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Reimagining the 4M Framework in Educational Development for SoTL

ABSTRACT

In this paper, we seek to contextualize our work in SoTL-focused educational development and those who work to support others in SoTL, as interstitially spaced across the 4M Framework, re-envisioned as a flexible but formalized professional continua. The establishment of a model for educational development SoTL-related activity allows for the opportunity to explore how this work is done in a systematic manner. We offer our ideas and visions through, what we term, the 4M Continua for Educational Development as a possible understanding of the work that SoTL-focused educational developers do, as well as those who engage in educational development more broadly. While the 4M Framework provides a guide through four interrelated organizational lenses: micro; meso; macro; and mega, we have adapted a model to situate educational development work using the 4M Framework to inform the ways in which we do, contribute to, consume, advocate, and support SoTL broadly, including at local, provincial, national, and international levels. The 4M Continua can be an avenue for those who do educational development to describe their work, where the work is situated, and how support can be offered throughout the community.

KEYWORDS

educational development, postsecondary education, 4M Continua/Framework

INTRODUCTION

Although we have anecdotally used the 4M Framework to anchor the ways in which we leverage the scholarship of teaching and learning (SoTL) in our educational development work across local, national, and international levels, we all experience this work differently. We suggest that our work exists across a set of continua, or what we term the 4M Continua for Educational Development. In this paper, we seek to contextualize our work in SoTL-focused educational development as interstitially spaced across the 4M Framework, re-envisioned as a flexible but formalized professional set of continua.

Simmons (2009) first discussed the idea of different levels of impact for SoTL work, based on the work of Weston et al. (2008). They used the terms micro, meso, macro, and mega to conceptualize different audiences for SoTL (Simmons 2009). Simmons suggested that these different “levels” of SoTL existed as fixed points, each representing specific types of SoTL. As such, the microlevel of SoTL applies to individual learning contexts (e.g., teacher, student, class, researcher). Mesolevel SoTL occurs at the department and program level. Those interested in institutional level issues, challenges, and questions would approach their ideas from the macrolevel of SoTL research. Lastly, megalevel SoTL,

the level of SoTL research unifying the authors of this paper, refers to SoTL projects outside the institution at either the discipline, national, or international level. This article, for example, would be an example of a megalevel SoTL project, as the three of us are collaborating across three different institutions and two different countries.

Initially, these different levels of thinking about SoTL allowed scholars to understand the audience and the impact of their work. While micro-, meso-, and macrolevels of SoTL are now commonly researched and addressed in the SoTL literature, these levels are typically explained as being fixed, static points (Friberg 2016; Friberg and Chick 2022; Kenny and Eaton 2022, Simmons 2020; Wuetherick and Yu 2016). Thus, these levels may not, necessarily, allow for the fluidity that exists in some spaces in the field of SoTL (e.g., those engaged in educational development work). With that in mind, the purpose of this paper is to explore a new application of the micro-meso-macro-mega framework, termed by some as the “4M Framework” (Friberg 2016; Simmons 2020), for those engaged in SoTL-focused educational development. In doing so, we offer ideas and considerations related to the 4M Framework in order to better understand the daily work of those in educational development doing, supporting, and advocating for SoTL. We also offer different perspectives of SoTL based on experiences as educational developers at our home institutions and consider whether the 4Ms are best applied to educational development. Specifically, we explore how the 4M Framework may be applied with more fluidity and we position it across a set of intersecting continua, where the individual, fixed levels of the 4M Framework are layered and potentially taking place simultaneously within educational development work. We share a concrete example from our professional calendar as a “day in the life” of an educational developer to make clear how the 4Ms exist not as levels, but as layers that weave in and out of our daily practice, braiding our lived worlds as SoTL scholars and SoTL mentors (Friberg et al. 2021) and providing support to others engaged in SoTL work.

As the authors of this paper, we represent a triad of professionals in postsecondary education who engage in and support SoTL work in multiple ways and contexts, and who share a passion for SoTL. Our respective professional experiences differ by institutional governance models, community needs, student/staff populations, community sizes, locations, and even professional roles, despite our shared support of SoTL work. We, however, seek ways to identify commonalities in the scope, reach, and impact of our work in order to open spaces for advocacy, collaboration, and understanding.

SoTL and educational development

SoTL has been growing as a discipline since the early 1990s when Boyer coined the term scholarship of teaching (Boyer 1990). Many iterations and explanations have followed, as scholars continue to define and explain the importance of research on teaching and learning in higher education (Potter and Kustra 2011; Simmons and Marquis 2017). With the growth of SoTL, there has been a corresponding expansion in the number of individuals engaged in supporting the enterprise of SoTL, providing educational development and advocacy for individual scholars, initiatives, and broader campus communities. Because the work of those engaged in such endeavours differs widely from individual to individual, we use the term educational development to describe this work in its broadest sense and to include the professional and personal development for varying aspects across careers in academia (Leibowitz 2014). Other terms, not all of which are used synonymously, but often interchangeably, are academic developers, curriculum developers or specialists, instructional designers, and instructional developers. Regardless of the naming convention, one central element of educational

development is the desire and drive to improve teaching, the student experience, and student learning through SoTL (Elton 2009; Fanghanel 2013; VanderKloet et al. 2017).

We recognize that SoTL has impact in multiple contexts, including through informal networks of peers, classrooms, and institutions (Frake-Mistak et al. 2020; Huber 2009). Regardless of the definition adopted, Simmons and Marquis (2017) remind us that situating our SoTL work in the local context is equally as important. Although we approach our work in different ways, we see how SoTL-focused educational development is grounded in the 4Ms across our contexts on a daily, weekly, annual, or career-long basis. This work is continuous, ever shifting, and leaps from one project to another. In educational development, the provision of services to bolster SoTL may also include support for publication and other forms of dissemination (or the making public of SoTL “products”), individual consultations, courses, workshops, conferences, as well as other forms of professional development and advocacy. These varied modalities provide opportunities for collegial discussions and the formation of mentoring relationships between SoTL scholars and those doing educational development to advance individual SoTL projects and the broader endeavor of SoTL, as well (Friberg et al. 2021). These interactions require a level of understanding of and expertise in SoTL that transcends disciplinary ways of knowing and thinking. For example, someone who does educational development may receive a request to support SoTL work in a third-year course in mathematics. Although the educational developers’ (or person doing educational development work) area of expertise and research may be higher education policy, the expectation is that they will be able to provide meaningful and targeted support to the mathematician scholar. Alternatively, this same individual doing educational development work may, in the same day, be asked to support the design of a program evaluation of a peer mentorship program for students in a foreign language degree.

Educational development for SoTL is situated in varied spaces across institutions of postsecondary education. Friberg and Scharff (2020) suggested potential SoTL educational development structures, some of which are directly affiliated with centres for teaching and learning (CTLs). The connection of SoTL and CTLs is logical, as CTLs typically provide a smorgasbord of evidence-informed, pedagogically related support services for faculty, staff, graduate students, and others within and across the institution. This can allow for the creation of support for the purposeful and strategic engagement with SoTL through open dialogue (e.g., questions, active learning strategies, sharing/developing resources) and for formalized programming. Friberg and Scharff (2020) acknowledge that “the biggest benefit to SoTL educational development structures housed in a CTL is their affiliation with a formally recognized and institutionally supported entity” (48).

(Re)Visiting the 4M Framework through the lens of SoTL-focused educational development

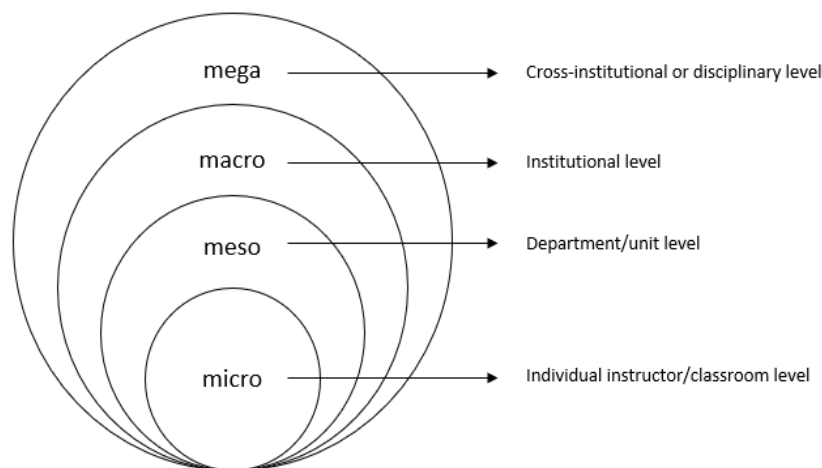
As three individuals working in varying capacities in postsecondary teaching and learning centres and in positions of leadership across the educational development community, we advocate, as Geertsema (2016) has, for a re-orientation of SoTL as a developmental, community, and collective enterprise. This work occurs in tandem with other projects and people, often simultaneously, and outside of traditional outlets of dissemination. In an effort to share SoTL in ways that are “appropriately public” (Felten 2013, 122), our respective engagement with SoTL, sometimes through submission to peer-reviewed academic journals, also includes other forms of dissemination (Cambridge 2001; Huber

2009) in more local and informal networks (Frake-Mistak et al. 2020), such as at institutional teaching and learning conferences, in curriculum development and innovation, and through program (re)design.

SoTL addresses how we teach and learn in higher education, including both theoretical components and links to praxis. While SoTL is a field of inquiry, it is also evidence-informed teaching, service to the profession, and a form of professional development. SoTL projects often emerge from our respective institutional contexts or typology, anecdotes, and observations about our own experiences in teaching and learning (Poole, Iqbal, and Verwoord 2018). These may be viewed through the lens of the 4M Framework (Simmons 2009; Simmons 2020) to help situate SoTL in and beyond any one educational institution and to understand the potential impacts of SoTL projects and outcomes. This knowledge is valuable for those interested in SoTL in order to contextualize and plan SoTL efforts.

Much of the work done in and around SoTL lives within one level of impact in the 4M Framework. In that manner, the framework is static, representing fixed alignments of SoTL work to audiences and a scope that allows SoTL scholars to target their work according to their individual goals and needs (Figure 1). However, there are other spaces where SoTL work is done that may require additional conceptual flexibility to envision a fulsome view of impact (Figure 1).

Figure 1: Fixed points in the 4M Framework (Simmons 2009; Weston et al. 2008)



We use the 4M Framework to anchor the ways in which we leverage SoTL in our everyday work, be it in local, regional, national, and/or international contexts. In discussing SoTL with varied stakeholders, we can identify myriad ways in which SoTL might have impacts across and beyond our institutional contexts. In fact, the 4M Framework provides a way in which educational development in diverse institutional contexts might be conceptualized in a similar manner, despite varied approaches and support for SoTL work. That said, for those who engage in the work of doing SoTL-focused educational development, it is not always possible to detangle or discern the intricacies of this work, or of SoTL, into single, separate levels of impact. For instance, an educational developer might develop a small grant program to support SoTL work at an institution. When realized, that funding program would support individual SoTL scholars at the microlevel, the acceptance of SoTL at the macrolevel, and, perhaps, the growth of SoTL at the megalevel if outcomes of the funded projects are shared

beyond the institution in publications or presentations. Thus, educational development work happens across micro-, meso-, macro-, and megalevels through engagement in multiple projects simultaneously, engagement with colleagues from other institutions (nationally, internationally, or both), or with intended outcomes that reach multiple audiences.

The challenge, then, is that work across the 4M levels for SoTL-focused educational development is fluid, rather than fixed. Rarely is SoTL-focused educational development work only influential toward a single level of impact. Most often, those working in SoTL-focused educational development are simultaneously engaged in multiple projects, supporting and extending SoTL work in micro, meso, macro, and mega contexts within and beyond their institutions. Though the main purpose of our paper is directed towards those who engage in SoTL-focused educational development, we further recognize that SoTL scholars hold many positions in postsecondary education and can place themselves on the continua. Faculty, program administrators, student partners, and senior leaders can also be engaging in SoTL research while fulfilling their day-to-day responsibilities (Simmons and Taylor 2019). Using the 4M Framework, Simmons and Taylor (2019) noted that SoTL scholars can show impacts of their SoTL work at any level. Like our above example, someone in SoTL-focused educational development could be working with another individual on their classroom SoTL research while preparing and planning professional development learning opportunities for those new to SoTL or working to create institutional initiatives to support SoTL.

We argue that this multifocal work transforms the 4Ms from a framework into a set of continua for SoTL-focused educational development, allowing agency and flexibility across varied levels of impact. This allows the complexity of doing and supporting SoTL to be inclusive, strategic, and increasingly broad in approaches to the work of educational development. Certainly, individual SoTL scholars can focus on one or more levels of the 4Ms at any one time; however, we argue that it is the responsibility of those who do SoTL-focused educational development to flow across the continua of the 4Ms, providing scaffolding and fostering growth in a manner that serves multiple, simultaneous purposes.

THE 4M CONTINUA FOR EDUCATIONAL DEVELOPMENT

In this section, we consider how the 4M Continua applies to institutional contexts and discuss how the continua might be used to identify opportunities for SoTL and educational development within and across institutions. In seeking a framework to help situate our experiences, we encountered the Dimensions of Activities Related to Teaching (DART) model, developed by Kern et al. (2015), that organizes teaching-related activities across two dimensions. The first of these dimensions, the public-private dimension, offers examples of activities such as the use of classroom assessment techniques (private) through published essays on teaching with references (public). The informal versus systematic dimension is situated on a vertical axis and when considered as a continuum, “. . . a description of a teaching method or a teaching tip might be considered informal or less systematic, while an experimental study might be most systematic” (4–5). Four quadrants emerge when the two continua intersect:

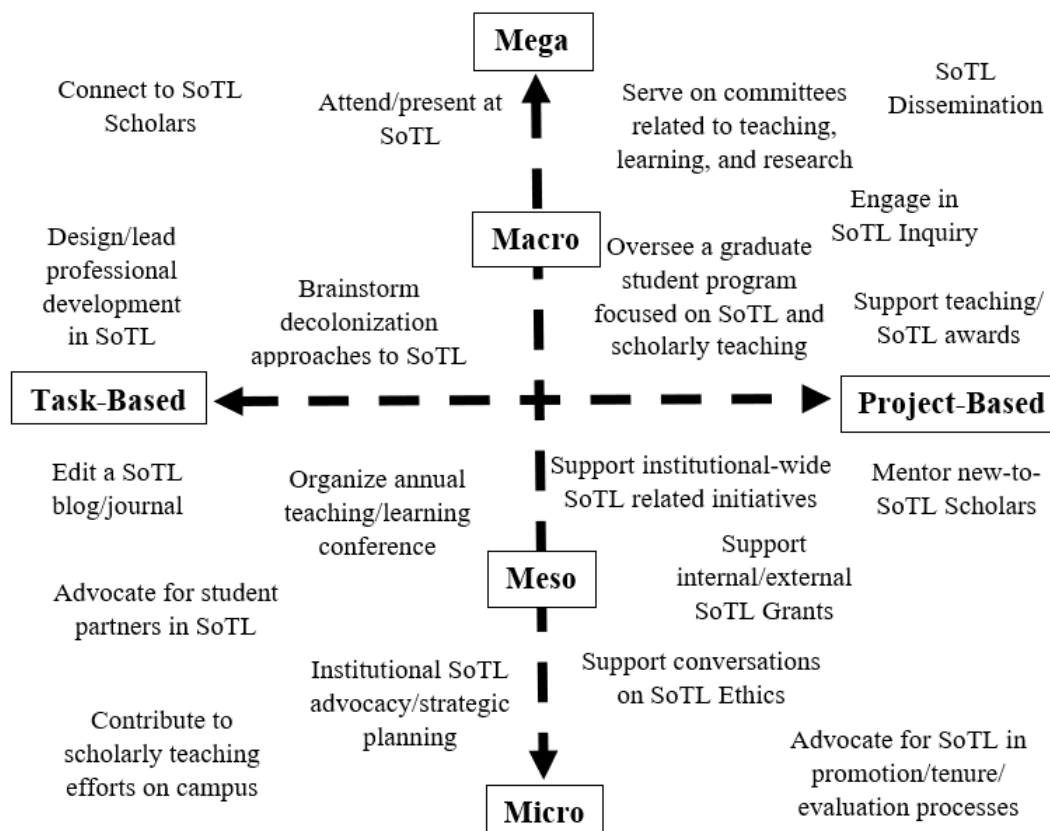
1. Practice of teaching includes teaching activities associated with teaching practice(s) that are not made public (e.g., teaching portfolios, course design)

2. Sharing about teaching expands beyond the practice of the teaching quadrant as instructors share their challenges, experiences, and so on with others, leading to community building (e.g., teaching blog, sharing of anecdotal evidence with colleagues)
3. Scholarly teaching takes place when instructors ground their teaching practice in scholarship and it is therefore more systematic (e.g., reflecting on an experience and then using evidence-informed literature and approaches to find a solution and move forward)
4. SoTL is the most highly representative of the public and systematic domains, as instructors engage in inquiry, knowledge building, and theoretical underpinnings (e.g., published or presented research, such as a literature review or empirical study).

We immediately recognized that educational development work, specifically with reference to doing, supporting, building capacity, and advocating for SoTL could be well reflected through the DART model, and make more explicit the dynamic and layered work of SoTL-focused educational development across and through the 4M Framework. Furthermore, it allows for those who do educational development (e.g., educational developers, instructional designers, curriculum developers, CTL directors) but whose roles differ (either by naming convention, institutional structures and hierarchies, or for-pay labor) to envision the complexity and fluidity of SoTL based activities and practices.

Collaboratively, we engaged in a process of ascribing our respective, routine educational development tasks, projects, and responsibilities onto the DART model, being mindful of our divergent home institutions and roles. As we did so, we highlighted similarities and differences in our work, therefore validating the notion that SoTL-focused educational development can happen similarly, despite differing social and geographic locations in our respective institutions. Subsequently, we mapped the elements of our daily work that were both relevant to our roles and most closely aligned with SoTL-focused educational development onto the continua. This process provided a consensus view for our conception of SoTL-focused educational development.

Figure 2 presents a 4M Continua for Educational Development model that encompasses four dimensions of practice, situated along two intersecting continua, adapted from Kern et al. (2015). These quadrants recognize and legitimize a wide range of fluid, SoTL-based activities and practices with none prioritized over another. The horizontal axis indicates the amount of investment in SoTL related activity from being a rather fast, one-time task (e.g., edit a SoTL blog/journal) to an ongoing, relational, and complex activity or project (e.g., mentor new-to-SoTL scholars). The vertical axis represents the four layers of the 4M Framework, from micro-oriented SoTL-related activities in educational development to those that occur within a more macro realm.

Figure 2. 4M Continua for SoTL-Focused Educational Development

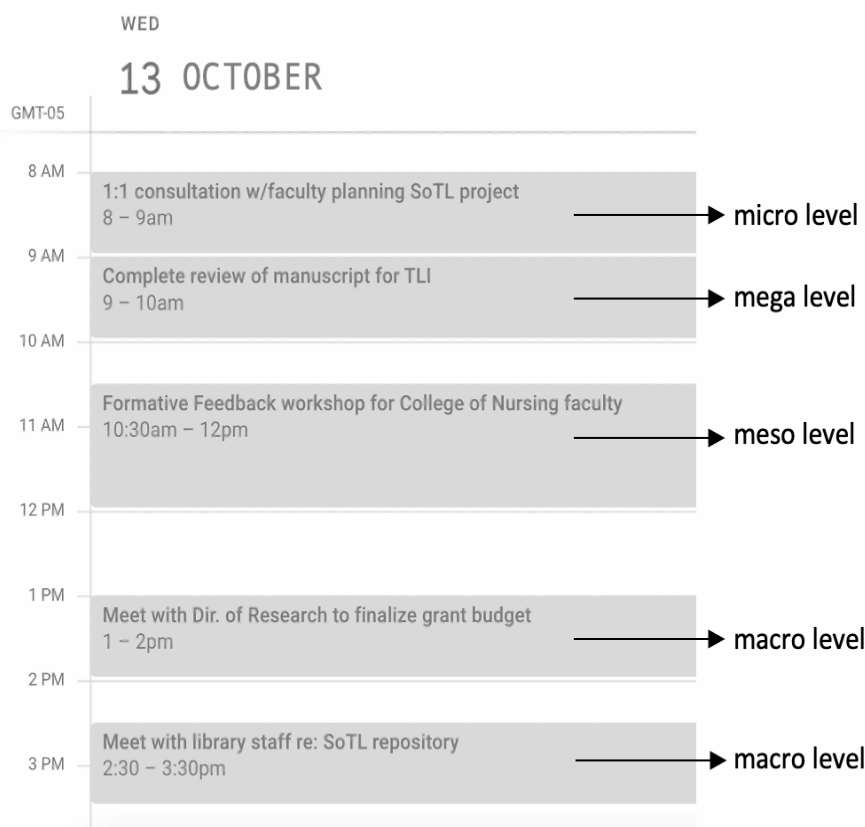
ENACTING THE 4M LAYERS OF THE CONTINUA

As is consistent with Kern et al.'s (2015) DART model, the dotted lines between the vertical and horizontal arrows in Figure 2 denote that they are permeable and fluid. This fluidity across and through the four quadrants reflects the transient and flexible nature of the work done in SoTL-focused educational development. Moreover, these tasks and activities, regardless of their time-on-task commitment or realm, can occur within one meeting in isolation with a colleague, throughout a working day, or across a month, a year, or multiple years. To be clear, we recognize that not all who do educational development work engage in or support SoTL, therefore, members of the educational development community may not feel as though they are able to immediately situate themselves along either of the intersecting continua or see themselves located in this model. We suggest, however, that although one may not have a SoTL focus that is formally identified in their educational development portfolio, they, in fact, may be able to place themselves in multiple locations across the 4M Continua for Educational Development with potential ties to SoTL, perhaps as contributors to scholarly teaching efforts on campus, as organizers/participants in annual teaching and learning conferences, or as members of committees related to teaching, learning, and research.

The work of doing or supporting SoTL may easily fit within any single quadrant, or it may nestle in more than one. Therefore SoTL-focused educational development will often shift between quadrants and layers depending on projects, needs, and demands in a given context/institution—this

may happen numerous times in a day, across a working week, or during a month. One may enter into a quadrant based on the time allotted to the task, by the priorities inherent in the work of those whom the developer is supporting, institutional needs, or external deadlines or collaborations. A conference proposal submission would be an example of a singular task-based SoTL activity. One may also enter into a particular quadrant based on the level their work is situated in across the 4M Framework (e.g., from micro-oriented SoTL-related activities to those that occur within a more macro-oriented realm). With this in mind, this model does not position SoTL work as a progression from micro to macro and does not place a time-emphasis on any single activity. Rather, it aims to make salient the layered and fluid nature of this work that is often, if not always, shifting and influenced by external drivers and forces.

To explore this model more fulsomely and experientially, we reviewed our respective professional calendars to validate the concepts put forth in this paper. Figure 3 is a replica of a typical day of one of the authors and identifies the lived professional experiences we mean to communicate through the 4M Continua for Educational Development model. As is evident through Figure 3, this individual began her day in consultation and dialogue with a faculty member who was planning to begin a SoTL project. This work of dialoguing with faculty, that is by extension a contribution to scholarly teaching efforts on campus, would be an example of a SoTL activity occurring both within the bottom left quadrant of the model (as the activity itself is task-based) and at the microlevel. This meeting is immediately followed with time allocated to complete a review of a manuscript for a SoTL-focused journal, which represents work across more than a single day within the megalevel of impact. While Figure 3 represents one of our experiences, it was evident to the authors that these examples are not unique or in isolation. Each of the authors engage in similar work, perhaps with differing naming conventions for each task, project, or activity, evidencing that despite the nature of the activity and the flow of our respective workdays, there were commonalities across our work in SoTL-focused educational development, further demonstrating the interconnected layers of our roles as SoTL-focused educational developers.

Figure 3. A “day in the life” example of educational development across the 4M Continua for Educational Development

It is also evident that the fixed nature of the 4M Framework cannot adequately capture the full integration of impacts realized by the work of those in SoTL-focused educational development. While there are primary levels of impact assigned to each of the activities in the schedule outlined in Figure 3, there are unstated secondary, and perhaps even tertiary, impacts to each of those activities. Work with the director of research to finalize SoTL grant budgets is undeniably a macrolevel activity, as grants in support of SoTL are offered across this particular institution. However, over time, as scholars are awarded these grants, their work impacts the microlevel of their own classrooms and perhaps even the meso-level of their academic unit. Similarly, as this individual meets with library staff to discuss a repository for SoTL work on her campus, that work is fixed within the macrolevel of impact. Again, with time, individual scholars will be recognized for their work (microlevel), departments can archive SoTL relevant to their own disciplines via the repository (macrolevel), and the repository can serve as a model for other institutions looking to enhance SoTL work conducted at their respective campuses (megalevel). The interactions of task, time, and impact exemplify our impetus for developing the 4M Continuum of Educational Development: first as a way in which to consider the complexity of SoTL-focused educational development work, but also as a way to provide a similar frame for work that is done very differently across our own institutions and others.

Challenges, frictions, and supports across the levels of the continuum

Thus far, we have focused our work on broad similarities that exist across the roles of individuals who serve in a SoTL-focused educational development capacity. It is these similarities—

and others—that allow for our consideration of the 4Ms as a set of intersecting continua, rather than as a fixed framework. We feel that the shared purposes, impacts, and audiences for educational development work in SoTL allow this latitude for consideration of our collective work in this field. We would be remiss, however, if we did not acknowledge the differences across our institutional contexts and typologies that might add complexity to how individual professionals move across and through our proposed continua model. While the 4Ms are the same, the ways in which SoTL-focused educational development flows across micro-, meso-, macro-, and megalevels can be very different. Friberg and Scharff (2020) have suggested that “the size and impact of SoTL educational development at any institution is tied directly to its priorities, values, and needs” (46). With this in mind, those engaged in SoTL-focused educational development might experience different combinations of challenges, frictions, or support based on their unique campus cultures. Specifically, institutional support for SoTL, resource allocation (e.g., time, budget, personnel), advocacy, and faculty engagement with and motivation for SoTL can vary across institutions (Friberg 2019; Kim et al. 2021; Myatt et al., 2017; Simmons et al. 2021).

In terms of our own work in the field of SoTL educational development, one of us works as an associate director of a faculty-based teaching and learning unit at a Canadian comprehensive university, one as a director of a SoTL center at a Canadian teaching focused university, and the third as a director of a teaching and learning centre and an endowed chair in SoTL at a research-intensive university in the United States. In our discussions about our work with SoTL-focused educational development, we reflected on the fact that our flow across the levels of the continua is more a function of our respective institutional roles than any other variable. Center directors and unit directors often drive strategic planning for institutional integration of SoTL and are less involved in developing or supporting individual workshops, trainings, or programs. On the other hand, the primary work of educational developers within teaching and learning centres is to be responsive to the needs/wants/asks of those whom they are meant to support, as well as to the expectations and directives by the centre/unit directors or senior administration. So, while our work with the 4M Continua is very much tied to our institutional identities, for others work across and between levels of the continua might be tied more so to the type and focus of their institutional context and mission (i.e., research intensive, community college, private vs. public). This is true for SoTL scholars who engage in educational development work as well. One does not have to be an educational developer to engage in this work. We suggest that the challenges, frictions, and supports that exist at each of our respective institutions are varied; however, each of us flow across the levels and quadrants of our proposed continua in very similar ways. We advocate for individual faculty and for SoTL as a broader enterprise. We seek resources and support for those engaged in SoTL on our respective campuses. We network with professionals across institutions and disciplines to support our work. With this in mind, then, we seek to accomplish similar ends, though we do so by following different paths and processes, navigating challenges and frictions while leveraging support in our own institutional contexts.

CONCLUDING THOUGHTS

The establishment of a model for SoTL-focused educational development allows for the opportunity to explore how this work is done in a systematic manner. As such, we have offered our ideas and visions through what we term the 4M Continua for Educational Development. While this paper’s purpose was to explain the revisioning of the 4Ms from a framework in order to a set of

intersecting continua, we see possibilities for the continua to be used and applied in the future in a variety of ways: from envisioning new or adapted position descriptions for SoTL-focused educational developers, to informing strategic plans and initiatives for institutional SoTL programs, to developing ways to consider equity, diversity, access, and inclusion for educational developers who support SoTL. We believe that in re-envisioning and making visible the 4M Framework along a set of intersecting continua, layers and dimension are added to the framework proper as we have provided both width and depth to the diversity of roles and activities engaged in and performed by SoTL-focused educational development professionals. Additionally, we view these continua as an avenue to explore and discuss the positionality of SoTL-focused educational development across institutions, allowing a common vernacular around jobs that vary tremendously from individual to individual and institution to institution. Finally, we suggest that the continua itself might be an avenue toward advocacy for educational developers in SoTL, describing the work that we do, where this work is situated, and the resources we need to support others in their SoTL work, and self-advocacy as we engage in and support educational development work.

AUTHOR BIOGRAPHIES

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