

Towards Reflective and Collaborative Praxes

A Case for Building Institutional Capacity in Quantitative Research

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Abstract

While there has been significant progress in the development of quantitative research competencies within institutions of higher education across the globe, there is growing evidence of apprehension and anxiety among staff and students related to employing this research approach. To assess the status and challenge of building institutional capacity within a community of quantitative researchers, the authors (also faculty) used reflective journaling to unpack our experiences as educators within our institutional/university setting. To capture the qualitative nuances of our teaching processes and engagements, the authors produced individual reflections on key questions related to building institutional capacity in quantitative research, experiences related to inclusion/exclusion, and the strategies required to address emerging gaps within our community of practice. These were collaboratively analyzed to inform key themes for the study. Related findings pointed to the need for educators to remain mindful and accountable when building and managing competencies to promote continuous adjustment/refinement of teaching strategies, as well as to use more flexible modes of delivery with the potential for cross-disciplinary interventions.

Key words: institutional capacity building, communities of practice, praxis

Introduction

Over the last decade, there have been increasing calls for and attempts by university systems to strengthen their research capacities as a critical aspect of capacity building for global competitiveness and impact (United Nations 2018; Marginson 2014). This drive has been generally positioned as a way to augment the quality, relevance, and impact of institutional research (Levine et al. 2013; Cain and Allan 2017). This push has also been premised on the need for higher education institutions (HEIs) to build the research competencies, structures, and processes that are required to thrive in a fast-changing world (Fowler et al. 2019; Martinez 2004; Pitton 2006; Holmes, Tuin, and Turner 2021). Growing pressures for institutions to connect evidence-based policies, sustainable development goals and practices also strengthen the call to action (Barrett et al. 2011).

These concerns for building research capacity within HEIs, however, are particularly unique for developing nations where limited resources, infrastructures, and cross-disciplinary engagement remain perennial issues (Moore et al. 2007; Hallinger 2020). Such is the case of Caribbean and Latin American HEIs, where there are ongoing challenges related to the need for strong evidence-based practice with improved data quality, standardisation and comparative statistics that facilitate critical assessments of policies, interventions, and their relative impacts on a large scale (UNESCO 2021).

The generation of statistical data and the implications for the readiness of graduates to use such competencies within the drive towards the 2030 sustainable development goals also emerge as critical areas for examination (UNESCO 2022). These concerns are further reinforced by reported levels of statistical anxieties and efficacies for university students in social sciences (Esnard, Alladin, and Samlal 2021a). These findings also advance calls for more critical examinations of the discursive and relational aspects of teaching and learning statistics within the Caribbean region (Esnard, Alladin, and Samlal 2021b).

Given the centrality of research, innovation, and transformation to the mission, vision, and strategic mandates of The University of the West Indies-UWI (University Office of Planning 2022), this examination of the processes for building capacity within quantitative research remains one of critical importance. We note, however, that the low levels of staff engagement in the university (Kassim, Dass, and Best 2015) may also present challenges for faculty development. This question of staff engagement and cooperation and the implications for building

capacity within the area of quantitative research within the University of the West Indies remains substantively unaddressed. Where research on statistics education remains limited within the region and emerges as one aspect of building of capacity within quantitative research, this work advances the discussion.

Building Capacity Through a Community of Practice: The Question of Cooperation

Conceptually, a community of practice (CoP) exists with practitioners who share and collaborate on common areas of interest or domain and who engage in professional activities that sustain learning for all members (Lave and Wenger 1991). In the context of HEIs, a central argument within the literature is that the existence of this CoP and the levels of engagement between faculty form critical aspects of sociocultural processes and outcomes related to capacity building (Han et al. 2021). A major assumption within this framing of the community, however, is that of the general willingness and cooperation of individuals (Tight 2015; Ridley 2011; Barrett et al. 2011). In that regard, researchers point to ongoing uncertainties related to the relative openness of spaces and opportunities for academics to build capacity (Roberts 2006; Hemer 2014) and for the degree of collaboration and shared practice (Ng and Pemberton 2013; Tight 2015).

While the general findings related to the degree of cooperation within communities of practice remain inconclusive, there is consensus regarding the sustained probing of practitioners and the relations of engagement as central to the advancement of scholarship related to the CoP. This type of research on CoP emerges therefore as a necessary aspect of understanding how and the extent to which these actors/practitioners facilitate a sharing of experiences, skills, resources, and expertise that advance common practice and vision.

Given the need for deeper interrogations of qualitative aspects of the capacity building among practitioners, we use the CoP framework and that of reflective practice to address two central research questions:

- How do we create and sustain the engagement of staff and students in the teaching and learning of quantitative research?
- What are the implications for building both capacity and community within this process?

The following sections discuss:

1. A review of the challenges for building institutional capacity;
2. Treatment of what it means to position reflective practice and practitioners as a method for research;
3. Explorations of the themes (around mindfulness, responsiveness, inclusivity, and cross-disciplinary research); and
4. Discussions of key contributions related to the need for dialogue, collaborations, and reflective praxis that are rooted in an understanding of social relations.

Building Institutional Capacity: A Review

Capacity building emerges as a multidimensional concept that is premised on a multilayered process and one that is established to assure sustainability over desired goals and objectives (Hardjanto 2006, cited in Sukrisno 2018). Capacity building in this sense is deemed as a process intended for the development of research skills, with the furnishing of new and innovative methodologies to produce high calibre research (Munn 2008; Ridley 2011; Hammad and Al-Ani 2021). As a process, the literature suggests that capacity building is rooted in ‘actionable learning’ mechanisms that are interrelated and that develop the skills and competencies of an individual, institution, or community (Sukrisno 2018).

In quantitative research, a key argument is that academic programmes that address the institutional shortcomings and the challenges for student success have the best chances for building these quantitative skills (McVie, Coxon, Hawkins, Palmer, and Rice 2008). Further, in an exploration of obstacles to enhancing quantitative research and teaching in the social sciences, educators underscore the importance of multiple skillsets that foster interest and advancements in quantitative work (Mc Vie et al. 2008). These include matters of antipathy (dealing with willingness to do quantitative work), accessibility (matters of training), and, to a lesser extent, willingness in the context of creating enabling environments (financial support and resources for quantitative work).

However, the literature suggests that building capacity remains inextricably linked to local contexts (Crossley and Holmes 2001) and that of institutional culture (Fowler et al. 2009). A shared understanding is that this process requires needed examinations of the professional experience, research networks, culture, and collaboration within communities of practice that support institutions

(Barrett et al. 2011; Ridley 2011; Hammad and Al-Ani 2021; Munn 2008). Such considerations also call for closer scrutiny of both dispositional (values, attitudes, skills, and competencies) and institutional/environmental factors (Sawyer 2004) to advance a more multidimensional approach to changing institutional practice and outcomes (Power, Millington, and Bengtsson 2015).

Inherent in the method is the identification of partnerships, or collaborations, as well as monitoring and evaluation systems as critical aspects of tailoring and implementing the most appropriate approach for development and evaluation in developing countries (Vincent-Lancrin 2004; Huenneke et al. 2017; Sukrisno 2018).

Capacity building also requires attention to institutional diversity. This demands that HEIs also differentiate and differently respond to the needs of diverse student and staff populations. Harris, Mazoue, Hamdan, and Casiple (2007) cited in Lesser (2010) called for considerations of the diverse learning styles, students' expectations/behavioural or attitudinal factors, and the extent of any impairment, whether sensory, motor, or cognitive. Such research is particularly useful, given the multiple realities of students and the need to address issues of acculturation and academic performance for these diverse populations (Lesser 2010).

In such cases, the literature suggests that integrating students with dissimilar backgrounds represents a critical component of how HEIs recognise and respond to matters of inclusivity with training opportunities for learners (Burns and Gotteschalk 2019). While the methods for inclusion and integration remain vast, the emphasis has been on the inclusiveness of instructional practice, resources, curricula, assessments, and institutional culture. This level of responsiveness emerges to enhance the skills and prospects for employment and for achieving equity within higher education (Parveen and Awan 2019).

Positioning reflective practice and practitioners

Capacity building requires conscious reflection within learning and teaching. Sööt and Viskus (2015) advocated for the use of reflection as a process through which researchers can systematically improve practice, while philosophically questioning and reframing one's identity in relation to the mission or shared practice of a given community. Dunn, Gerlach, and Hyle (2014) contended that reflective practice is an avenue through which learning and understanding can be facilitated by critically engaging with thoughts, feelings and experiences of events and situations. Other researchers position this reflective practice as a way to engage personal and professional values, identity construction, role integration,

and progression (Akkerman and Meijer 2011; Kennelly et al. 2013). This reflective process also serves as an instrumental way through which researchers can individually or collaboratively advance theorisations and interventions that build on or transform existing practice (Kolb and Kolb 2005; Kennelly and McCormack 2015; Mortari 2015).

Against this background, the present study utilised a qualitative approach with reflective journaling as our method of data collection. Data collection took the form of personal reflections from the research team which consisted of five teaching staff members, three of whom are also doctoral candidates in the social sciences. All are involved in the teaching of quantitative research and statistics at both undergraduate and postgraduate levels within the university (see table 1 for details of participants).

Table 1: Description of Members

Member	Faculty Position
TE	Senior Lecturer (coordinator undergraduate statistics; postgraduate statistics)
LA	Statistician and Part-time Lecturer (postgraduate statistics and research course)
FA	Instructor (undergraduate introductory statistics and research courses)
KS	Teaching Assistant (introductory undergraduate statistics course)
DB	Part-time Assistant Lecturer (undergraduate statistics and research design course)

Reflective journaling was employed by each member with the intention of highlighting some of the qualitative aspects of teaching and learning statistics. The following probe questions therefore allowed for us to think through the conditions and subjective experiences that impact these processes:

1. How do we build or manage the elements needed to teach quantitative research?
2. Who is included and excluded in the space to educate persons in quantitative research?
3. How do we track the effectiveness and impact of developing quantitative researchers?

Over the course of four weeks, each member of the research team reflected on and provided detailed written responses to these questions.

Each member's reflection was approximately 1,200–1,500 words. Reflections were collated according to the probe questions and collaboratively analysed. We

embraced descriptive coding to summarise and assign labels to the content of each reflection (Saldaña 2013) and to build thematic analysis of the data (Braun and Clarke 2012; Clarke and Braun 2017). This coding process allowed for the identification of four main themes that were generally related to building capacity within the teaching of quantitative research. These themes were captured through extracts of specific quotations across collaborators.

This collaborative approach to the examination of the data against those of the interpretations related to these emerged as a necessary aspect of ensuring conformability and credibility within the reporting of the findings for the study (Tobin and Begley 2004). These themes included:

1. being mindful and accountable for the requirements for building capacity in quantitative research;
2. being more responsive to the diverse needs of students,
3. creating more inclusive teaching and learning environments, and
4. making continuous adjustments and cross-disciplinary interventions.

Figure 1 captures the same:

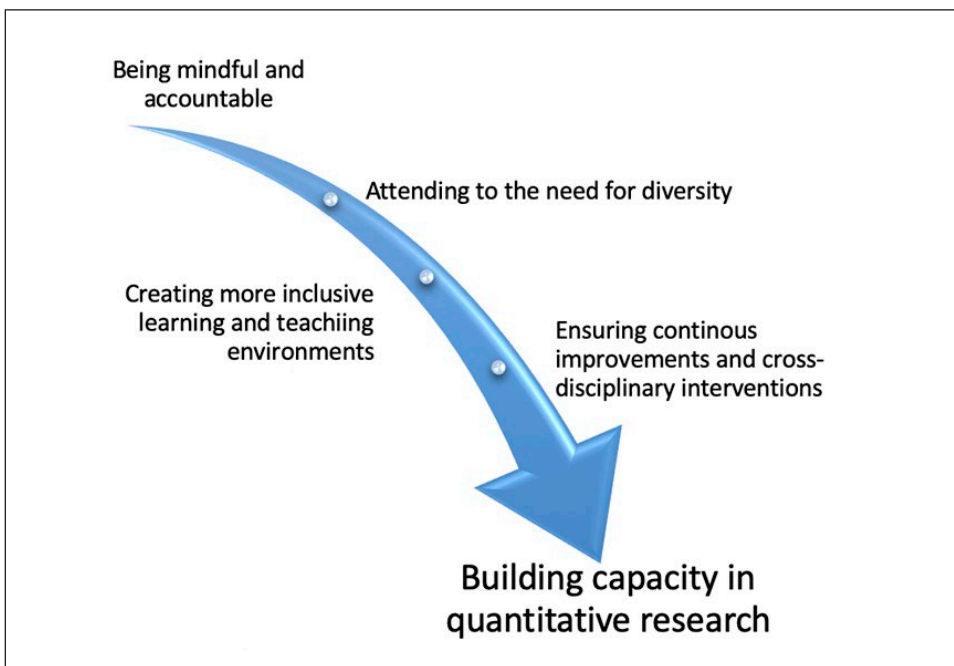


Figure 1: Key themes

Being mindful and accountable

Findings underscore the need for educators to remain *mindful and accountable* regarding the requirements for teaching and learning quantitative research. TE suggested that “building capacity requires a deep reflection or examination of the status of quantitative research within the department, the gaps . . . strategies that are required to address them”. She called for more deliberate assessment of the institutional contexts for teaching and learning and the experiences that position one to address the requirements for building such capacities within quantitative research.

In speaking to this, however, DB reflected on the need for educators to engage in self-assessments related to their identities as educators, their skills or competencies, mindset, and pedagogical approaches. In a similar strand, KS spoke to her own experiences and development as a teaching assistant over the last five years with an introduction of ongoing curriculum review and approaches to teaching and learning quantitative research. This included the need for educators to “make visible the connections and contexts of statistics as a component of quantitative research, rather than just a stand-alone statistics course”. In her reflection, she also spoke to the ways in which this integrated approach to the learning of statistics provided stronger philosophical, contextual, and pedagogical foundations that deepened her ability to apply these understandings within her own teaching and application to research.

Attending to diversity

Through this reflection process, practitioners flagged concerns for observed levels of statistical anxieties among students and for the growing challenge of advancing scholarship using quantitative research. While we acknowledged within the post-reflective briefing that the nature of these anxieties required more primary research, we all concurred on the need for *greater attention and responsiveness* of faculty to the needs of students. As an instructor in survey design and statistics for the last four years, FA called for “empathetic neutrality” to inform content, assessment, and delivery of courses to better “understand their anxieties, challenges, strengths, and abilities [while] . . . plac[ing] ourselves within their shoes/skin . . . to understand the problems and motivators that are affecting the[ir] learning and performance”. FA also pushed for greater levels of

accountability where educators report on their commitment and responsibility to the process of enhancing student learning within quantitative research. DB advocated for KAP scenarios that address issues of student *knowledge* (based on their academic background), *attitudes* (based on their approach to learning), and *perceptions* (based on their assumptions about the subject itself).

For DB, this called for greater sensitivity to the mental wellbeing and tenacity of students, their learning styles and competencies, and appropriate assessments and learning activities to address these. She suggested the use of diverse teaching tools and methods such as small group tutorials, webinars, YouTube videos, statistical software, social media platforms, and/or additional statistical resources that address the diverse needs, learning curves, and challenges of students.

Both KS and LA also spoke to the need for responsiveness in the teaching of quantitative research. KS drew on the importance for educators to identify the needs of students with “no prior interaction with” statistics and pedagogical approaches that are used to address the needs of these students. She called for the use of diverse teaching methods such as storytelling and problem-based learning styles that allow for greater connection to the social foundations of their learning, for better applicability of statistical competencies and for more student-friendly approaches with the potential to address student anxieties and fears related to statistics.

As a teaching instructor for more than ten years, LA noted the need to better connect with students using emotional intelligence to provide some understanding of the assumptions and fears about statistics with which students enter the classroom. LA called for the continuous monitoring of students’ experiences, such as “checking in with learning progress during class time” and providing opportunities for the use of the “flipped classroom” where the student becomes the teacher, and other innovative techniques to encourage a more collaborative environment and effective learning.

LA indicated that this also required a continuous evaluation of course delivery by educators, with attention to diverse modes of delivery (online and face-to-face) to better prepare and engage students within changing educational landscapes. A subsequent explanation post-reflection for LA, was that this diversification of teaching methods creates the perfect atmosphere to cultivate the seven attributes of the ideal UWI graduate, with skills including creative and critical thinking, effective communication, IT-skills, innovativeness, and entrepreneurial and global awareness, among others (*see* University Office of Planning 2022).

Creating inclusive teaching and learning environments

Findings also centre on the need for creating more *inclusive teaching and learning environments* within institutional capacity building efforts. FA, for instance, pushed back against the use of “top-down” approaches to learning with representations of teacher as expert and student as receiver of knowledge. She called for attention to assumptions of learning, particularly those related to the “taken for granted assumptions about the abilities and challenges of students”. In this sense, exclusion for FA unfolds as a dual process where both the educator and the students are removed from the points of connection between their goals within the classroom and that of the extent to which they both connect to each other in the process. KS however reminded us that “there is no perfect educator”. In reflecting on her own experiences, she noted that

I was extremely hesitant to enter within this space, especially for a statistics course, as I felt that the course and its content were challenging, and my skills were inadequate to teach. The instructor of the course, however, told me not to worry, “teaching helps you to learn”, “you will be fine”, and I have spent the last five years with this course in various capacities, learning and improving as I go.

Her story therefore draws on the early experiences of educators within the classroom and on the need to strengthen the teaching competencies and confidence of persons who deliver the courses. Her narrative also underscored the need for a developmental approach to capacity building and faculty development with what she described as “no hard limitations” on the skills and qualifications of persons to better situate and encourage early career academics involved in the delivery of quantitative methods. In the creation of inclusive classroom spaces therefore the emphasis for KS was on the need for “open and flexible spaces [with situation-specific guidelines on employability] that allow for the inclusion of persons at multiple stages of learning to serve as educators”. LA also advocated for more involvement from administrators in addressing the demands associated with the scholarship of teaching and learning related to quantitative courses within departments. These included improved assessments, training on the use of relevant statistical software and alignment with the needs of key stakeholders and the resources required to enrich these processes.

In speaking to institutional capacity, TE spoke to the challenges related to shifting methodological orientations of hired staff within the department, a related “lack of capacity and interest in the advancement of quantitative research with a

reduction in this kind of research by staff and students”. While she acknowledged some variation in the extent of this problem based on disciplinary tendencies and methodological orientations, she pointed to the exclusion of students and staff from the potential application of quantitative methodologies.

She suggested that “where this is present, there is little engagement of staff within and across disciplines to share knowledge, best practices, lessons learnt in doing quantitative research...[which] creates significant gaps in the capacity and outcomes for higher education institutions”. The challenge she noted is also that of the “exclusion of graduate students in training or professional development sessions,” an issue, which “not only deepens the issue of capacity, but also creates broader questions of inclusion and diversity within our institutions”.

Sustaining continuous improvements and cross-disciplinary interventions

The reflections also pointed to the need for ongoing *adjustments and cross-disciplinary interventions*. FA called for continuous feedback “as critical for tracking if methods being used to develop quantitative researchers are actually bearing fruit.” She urged for greater application of educators as reflective practitioners with the use of “reflection as a useful tool for educators to . . . remain active in the teaching process . . . develop course material and improve on their assessments.” She advocated for greater use of informal and formal student feedback, the exploration of more hybridised forms of learning, and for better engagement with students within these courses.

KS expanded this discussion by drawing on the need to track the effectiveness of these initiatives around building institutional capacity within quantitative research by thinking of these initiatives in the short, medium, and long term. In her reflection, she noted that this would require the move from training sessions and the use of feedback sessions in the short term, to that of using evaluations of the achievements within the medium term, and in the longer term, the development of more strategic interventions for creating a community of practice among quantitative researchers. LA suggested that, as part of developing a strategic approach to building this community of practice, there is a need to take into consideration the academic dispositions of hired staff (background, commitment, approaches) as well as the sustained creation of collaborative and mentoring opportunities that better engage educators/members of this community.

TE recognised the need for cross-disciplinary collaborations at various levels (undergraduate and postgraduate) that create and strengthen necessary pathways

for students interested in quantitative research. The use of workshops and statistical clinics as a cross-disciplinary collaboration were particularly referenced as ways to sensitise and incentivise students to draw on quantitative methodologies.

In her reflection on this initiative, she noted that workshops can “complement the learning processes that students engage in during their undergraduate and postgraduate programmes; adding the application of statistical knowledge and addressing major gaps identified between the various levels”. While she pointed to the exploratory stage of such an intervention within her own practice, she also signalled the commitment to continued monitoring and evaluation to improve practice.

While TE recognised the potential within the current “cross-disciplinary attempt to assess and advance quantitative research within the department”, she advocated for continued review and reframing of capacity building with the provision of training opportunities for staff and students. For her this can include initiatives that are “measured against the consistency and scalability of these opportunities,” and that pay attention to the number of staff and student collaborations using quantitative methodologies to “build a community of quantitative researchers.” TE also called for more deliberate teaching and learning interventions that treat with the “complexity of quantitative projects” and the extent to which these “capacities filter into consultancy and grant writing” opportunities.

Discussion

Capacity building is prefaced on the need for relevant, responsive, and effective professional advancement (Keban 2000, cited in Sukrisno 2018). However, as quantitative practitioners, we recognised that even as we think around building capacity in quantitative research, it is important to think through some of the qualitative processes that impact this broader mandate.

We also advance a position that teaching and learning quantitative research within a community of practice require attention to issues of reflexivity, diversity, inclusivity, and capacity. On one hand therefore, we share and confirm that knowledge, participation, and identity are critical aspects of participating and sustaining members within a CoP (*see* Wenger 1998; Wenger and Snyder 2000; Wenger 2010). Yet, on the other hand, the findings also hint at the importance of extending capacity building efforts to postgraduate students, who while they are central to the work of practitioners, remain at the margins of these considerations and processes. We acknowledge, however that this type of exclusion problematises

the broader requirement for collaborative praxis. A potential, therefore, exists for the shaping of the community of practice within quantitative research through the involvement of diverse members and varied levels of participation.

A push for dialogue and collaboration

The benefit of such inclusion was clearly articulated through the engagement of the team where three members are both graduate students and teaching staff, who were able to deepen their quantitative competencies through interaction with longer serving teaching staff, and who have now gained the expertise and efficacy to deliver to other students and to participate within this collective change agenda.

This finding highlights the mentoring potential and relevance of working within the CoP (Lari and Barton 2017; Bottoms et al. 2020), but as the study has highlighted, with the involvement of learners as teachers, who participate within the advancement of quantitative research. This finding is also supportive of the literature that speaks to learning as a social activity (Wenger 2000, 2010) and the potential for growth; with flexible progression of learners to more proficient competencies (Lave and Wenger 1991; Johnson 2001).

This finding also provides further support for the social conditions of learning (Wenger 2000), and also advances the need for the flexible negotiation of roles, for open and shared spaces to support the developmental process for other persons within that community, and to build on institutional capacity.

Wenger, McDermott, and Synder (2002) remind us that the level of engagement and self-actualisation within the CoP calls for attention to open dialogue, participatory spaces, awareness, and motivation among members. This framing of the CoP, however, is premised on an understanding of a culture and structure that facilitate the development of common knowledge, skills, and identity (Shaffer and Graesser 2000).

In fact, our review of the institutional landscape for which the community exists, points to pockets of collaboration among quantitative researchers, but with a presence and sustenance of hierarchical structures and relations of engagement within this community. This has resulted in loosely organised sharing initiatives that challenge efforts to build trust and collaboration within these structures. The findings, however, bring attention to the social and structural conditions for practice-based learning within that community and the challenges related to working within hierarchical and relational boundaries.

The findings reinforce the need to address the dialectical aspects of working

within a community (Kolb and Kolb 2005) and to encourage dialogue as a critical aspect of building trust to support a culture of collaboration (Fernsten and Fernsten 2005; MacKinnon 2001). This aspect of dialogic exchange unfolds as critical aspects of legitimising participation and negotiation of strategic contexts (Lave and Wenger 1991; Wenger, Dermott, and Snyder 2002). We confirm through our reflection that these dialogic exchanges are particularly needed to address the tensions that emerge from hierarchical structures and relations for learning and teaching (Ben-Peretz and Flores 2018).

Social relations as central to reflective praxis

Given the many gaps in the collaborative process, we also take forward the need to address the social and relational aspects of the community. These gaps call for future research that addresses some of the sociocultural and psychological foundations of teaching and learning within a community of practice. This type of eclectic theorisations of collaboration within a community of practice can be explored to deepen the advancements within institutional practice.

One approach is that of direct engagement of issues related to trust and communication within the process (Addington 2020). While this literature speaks to research outside the context of the Caribbean, the promise is within the formation and explorations of new communitive structures and practices to support (Loss et al. 2007). The findings also strengthen the call for more interdisciplinary exchange as important aspects of building institutional capacity (Fernsten and Fernsten 2005; MacKinnon 2001; Barrett, Crossley, and Dachi 2011).

Yet, we also recognise the potential for cross-disciplinary collaborative research for disrupting divisive spaces and practice (Miller and Leffert 2018; Heitzmann et al. 2021) and for building institutional capacity and professional practice (Croyle 2008; Leshner 2004). Basner et al. (2013) suggest the use of effective quantitative indicators and methodologies to assess the outcomes of cross-disciplinary collaborative initiatives as a necessary condition for improving scientific inquiry and knowledge. Our findings provide support for this.

Need for more expansive research considerations

Our findings also make a case for using reflexive journalling as a qualitative method to explore matters related to the process of building capacity in quantitative research. Reflective practice calls for a level of seamlessness between

reflection and action to leverage on the insights and lessons learnt in the process of reflection (Biggs 2003; Brookfield 1995).

Dewey's (1938) seminal work, however, reminds us that reflective practice requires an open mindedness to consider the evidence, acceptance of one's responsibility for his/her own actions, and a wholeheartedness in the commitment to build on these open forms of engagement, learning, and change.

Our findings show the need for members of the community to connect with and reflect on the needs of the students, the feedback from this process, and their own readiness to respond. This observational type of feedback remains critical to the development of academic development programmes to enhance student experience (MacKinnon 2001). Success here is hinged on the ability of educators to create learning environments where students can engage in "authentic, coherent, meaningful and purposeful activities" (Brown et al. 1989, cited in Han et al. 2021, 64).

This involves an appreciation for not just their understandings or competencies related to quantitative research but also of their fears, anxieties, and other psychosocial concerns that impact their performance or willingness to engage in quantitative research (Onwuegbuzie 2004; MacInness et al. 2016). The findings strengthen the call for ongoing explorations of the students' perception, cognition, and performance within statistics (Perepiczka, Chandler, and Beccerra 2011; Mihai-Bogdan, Runcan, and Runcan 2015). These can be explored in using qualitative and quantitative methods.

The discussions also support the calls for more expansive research that treats more cognitive, affective, and behavioural considerations within pedagogical approaches (McGrath 2014; Ralston et al. 2016). Collectively, these findings point to many future research directions. Of note are the possibilities of exploring more eclectic psychosocial underpinnings within the framing of the community of practice to deepen understandings and improvements within institutional settings. Such research can be positioned to address the consciousness and mindset around the goals, structures, and relations within scholarly communities, but across diverse actors, whether at the level of staff and/or students. Even within some efforts, the findings reinforce the need to examine the perceptions, experiences and positionalities of actors and the implications for building quantitative research capacities within a given community of practice.

Our findings also provide a case for thinking through more collaborative, interdisciplinary and flexible approaches to developing these practices, with a requirement for ongoing reflection and refinement of these aptitudes. These

can be explored across undergraduate and graduate programmes and with more direct attention to the social and professional backgrounds of faculty. The expectation is for these advanced studies to add to the repertoire of both qualitative and quantitative research on the scholarship of teaching, learning and faculty developments that build capacity within the CoP.

Conclusion

There is no doubt that the global landscape of higher education continues to alter the general mandates and thrusts of institutions, albeit in more nuanced ways across borders. These changes place increasing pressures on Caribbean HEIs to adopt a more flexible and responsive system of university teaching and research that bolsters sustainable development efforts in the region (Kassim, Dass, and Best 2015; UNESCO 2022). As researchers and educators, we attempted to address both the need for critical assessment and reflections of the challenges for building capacity within quantitative research and strengthening a CoP within this sphere. The findings point to the need for more critical consideration of the wider structural and cultural contexts, with specific examinations of staff-student diversity, relations, interactions, and implications for building capacity within quantitative research.

Considerations in the realm of faculty development, therefore, call for more collaborative engagements (Kennelly and McCormack 2015; Loss et al. 2007), with holistic development approaches that build on the importance of affective, cognitive, and behavioural aspects of teaching and learning (Farrell 2022). While this collaborative thrust is positioned to augment the knowledge, expertise, and experience of practitioners (Lave and Wenger, 1991; Wenger 1998; Nistor and Fischer 2012), the findings push towards greater explorations of reflective praxis as a critical and qualitative aspect of this process. We also advance the potential therefore for a more inter-relational approach, which can be positioned within a cross-disciplinary treatment of self in relation to others, and which can be measured and monitored to impact institutional change agendas.

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