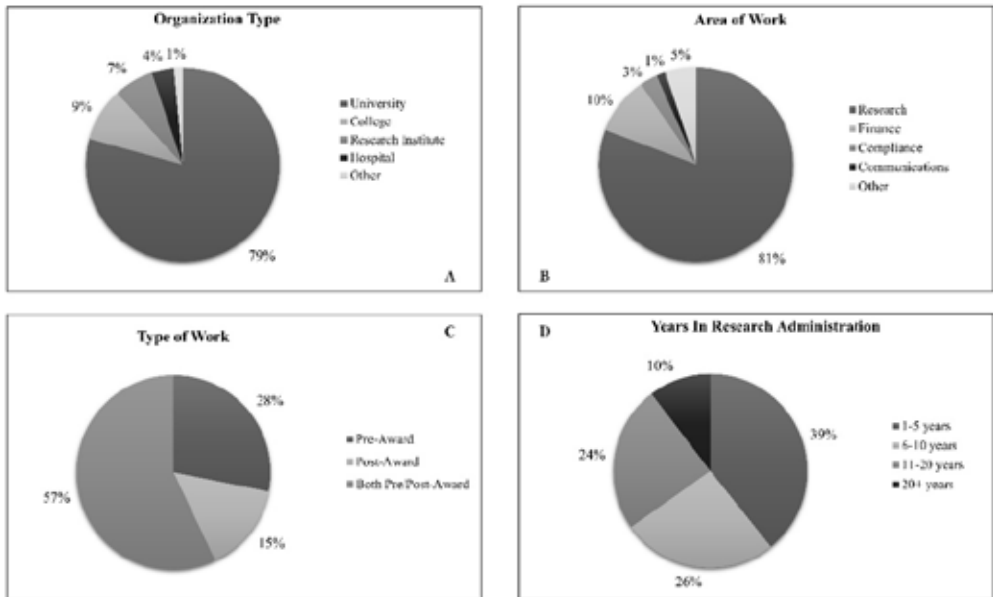


Figure 1. Respondents' Demographic Distribution

The rest of the survey questions were grouped into the following five study themes to understand COVID-19-led challenges and how the research administration professionals adapted to these challenges and what lessons were learned.

Theme 1: Challenges experienced in setting up the new working environment

1a. Workspace and ICT infrastructure, network availability, and performance issues

The COVID-19 pandemic-mandated isolation resulted in a sudden shift in the working environment from an office to a home. The first challenge was setting up workstations at home and dealing with related issues such as uninterrupted internet availability and its seamless performance. The following two questions assessed this challenge. The first survey question asked, 'Did you struggle with setting up appropriate ICT infrastructure and working space?' Responses were equally divided between those who struggled (50.4%) and those who did not struggle (49.6%) in setting up their workstation at home.

The second question asked, 'How often did you struggle with having uninterrupted internet availability and Internet performance issues?' Only about a quarter of respondents (23%) reported that they were frequently struggling with this problem and the rest either struggled 'rarely' (64%) or 'were not impacted' (13%) by internet availability and performance issues (Figure 2).

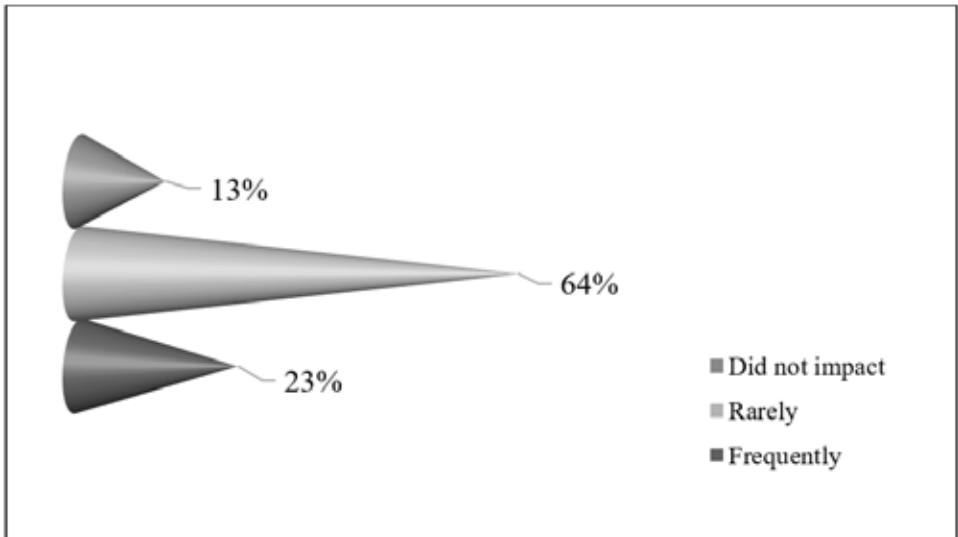


Figure 2. Internet Availability and its Impact on Performance

The data thus indicates that although half of the research administrators struggled in setting up ICT infrastructure and working space at home, internet availability and performance issues were not impediments to most (77%). This might have been one of the factors contributing positively to the respondents' increased productivity during the pandemic (as discussed later in Theme 3) as the opposite has been cited in the Statistics Canada (2021) survey indicating that teleworkers who struggled with having inadequate physical workspace or experienced difficulty with internet speed and accessing work-related information or devices had caused people to be less productive during the pandemic. Furthermore, Xiao et al. (2021) reported that workstation set-up and satisfaction with workspace indoor environmental factors impacted overall physical health and mental well-being.

1b. Preferred mode of communication

As normal in-person communication rapidly became a thing of the past and the regular place of work changed, employees had to learn and switch to new modes of communication to keep up with their day-to-day work life. Timely and accurate communication is key in the ever-changing research funding landscape, and it was even more so during this unprecedented time. The survey had five questions exploring the preferred mode of communication for research administrators. Three of these questions asked, 'What mode of communication did you most prefer before, during, and after COVID-19 subsides?', and two questions required respondents to indicate 'On average how many hours a week did you spend in meetings via these modes before and during COVID-19?' to further assess what mode of communication takes up most of their time.

Email remains the recognized standard for communication in research administration. The percent responses for email as the preferred mode of communication remained unchanged before and after the pandemic crisis subsides: 56% of respondents reported that email was their preferred mode of communication before the pandemic (Figure 3A) and 57% reported that email will remain their preferred communication mode after the pandemic subsides (Figure 3C). Although, email was used by a slightly higher number of respondents (61%) during the pandemic as the preferred mode of communication (Figure 3B). In fact, as discussed later in Theme 4, 71% of respondents reported that because of email as the communication mode, their work efficiencies to provide quality service to faculty either remained unchanged or increased during COVID-19.

It is interesting to note that 42% of respondents preferred in-person communication *before* COVID-19 but the anticipation of using the in-person mode of communication preference after the pandemic subsides dropped by 14% (Figure 3A, C). *During* the pandemic, in-person communication was replaced by the following in decreasing order: video conference (24%), instant messaging (10%), and phone (5%). Phone usage increased by 4% *during* the COVID-19 crisis (only 1% used it as the preferred mode *before* COVID-19) (Figures 3A, B). Notably, 13% of respondents indicated that they would continue to use video conferencing and instant messaging as the preferred mode of communication (Figure 3C). Video conferencing has been particularly favorable as it is considered to create a more inclusive environment for many, increases efficiency, helps in saving time by avoiding the commute, and increases audience reach. Moreover, webinars and virtual conferences provided more economically affordable opportunities for many which were not necessarily accessible before COVID-19.

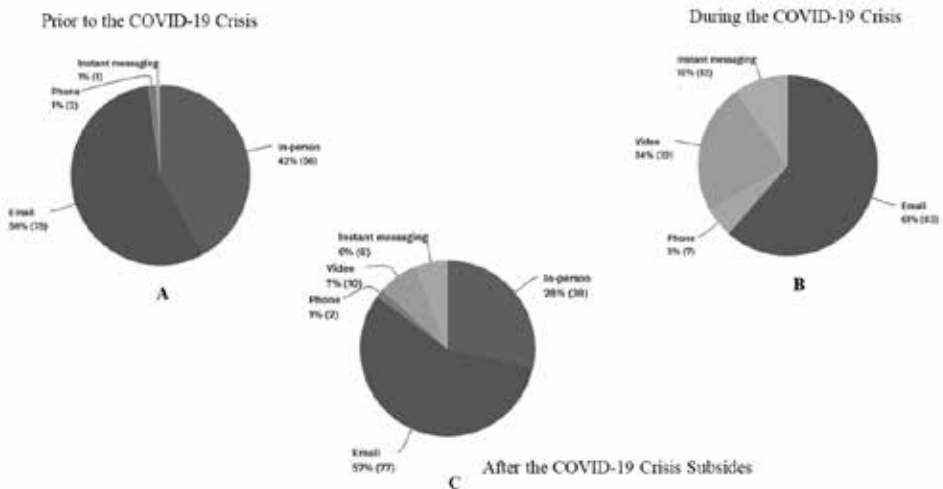


Figure 3. Preferred Mode of Communication Pre-, During, and Post-COVID-19

Figure 4 shows the weighted average of the number of hours per week spent communicating via different modes. *Before* COVID-19, respondents spent an average of 5 hr per week for in-person communication followed by 2 hr per week using other modes (phone, video, and IM). *During* COVID-19, video conferencing was more frequently used (5 hr/week), followed by IM (3 hr/week), and phone (2 hr/week). These responses demonstrate that research administration professionals adapted to the changing working environment caused by the pandemic. Their ICT awareness, the fact that email remained a recognized standard mode of communication, and the availability of a variety of collaborative and networking digital platforms made it easy for research administrators to adapt to the new communication tools.

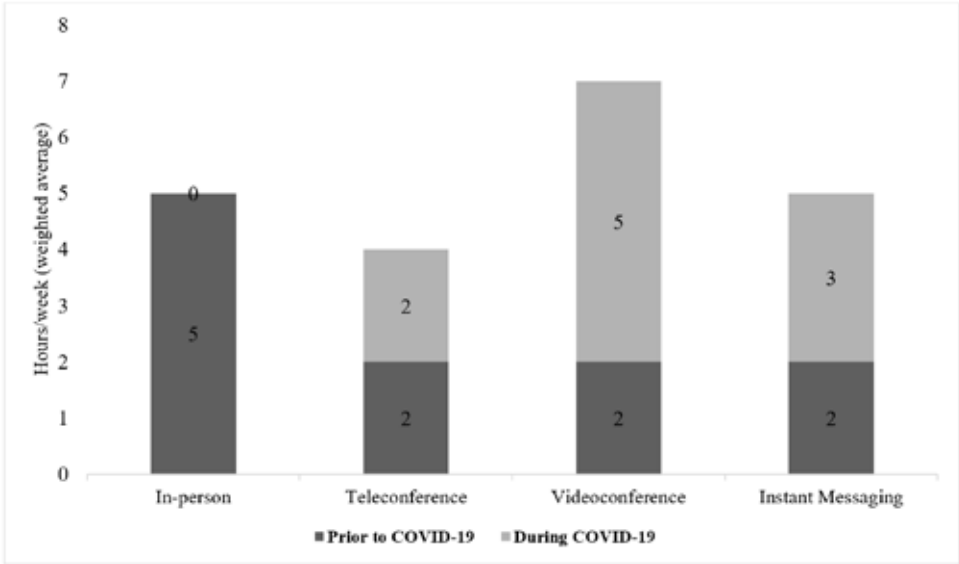


Figure 4. A Weighted Average of Time (Hours/Week) Spent Using Various Modes of Communication Pre- and Post-Covid-19

Theme 2: Technostress

In the virtual environment when employees had to quickly learn various virtual platforms such as Zoom™, Microsoft Teams™, Skype™ for Business, and such, it was not easy for all to adopt and adapt to technology equally, and reports in the literature show that this can lead to technostress (Prabhakaran & Mishra, 2012; Salanova et al., 2013). Through this survey, respondents were asked three questions reflecting on ‘Did you feel frustrated and distressed due to techno-overload, techno-invasion, and techno-complexity’, respectively. Half of the respondents (50%) felt frustrated with techno-overload ‘sometimes’, one-third ‘did not feel frustrated’, and a small number (16%) ‘felt frustrated’ by techno-overload (Figure 5). The opposite was true about the techno-complexity, i.e., only 15% felt frustrated by techno-complexity as compared to the rest (85%) who either ‘did not feel’ or ‘sometimes’ felt frustrated. A higher percentage (39%) felt frustrated by techno-invasion as compared to 60% who either ‘did not feel’ or ‘sometimes’ felt frustrated (Figure 5).

A higher percentage of the respondents felt frustrated with techno-invasion because work and

Did you feel frustrated by various types of technostress?			
Response	Techno-overload	Techno-invasion	Techno-complexity
Yes	16%	39%	15%
No	33%	31%	51%
Sometimes	50%	30%	34%

Figure 5. A Impact of Various Forms of Technostress on the Respondents During Covid-19

life boundaries were blurred, and respondents felt the need to be constantly connected. Only 16% of the respondents felt that complex technology was introduced. As mentioned earlier, for those who work in the field of research administration, being technology savvy is a requirement of their work as they engage with many online systems in their daily work, and this appears to have facilitated their adoption and adaptation to the new virtual platforms and systems. In fact, with the availability of a variety of communication tools at their disposal, the ease of setting these up was mentioned as one of the reasons behind effective communication and unchanged or increased efficiencies in providing quality service to faculty during the pandemic. Moreover, video calls were considered an effective way to bring people together that might not have been possible in person (e.g., due to separate locations and schedules). The following statement by a respondent reflects the appreciation for the benefits of using virtual platforms: *“Can we talk about Techno liberation - I felt far more free, relaxed and had more time because of not having to go to in-person meetings!”*

Responding to the open-ended question, research administrators shared the ways they adapted to various modes of technostress. Taking time to learn technology is the most common strategy used by the respondents. They reported that they made sure to learn the new digital platforms and become comfortable with using them and made efforts to attend workshops and training offered by their employers. Setting up firm boundaries and time limits for working hours was the second most common strategy reported—keeping usual office hours and restricting working outside of those hours, not checking emails on phone outside of hours and turning off email notifications on phones to curb the temptation to check emails, followed by taking breaks frequently. Some of the other strategies noted include: Not having Microsoft Outlook™ and/or Microsoft Teams™ on their phone; Limiting the use of a variety of online platforms; Closing online platforms for a certain period to concentrate on given tasks; Reaching out for help from coworkers and institutional IT services; Having video conferencing free days; Making Friday afternoons non-mandatory work periods; and, Planning carefully for what they need to learn and blocking time in the calendar. The following statements by a couple of respondents reflect on the use of technology, equity, and accessibility *“We are using tools and technologies that existed before the pandemic but there was always some reluctance to be used commonly.” “I have learned that there is sufficient tech to support effective working from home and that it should be offered for any role possible (or a hybrid if (remote) not entirely possible) to improve EDI and accessibility.”*

Theme 3: Workload, productivity, and work-life integration

Anecdotally there was the perception among research administration professionals that the COVID-19 period was an exceptionally busy time. This might potentially be because they were working from home and their work and personal lives were very much hand in glove. Therefore, a couple of questions were asked to examine the possible change in the workload. ‘Are you experiencing an increase in the volume of work or is it just perceived because you are working from home?’ Secondly, ‘If you saw a real increase in the volume of work, was it in pre-grant or post-grant or both areas?’

Seventy percent (70%) reported that they either saw a real increase (42%) in their workload or that they felt (28%) that there was an increase in the workload. Thirty percent (30%) did not report any change in the workload (Figure 6A). In responding to the question about the areas where they saw a change in workload, 47% of respondents reported that both pre-and post-grant activities increased (Figure 6B).

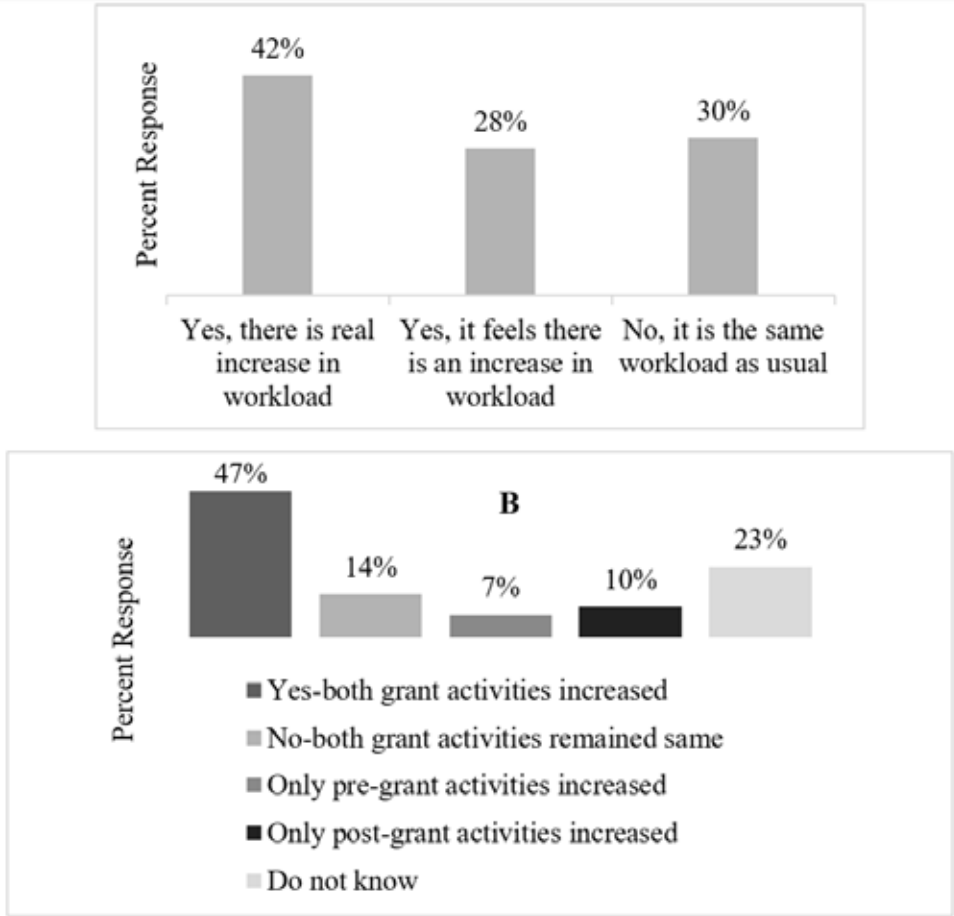


Figure 6. Respondents' Reflection on Workload (A) and Type of Workload (B) During Covid-19

One can argue that as the research was on hold faculty had more time to focus on writing and submitting grants, leading to an increase in pre-grant facilitation (Lauer, 2020; Akioka & Caban, 2020b). Similarly, an increase in post-grant workload was witnessed due to a quick turnaround in funding announcements for COVID-19-related research and due to additional administrative activities as a result of the federal funding agencies' efforts to accommodate various challenges researchers, trainees and students were facing due to forced shutdown, i.e., adjusting and communicating grant end dates to cover time lost due to paused/reduced research activities; administration of federal funding agencies' additional funding to faculty, trainees and students to reduce the financial impact due to COVID-19 on research activities and personnel (NSERC 2020; SSHRC, 2020) as well as similar adjustments to internally-funded research activities.

The survey also asked, 'Have you experienced an increase in work efficiencies and the ability to get work done more quickly while working remotely?' Sixty-three percent (63%) reported having an increase in work efficiency, 30% did not report an increase in their work efficiencies, and the rest (7%) did not feel remote working impacted their working efficiency (Figure 7).

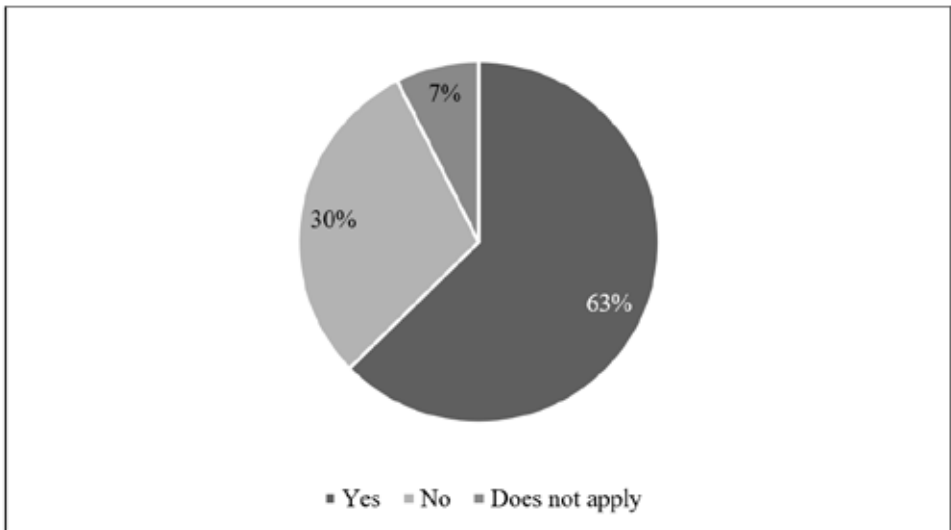


Figure 7. Respondents' Reflection on 'Did you see an increase in your work efficiencies during COVID-19?'

Research administrators in the US shared a similar experience—60% reported that their work efficiency was increased while working remotely, 62% reported they were doing more work, and 50% reported being more productive (Akioka & Caban, 2020b). According to the Statistics Canada (2021) survey, 90% of the new teleworkers reported being at least as productive working remotely as they were at their workplace.

Responding to the open-ended question on the factors that are attributed to their increased efficiency, the most common responses were: Fewer unanticipated interruptions (resulting from

less time chatting with colleagues, less drop-ins, less social interactions) and less distractions leaving more focused time and ability to control time; No commuting from home to office and for in-person on-campus meetings (it also reduced the stress going to work and saved time and they ended up working more); Going paperless and using electronic documents, e-signatures and SharePoint™ increased efficiency; Virtual faculty meetings rather than exchanging multiple emails providing feedback on their grant applications were considered better quality communications; Easier to set up a (remote) videoconference than an in-person meeting (which implies travel for some participants) and that virtual meetings usually take a lot less time and many more people can participate in virtual events; Working from home in terms of flexible hours allows a better work-life balance, having a more comfortable and quiet work environment, less stress and increased productivity. Similar responses were shared by the US research administrators as discussed earlier (Akioka & Caban, 2020b).

However, some respondents reported that they were missing opportunities for impromptu chatting with their colleagues. They also mentioned the things that used to be addressed via a ‘quick pop into an office’ are now a phone call or email or scheduled Zoom away and this leads to a delay in processes, which they felt was not good for morale. Some respondents felt they were not efficient due to home distractions and thus it was harder to be focused on work tasks and felt Zoom fatigue as well as burnout. The Statistics Canada (2021) survey with new teleworkers also reported that about one in five of those who reported being less productive during the pandemic reported a lack of interaction with co-workers as the main reason they accomplished less work.

When asked ‘Did any family factors impact your work productivity?’ there was an equal divide. Family factors impacting work productivity were obvious, i.e., Homeschooling; childcare/daycares and schools were closed; Family responsibilities and family distractions/difficulty to have uninterrupted time; Family members’ care that also includes COVID-19 impacted members; Shared working spaces with spouse and children, and not having dedicated workspace, thus adjusting with needs of the family members; and various personal issues. The following statement by one of the respondents sums up this situation, “*Wearing multiple "hats" like mother, wife, teacher, pet owner and my work-job. That is a lot of hats to wear constantly.*” The Statistics Canada (2021) survey also reported that having to care for children or other family members and having an inadequate physical workspace impacted productivity during the pandemic.

Theme 4: Relationships with colleagues and faculty

CARA members were also asked to reflect on their relationships in general with their colleagues and faculty members. Fifty-four percent (54%) felt more isolated from their colleagues, 33% felt no change and 13% felt closer to their colleagues *during* COVID-19 (Figure 8A). When asked to reflect specifically on ‘how COVID-19 impacted communications within teams and with faculty,’ 53% reported they communicated more frequently with their colleagues *before* COVID-19, compared to 27% who communicated more frequently *during* the crisis, and the rest (20%) felt no change in communication within teams. Similarly, in the US survey, half of the respondents felt more isolated from their colleagues, however, their frequency of communication *before* (36%) and *during* (32%) of the pandemic did not change much (Akioka & Caban, 2020b).

Interestingly, when asked about the impact on communication with faculty, 57% of Canadian research administration professionals reported business as usual, 16% communicated more frequently *during* the crisis, and 27% felt they communicated more frequently with faculty *before* the crisis. (Figure 8B).

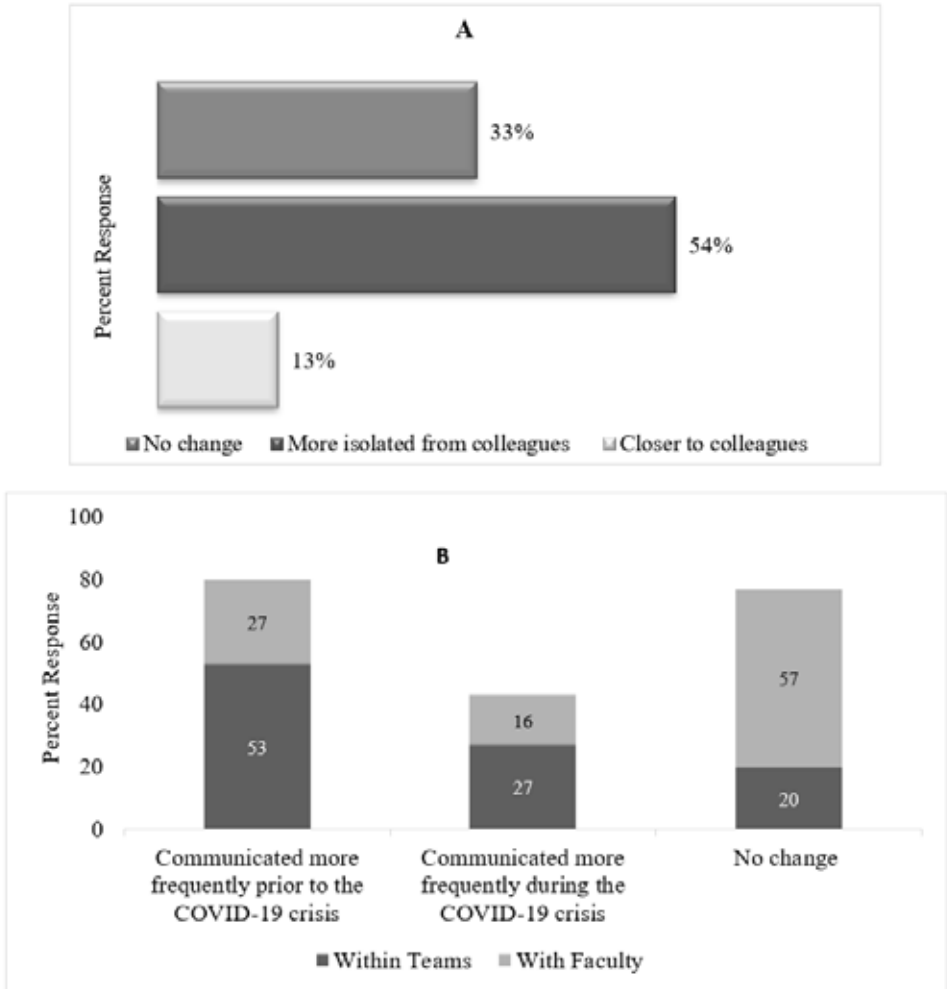


Figure 8. Impact of COVID-19 on the Relationships with Their Colleagues (A), Communication within Teams, and with Faculty (B)

Although slightly above half of the members felt isolated and saw a drop in communication among their teams during the pandemic, for the majority (68%), their commitment and efficiency in providing a quality service to faculty were unchanged, and 19% saw their efficiency improve during the COVID-19 crisis as compared to 13% who reported greater efficiency before the COVID-19 crisis.

The respondents were also asked to reflect on the factors contributing to efficiency. The biggest factor contributing to unchanged or increased efficiency was effective communication with faculty (73% either witnessed business as usual or an increase in communication frequency, Figure 8B) *during* WFH. The following two points were more frequently mentioned as the reasons behind effective communication: i) the availability of a variety of communication tools at their disposal, and the ease of setting these up, and ii) email as the most preferred tool of communication, which is used to communicate with faculty in routine day to day work. Some of the other factors that helped in increasing their efficiency include lack of interruption, no commute, flexibility working from home that decreases stress, access to virtual meetings which were easy to set up, and faculty being easily available online during the pandemic. Overall, the majority of the respondents (87% of whose efficiency was unchanged or improved during the pandemic) felt providing quality service to faculty is what they do, and COVID-19 only changed the way they provided services, although, it meant they had to work more hours to provide the same quality service.

However, for some, delivering a quality service includes face-to-face meetings so that they get to know the faculty, and they felt that this situation has limited their ability to make a proper connection. They missed the time when researchers used to pop by their offices to ask questions and have meetings.

Theme 5: Adaptability to the new reality and future work culture desire

A significant number (72%) of the respondents adapted to the new norm easily, while 28% struggled. Twenty-seven percent (27%) reported a preference for WFH, and 70% preferred to have a hybrid model. Only 4% preferred to have an in-person future work environment (Figure 9).

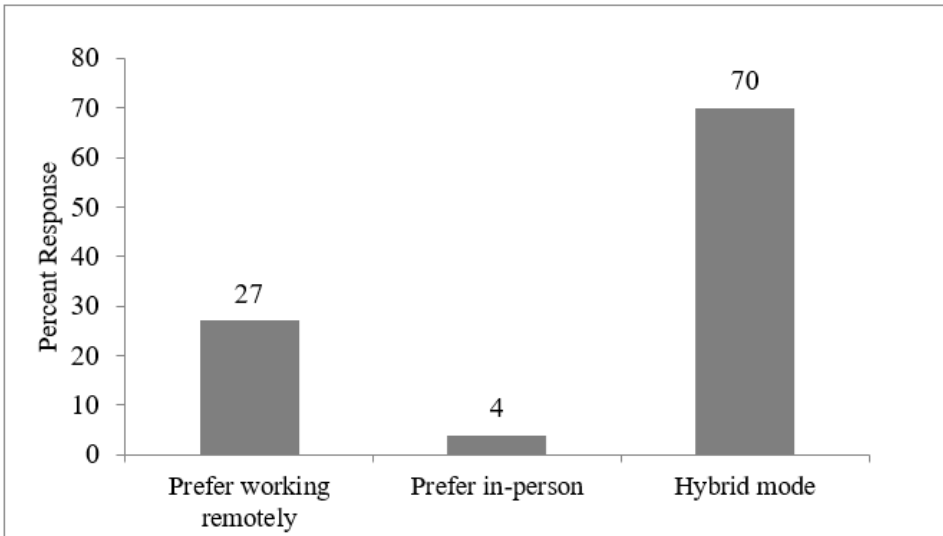


Figure 9. Preference of Working Environment Post-COVID-19

It is important to tease out what factors might have facilitated those who adapted well to this sudden change and why only 4% of respondents preferred to have an in-person future work environment. The two groups, (i) those who adapted well vs. (ii) those who did not, were compared for the factors that allowed them to adapt well or impeded those who had challenges in adaptation. Tables 1 and 2 show that in the group (ii) a higher percentage of respondents struggled in setting up their workspace (81%), dealing with family factors (76%), and felt isolated from their colleagues (65%) than the group (i) who adapted to the new norm easily (38%, 42%, and 49%, respectively). In both groups, family factors impacted respondents significantly for adapting/not adapting to the new norm. For group (i) who adapted well, the number of respondents who 'struggled due to family factors' was significantly lower (42%) compared to the other group (76%). Conversely, the number of responses of those who 'did not struggle due to family factors' were significantly lower (24%) in the group (ii) who did not adapt well as compared to 58% in the group (i).

Table 1. Comparison of the Impact of Setting Up Workspace and Family Factors (% Responses)

	Adapted easily (Group i)		Adaptation was a challenge (Group ii)	
	Struggled		Struggled	
	Yes	No	Yes	No
Setting up workspace and ICT	38	62	81	19
Family factors	42*	58#	76*	24#
*,#, 95% confidence level (p = .05)				

Table 2. Comparison of the Impact of Working Relationships (% Responses)

Adapted easily (Group i)			Adaptation was a challenge (Group ii)		
Working Relationship					
Felt Isolated	Closer to Colleagues	No Change	Felt Isolated	Closer to Colleagues	No Change
49	16	35	65	5	11
*,#, 95% confidence level (p = .05)					

Furthermore, Table 3 shows that group (ii) felt more frustrated and distressed due to the impact of the various modes of technostress. However, interestingly, when it came to future work preference (Table 4), a higher number (81%) of respondents in group (ii) preferred hybrid work compared to 65% in group (i). The results were significantly different for both groups for feeling frustrated/ not frustrated due to techno-overload and techno-invasion except for the techno-complexity (Table 3).

Table 3. Comparison of the Future Work Preference (% Responses)

	Adapted easily (Group i)			Adaptation was a challenge (Group ii)		
	Techno- Overload	Techno- invasion	Techno- Complexity	Techno- Overload	Techno- invasion	Techno- Complexity
Felt frus- trated and distressed	13**	34‡	13	27**	54‡	22
Did not feel frustrated and dis- tressed	34†	28††	55*	11†	11††	19*
*, **, †, ††, ‡ 95% confidence level (p = .05)						

Table 4. Comparison of the Future Work Preference (% Responses)

	Adapted easily (Group i)			Adaptation was a challenge (Group ii)		
	Working Remotely	In-person	Hybrid	Working Remotely	In-person	Hybrid
Future work preference	32*	3	65	14*	5	81
* 95% confidence level ($p = .05$)						

Interestingly, like the Canadian study, besides all the WFH challenges, the US study (Akioka & Caban, 2020b) also showed that many research administrators indicated they would like to continue teleworking or some sort of in-person/telework hybrid after the pandemic ends. The study indicated that there is a desire that the pandemic will lead to changes in the perception of work culture and teleworking, especially when organizations trust the metrics that indicate more work can be accomplished from home. In the Statistics Canada (2021) survey, 80% of new teleworkers indicated that they would like to work at least half of their hours from home once the pandemic is over. Although only 15% would prefer to work all their hours from home after the pandemic. Importantly, perceived productivity at home appears strongly associated with the desire to WFH. Workers who reported accomplishing more work per hour while working from home indicated that they would prefer working most or all their hours at home much more often (57%) than all other workers (30%) (Statistics Canada, 2021). Appreciating the advantages of WFH, one respondent noted, “*I am quite surprised as to how easy it can be to work from home. It does have advantages for both the employer and the employee. The only disadvantage is the lack of in-person contact.*”

Conclusions

This empirical study focused on improving our understanding of the impact of the COVID-19 pandemic on the professional practice of Canadian research administrators. The research study included both quantitative and qualitative elements as part of the survey method. Moreover, insights have been generated across a range of pertinent areas, namely: i) Challenges experienced in setting up the new working environment; ii) Technostress; iii) Workload, productivity, and work-life balance; iv) Relationships among colleagues and with faculty; and v) Adaptability to the new reality and future work culture desire. The main limitation of the study is that it was focused on capturing the views of research administrators in Canada, although many of the insights gained are equally applicable to research administrators working in many countries across the world.

In conclusion, the current research identified that approximately half of the Canadian research administration professionals who took the survey struggled to set up their home workspaces, felt

isolated from their colleagues, and was not able to communicate the same way as they used to pre-COVID with their team members and missed impromptu conversations with their colleagues. About 40% struggled with setting up ICTs and home workspace. However, the majority (90%) of research administrators were satisfied with their institutional support and 72% reported that they adapted to the new reality well. Moreover, a majority (63%) experienced an increase in their productivity, keeping up (68%) or enhancing (20%) their work efficiencies, and were able to keep providing faculty with the same (68%) or better (20%) standard of services as they were providing pre-pandemic (Figure 10 summarizes the key metrics). Overall, the survey provided evidence that the Canadian research administrators' community is creative, resilient, and flexible enough in adapting to new situations and can perform effectively during challenging times. As one of the respondents also noted, *"What I have learned during the 'new norm' is that we are all quite capable of adjusting to new situations and to being effective even under non-ideal conditions."*

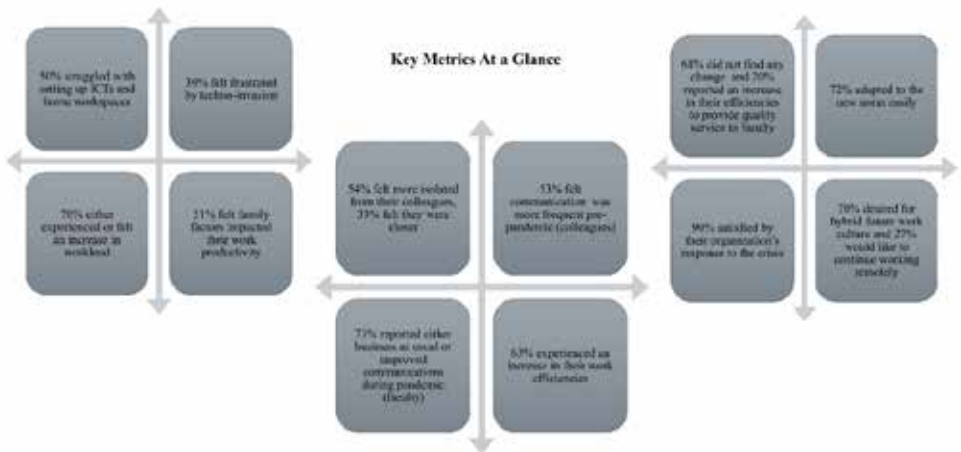


Figure 10. Summary of Key Cumulative Responses

Interestingly, the survey responses for the preference for future work culture were skewed more toward WFH and hybrid models as compared to in-person (only 4% desired in-person) culture as discussed above. Experiences of WFH have changed the way some of the research administrators perceive future work culture. The majority (70%) desire hybrid working conditions to continue and think that this arrangement is more equitable, and accessible, and will improve equity, diversity, and inclusion. As one respondent noted *"I see how hybrid working conditions (online/remote as well as in-person) are genuinely more equitable and accessible. Also, I appreciate the fact that mental health is more acknowledged, along with the concept of work-life balance."* Similarly, it was felt that the *"requirement to be onsite to perform research administration is outdated."* Moreover, a hybrid work arrangement allows for overcoming the one concern that was shared by many respondents regarding the importance of human connection in our daily work lives as one noted, *"The value of*

human connection and contact should not be overlooked.” The hybrid work arrangement provides benefits of both work arrangements (face-to-face and remote), such as more flexibility, all the benefits of lesser commute ultimately lowering the carbon footprint, human connection, work-life balance, and less stress but same or better efficiency and productivity providing quality service to faculty.

As the COVID-19 pandemic has been easing out, it would be interesting to conduct a follow-up survey with the Canadian research administration professionals to understand if their employers have provided them with the options for preferred work arrangements, and if not, how they are adjusting to it. Furthermore, it would be valuable to investigate how the lessons learned during the pandemic are informing their current work practices, if they see some of those practices making daily work more efficient and how ultimately these practices are impacting their work-life integration.

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Appendix

Survey Questionnaire:

1. Organization type
 - a. University
 - b. College
 - c. Research Institute
 - d. Hospital
 - e. Other
2. Type of work
 - a. Pre-Award
 - b. Post-Award
 - c. Both Pre/Post-Award
3. Area of work
 - a. Central Office
 - b. Office Embedded in Department
 - c. Specialization (Procurement/Finance/Compliance etc.)
4. Years in research administration
 - a. 1-5 years
 - b. 6-10 years
 - c. 11-20 years
 - d. 20+ years
5. Are you currently working from home due to COVID-19?
 - a. Yes
 - b. No
 - c. If not, for how long did you work remotely:
6. Prior to the COVID-19 crisis, what mode of communication did you most prefer?
 - a. In-person
 - b. Email
 - c. Phone
 - d. Video
 - e. Instant messaging
7. During the COVID-19 crisis and remotely working, what mode of communication do you most prefer?
 - a. Email
 - b. Phone
 - c. Video
 - d. Instant messaging

8. Prior to the COVID-19 crisis, on average how many hours a week did you spend in meetings via the following modes?
 - a. In-person: _____ # of hours
 - b. Teleconference: _____ # of hours
 - c. Video conference: _____ # of hours

9. While remotely working on average how many hours a week do you spend in virtual meetings via the following modes?
 - a. Telephone conferencing: _____ # of hours
 - b. Video conferencing: _____ # of hours
 - c. Instant messaging: _____ # of hours
 - d. Other: _____; _____ # of hours

10. Technostress: stress caused by using Information and Communication Technology (ICT) Technology Overload may include using new and different communication application platforms and/or new online portals. Did you feel frustrated and distressed due to technology overload?
 - a. Yes
 - b. No
 - c. Did not impact
 - d. Sometimes

11. Techno-invasion describes the invasive effect of ICTs in situations where employees can be reached anytime and feel the need to be constantly connected, thus blurring work-related and personal contexts. Did you find yourself in this situation?
 - a. Yes
 - b. No
 - c. Did not impact
 - d. Sometimes

12. Techno complexity describes situations where the complexity associated with ICTs leads users to feel inadequate regarding their computer skills and forces them to spend time and effort in learning and understanding ICTs. Did you find yourself in this situation?
 - a. Yes
 - b. No
 - c. Did not impact
 - d. Sometimes

13. If you felt Technostress, can you reflect on some of the ways you adapted to it?

14. Working environment: As you moved into a remote working arrangement, did you struggle with setting up appropriate ICT infrastructure and working space?

- a. Yes
 - b. No
15. How often did you struggle with having uninterrupted internet availability and internet performance issues?
- a. Frequently
 - b. Rarely
 - c. Did not impact
16. Workload: If you are working from home, are you experiencing an increase in the volume of work or is it perceived because you are working from home?
- a. Yes
 - b. No
17. If there is an increase in the volume of work, is there an increase in the number of pre-and/or post-grant activities?
- a. Yes-both grant activities increased
 - b. No-both grant activities remained the same
 - c. Only pre-grant activities increased
 - d. Only post-grant activities increased
 - e. Do not know
18. Work-life integration: Did any family factors impact your work productivity?
- a. Yes
 - b. No
19. If Yes, please explain
-
20. Have you experienced an increase in work efficiencies and the ability to get work done more quickly while working remotely?
- a. Yes
 - b. No
 - c. Does not apply
21. If you have experienced an increase/decrease in the ability to complete more work, what do you attribute that to? Please state below:
-
22. Team synergy: Since the COVID-19 crisis, what would you say has changed (if any) in your frequency of communication and meetings within your team?
- a. I communicated with my colleagues more frequently prior to the COVID-19 crisis

- b. I communicated with my colleagues more frequently during the COVID-19 crisis
 - c. No change in my frequency of communication
23. How do you feel COVID-19 has impacted your working relationships in general?
- a. I feel I am closer to my colleagues as a result of the COVID-19 crisis
 - b. I feel I am more isolated from my colleagues as a result of the COVID-19 crisis
 - c. I don't feel my working relationships have changed as a result of the COVID-19 crisis
24. Communicating with faculty: Since the COVID-19 crisis, what would you say has changed (if any) in your frequency of communication and meetings with faculty?
- a. I communicated with faculty more frequently prior to the COVID-19 crisis
 - b. I communicated with faculty more frequently during the COVID-19 crisis
 - c. No change in my frequency of communication
25. Since the COVID-19 crisis, what would you say has changed (if any) in your efficiency to provide quality service to faculty?
- a. My efficiency to provide quality service to faculty was great prior to the COVID-19 crisis
 - b. My efficiency to provide quality service to faculty was great during the COVID-19 crisis
 - c. No change business as usual
26. Please explain your reasoning behind your answer to Q#25.
-
27. How would you reflect on your adaptability to the 'new norm'?
- a. I adapted to the 'new norm' easily
 - b. Adaptation to the 'new norm' was a challenge
28. Do you feel your organization's response to COVID-19 was/is sufficient for your ability to continue to work as "usual"?
- a. Yes
 - b. No
29. After the COVID-19 crisis subsides and you can return to work as normal, what do you anticipate will be your preferred mode of communication?
- a. In-person
 - b. Email
 - c. Phone
 - d. Video
 - e. Instant messaging
30. Given the option, how would you see future work arrangements
- a. Prefer working remotely

- b. Prefer in-person
- c. A mix of a. and b.

31. Please share what you have learned during this 'new norm' that might continue post-pandemic.

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