Developing Lecturer Competence Confidence Through Action Research

by

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ABSTRACT

The role of lecturers at the University of Guyana has always included research. However, the productivity of these lecturers has historically been low. This dissertation examines the reasons for low research productivity among lecturers and attempts to understand the underlying concerns. Through a series of action research cycles, the researcher developed a conceptual framework that intersected intrinsic and extrinsic motivation, self-determination, and self-regulation. A subsequent intervention, professional learning related to action research, was conducted to ascertain whether action research as a methodology could provide lecturers with a new way of thinking about how research could be conducted. A concurrent quantitative and qualitative mixed-method action research design was used to determine the effects of the intervention. An online survey and one-on-one semi-structured online interviews were conducted to collect data, while data were analyzed using the Wilcoxon signed-rank test and thematic analysis. Findings indicate there was a significant increase in reported competence by lecturers.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Knowledge plays a critical role in developing people both individually and collectively as a society. The expansion of knowledge has been structured through educational organizations and systems and unstructured by individuals exploring their interests. The structured development of knowledge has been organized mainly through schools, colleges, and universities, which are expected to provide the necessary support for the advancement of societies. There is a greater expectation by communities that universities will contribute to the improvement efforts as they use their trained intellectual capital to identify and resolve the many challenges that arise over time. Therefore, the onus is on lecturers at universities and colleges to acquire knowledge through research to respond to the needs of society in addressing the challenges. A review of the existing literature will assist me in understanding the phenomenon from a broader perspective and guide my endeavor to resolve the problem of some lecturers at the University of Guyana. As such, the remainder of chapter one will address the problem of practice, national context, personal context, and purpose of the study. Chapter two, a monograph, delves into the larger context, local context, literature review, action research, and prior action research cycles. Chapter three, which takes the form of an article, addresses the background, Conceptual framework, research method, results, discussion, conclusion, disclosure statement, and references. Chapter four concludes with a broader discussion of implications, future research, and reflections.

Problem of Practice

The Faculty of Social Sciences has the largest student population within the University of Guyana, with approximately 2,200 students and a ratio of 1:52 lecturer to students. Lecturers teach between 150 and 500 students per semester. Also, lecturers carry between two and three courses per semester. In addition, most department heads have been teaching at least two courses per semester and carrying out administrative duties within their departments. Lecturers funding for research has been mainly self-sponsored or through external funding solicited by the lecturers.

Lecturers at the University of Guyana are expected to do research, both contractually and for professional development. Through their employment contracts, lecturers are sensitized to their responsibility to do research. In addition, lecturers receive annual increments and promotions based on teaching and research. However, some lecturers have not conducted scholarly research over the past three years. During the annual performance assessment period, lecturers are reminded of their roles, including doing scholarly research. The extent of limited scholarly research by lecturers from the Faculty of Social Sciences is approximately 70% or 29 lecturers. The population of lecturers ($n = 42$) consists of ($n = 7$) with terminal degrees and ($n = 35$) with master's degrees. Within the group of lecturers with terminal degrees ($n = 7$), only four have been active in scholarly research. In addition, ($n = 8$) lecturers from the faculty have been employed for less than four years, while the longest-serving is approximately 35 years. Most lecturers have been within the Faculty of Social Sciences between (10 and 16) years.

There are two professors, four senior lecturers, and 36 lecturers. The gender composition within the faculty is (n = 26) females and (n = 16) males.

Although lecturers are reminded of their responsibility to conduct research, their behavior has remained unchanged. University of Guyana's practice is recruiting top undergraduate students and providing training through scholarships to develop their research skills. Scholarships are through bilateral scholarship programs between the University of Guyana and other organizations such as universities and regional bodies. For example, the British Commonwealth and Caribbean-Pacific Island Mobility Scheme (CARPIMS) have provided scholarships to the University of Guyana lecturers over the years. However, in recent years only some scholarships have been awarded, which has affected the development of some lecturers, and hence they have a lower research competence. At present, the Vice Chancellor has initiated numerous bilateral scholarship programs, including the ASU scholarship program.

National Context

There needs to be more scholarly research from lecturers at the University of Guyana to inform the Government of Guyana (GoG) in its policy formulation about resource management. The importance of information emerging from members of the community who are beneficiaries of services provided by the government is vital for Guyana's development. As such, lecturers can contribute to development through participatory action research (PAR) to resolve community problems as change agents (Pant, 2014). Further, discovering oil in Guyana's exclusive fishing zone in May 2015

3

stimulated much interest and expectation from multiple stakeholders (McDonald & Üngör, 2021). Guyana was a heavily indebted country before the discovery of oil in its exclusive fishing zone (Bedi & Jong, 2011). However, the economy is projected to expand rapidly and the government will be in an unusual position to manage an economy much more significant than its current size (McDonald & Üngör, 2021). Therefore, the onus will be on the University of Guyana, the only public university to provide training that supports the needs of the new economy while contributing to the enhancement of the education system. The education needs of the new economy can be provided through PAR research. Also, lecturers must resolve classroom problems through practical action research (Noffke, 2009) to provide the highest quality of teaching to equip students with the knowledge needed for the new economy. As such, management of the resources must be based on appropriate policies and practices, which should be drafted based on information from empirical studies.

The University of Guyana, the national university, came into being in October 1963 by an act of parliament and continues to receive a substantial portion of its income through government subvention in the annual budget. Over the years, the student and lecturer populations have grown, along with the number of programs offered. In addition to teaching and providing community service, lecturers are encouraged to provide public service in their respective disciplines. As a result, the research of some lecturers in technology, medicine, and agriculture has received recognition. However, lecturers in the Faculty of Social Sciences still need to fulfill their role in providing relevant information to improve the formulation and implementation of policies in Guyana. Further, over the

decades, the government has yet to approach the University for information that lecturers can provide to assist in improving the well-being of individuals.

The practice of the government over the decades has been to acquire the services of private and international consultants to fulfill its needs for information. Although there has yet to be a formal or informal request for the lecturers at the University to provide information for the formulation of policies, such a role is vital if Guyana is to succeed in its developmental drive. Therefore, lecturers must demonstrate what they can do in research so that the government can gain confidence and seek assistance to provide relevant policy formulation and implementation information. Once lecturers become involved in scholarly research, the findings of their studies can be disseminated through various fora to multiple stakeholders. Such practices can contribute to the government recognizing the expertise and requesting lecturers' services to provide relevant information for formulating and implementing policies. As Guyana transitions into a knowledge economy, research and innovation will be critical in the planning phase for social and economic development (Altbach, 2013). Therefore, the onus is on lecturers at the University of Guyana to become involved in research to bridge the existing knowledge gap, which this study intends to support.

Personal Context

Academic research has been done and is expected to be done by all lecturers at the University of Guyana, regardless of their circumstances. The changing environment and the increasing demands on financial and human resources have placed added pressure on academics to publish or perish (Miller et al., 2011; Richard et al., 2015). Although

much has changed over time, there has been little difference in the various stakeholders' expectations. Given the right conditions, lecturers can live up to the expectations of others. I once dreaded the mention of the word research, and this was for good reasons, but it became more acceptable as I acquired the skills needed. After completing my bachelor's degree specializing in Accountancy, I was employed by the University of Guyana as an Assistant Lecturer, like many before me. I had no idea about scholarly research and was unaware it was a requirement as an academic. However, the needs of academics became clear to me shortly after joining the staff. I received a scholarship through the University to do a master's degree, with the partial requirement to complete the program being a research paper. This occurred shortly after I had completed a year working at the University and was informed that I must accept the scholarship as it forms part of my professional development. The situation I found myself in was troubling, and after carefully examining the case, I asked for a deferral of the scholarship to the following year.

Around the same time, the Faculty of Social Sciences was re-introducing the Master of Social Science degree, a research program, so I enrolled to acquire research competence. I intended to develop research skills and then proceed with the scholarship. This experience is very similar for some of my young colleagues who need help to fulfill the requirements of academics. However, I never took up the scholarship, but I was able to complete the Master of Social Science degree. Although I had completed the program, I soon realized that doing a thesis and writing journal articles are at two ends of a continuum.

During my earlier days at the University of Guyana, academics were expected to do research; otherwise, they were penalized by a reduction in the contract length. I was the only person who did not receive a reduction in contract in my department. Although I did not complete research, I constantly developed great ideas and wrote research proposals. The system demanded research, and nothing less was accepted. Today some of my colleagues find themselves in a similar situation, even though the system is less demanding. I raise this to inform you of the current state of affairs within the Faculty of Social Sciences, where much is desired, but more needs to be provided. My personal experiences have impacted my belief that, given the right conditions, there would be a surge in research output. I have also assisted a young lecturer with research to stimulate interest in this vital aspect of academic development.

My research is situated to change the landscape of the current setting by determining the causal factors for the current behavior of lecturers. The causality of behavior, whether internal or external, will play a significant role in determining interventions to change the existing practice of some lecturers. Although the operating setting appears challenging, creativity and innovation will be critical to developing a research mindset and ideas among lecturers to do scholarly research. It is vital that I initiate the needed change, as my colleagues, regardless of the existing work setting within the university and, by extension, the Faculty of Social Sciences, would be proud to have their scholarly work published. I know the feeling of seeing your first published work, your first step to a journey that can be intrinsically and extrinsically rewarding as competence and confidence develop.

Purpose of the Study

       This study aims to understand the issues associated with some lecturers at the University of Guyana needing to do more scholarly research and to determine possible interventions that can assist these lecturers in becoming involved in research activities. In addition to the contractual requirement for all lecturers to do scholarly research, annual increments and promotions are based on teaching and research. These factors have not impacted the behavior of some lecturers requiring a better understanding of the phenomenon. This action research is undertaken to influence a change in the behavior of lecturers through the facilitation of activities, including a workshop, to assist them in collaborative research within their teaching space on improving student performance in the various courses. Two benefits can be derived from this action research: lecturers' involvement in scholarly research and improvement of delivery to enhance students' performance.

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CHAPTER 2

THE MONOGRAPH STORY

Publishing is More Than Publish or Perish

Understanding the role of lecturers is essential and should be addressed within their operating context, which can contribute to understanding the phenomenon at the University of Guyana. Lecturers' participation in research has contributed to their personal and professional development and should be considered more by all stakeholders. The importance of scholarly research cannot be overemphasized, which places a greater responsibility on lecturers regardless of their other obligations to be involved in research. This chapter will address the larger and local context, followed by a Literature review, action research, a discussion of two previous research cycles (cycle 0 and cycle 1), and a summary of the findings.

Larger Context

The role of lecturers/faculty at universities varies depending on the mission and objectives of the organization, as well as the lecturers' choices. The ranking and focus of the institution will also determine the type and level of the various activities. The role of lecturers, tenured and tenure-track lecturers, has generally been 40% teaching, 40% research, and 20% services at research-intensive universities (Dodele et al., 2015; Leech et al., 2015). These academics are expected to publish in top-tier journals while teaching and providing other services. However, some lecturers are not required to do research and are categorized as Teaching Focused Faculty (TFF) (Rawn & Fox, 2018).

Their universities determine the role of TFF in terms of the amount of research required and the amount of teaching to be undertaken. TFFs undertake an extensive amount of teaching responsibilities, as well as other services. However, because they have opted primarily to teach, the extent of teaching can have consequences even if they are desirous of doing research. These lecturers may be inclined to research, as it is the primary basis for university promotion. Class sizes can be used as a predictor of the research productivity of lecturers, with large classes requiring more time for teaching that will reduce the time available for research and publication activity (White et al., 2012). However, the quality of research is essential and highly desirable for promotional purposes. It has been found that while research productivity is not related to the quality of teaching, research quality is related to the quality of teaching. As such, research should be encouraged to enhance the quality of teaching (Cadez et al., 2017).

The quality of research needed for publication has put tenured and tenure-track lecturers under enormous pressure as they strive to publish their manuscripts in top-tier journals, boost their promotional opportunities, and obtain research funding. This pressure has increased for some lecturers as they face the threat of 'Publish or Perish' (Miller et al., 2011; Richard et al., 2015) that is overloading and harming science as researchers publish results in their embryo stage (Nicholas et al., 2017). Also, the institutional rating change in the assessment of universities, with a greater focus on research, has added pressure on tenured and tenure-track lecturers to do more research (Leech et al., 2015). In addition to challenges associated with producing quality research for publication in top-tier journals, as well as teaching large classes, some lecturers lack

resources to assist them in doing research, such as engagement with peers and support

networks to help them in their research endeavors, which is of greater importance to

young career researchers (Drosou et al., 2020; White et al*.,* 2012). Furthermore,

organizational support in the form of training can enhance the skills of the lecturers,

which can also influence their attitude toward research as they improve their competence

and desire to do research (Richard et al., 2015).

     To respond to the 'Publish or Perish' imperative, some lecturers have participated

in collaborative research to enhance their research performance (Jeans et al., 2019).

Although this approach has been undertaken, the relationship between the participants

has been less than desirable as individuals try to pursue their objectives, which causes

tension and possible conflict (Jeans et al., 2019). Publishing in top-tier journals has been

difficult for junior lecturers, influencing some to seek collaborative opportunities with

other lecturers at different career stages. The differences in the rank of lecturers

sometimes impact the power dynamics within the collaboration between the lecturers

doing research (Jeans et al., 2019).

    The discussion has been on the pressures of publishing, but some lecturers have

still been outstanding in research activities. The factors identified as contributors to the

success of these individuals should be considered as lecturers strive to enhance their

publishing. White et al. (2012) recognized this need and found that successful lecturers

value research more than their colleagues and can manage time effectively. Also, they

received greater institutional support and gravitated to institutions that place great

emphasis on research. Brew et al. (2016) noted that the academic environment could

enable or constrain research and publishing activities. He found that the level of research productivity was related to the lecturer's view of research. These findings are important as the needs of lecturers are expected to be similar across universities and will be necessary for planning by administrators and lecturers.

Reflecting on research in the Caribbean is imperative as it is the spatial dimension within which the University of Guyana is situated. The challenges affecting research by lecturers in the Caribbean are similar to those in other regions. However, like at some universities outside the Caribbean region, teaching remains the primary role of lecturers "despite any contrary claims about criticality of research" (Lewis & Simmons, 2010, p. 340). However, Browne and Shen (2017) postulated that of the universities in the Caribbean region, only two are research institutions, which suggests that the other universities do not give research similar importance. In addition, research in Caribbean universities has been affected by limited funding provided by governments and the private sector and rising unit cost of instruction (Browne & Shen, 2017), reducing the limited financial resources for research.

Further, some universities' research decline has been attributed to a lack of research skills, funding, mentoring, and teaching responsibilities (Lewis & Simmons, 2010). Other factors contributing to low research productivity include a lack of training and time constraints (Gill & Gosine-Boodoo, 2021). However, there is also a need to develop a research culture (Browne & Shen, 2017) so that research can be at the front and center to allow time for greater productivity by lecturers (Lewis & Simmons, 2010).

Looking at the larger context has provided some understanding of lecturers' publishing in a demanding environment that can relate to the context at the University of Guyana. Therefore, it is imperative that the issues mentioned earlier, such as the role of lecturers, teaching responsibilities, promotional opportunities and funding, organizational support, and training, are considered. Where similar, action is taken to provide conditions that would assist lecturers in doing scholarly research. In addition, the local context will provide an understanding of the lecturers' operating environment, which can guide the resolution to address the issue within the spatial dimension of the University of Guyana.

Local Context

Lecturers are assessed each year for teaching and research, with greater emphasis on research for promotion to higher academic ranks. The successful completion of teaching and research and recognition of high-quality work can lead to an upgrade to a higher level upon request by the lecturer. Lecturers from the level of Senior Lecturer can apply for tenure, which is not automatic at the University of Guyana. The University of Guyana, through its policies and regulations, requires lecturers to not only do research but that their work is of a high standard and published. The scholarship of lecturers is divided into two sub-categories, which address the activities of lecturers at the University of Guyana. Lecturers are expected to teach after being assigned "courses to be taught" (University of Guyana, 2013, p. 3) by the Head of the Department and "provide evidence of sustained and excellent performance" (University of Guyana, 2014, p. 10). In addition to teaching at a high level, lecturers are expected to do research "that will eventually lead to publication" (University of Guyana, 2014, p. 2); such publication should be in peer-

reviewed journals (University of Guyana, 2014). All lecturers are informed through their employment contract of the responsibility to do research. Contract lecturers are assessed before the end of their contract and given a renewal of the contract for three years.

Although the university expects much from lecturers, the university provides minimal resources and support. An annual 'academic material allowance' of G$80,000 (US$400) is given to all academic staff "for the purchase of books, subscription to journals, membership of professional society," and "other teaching and research aids" (University of Guyana, 2013, p. 5). A decade ago, each faculty had its research and publication budget and a university's central research and publication budget. The central budget no longer exists, and Faculties' budgets have been reduced significantly. Funding for research by lecturers has been mainly self-sponsored or externally funded.

The issue of lecturers needing to do scholarly research was raised during the annual staff review when it was observed that some lecturers had manuscripts as work in process for more than three years while others had no research during the same period. In addition, some lecturers indicated they are burdened with large classes, a heavy teaching load, and other responsibilities preventing them from doing research (White et al., 2012). However, lecturers have been encouraged to carry a reduced teaching load, but this advice is often ignored, and the large classes and heavy teaching load continues. In some instances, the large teaching load includes cross-department, cross-faculty, and cross-campus teaching by some lecturers in the Faculty of Social Sciences. In addition to being the faculty with the most students, departments in the Faculty of Social Sciences offer courses that are part of multiple programs of other faculties. Further, there have

been frequent expressions of disappointment with the amount of research done by academic staff in recent years. However, the punitive approach from fifteen years ago no longer exists.

The Faculty of Social Sciences, recognizing the need for lecturers to have an opportunity to build their research competence and confidence, started its Annual Research Day to encourage and promote research among lecturers in August 2017. This was a more structured approach than earlier activities that entailed lecturers sharing their scholarly work by organizing a presentation event, which had become sporadic and still needed to occur over three years. The Annual Research Day was also intended to build capacity within the faculty, as some lecturers had become despondent as they needed help to publish work. Getting work published in the Faculty's journal has been challenging for some lecturers. Rather than addressing the shortcomings identified by the reviewers, they accepted the comments but concluded that they lacked the competence to get research published and ceased doing research. The event allowed lecturers to plan and prepare for the activity. Members' response to participate, either by doing presentations or attending these events, has been less than expected, with less than 20% of the staff members attending. The research day provided a mechanism for publication, as good papers are sent for double-blind review for possible publication in the Faculty's journal.

The promises of junior lecturers to do scholarly research have yet to be fulfilled, along with the paucity of research in the Faculty of Social Sciences, which have influenced my desire to initiate a change in behavior among this group of lecturers. A successful intervention to the problem of lecturers within the Faculty of Social Sciences

not doing scholarly research can be replicated in other units within the university if they have a similar situation. Also, lecturers who have completed and published their scholarly research can request promotion to a higher rank. The lecturers can also research community and national phenomena that can contribute to developing policies to resolve those issues.

Literature Review

To better understand the issues under investigation, previous studies were examined to provide guidance and a framework to assist in configuring an appropriate response to the problem of the low productivity of some lecturers. The literature review focuses on the attitude of lecturers towards doing research and the actions and processes used by some lecturers to fulfill their research obligation. The desire of lecturers to move up in academic rank is an essential factor in addressing the issue of producing scholarly work. This is important as it can be the motivational force influencing the behavior of individuals to do and publish research. Moving up the rank can be an extrinsic or intrinsic reward dependent on the behavior's motive. Dobele and Rundle-Theile (2015) posit that academics may be intrinsically motivated to advance toward a professorship.

Similarly, Miller et al. (2011) found that the primary motivation for lecturers' publishing was intrinsic in terms of professional reputation. Miller et al. (2011) also considered the effects of contextual pressure on lecturers. They posited that the pressure to publish could lead to lecturers' stress and burnout, ultimately affecting their motivation. These pressures are external controls influenced by third parties, resulting in extrinsic motivation. In addition, the demands of teaching and research can vary from

individual to individual, affecting some lecturers more than others, ultimately impacting their motivation to do research.

In addition to the motivation issue addressed earlier, another factor responsible for the behavior of lecturers about research is the value placed on research by them. Generally, the less value is given to things; the less likely individuals will pay interest on them unless required. White et al. (2012) indicated that lecturers might not be motivated to research if they place a low value on research, while those who place a high value on research are motivated to engage in and make time for research activities. The perceived value of research can contribute to lecturers not doing research, which will require changing the mindset of lecturers who do not value research highly. The shift in perspective can occur through an attitudinal change in the individuals. White et al. (2012) further contend that the relative value of the reward for research, whether intrinsic or extrinsic, will determine the level and type of motivation to do research. Lecturers have done research in various ways, which will be considered when formulating and implementing the intervention.

Many academics participate in collaborative research projects for various reasons, but some lecturers have seen it beneficial, as it allows them to develop their skills and competence. Jeanes et al. (2019) posit that junior lecturers benefit from collaborative research with their senior colleagues. The practice of collaboration between lecturers can eliminate the feeling of loneliness, as individuals can share their knowledge, ideas, skills, and resources during the research process (Jeanes et al., 2019). Abramo et al. (2009) also contend that collaboration contributes to higher productivity in research that benefits the

research system, while individuals can learn through working with others. Learning from collaborations is essential as young lecturers can enhance their competence through this process, allowing them to do research.

Action Research

The problem of lecturers needing to do scholarly research is multifaceted, as most educational issues are, but it requires a change in behavior through appropriate interventions. The multidimensional nature of the problem makes it more suited to apply action research to resolve rather than solve the problem. Mertler (2020) postulated; "the main goal of action research is to address local-level problems of practice with the anticipation of finding immediate answers to questions or solutions to those problems" (p. 15). Action research is an investigative process that is reflective to obtain a better understanding of a phenomenon through various phases to derive and implement suitable resolutions to address the issue. It is a flexible and iterative process that cycles "through steps of planning, action, and review" (Dick, 2014, p. 50) to respond to the ever-changing setting. The iterative process allows the researcher to align the various aspects of the investigation.

Additionally, unlike traditional research, action research is not linear but cyclical, with frequent reflections to facilitate continuous improvement (Mertler, 2020). Reflection is needed to determine the effectiveness of earlier decisions that may need revision and should be continuously undertaken during the entire action research project, as more is learned from each cycle, which adds greater credibility to the findings (Mertler, 2020). It is change-oriented and involves the participation of people that will benefit from the

activity, along with the researcher playing an important role, where cooperation is an essential aspect of the process (Davis, 2014). Action research has also "provided a means by which those involved in education can investigate their practice to improve it" (Noffke, 2009, p. 18). Mertler (2020) referred to this type of research as practical action research focusing on problems within the classroom. The investigation in action research is also context-specific, as the actions are intended to address a particular phenomenon in a given setting and utilize scientific and "organizational knowledge in a collaborative effort designed to solve actual organizational problems" (Davis, 2014, p. 140).

Although action research has been used predominantly in education, it has also been utilized in other disciplines and organizations. In some instances, action research can be done by individuals within their setting or a change agent from outside the organization working with persons within the organization (Herr & Anderson, 2005). While individuals do practical action research within their setting, participatory action research (PAR) is facilitated by a change agent to improve the quality of life for individuals in organizations and communities (Mertler, 2020).

Creswell and Guetterman (2019) consider action research studies to be similar to mixed-methods research in that they both use quantitative and qualitative data but differ in their purpose, as action research "seeks to obtain solutions to a problem" (p. 587). As such, this study used a mixed-method design in cycle one and the final cycle. The training in the intervention was on practical action research to build the research capabilities of lecturers. However, PAR is more suitable for organizational change (Dick, 2014) and community development (Dick, 2014; Lindsey et al., 1999) that can contribute

to social and economic development. However, transitioning from practical action to PAR is not a simple process, as researchers experience challenges they were unprepared for after conventional training (Smith et al., 2010). Further, PAR requires creating partnerships between the researcher and community stakeholders (Lindsey et al., 1999) in the role of co-researchers (Smith et al., 2010), which is necessary for PAR projects' success.

Cycle 0

This study is situated within a more extensive action research context. This cycle was intended to collect the views of exemplars within the Faculty of Social Sciences on research at the university. The first cycle, cycle 0, was undertaken as a reconnaissance for other cycles in this action research study, as I investigated the phenomenon of lecturers not doing research. This study was expected to give me a better understanding of the phenomenon. The data from this study provided some insights and addressed background issues for my problem of practice. To accomplish my objective, the following research questions were formulated:

Cycle 0, RQ1: What scholarly and professional development activities are required of the Faculty of Social Sciences?

Cycle 0, RQ2: What types of scholarly research activities do lecturers categorized as exemplary do within the Faculty of Social Sciences?

Participants

The number of participants in the semi-structured interviews was (n = 3). Two of the interviewees were recently promoted to a higher rank, while the third is awaiting the outcome of her promotion. The interviewees have been employed for more than eleven

years and were females. They are from the Law, Economics, and Management disciplines within the Faculty of Social Sciences.

Data Analysis

The data were analyzed by moving back and forth among the various interview materials to determine codes and themes used to describe my findings (Plano Clark & Creswell, 2015). This allowed me to be open-minded and place the data into suitable themes after coding. Prior codes were not determined as the data were exploratory, and I wanted to avoid influencing the results due to my subjectivity (Peshkin, 1988). The semi-structured interviews consisted of pre-determined questions with follow-up questions considered necessary to understand better (Brinkmann & Kvale, 2015).

Findings

The qualitative data analysis from the semi-structured interviews realized four themes I would discuss below and support with quotes from the participants.

Research Culture and Capabilities. The participants considered research culture and capabilities necessary, as they can impact the research output of lecturers in academic units and should be nurtured. Participant 1 indicated: "We can build a research culture at the university and try to get more persons on board in terms of collaborative research, even promoting independent research by having more training." While a research culture and training are necessary to impact output, the change does not have to be radical but, incremental, as stated by participant 3 who indicated: "If we are to change the research culture, it's going to take time, even if we encourage people to approach it in small pieces, where they look at simple research issues to undertake." The development of

lecturers' research skills can be initiated through training and collaboration, which is necessary for behavioral change.

The change in behavior that would become the culture will also require enhancing capabilities supported by the university. For example, participant 2 posited, "As an institution, we need to strengthen our research capabilities and our research image." However, participant 3 opined that the university is not doing enough to reward those with research capabilities, with the statement:

> *Fundamentally, the system is not designed to significantly reward research capabilities through promotions; I get the impression that it is affiliations and friendships. Those are the dominant factors under consideration as to how quickly the promotion process is pushed as opposed to research output.*

Therefore, a change in lecturers' perception is also needed for a behavioral change to occur, resulting in a cultural shift. However, the cultural shift should be a gradual process assisted by developing lecturers' capabilities to do research through training and rewarding them for their research output.

Motivation and Disincentive. Participants addressed the issues of promotion as a motivator within the University. The participants considered motivation essential and believed that more could be done to influence the behavior through a change in practice. Participants addressed the issues of promotion as a motivator within the University.

Participant 2 indicated:

> *Even though I had peer-reviewed journal articles, the environment was anti-research. There was no motivation to research because it should have taken two peer reviews to get promoted, and I had to wait until I had about four or more.*

This sentiment was shared by participant 3 through the following statement:

> *This could be a disincentive to people who are not inclined to research because if you have somebody like me who has research outputs to show, and I am not able to push ahead as quickly as one would expect, then you can't expect people who don't have a research inclination to be too excited about research.*

In addition to the issue of promotion, the lack of research by some colleagues can also affect those who have been doing research, as posited by participant 1, "I have not seen much research output from my colleagues, and I think that might be a factor that is kind of de-motivating me." However, this was not always the feeling, as participant 1 indicated:

> *We were able to put our minds together and develop an excellent framework, which motivated me to want to continue and be interested in doing research. That first piece of research was published, and we had excellent reviews from the blind peer review.*

Motivation is critical for research and should be facilitated within the spatial dimension of the University of Guyana. Therefore, lecturers should be rewarded for their research through promotion and other incentives that fulfill their needs. In addition, the rewards should be timely to have the desired behavior of lecturers doing research continued and stimulate the behavior of other lecturers.

Financial and Other Support. The participants also believed that the university should provide more significant research support, as posited by participant 2, "I found the university support service to be very wanting, and one of my major observations was the financial deficit the University was facing." Additionally, participant 2 indicated, "When I do research, I am basically on my own I don't get any support from the University per se to do research, so I do everything on my own." This view was similar to that of participant 3, who posited, "one of my main disappointments with the university is not being able to have a more structured approach to research, a more supportive environment." Further, participant 3 stated, "research requires financial resources, and there needs to be more emphasis on providing research grants." This was supported by participant 1, who stated: "One of the things that the university can do is set up a department that can look into getting research grants and helping persons to write proposals to get grants." Therefore, internal support through appropriate systems is necessary to remove the burden on lecturers conducting research, thereby focusing more on their research. Access to financial support directly or through the university is critical to scholarly research that can enhance lecturers' quality and amount of research.

Collaboration with Stakeholders. Participants opined that collaboration between colleagues and other stakeholders could assist in building capacity for research within the university. Participant 1 indicated that collaboration could contribute to developing a research profile, as "At the end of the day, we were able to work together to put out a good publishable piece of work, so collaboration, for me, has worked." This can also be done with students, as indicated by participant 3, "If you're pushing research at the

undergraduate level and the post-graduate level, there are opportunities for lecturers to undertake collaborative research with students, and I think that is missing." In addition, collaboration can be used to build a research culture. Participant 3 indicated that "we can begin to mold a research culture if we encourage students to collaborate with lecturers to undertake research." Another participant, 2, further elaborated that institutional collaboration is needed: "it is very important if we could have those collaborations because most universities overseas have their university journal, and if you collaborate with one of their staff, it is not hard to get publications." Finally, collaboration is necessary to build research capabilities and provide lecturers with financial and other support. Therefore, internal and external sources will contribute to a better research environment for lecturers. Also, networking should be encouraged, which would contribute to developing research skills and funding.

Discussion

The data collected during the interviews with the participants suggest there is a need for a change in the research culture and practice within the university, and the Faculty of Social Sciences, as there is concern that unless there is a change, lecturers will continue to overlook doing research, focusing only on teaching. If the prevailing promotional practice continues, this can affect the level of research output within the faculty and the University. The promotion practice is an area that needs improvement to provide an environment that will motivate lecturers to participate in research.

These findings have uncovered new issues regarding the problem of practice. There is a need for adequate funding for research and support mechanisms to change the

current behavior and build research capacity within the university. In addition, the university's administration should foster support and collaboration between various stakeholders within and outside the university to address multiple aspects of the research process. The next cycle will address the extent of lecturers' view of the research environment within the Faculty of Social Sciences and the actions that can be taken to change their behavior.

Cycle 1

This cycle was conducted to build on the knowledge acquired in cycle 0 from interviews of exemplars within the Faculty of Social Sciences who were researching to understand the phenomenon better. The data from this cycle assisted in building on the knowledge acquired in the previous cycle and designing the next cycle and appropriate intervention to resolve my problem of practice. This cycle was guided by the following research questions:

> *Cycle 1, RQ1*: What are the challenges lecturers in the Faculty of Social Sciences face in doing scholarly research?

> *Cycle 1, RQ2*: What are lecturers' perceptions about completing scholarly research?

Participants

The number of participants in one-on-one semi-structured interviews was ($n = 3$) from the Faculty of Social Sciences. Purposive sampling was used to intentionally select the participants (Plano Clark & Creswell, 2015) who met the requirement of not doing scholarly research. Recruitment letters were sent via email to lecturers who were considered suitable. A follow-up letter was sent three days after the initial email and a

second reminder three days after the first reminder. Individuals who indicated their willingness to participate in the interview were sent a consent document and a web link to the zoom platform. Two participants had master's degrees, and one with a post-graduate diploma. Further, one lecturer was at the level of Lecturer II, while two were at the level of Lecture I. All the participants taught within the Faculty of Social Sciences at the University of Guyana for over eight years. The female interviewees were from Communication, Management, and Sociology.

The number of participants in the online survey was (n = 10) from the Faculty of Natural Sciences and the School of Entrepreneurship and Business Innovation (SEBI) based on purposive sampling. Lecturers recommended by Deans and Assistant Deans as suitable candidates were sent recruitment letters via email, with follow-up letters three days after the initial email and a second reminder three days after the first reminder. Lecturers who indicated their willingness to participate were sent a link to the Qualtrics survey website and a consent document. A diverse group of lecturers participated in the survey regarding gender, qualification, period of employment, and academic rank.

Method

A concurrent quantitative and qualitative mixed-method action research design was used in this cycle (see Appendix A). The two strands guided the research process as quantitative and qualitative data were collected, analyzed, and interpreted to answer the research questions. Both data sets were collected and analyzed independently and within the same period to determine if there was "corroborating evidence and to produce a complete understanding of the research problem" (Ivankova, 2015, p. 131). The

quantitative and qualitative methods were then integrated during the discussion stage of the study. Finally, the innovation to address the problem was designed based on the findings.

Instrument

Qualitative data were collected via an interview schedule I developed to address lecturers' challenges in the Faculty of Social Sciences (see Appendix B). The semi-structured interview schedule consisted of pre-determined and follow-up questions to better understand some issues based on responses (Brinkmann & Kvale, 2015). The semi-structured interviews were virtual using the Zoom platform due to the COVID-19 pandemic.

Quantitative data were collected using an existing survey instrument by Barnett et al. (2019) that measured the challenges faced by lecturers doing research (see Appendix C) and addressed the research questions. The instrument consists of three constructs: attitude, stress, and resources, with six items measuring each construct. In addition to the 18 items, the questionnaire had five demographic items for 23 items. A six-point Likert-scale instrument was used to collect data, as the middle item in an odd number scale can be considered moderate, rather than choosing one of the agree or disagree responses (Chomeya, 2010). The questionnaire was administered to the Faculty of Natural Sciences and SEBI lecturers via the Qualtrics survey website.

Data Analysis

The qualitative data were analyzed using a more structured approach than in cycle 0. First, the initial codes were derived using a line-by-line approach and gerunds

29

(Charmaz, 2014). This was followed by focused coding, where the initial codes were analyzed and categorized (see Appendix D). The researcher did not use prior codes to reduce influencing the results due to subjectivity (Peshkin, 1988).

The data collected in the survey using Qualtrics were exported to SPSS 27 (IBM, 2022) for analysis. In addition, quantitative data analysis techniques, including descriptive statistics - measures of central tendency and measures of dispersion were used to assist in answering the research questions. The data was scrutinized for missing data, but none was found. The minimum and maximum values, range, median, and mode for each item in each construct were generated and analyzed. The mean and standard deviation were not determined as Likert Scales are ordinal level measures and would be considered inappropriate (Jamieson, 2004; Wu & Leung, 2017), as the numbers represent verbal statements. In addition, the sample size was too small and not normally distributed (Jamieson, 2004).

Findings

Qualitative Findings

The data collected were used to answer the two research questions: (1) what are the challenges faced by lecturers in the Faculty of Social Sciences to do scholarly research, and (2) what are lecturers' perceptions about scholarly research activities within their faculty? The themes developed after coding and categorizing the interview data were; *not confident about doing research*, *demands at work and home*, and *lack of financial and other support*. None of the participants had advanced research training, which contributed to their limited skills, and colleagues did not mentor them. The

participants were at the Lecture I and Lecture II levels, with a master's degree being the highest level of training.

Not confident about doing research. The limited research skill has affected the confidence of lecturers to do research. Participant 3 indicated, "I am not confident that I will get proper research done or will get something that's publishable. I can try, but doing it on my own seems daunting," This sentiment was supported by participant 2, who indicated, "my only encounter with research would have been in my bachelor's, in my education at the University of Guyana, besides that, research seems to be very large." Lewis and Simmons (2010) attributed the lack of research skills to declining research at some Caribbean universities. Further, limited research skill has placed added pressure on lecturers, as postulated by participant 1, "I recognize I'm not good at research and you need to be on a particular level to do great work. I don't think I'm at that level." In addition, participant 1 indicated, "many times when I think of research, a fear comes to mind because I don't have publications." The limited training received by lecturers has contributed to their lack of research. Also, the limited research skill has created doubt in the lecturer's mind that proper research can be done and published.

Demands at work and home. Lecturers have attributed the lack of research to their situations at work and home, where much is required leaving them with insufficient time to conduct research. Participant 2 indicated, "I need help, maybe a student assistant to help offset some of my duties as a lecturer so that I can put some of that time towards research," while participant 3 stated, "I didn't do research, because trying to manage home activities as a female, I must do house chores, cook, and do other things. It is

difficult to find the time to get all these things done in 24 hours." While the others were addressing their specific situations, participant 1 indicated, "Staff members are unable to research and do great work because of their other responsibilities." Reducing teaching and workload and effective time management are critical to having research done by lecturers from the Faculty of Social sciences, which must be supported to have a behavioral change.

        Lack of financial and other support. As was mentioned in the local context, the University of Guyana had reduced the allocation of financial resources for research. The limited funds available for research challenge some lecturers in the Faculty of Social Sciences to do research. Participant 3 was of the view that the university should do more to support research and indicated, "I think they should be providing financial support, or if they can't provide financial support, give us some training on how to apply for grants, or even assist us with ways to receive money from the private sector." While financial support is critical for scholarly research, peer support is vital to develop research skills. However, this was not the experience of participant 1, who indicated, "I sought help. I was assured that I would be helped, and then, it did not come. I recognize persons are busy." In addition to support from peers, the university has a responsibility to support research, as was posited by participant 3 with the statement, "they need to provide the facilities and guarantee that the policies, procedures, and everything are working well." The support provided to lecturers is critical as it could determine the level of success

doing research. Support is also necessary for developing research skills among lecturers, which can build their confidence to do scholarly research.

Quantitative Findings

The number of participants in the online survey was (n =10) from the Faculty of Natural Sciences and SEBI. The sample comprised (n = 4) male lecturers and (n = 6) female lecturers; (n = 1) lecturer had a terminal degree, (n = 6) lecturers had master's degrees, and (n =3) lecturers had post-graduate diplomas. Also, (n = 1) senior lecturer, (n = 6) lecturer II, and (n = 3) lecturer I. The data from the survey indicated there were challenges with research, including stress, attitude, and resources, but to a moderate extent. Stress with research and attitude while doing research were more of a challenge to participants, than resources to do research.

Table 1

Descriptive Statistics for Challenges and Constructs

Construct	N	Range	Minimum	Maximum	Mean	Std. Deviation
Stress	10	1.67	3.00	4.67	3.63	0.54
Attitude	10	1.00	3.50	4.50	3.78	0.39
Resources	10	1.50	3.17	4.67	4.10	0.47
Challenges	10	1.00	3.28	4.28	3.84	0.29

Faculty of Natural Sciences and SEBI lecturers experienced moderate stress when doing scholarly research. Further, participants indicated that resources are available for scholarly research in their faculties ($M = 4.10$, $SD = 0.47$). Overall, this indicates that access to resources is likely to increase the level of scholarly research. In contrast,

research stress and the lecturers' attitude towards doing research were likely to reduce the level of scholarly research.

Further analysis of the responses by lecturers to the items under the construct *stress* was done using central tendency measures; median, mode, and measures of dispersion; range. The items showed similar high median and mode scores for each item. However, items under the construct showed a wide range of responses to the statements. For example, the median and mode score for items *Stress* 1 and *Stress* 2 was ($n = 5$), representing agreement with the statements. However, the median and mode score for item *Stress* 4 was ($n = 2$), representing disagreement with the statement. In addition, the range of responses to item *Stress* 1 was ($n = 5$), while the range of responses to *Stress* 2 was ($n = 2$).

The results indicate that at least half of the lecturers had some level of agreement with some of the statements under the construct *stress*. For example, the responses of lecturers either *agree* or *strongly agree* with item *Stress* 1, *I feel forced to spend time on my publications outside office hours*, and item *Stress* 2, *I cannot find sufficient time to work on my publications*, was by at least half of the lecturers, with the most frequent response given to these statements being agreed. However, the most frequent response by lecturers to the item *Stress* 4, *I experience stress at the thought of my colleagues' assessment of my publications output,* was *disagree*, with at least half indicating either *disagree* or *strongly disagree* with the statement. In addition, while the range of responses to the statement, *I feel forced to spend time on my publications outside office hours,* was from *strongly disagree* to *strongly agree*, the range of responses to the

statement, *I cannot find sufficient time to work on my publications*, was from *slightly agree* to *strongly agree*. Thus, all the participants agreed that they *cannot find sufficient time to work on publications*, which highlights a need for time management by lecturers, to reduce the stress level, which can contribute to greater research output.

The items under the construct *attitude* were also analyzed using central tendency measures; median and mode, and measures of dispersion; range. The items showed similar high median and mode scores for each item. However, the items under the construct showed a wide range of responses to the statements. For example, the median and mode score for items *Attitude* 2 and *Attitude* 3 was ($n = 5$), representing agreement with the statements. However, the median and mode score for item *Attitude* 4 was ($n = 2$), representing disagreement with the statement. Further, the range of responses to item *Attitude* R5 (reverse) was ($n = 5$), while the range of responses to *Attitude* 6 was ($n = 2$).

The results from the data analysis indicate that at least half of the lecturers had some level of agreement with some of the statements under the construct *attitude*. The responses of lecturers were, *agree* or *strongly agree* to item *Attitude* 2; *I suspect that publication pressure leads some colleagues (whether intentionally or not) to cut corners* and *agree* to item *Attitude* 3, *In my opinion the pressure to publish scientific articles has become too high*, was by at least half the lecturers, with the most frequent response given to these statements being agreed. However, the lecturers most frequently responded to item *Attitude* 4, *My colleagues judge me mainly on the basis of my publications*, which was *disagree*, with at least half indicating some level of disagreement with the statement. In addition, while the range of responses to the statement, *Colleagues maintain their*

35

administrative and teaching skills well, despite publication pressure, was from *strongly disagree* to *strongly agree*, the range of responses to the statement, *Publication pressure harms science*, was from *slightly disagree* to *agree*. The perception of lecturers towards publishing has been mixed, and efforts should be made to change the perception of some lecturers on some items that positively affect research output.

The items under the construct *resources* were analyzed using central tendency measures; median and mode, and measures of dispersion; range. The items showed similar high median and mode scores for each item. The items under the construct showed a narrow range of responses to the statements. The median and mode score for items *Resources* 1 and *Resources* 3 was ($n = 5$), representing agreement with the statements. However, the median and mode score for item *Resources* 4 was ($n = 2$), representing disagreement with the statement. In addition, the range of responses to items *Resources* 1 and *Resources* 3 were ($n = 2$) and ($n = 1$), respectively, while the range of responses to item *Resource* 2 was (n = 4).

The results from the data analysis indicate that at least half of the lecturers had some level of agreement with some of the statements under the construct *resources*. The responses of lecturers from *slightly agree* to *strongly agree* with item *Resources* 1, *When working on a publication, I feel supported by my co-authors*, and item *Resources* 3, *I have freedom to decide about the topics of my publications*, was by at least half the lecturers, with the most frequent response given to these statements being agreed. However, the most frequent response by lecturers to item *Resources* 4, *When working on a publication, many decisions about the content of the paper are outside my control*, was

disagree, with at least half of them indicating some level of disagreement with the statement. The widest range of responses was to item *Resources* 2, *When I encounter difficulties when working on a publication, I can discuss these with my colleagues,* from *disagree* to *strongly agree*. The resources available to lecturers in the Faculty of Natural Sciences and SEBI would have contributed to their research output.

Discussion

Data collected using a questionnaire from lecturers of the Faculty of Natural Sciences and SEBI doing scholarly research and interviews from lecturers of the Faculty of Social Sciences not doing scholarly research were used to answer the research questions; *What are the challenges lecturers in the Faculty of Social Sciences face to do scholarly research*? And w*hat are the perceptions of lecturers about completing scholarly research*? The lecturers from the other faculties doing research did not perceive resources in the form of colleagues providing support as a challenge. However, lecturers in the Faculty of Social Sciences indicated that the lack of support from colleagues (Drosou et al., 2020) was a challenge affecting their research output. Furthermore, the behavior of some lecturers in the Faculty of Social Sciences can result from some colleagues with research skills not placing much emphasis on research, but participating in a high amount of teaching, thereby reducing the time available for research (White et al., 2012) and as indicated by an interviewee.

Lecturers from other faculties and those in the Faculty of Social Sciences indicated they experienced stress. While all lecturers from the other faculties experienced stress with doing research, as indicated in their responses to the questionnaire, they

managed their time more effectively (White et al., 2012), which enabled them to undertake scholarly research. However, the lecturers in the Faculty of Social Sciences experienced stress from the demands at work and home, which limited their time to conduct research and contributed to their behavior. Additionally, the contextual pressure on lecturers to do scholarly research can lead to greater stress (Miller et al., 2011; Richard et al., 2015), further impacting their likelihood of doing scholarly research.

Lecturers in the Faculty of Social Sciences who experienced challenges with doing research need higher levels of confidence. Low confidence levels were caused by a lack of training (Richard et al., 2015) and peer support to do scholarly research (Drosou et al., 2020), as indicated by some interviewees that could be overcome through training and support networks to assist lecturers in the Faculty of Social Sciences.

Summary

The findings from the data collected indicated that lecturers doing research and those not doing research are under stress based on the limited time available. Therefore, managing time is critical to providing opportunities to do scholarly research (White et al., 2012). Also, the resources available to lecturers are essential, as the lack of contribution from colleagues and training can positively impact lecturers who need more competence to do research (Richard et al., 2015). The competence to do scholarly research can change lecturers' views of research (Brew et al., 2016) as their confidence is enhanced. The availability of colleagues to discuss difficulties when working on research can make a

difference between lecturers doing and not doing research for publication (Jeanes et al., 2019). Further, there is a need for an attitude change by lecturers in the Faculty of Social Sciences, which can be initiated through training.

Developing lecturers' research skills could lead to them doing research that will fulfill their responsibility and build their research profile. The benefits of doing research will contribute to lecturers and multiple stakeholders. Through the findings, stakeholders could formulate and implement policies to enhance the well-being of the beneficiaries. However, the training design must result in a positive influence on lecturers to do research.

Lessons Learned from Cycles

The research process for cycle 1 differed from the previous cycle as a more structured approach for data collection and analysis was used. Also, qualitative and quantitative data were collected and analyzed to answer the research questions in this cycle. The quantitative data collection had a high response rate of approximately 70 percent. In addition, it was recognized that more extended notice should be given during recruitment for the next study cycle. Further, frequent reminders should be sent to prospective participants to boost the rate of participation by lecturers.

The research design for cycle 1 was a concurrent quantitative and qualitative mixed methods action research. This design was used because the data were collected from two distinct categories of participants (lecturers not doing research in the Faculty of Social Sciences and others doing research in other faculties) and the limited time for the study. Using lecturers outside the Faculty of Social Sciences provided a different

perspective to the study. The simultaneous collection and analysis of data allowed the researcher to focus on the various aspects of the study at prescribed times. This worked well as the relationship of the data became much clearer taking this approach. At this stage, it was recognized that a similar approach should be used in the subsequent study cycle, as it was effective. Further, it was noted that quantitative data analysis could be improved through inferential statistics. More time should also be spent analyzing the two data sources, including better integrating them.

The response rate from the survey in cycle 1 was relatively high, which suggested that the recruitment process was successful and should be replicated. However, I also anticipated that the response rate in the final phase would be lower because the participants being considered were less likely to respond to the request to participate as they may perceive that I am categorizing them as less competent in research. Also, upon reflection, I could have asked more probing questions during interviews to improve the data quality. Further, the small sample size also affected the types of analytical techniques that could have been used on the data.

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CHAPTER 3

ARTICLE

Developing Lecture Competence Confidence Through Action Research

ABSTRACT

This study was conducted to determine the effects of a workshop on lecturers' intention to do action research after training. The three questions that guided the study addressed lecturers' confidence in their ability to do research, feel competent, and be motivated to use action research after the intervention. A concurrent quantitative and qualitative mixed method action research (MMAR) design was applied in this study. The study used the Wilcoxon signed-rank test and thematic analysis to analyze the quantitative and qualitative data. The findings indicate there was a significant increase in reported competence by lecturers. Some lecturers were confident to do individual action research, but more lacked the confidence and preferred collaborative work. Most lecturers were extrinsically motivated, with introjected motivation as the most prevalent form. At the same time, a few were intrinsically motivated, and one was amotivated due to a lack of autonomy. The training enhanced perceived competence but did not lead to the lecturers' confidence to do individual action research.

Keywords: competence, confidence, intrinsic and extrinsic motivation

Although the role of lecturers is well-established as teaching, research and community service, some lecturers of the University of Guyana need help to fulfill the research aspect of the expectation. All university lecturers are sensitized to their responsibility to do research through their employment contracts. However, some lecturers have yet to progress to higher academic ranks, as they find themselves unable to fulfill their research obligation, which is the basis for promotion to higher levels. While competence and confidence may be lacking, it is essential to know what type of motivation these lecturers will have after training in action research to provide a more suitable environment to facilitate research activities. Action research will allow the lecturers to address problems in their setting, as well as have data that is more accessible.

An intervention in the form of a three-day action research workshop was conducted to provide lecturers with additional tools to enhance their chances of undertaking and publishing their research. The workshop was preceded by two action research cycles to investigate the problem of lecturers doing research for publication, which informed the nature of the intervention. This study was conducted to determine the effects of the workshop on lecturers' intention to do action research after training through interviews and a questionnaire, which, when completed, can be published to fulfill their research obligation at the University of Guyana. Three questions have guided this study:

RQ1: To what extent does a basic understanding of action research support lecturers' confidence in their ability to do research?

RQ2: To what extent do lecturers feel competent in using action research after the intervention?

RQ3: To what extent are lecturers motivated to use action research?

Background

Before the intervention, two studies were undertaken to investigate the problem of lecturers doing scholarly research, highlighting some challenges that must be addressed if a behavioral change is to occur. The primary challenges that emerged are competence and confidence, with other challenges such as stress and resources contributing to the need for more research. Although some lecturers indicated they wanted to do research, their lack of competence has affected their confidence (self-efficacy), which was addressed through an intervention to bring about a behavioral change. The issue of competence is essential in this study, as intrinsic motivation is premised on the need for autonomy, competence, and relatedness. The lack of competence has also affected autonomy, as they depend on colleagues for research assistance. To address the issues of competence and self-efficacy, a training intervention was used to stimulate a change in the behavior of lecturers. Akgun et al. (2019) postulated that "self-efficacy perceptions are perceptions of competence, not skills, of individuals, and can affect … behavior, or situation independently of whether individuals have qualifications that enable them" (p. 81). In addition, the lack of self-efficacy can affect a person taking action to perform an activity (Akgun et al., 2019). The behavior of lecturers after training will depend on their attitude regarding self-efficacy, and support from colleagues.

Intervention

The intervention for this study was a three-day training workshop on action research. The workshop was spread over eight days in August 2022, a period with limited teaching responsibilities. Day 1 of the workshop (August 19) addressed the introduction

to action research and research ethics. Day 2 (August 23) focused on literature review, theoretical and conceptual frameworks, and research design. Day 3 (August 26) addressed research methods, methodology, and intervention/innovation. Purposive sampling was used to intentionally select the participants recommended by their academic heads as suitable candidates. The number of participants at the workshop was (n = 20) from (n = 5) academic units. However, (n = 10) participants attended the three sessions and were subsequently selected to provide data for the study. Activities and discussions were done during the training sessions, while assignments were done between sessions. The workshop taught participants essential aspects of action research from planning for an action research project to concluding an action research report. Some activities included identifying areas of focus, formulating a problem of practice, indicating the purpose of the study, and developing research questions, among others. Reflection was done after the first set of activities to determine the effectiveness of earlier decisions to demonstrate how it is used to facilitate the continuous improvement of an action research project.

Conceptual Framework

Intrinsic and Extrinsic Motivations

The concepts that can be used to address my problem of practice are intrinsic and extrinsic motivations. Intrinsic and extrinsic motivation provides the foundation for understanding the phenomenon, as the behavior of lecturers was addressed from an internal and external locus of causation. The guiding concepts of intrinsic and extrinsic motivation can be credited to Deci (1971), which was developed over the years by

47

contributions from Cascio and Krusell (Deci et al., 1975) and Ryan (Ryan & Deci, 2000).

Cadez et al. (2017) postulated that academics are influenced more by intrinsic motivation

to produce and publish their work. While Cadez et al. (2017) indicated that academics are

influenced more by intrinsic motivation, the actions and inaction of individuals are

influenced by a motive, which is a driving force for the behavior. As such, the behavior

of lecturers at the University of Guyana can be understood from a motivational

perspective, with intrinsic and extrinsic motivation providing an understanding of their

behavior.

Deci (1971) posits that a person is "intrinsically motivated to perform an activity

when he receives no apparent reward except the activity itself" (p. 105). However,

extrinsic motivation refers to the performance of "an activity because it leads to external

reward" (Deci, 1972, p.113). Further, intrinsic motivation is premised on the notion that

behavior is motivated by three unlearnt "psychological needs, autonomy, competence,

and relatedness" (Frederick-Recascino & Schuster-Smith, 2003, p. 241). The lack of

competence by lecturers or autonomy and relatedness implies that doing research is not

intrinsically motivated but influenced by external rewards. Third parties control extrinsic

motivation through constraints or material rewards. Therefore, extrinsic motivation is

purely for the instrumental value rather than the activity itself, which the individual

would not undertake except for external control (Ryan & Deci, 2000). Further, Deci and

Ryan (1980), in their Cognitive evaluation theory (CET), address three subsystems,

intrinsic, extrinsic, and amotivational, with amotivational subsystem being "characterized

by non-activity rather than intrinsically or extrinsically motivated behavior" (p. 39).

"Amotivation is a state in which people lack the intention to behave, and thus lack motivation" and "stands in contrast to intrinsic and extrinsic motivation" (Deci & Ryan, 2000, p. 237).

The subsystems of intrinsic, extrinsic, and amotivational that are influenced by situational factors can better explain why some lecturers are exemplars while others have not been doing research, as well as the concept of 'publish or perish' and its effect on lecturers. As such, an environment where threats, deadlines, directives, and competition pressure exist can undermine individuals' intrinsic motivation, as they are perceived as controllers of their behavior (Ryan & Deci, 2000). In addition, external controls can influence lecturers doing research through regulations. However, if the regulations are not enforced, this can lead to some lecturers not doing research. Ryan and Deci's (2000) self-determination theory addresses autonomy and can assist in understanding the problem of some lecturers not doing research and the likely effects of an intervention.

Self-determination theory (SDT) addresses the type or quality of a person's motivation and the distinction between autonomous and controlled motivation (Deci & Ryan, 2008) that could determine whether the continuity of the behavior will be autonomous or controlled after the intervention. While intrinsic, integrated, and identified extrinsic motivation are autonomous, externally regulated, and introjected extrinsic motivation must be controlled through rewards or punishments (Deci & Ryan, 2008). SDT posits that various types of extrinsic motivation move from external regulation to integration, with introjection and identification falling between the extremes on the continuum (Ryan & Deci, 2000). The movement along the continuum depends on the

extent of internalization and integration of the regulation towards the activity, which is addressed in the sub-theory Organismic Integration Theory (OIT) (Ryan & Deci, 2000). Therefore, it is vital to recognize that extrinsic motivation accounts for a wide range of behaviors as individuals engage in activities as a means to an end rather than for the activity itself (Pelletier et al., 1995), as the activity is done for the instrumental value rather than the activity itself (Ryan & Deci, 2000).

SDT also indicates that an individual can lack intentionality to a specific behavior and, as such, would be amotivated (Deci & Ryan, 2000). Amotivation can emerge if the individual feels they cannot accomplish the desired result, lacks competence, or places no value on the activity or the outcome (Ryan & Deci, 2004). However, developing an individual's competence can shift them from amotivation to intrinsic motivation as they develop a sense of efficacy (Deci & Ryan, 1980). Extrinsic and intrinsic motivation is used to understand the phenomenon of some lecturers not doing research and to address the intervention to resolve the problem in addition to external controls. However, while controls exist at the University of Guyana through annual increments and renewal of contracts, the behavior of some lecturers has not changed.

Some lecturers not doing research indicated they lacked competence to do scholarly research and were not assisted by their colleagues. However, the research skills of lecturers can be enhanced through training and assistance from networks they develop among themselves and with knowledgeable individuals. Enhancing the research skills of lecturers can be guided by self-regulated learning theory (Hadwin & Oshige, 2011). Upon acquiring competence through self-regulated learning strategies, lecturers could shift

from amotivation to intrinsic or extrinsic motivation (Ryan & Deci, 1980). The strategies

that can be used to enhance research competence are provided by self-regulated learning

theory, which will be dealt with in the next section on Self-regulated learning theory.

Self-regulated Learning Theory

Hadwin and Oshige (2011) posits that "Self-regulated learning refers to strategic

and metacognitive behavior, motivation, and cognition aimed toward a goal" (p. 243).

This approach is essential as prior training is unlikely to address all the issues related to

research but will provide the foundation for research, as most of the learning will occur

during actual research activities. Three strategies can be used to develop the competence

to do quality research: the researcher using self-regulation, collaborating with an

experienced researcher, known as co-regulation, or collaborating in groups, known as

socially shared regulation (Hadwin & Oshige, 2011). The importance of co-regulation

and socially shared regulation should be emphasized as individuals developing their

research skills would rely on the experiences of others (John-Steiner & Mahn, 1996).

Also, learning the research process can be accelerated by working with more

knowledgeable individuals, or pooling their knowledge.

The extent of learning by lecturers through self-regulated learning can vary from

one activity to another and the setting in which learning occurs (Hadwin & Oshige,

2011). However, using the strategy of co-regulation, where a lecturer is allowed to work

along with a colleague who will provide support early in the process before allowing

them to make decisions about their research as they develop competence, is likely to

yield better results than the individual working alone (Hadwin & Oshige, 2011; John-

Steiner & Mahn, 1996). The strategy of socially shared regulation that will allow

lecturers to interact with colleagues as they develop competence and confidence while

working as a group can provide more significant benefits to the participants in the

research process through higher-quality research. Therefore, lecturers working together

through collaboration are likely to facilitate higher-quality research.

Research Method

The intervention, which took the form of a three-day training workshop was

intended to develop the competence of some lecturers to do action research. While (n =

20) participants attended the workshop, only (n =10) attended the three sessions and were

selected to provide data on the perceived competence to do action research, confidence

developed through participation at the workshop, and the motivation to do action

research. The (n =10) participants completed the questionnaires after the initial request

and two reminders. However, (n = 8) participants responded to the interview request and

two reminders.

A concurrent quantitative and qualitative mixed method action research (MMAR)

design was applied in this study. Qualitative and quantitative data were collected via

semi-structured interviews and an existing survey instrument from Cortes et al. (2020) to

determine if there is "corroborating evidence and to produce a more complete

understanding of the research problem" (Ivankova, 2015, p. 131). The survey instrument

was evaluated for content validity by three lecturers to determine language clarity from

the local context. Adjustments were made to some of the items, while some were omitted

from the instrument. In addition, the semi-structured interview schedule was developed to

provide additional information on the findings from the survey. The mixed method

design "builds on the strength of both quantitative and qualitative data" (Creswell &

Guetterman, 2019, p. 545). The concurrent nature of the study required that sets of data

be collected and analyzed independently, with each method having equal priority. The

two methods are integrated during the interpretation of the quantitative and qualitative

results after the analysis to develop a deeper understanding of lecturers' experiences of

the intervention to influence a behavioral change.

Data Collection and Analysis

The questionnaires were administered to workshop participants via the Qualtrics

survey website after the intervention. The survey asked the participants to respond to a

series of statements on a six-point Likert scale from *strongly disagree to strongly agree*

(Chomeya, 2010) to collect self-perceptions of their competencies before (measured via

retrospective pre-items) and after the intervention (post-items). (n = 10) participants from

the workshop responded to the initial request and three follow-up reminders over a one-

month. The number of participants in the online survey was (n = 10). The sample

comprised (n = 1) male and (n = 9) females; (n = 1) participant worked at the university

for less than a year, (n = 1) participant for five but less than ten years, (n = 5) participants

for ten but less than 15 years, (n = 2) participants for 15 but less than 20 years, while (n =

1) participant for more than 20 years. (n = 10) participants had master's degrees. Also, (n

= 4) UA academic, and (n = 6) lecturer 1.

Qualitative data were collected via semi-structured interviews using the Zoom

platform. This method was used due to the COVID-19 pandemic. Participation in the

interview was voluntary, and individuals were informed they could withdraw or stop the interview or the recording at any time, although they had consented to participate. Eight participants who had participated in all the workshop sessions were interviewed. Recruitment letters were sent to each participant, followed by two reminders. The interviews were recorded and transcribed using the technology available on the Zoom platform. Transcripts were checked for accuracy following each interview. The number of participants interviewed was (n = 8) comprising (n = 1) male and (n = 7) females. Also, (n = 4) UA academic and (n = 4) Lecture I. Codes were used to maintain the anonymity of the research participants.

The data collected in the survey using Qualtrics were exported to SPSS 28 (IBM, 2022) for analysis. Before analysis, an assessment was done to determine if there needed to be more data. Next, descriptive statistics were calculated to understand the data via measures of central tendency. Following this, non-parametric statistics were calculated to compare the pre-and post-scores for each competency.

The mean and standard deviations were not generated for the individual item responses, as Likert Scales are ordinal level measures, and would be considered inappropriate (Jamieson, 2004; Wu & Leung, 2017) as the numbers represent verbal statements. In addition, a non-parametric test to analyze the data was used because of the small sample size (Meek et al., 2007). Therefore, the Wilcoxon signed-rank test applies to this study, as the sample is less than 30 cases (Jamieson, 2004), the data includes ordinal measures (Meek et al., 2007), and is being used to compare two sets of scores, pre-treatment and post-treatment from the same participants (Rosner et al., 2006).

The qualitative data were analyzed using thematic analysis, which determined

codes and themes to describe the findings. A deductive process was used to develop

themes after searching through the data guided by the conceptual framework (Kiger &

Varpio, 2020). Finally, a six-step thematic analysis process which was cyclical with

frequent reflections was used to analyze the data (Kiger & Varpio, 2020).

Results and Discussion

Feeling of Competence to do Action Research

The intervention provided training for lecturers to develop their competence in

conducting action research and participants were encouraged to write action research

papers for publication. To determine the workshop's success, an assessment of the

training was necessary, as its success can impact the lecturers' confidence and motivation

to do action research and assist in determining future interventions. Also, rather than

assessing the result of the training on lecturers' competence, the contribution of the

training is also essential, which influenced a pre- and post-test to determine whether there

has been a significant change in the competence of the lecturers to do action research.

Variables were created for the constructs that represent the average of the items of each

construct. Scores greater than (n = 4) represent competence with the highest level of

competence (n = 6), while scores less than (n = 4) represent a lack of competence. The

five constructs were analyzed using a series of Wilcoxon signed-rank tests. A descriptive

analysis was conducted on pre- and post-constructs and pre- and post-competency scores

(see table 2). Descriptively, an increase in feeling competent in conducting action

research occurred before and after the intervention for all constructs. In addition, there was a large increase in reflection and growth.

Table 2

Descriptive Statistics for Competence and Constructs

Construct		Pre-Scores		Post-Scores	
	N	Mean	Std. Dev.	Mean	Std. Dev.
Growth	10	4.08	0.66	5.38	0.53
Planning	10	4.17	1.02	5.44	0.42
Integrating	9	4.78	1.03	5.69	0.56
Analyzing	9	3.66	0.68	4.96	0.38
Reflecting	10	2.98	1.01	5.42	0.49
Competence	8	3.94	0.66	5.27	0.34

A Wilcoxon signed-rank test was conducted to determine if there was a difference in the pre- and post-construct scores. The average pre-intervention score for the concept competence was compared to the average post-intervention score. The average post-intervention was significantly higher with ($z = -2.52$, $p < .05$), with a large effect size ($r = 0.63$). The average increase for the construct planning ($n = 10$) was also significantly higher with ($z = -2.81$, $p < .05$) and a large effect size ($r = 0.63$). However, the construct integrating with ($n = 9$), also had a significantly higher average ($z = -2.67$, $p < .05$) with a large effect size ($r = 0.63$). For all of these competencies, the large effect size indicates a large increase in these self-reported skills after participating in the intervention.

The results indicate there was an increased feeling of competence by lecturers after the intervention. Further, the various dimensions also showed improvement in specific aspects of action research. However, planning an action research project, and

reflecting on and communicating results had the greatest increase (z = -2.80) and effect size (r = 0.63), which are important for success in action research. Therefore, the intervention can be considered successful as lecturers feel the competence to conduct action research.

Qualitative Results

In addition to the survey, interviews were conducted with participants to determine lecturers' feelings of competence to conduct action research. Three themes initially emerged during the analysis of data. However, after further analysis the second theme (conducive setting and facilitation of the workshop), and third theme (clarity to issues and appreciation for action research) were merged into one (clarity to issues and facilitation of the workshop) to better reflect coded data (Kiger & Varpio, 2020). The first theme *desire to bring about positive change in the classroom,* and the new theme *clarity to issues and facilitation of the workshop* are discussed below.

Desire to Bring About Positive Change in the Classroom. During the interviews, seven participants (n = 6) females and (n = 1) male indicated they felt competent to conduct action research independently. In addition, they were interested in student success, and the role action research could play in bringing about change in the classroom. For example, participant 8 indicated, "I know there is a particular problem that can be addressed, and that problem affects students. I do things to help the students, helping them reach their greatest potential."

Also, some participants (n = 2) females indicated they were involved in activities to change students' performance but were unaware that it was action research, which

could be further developed into research papers. For example, participant 2 stated, "I used to do, or I still do, though I didn't know at that point about action research. I just did it." Similarly, participant 3 indicated, "I didn't realize at the time that I was conducting a type of research." Further, participant 3 stated, I realized that is something I enjoy, and if I can now incorporate it into full-fledged research, that would be great." In addition to the desire to bring about change and the connection to action research, clarifying issues and facilitation of the workshop also contributed to participants developing competence.

Clarity to Issues and Facilitation of the Workshop. Some participants (n = 4) females felt the way the workshop was conducted was beneficial to them and conducive to learning. Their lack of prior knowledge of action research was changed by how the facilitators conducted the workshop. This was acknowledged by participant 8, who indicated, "The way the facilitators broke down each part of the research. It was refreshing." Participant 3 expounded on this sentiment: "It was your workshop, I think that was one of the first workshops… that was very different … that personal approach to it, examples and explaining things that can help the person." The participants appreciated the workshop, giving them the tools to do action research in classroom settings.

The development of research competence is essential for lecturers to fulfill their role as researchers and for their personal and professional development. Some participants who had done other types of research needed more clarity about aspects of the action research process. However, during the workshop, most of their misgivings were addressed, which resulted in a feeling of accomplishment. Participant 2 pointed out, "The steps were all provided to us so that we were not floundering and wondering how

exactly am I supposed to do this? It was all provided to you." Also the participants connected with the facilitator as they felt their needs and concerns were addressed, and they felt a connection to what was being discussed. Participant 8 noted, "The facilitators incorporated their personal experiences and explained issues they had when conducting research." The limited knowledge of certain aspects of the research process affected lecturers conducting research for publication. The workshop helped lecturers by addressing some of these issues. This was accomplished as was expressed by participant 4 during the interview, "it has given me more clarity into certain aspects … and the little hints I got from the workshop will go far."

Some sessions allowed participants to apply their local concerns to develop action research and receive feedback to guide future research, which made participants feel involved in the process and created a sense of ownership of what they were doing. This was acknowledged by participant 3, who indicated, "We were asked to identify a research topic in our work setting and to identify research questions. Then the facilitators gave us feedback. That was valuable in knowing whether I was on the right track." The feedback provided to participants also differentiated this workshop from other similar training workshops attended. Participant 2 supported this with the statement "… also the feedback from the facilitator. It was not just a workshop where you just listened to it." These and other similar experiences would have contributed to participants' perception of competence to do action research after the workshop.

Confidence to do Action Research

The intervention was intended to assist in developing lecturers' competence to conduct action research, which contributed to them leaving the workshop with the perception of competence. However, a basic understanding of action research will only lead to actual research if there is the belief that the requisite skills combined can be used to conduct such research. Individuals must believe their efforts will produce the desired output before they commence the activity. Deci & Ryan (2000) indicated that confidence is almost exclusively based on competence, providing the link between competence and confidence. Interview data were used to address lecturers' confidence in their ability to do research. Two themes emerged from data analysis: *capable but can improve quality through collaboration*, and *greater assurance through combining knowledge*.

Capable but can Improve Quality Through Collaboration. Although (n = 7) participants indicated their feeling of competence to conduct action research, only (n = 3) females indicated they could do it individually. An individual's confidence is the extent they feel capable that their behavior will result in a desired outcome (Deci & Ryan, 2000). Some participants felt confident conducting action research independently, but a few lacked the confidence. For example, participant 3 indicated, "I can undertake an action research study and see it through from start to finish; Still, I would feel more comfortable carrying out research collaboratively, where I could discuss elements of the research." Other benefits to collaboration were also expressed; for example, participant 4 indicated, "going alone will be somewhat successful, but with collaboration, more ideas

are put on the table." While some participants felt confident to conduct action research on their own, a few lacked the confidence.

Greater Assurance Through Combining Knowledge. Despite their feeling of competence to conduct action research, (n = 2) female participants preferred being involved in collaborative research. Participant 8 indicated, "I think I'd want to go collaboratively first, and that may build up the confidence to do action research on my own." The participants' low confidence to engage in individual action research can be attributed to some uncertainty. This desire to collaborate with more experienced researchers is coregulation and socially shared regulation (Hadwin & Oshige, 2011). Participant 2 shared a similar sentiment and indicated, "I'm still not sure how well I can do something on my own, because I'm still developing as a researcher in academia, but I can see myself working collaboratively with others." The study has determined that while some participants have a feeling of competence, not all have the confidence to do individual action research. However, another critical factor that must be considered if there is to be a behavioral change is the motivation of the individuals, which will be addressed next.

Motivation of Lecturers to Conduct Action Research

The motivation of participants to conduct action research after attending the workshop would be crucial to a behavioral change, as well as the actions that may be needed to influence the change. While participants indicated their feeling of competence to conduct action research, the type of motivation is an important issue and requires consideration. Deci and Ryan (2000) addressed three types of motivation through their

self-determination theory: intrinsic, extrinsic, and amotivation. However, to address the extent of lecturers' motivation to use action research, the data analysis will be in terms of the participants' internalization and integration to the activity (Deci & Ryan, 2000). While participants may have been amotivated before the workshop due to a lack of competence, or had placed little value on research, their training to conduct action research that resulted in most having a feeling of competence can impact the type and extent of motivation. As such, the analysis of interview data used a deductive approach to determine the type of motivation in the first instance, followed by the extent of the motivation to conduct action research.

Intrinsic Motivation, Extrinsic Motivation, and Amotivation. The lack of autonomy was the reason given by participant 7 for having no interest in doing action research with some concerns, and stated, "Then those higher up would say, 'Oh, no! You should look at this, or look at that.' What demotivates me as well is that there is a lack of support." This was the only participant who was amotivated among the participants. (n = 2) female participants indicated they derive satisfaction from doing research and, as such have an internal locus of causality, which suggests they are intrinsically motivated (Deci & Ryan, 1980). The other (n = 5) participants are motivated by regulations and other instrumental values, which points to an external locus of causality, and are extrinsically motivated. However, the extent of extrinsic motivation for internalizing and integrating the behavior will be addressed in the next section.

Job Requirements and Concern for Students. Deci and Ryan (2004) considers introjected extrinsic motivation as partial internalization of the behavior but not in the

individual's deep sense of ownership. This was the case with some participants who were motivated because research is a job requirement but also enjoyed seeing a change in students' performance. Participant 2 expressed this position with the statement in response to the question; what motivates you to do research? "Well, let's say my job, first and foremost. I can see myself starting to be more interested in research just to resolve issues that arise." A comment from participant 8 expressed a similar sentiment, "Keeping my job. It's one area, and secondly, passion, if I know a particular problem can be addressed, and that problem affect students especially because I'm geared towards helping the students." This response was similar to two other participants who expressed their interest in resolving and bringing about change in students' performance. While introjected extrinsic motivation represents partial internalization of the behavior, identification represents greater internalization (Deci & Ryan, 2000).

A deeper integration occurs with identification, which is acceptance of the behavior by the individual as personally necessary (Deci & Ryan, 2004), which can be considered in the case of participant 3 who indicated:

> *Well, initially, the only thing that motivated me to do research was getting my contract renewed, to be honest. After that, what I enjoy doing was the strategies that I implemented in the class, so I spent tons of time working with the students and doing things for their advantage.*

This participant was unaware of action research until the workshop, but felt a deep sense of responsibility to improve students' performance in the classroom.

Discussion

      The current study was conducted to determine lecturers' competence and confidence to conduct action research after a training workshop, as well as the extent of their motivation. Quantitative and qualitative data were used to address the research questions indicating that participants had an increased competence after the intervention. This can be attributed to a desire to bring about positive change in the classroom, clarification of issues, and how the workshop was facilitated. However, in addition to the overall feeling of competence, the various dimensions also showed improvement in specific aspects of action research. While there was a feeling of competence, planning an action research project and reflecting on and communicating results had the most significant increases, which are essential when conducting action research. Further, developing research competence is necessary for lecturers to fulfill their role as researchers and their personal and professional development for promotion to a higher academic level. Although some lecturers have a feeling of competence, not all have the confidence to do individual action research.

      The findings also indicate that confidence to conduct action research individually was not shared by all participants, as some expressed a desire to work with colleagues, as they felt an initial exposure while working with others will build their confidence. The need for greater confidence to be engaged in individual action research can be attributed to some uncertainty by the lecturers. Further, their desire to participate in collaborative research is consistent with Hadwin and Oshige (2011) two approaches to learning. The confidence and competence of individuals are essential, as individuals will only be

motivated to do action research if they feel competent and their actions will result in the desired outcome.

The lecturers' motivation varied as some were intrinsic, some were extrinsically motivated, and one was amotivated. The extent of the individual's motivation varied based on their internalization of the behavior to conduct action research to address the concerns of their students. Most extrinsically motivated participants had a partial internalization of the behavior, with one accepting the behavior as personally meaningful. Competence is essential as it can enhance intrinsic and extrinsic motivation, and shift an individual from being amotivated (Deci & Ryan, 1980). The shift from intrinsic or extrinsic motivation depends on whether the attainment of competence was chosen by the individual or forced upon them by others. Participants feeling enhanced competence after the workshop were volunteers and had attended most, if not all, of the sessions. As such, their competence increase will positively impact their motivation. Theoretically, an individual that was amotivated but voluntarily acquired competence would shift to intrinsic motivation (Ryan & Deci, 1980). However, this was not the case with any participants in this study. Further, Deci and Ryan (2000) posited that the most internalized extrinsic motivation is integration which, although fully internalized, remains extrinsic. However, there was no indication of this level of internalization in the study. The feeling of competence and confidence combined with introjected extrinsic motivation are indicators of future action research by lecturers.

Conclusion

The study shows that while competence can be enhanced through training it does not automatically results in greater confidence, which will develop over time and exposure to working with colleagues. The workshop benefited the participants as they reported an increase in competence. However, there is a need for further training in research methods, as indicated by some participants or learning from their peers through collaboration (Hadwin & Oshige, 2011). Further, it should be noted the study consisted of (n = 10) participants, of which (n = 8) participated in both aspects of data collection, therefore, the finding must not be generalized to the university lecturer population or similar settings. Nevertheless, the results contribute to the body of knowledge of competence and motivation after an intervention to develop them. There is also need for a follow-up study to ascertain if the perceived competence is converted into published action research. In addition, lecturers could use the competence developed to enhance students' performance and research portfolios. Also, the knowledge acquired to do action research could be used in communities and organizations through participatory action research to improve the quality of life for stakeholders and contribute to social and economic development.

Disclosure statement

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CHAPTER 4

CONCLUSION AND REFLECTION

This action research study was motivated by a concern that lecturers needed to be doing research. My first step was to peruse scholarly articles to determine whether similar situations existed in other settings. The literature addressed lecturers' roles, including teaching, research, and community services. Two cycles of studies were conducted to better understand this problem of practice. The first cycle was used to understand better the role of lecturers at the University of Guyana. The second cycle explored the factors inhibiting lecturers from researching while examining issues faced by lecturers currently engaged in research. For the current action research cycle, an intervention in the form of a workshop was done, followed by a study to determine the effects on the participants regarding their competence, confidence and motivation to use action research. The remainder of this chapter will reflect on the phases in the action research, the limitations of the study, implications for policy and practice, and future research.

Reflections

The findings of this study should not be generalized as the highest number of participants in any cycle was (n =10), which resulted in insufficient data to be used for a conclusion to be made about the general population at the University of Guyana. Further, the timing of the study may have impacted lecturers' willingness to participate, as the studies were conducted during teaching periods. However, despite this small size, findings from the research should be considered in developing support for lecturers to engage in future scholarly research.

Cycle zero was undertaken to determine the role of lecturers within the Faculty of Social Sciences, and the research done by exemplars. The interviewees were eager to discuss research and teaching within their spatial dimension and were very candid about things that were having a negative impact on them concerning research. Cycle 0 was done early in the doctoral program before any course in qualitative analysis, which placed the onus of doing qualitative analysis on me. Although the process used to derive themes in this cycle differed from conventional qualitative analysis techniques, it provided a good foundation for cycle one. In reviewing the data using gerunds and thematic analysis, which were employed in two cycles, I realized the themes would have stayed the same. The themes used in the cycle were: research culture and capabilities, motivation and disincentive, financial and other support, and collaboration with stakeholders.

Cycle 1 was done to determine the challenges lecturers in the Faculty of Social Sciences face in doing research and the lecturers' perceptions about completing scholarly research from two other faculties. The findings indicated that lecturers from the Faculty of Social Sciences experienced stress, needed more confidence to do research, and had limited resources to assist them. Lecturers from the other faculties had moderate stress, and resources. However, while the questionnaire was an existing instrument used for data collection from lecturers of other faculties, an evaluation for content validity and adjustments would have provided higher-quality data for analysis.

Final Action Research Cycle

The previous cycles highlighted some challenges that had to be addressed if there was to be a behavioral change. For example, although lecturers desire to do research,

their lack of competence has affected their confidence (self-efficacy), which was addressed through the intervention. To address the issues of competence and self-efficacy, training was used to stimulate a change in the feelings of lecturers. The theory that guided the intervention was Hadwin & Oshige (2011) self-regulated learning theory, which was discussed under the conceptual framework.

Planning the intervention was challenging as various factors had to be considered, and circumstances for potential participants kept changing. The intervention was a three-day workshop to train lecturers to do action research. Some of the factors that had to be considered with the instructional approach for training included: the previous learning experiences of participants (Akgun et al., 2019), the likely flow of conversation among the group, and the different activities to be completed (Kemp & Grieve, 2014), the availability of lecturers, as well as the current COVID 19 pandemic. The factors were considered necessary as each would have played a role in the effectiveness of the training. The COVID-19 pandemic influenced multiple parts of the more extensive study and intervention. First, potential participants feared in-person meetings due to COVID-19, so an online workshop setting was chosen. Though, online instruction might have resulted in a trade-off of more effective participation. In addition to the fear of COVID-19, recruiting participants for the workshop was challenging as potential participants had various competing obligations, which made scheduling the workshop very difficult since maximizing the number of participants became the primary goal. Whether the decision to hold an online workshop was the optimal choice would be difficult to say and will be addressed later in the chapter.

The workshop allowed participants to build support networks for future action research studies that can be done through coregulation or socially shared regulation (Hadwin & Oshige, 2011). In addition, recordings of the workshop sessions were provided to participants for future reference. However, once the workshop was completed, it became difficult to recruit participants for data collection as it was done during the teaching semester. Upon reflection, it may have been better to undertake data collection outside the teaching semester, but that would have impacted my timeline to complete my study program.

The quantitative analysis of data focused on pre- and post-intervention results. While it would have been interesting to determine if relationships existed between the dependent and independent variables, the dataset was too small for more advanced inferential analysis. The data obtained in the interviews helped clarify the quantitative data findings. Some participants indicated they needed to catch up on some aspects of the training sessions as they were dealing with other work issues which required their attention during the training sessions. Although this was considered before the workshop, choosing an online instructional approach was part of the tradeoff.

Limitations

The number of participants in each cycle was small and not based on probability sampling; hence the finding should not be generalized to the larger population at the University of Guyana or similar settings. The temporal dimension of the study needed to be longer, which made it difficult to evaluate the conversion of perceived competence into an action research output. The lack of diversity of the participants, and their interest

in the training can result in some bias and limit the use of the findings. However, this study would have contributed to the body of knowledge about competence and motivation after a training intervention.

Implications for Policy and Practice

The results from the study indicate that lecturers are desirous of conducting action research to address the needs of students. However, using action research to provide better service to students is critical to the University of Guyana, and the nation as Guyana pursues social and economic development. The university needs to adopt a policy to facilitate growth equitably to reduce dissatisfaction, as indicated by interviewees in cycle 0 of this study. A support system must be put in place to assist young academics as they strive to develop their competence, which can be enhanced through collaboration (Hadwin & Oshige, 2011) and effective communication among peers. There is a need for greater collaboration within and outside the university to maximize the benefit from the pool of resources available for a transformation. Further, training provided to lecturers should be specific to their needs emphasizing building competence rather than superficial to fulfill targets and goals. As suggested by an interviewee, it is also imperative that lecturers are allowed to make direct input on matters that can contribute to their development, in addition to a formal mentorship program.

The limited resources at the university should be seen as something other than a threat to academic development but an opportunity to use the available resources to create opportunities for growth within the institution. Decision-makers must create an environment that nurtures creativity and resilience. The changing education environment

has made it possible to survive by building capacity through the academic development of lecturers. Also, there is a need for a space to be made available for discussion among lecturers to share their experiences and suggestions to resolve problems within the classroom.

Further Research

The optimal choice for holding a training workshop for lecturers whether online or face-to-face, can be addressed in a future study to determine a better approach. A similar study can also be conducted across the University of Guyana to determine the effects of training to enhance lecturers' feelings of competence and confidence. In addition, the motivation to do action research should be investigated so that appropriate rewards can be made available, as well as suitable conditions. A study over a longer duration or a longitudinal study should be done to determine the conversion of competence into published action research. A more comprehensive study can also be done to determine whether relationships exist between dependent variables: competence, confidence and motivation, to independent (demographic) variables after training in action research.

Conclusion

This study aimed to determine what was needed to influence lecturers to be involved in research activities. This required understanding the issues lecturers faced and formulating appropriate actions to influence behavioral change. The journey to better understand the problem was enlightening as I realized that the symptoms rather than the problem were my initial focus. After two action research cycles, it became clear that

lecturers wanted to do scholarly research. However, they needed more competence and support to develop their research skills. Lecturers appreciated training on action research as it helped them to see the benefits of conducting scholarly research and its contributions to students' success. The response and enthusiasm of the lecturers were a pleasant experience and an indication that they are likely to conduct action research in the future. Collaborative research is more likely the approach lecturers will use because most still need more confidence to do individual research. Additionally, lecturers realized that by applying action research in the classroom and working as part of action research communities, sharing experiences and knowledge can contribute to greater success for them individually and collectively. Further, lecturers conducting action research studies will boost the profile of the University of Guyana and contribute to national development.

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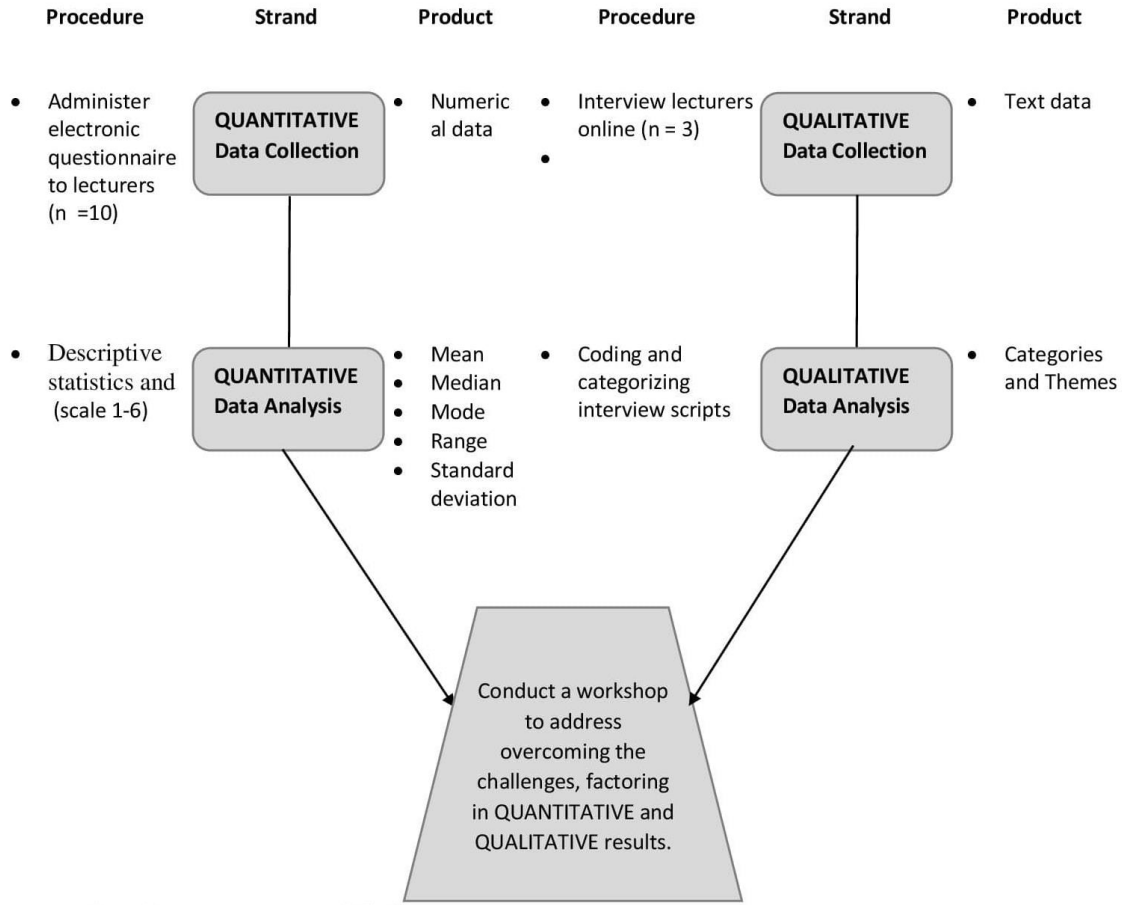
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APPENDIX A

VISUAL DIAGRAM OF A CONCURRENT QUAN + QUAL MMAR STUDY

DESIGN

Procedure	Strand	Product	Procedure	Strand	Product

- Administer electronic questionnaire to lecturers (n =10)

QUANTITATIVE Data Collection

- Numerical data

- Interview lecturers online (n = 3)
-

QUALITATIVE Data Collection

- Text data

- Descriptive statistics and (scale 1-6)

QUANTITATIVE Data Analysis

- Mean
- Median
- Mode
- Range
- Standard deviation

- Coding and categorizing interview scripts

QUALITATIVE Data Analysis

- Categories and Themes

Conduct a workshop to address overcoming the challenges, factoring in QUANTITATIVE and QUALITATIVE results.

Note. Based on Ivankova (2015)

APPENDIX B

SEMI-STRUCTURED INTERVIEW QUESTIONS

Thank you for your willingness to participate and be interviewed. I am Hector Edwards, a doctoral student at Arizona State University, I am doing study titled: Publishing requires more than Publish or Perish. Would you allow me to record the interview? I am doing research on the challenges associated with lecturers doing scholarly research. I have identified some lecturers to get their perspective of the issue on conducting scholarly research at the University of Guyana.

Q1.   What were some of your expectations when you first started lecturing at the university? Follow up question if needed

Q2.   What do you think about scholarly research at the university?

Follow up question if needed

Q3.   What challenges have you faced in relation to doing scholarly research over the last three years?

Follow up question if needed

Q4.   What can you tell me about doing research at the university?

Q5.   Have you received support from your colleagues or the university to do scholarly research?

Probe question: requiring an example or a story or a situation that comes to mind?

Q6.   What can be done to assist you to do scholarly research?

Probing question: What the university can do?

What colleagues can do?

What can you do on your own?

Q7.   Are there any things you would like to say about research or anything else in general before we end the interview?

Thank you for your cooperation.

APPENDIX C

CHALLENGES SURVEY

Q1 Dear Colleague, as you are aware I am doing research on the challenges associated with lecturers doing scholarly research. I appreciate you taking time out to contribute to this study. Your honest answers will allow me to understand the stress, attitude and resources when doing scholarly research. Please be assured your responses will not be used for any other purpose, and your name and identity will not be shared. This survey will take between 10 and 15 minutes to complete.

 Thank you for your support, Mr. Hector Edwards

Q2 Do you consent to do this survey?

○ Yes, I consent (1)

○ No, I do not consent (2)

Q3 Stress

The six items under this subscale address stress. Make sure you read each statement carefully and choose the one that best represent you.

	Totally Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Totally Agree (6)
1. I feel forced to spend time on my publications outside office hours. (2)	○	○	○	○	○	○
2. I cannot find sufficient time to work on my publications. (3)	○	○	○	○	○	○
3. I have no peace of mind when working on my publications. (4)	○	○	○	○	○	○
4. I experience stress at the thought of my colleagues' assessment of my publications output. (1)	○	○	○	○	○	○

5. I can combine working on my publications with my other tasks. (5)	○	○	○	○	○	○
6. At home, I do not feel stressed about my publications. (6)	○	○	○	○	○	○

Q4 Attitude

The six items under this subscale address attitude. Make sure you read each statement

carefully and choose the one that best represent you.

	Totally Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Totally Agree (6)
7. The current publication climate puts pressure on relationships with fellow researchers. (1)	○	○	○	○	○	○
8. I suspect that publication pressure leads some colleagues (whether intentionally or not) to cut corners. (2)	○	○	○	○	○	○
9. In my opinion the pressure to publish scientific articles has become too high. (3)	○	○	○	○	○	○
10. My colleagues judge me mainly on the basis of my publications. (4)	○	○	○	○	○	○

| 11. Colleagues maintain their administrative and teaching skills well, despite publication pressure. (5) | ○ | ○ | ○ | ○ | ○ | ○ |
| 12. Publication pressure harms science. (6) | ○ | ○ | ○ | ○ | ○ | ○ |

Q5 Resources

The six items under this subscale address resources. Make sure you read each statement carefully and choose the one that best represent you.

	Totally Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Totally Agree (6)
13. When working on a publication, I feel supported by my co-authors. (1)	○	○	○	○	○	○
14. When I encounter difficulties when working on a publication, I can discuss these with my colleagues. (2)	○	○	○	○	○	○
15. I have freedom to decide about the topics of my publications. (3)	○	○	○	○	○	○

16. When working on a publication, many decisions about the content of the paper are outside my control. (4)	○	○	○	○	○	○
17. I cannot cope with all aspects of publishing my papers. (5)	○	○	○	○	○	○
18. I feel confident in the interaction with co-authors, reviewers and editors. (6)	○	○	○	○	○	○

Q6 These five questions address your demographic characteristics.

Q7 19. What is your gender at birth?

○ Male (1)

○ Female (2)

Q8 20. What is your academic rank?

○ Lecturer I (1)

○ Lecturer II (2)

○ Senior lecturer (3)

○ Reader (4)

○ Professor (5)

Q9 21. What is your highest level of qualification?

○ Bachelor degree (1)

○ Post graduate diploma (2)

○ Master degree (3)

○ Doctoral degree (4)

Q10 22. How many children do you have below age 16?

○ No child (1)

○ 1 to 3 (2)

○ 4 to 6 (3)

○ 7 and above (4)

Q11 23. Please indicate the category that best represents your tenure lecturing at the University.

○ Less than 1 year   (1)

○ 1 year and under 5 years   (2)

○ 5 years and under 10 years   (3)

○ 10 years and under 15 years   (4)

○ 15 years and under 20 years   (5)

○ 20 years or more (6)

APPENDIX D

FINAL CODES

Focus codes	Themes
Perceived as deficient Concerns about limited research skill In need of training Doubts about publishing Looking for excuses	Confidence in doing research
Welfare of students Assessment of large classes More for student development The needs of family Limited teaching assistance The new reality	Demands of work and home
Contribution by the university Assistance from peers Competition among peers Level of trust Differences in priority	Financial and other support

APPENDIX E

EXEMPTION LETTER STUDY00016243

EXEMPTION GRANTED

Carole Basile
Teachers College, Mary Lou Fulton (MLFTC) - Tempe
480/965-3463
Carole.Basile@asu.edu

Dear Carole Basile:

On 8/2/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Developing Lecturers' Competence and ConfidenceThrough Action Research
Investigator:	Carole Basile
IRB ID:	STUDY00016243
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Hector Edwards consent_interview 26-07-2022.pdf,Category: Consent Form; • Hector Edwards consent_survey 26-07-2022.pdf,Category: Consent Form; • Hector Edwards IRB Protocol.docx, Category: IRBProtocol; • Hector Edwards recruitment_methods_interview 26-07-2022.pdf, Category: Recruitment Materials; • Hector Edwards recruitment_methods_survey 26-07-2022.pdf, Category: Recruitment Materials; • Hector Edwards supporting_documents_interview 13-07-2022.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focusgroup questions); • Hector Edwards supporting_documents_survey 13- 07-2022.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focusgroup questions); • Letter to Dr Marsh Ethics Review Initial approval

	with names and titles.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 8/2/2022.

In conducting this protocol you are required to follow the requirements listed in theINVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required.Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

REMINDER - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Up-to-date information regarding ASU's COVID-19 Management Strategy can be found here. IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.

Sincerely,

IRB Administrator

cc: Hector Edwards
        Carole Basile