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Exploring Educators' Perception of Remote Instructional Collaboration in Liberian Higher Education Classrooms

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This is to certify that the doctoral dissertation

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Abstract

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M.Ed. Walden University, 2015

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Public higher education institutions in Liberia have employed various mitigating measures to improve instruction quality and increase learning outcomes; however, little was known about remote instructional collaboration as a strategic approach in Liberian higher education classrooms. This qualitative study, based on Everett Rogers' Diffusion of Innovation theory, explored the Liberian educators' perceptions of and disposition to RIC in public tertiary classrooms in Liberia. Seeking Liberian educators' perception of and disposition to remote instructional collaboration in public tertiary classrooms drove this investigation. Two groups of 17 educators based in the United States and Liberia were interviewed using a semi-structured protocol facilitated through a self-developed data collection and analysis tool derived from a reclassification of collaboration motivating factors: purpose, environment, practice, and outcome (PEPO). The PEPO data collection and analysis framework effectively facilitated the data organization and analysis processes of the study. Participants offered their participation in RIC based on four cardinal themes, purpose, environment, implications for professional practice, and estimation of likely outcomes. Upon aggregation, these themes showed two broad motivational factors: a sense of meaningful educational contribution and outcome implications by which such programs could be managed and marketed. The results provided much data for further investigation, a foundation for higher education managers' planning and policy regimes, and a grounding for positive social change through improved instructional service delivery, enhanced instructional practice, and a more effective diaspora engagement strategy.

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Dedication

This terminal study is dedicated to the loves of my life, my loving kids – all of you have inspired me. For denying you valuable fatherly attention, time, and affection to embark on this all-important journey, I dedicate this to you with love. In honor of my parents, especially to the sacred memory of two great fathers, Mr. George Spilsbury-Williams, Sr., and Prof. Cyrenius Nyen Forh, Sr. You both remain as eternal inspiration, even in death. To my mother, Victoria Forh, and the rest of my family, friends, and loved ones in Liberia. The quest to find remedies for Liberia's ailing education infrastructure continues. This endeavor, like many others, is geared at providing references and potential solutions to some of the challenges the sector faces. Thanks also go out to my Walden University colleagues who inspired perseverance, as their persistence and completion of this program, in anticipation of the greater mission ahead, have motivated me further to complete this journey.

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Chapter 1: Introduction to the Study

Introduction

The advent of the Covid-19 pandemic heightened the need for higher education providers to find innovative ways to address the instructional challenges facing public tertiary institutions in Africa (Educational Development Innovations, 2020). While most developed societies with enormous infrastructural capacities strove to address the impact of the pandemic on in-person instructions, many public higher education institutions in developing countries were unprepared and under-capacitated (Aborode et al., 2020; Ebrahim, 2020; Kuhfeld et al., 2020). The realization that remote or virtual instructions and the benefits to students and higher education institutions in developing countries cannot be understated (El Said, 2017; Nuur, 2017; Schieffer, 2016b). As the scourge of the pandemic impacted the ability of Liberian higher education institutions to effectively deliver instructional services to thousands of students across the country, the prospect of a viable service delivery model became imperative (Hodges et al., 2021).

Liberian education stakeholders' proposals to provide and improve pandemic-impacted instructional delivery were as diverse as measures to address the pandemic itself (Dodoo, 2020; Ishola, 2021). To derive practical solutions to the problems posed to the higher education institutions sector by the pandemic, Educational Development Innovations, an educational nonprofit, launched an online platform (African Educators' Forum (AEF) early into the global health crisis. The forum brings together African educators worldwide and those living on the continent to intellectually share in the solution-finding process (Educational Development Innovations, 2020). The need to

improve instruction quality beyond the pandemic spotlighted many conversations held on the forum.

With more than 99% of middle and low-income countries disproportionately impacted by the pandemic, the need to proffer innovative solutions to higher education instructional service delivery in the future was pronounced (Muftahu, 2020). Bower (2017) affirmed that practical innovations in education have significantly centered around improvements in practice, policy, and outcomes. Responding to the growing readiness of diaspora Liberian educators to contribute to their native country's educational development, University of Liberia graduates in the diaspora have been more frequently recruited (Nelson, 2020).

Remote instructional partnerships can refer to any form of technology-facilitated instructional collaboration (Hodges et al., 2021). As noted earlier, interest in materializing remote instructional partnerships in Liberia emanated from the analysis of data collected over six months into the pandemic. Interest in examining perceptions about a technology-facilitated co-teaching arrangement between the United States and Liberian-based Liberian practitioners then increased as a potential doctoral focus. Conceived as a co-teaching arrangement in which participants share responsibility and remain accountable for all aspects of planning, delivery, assessment, and outcomes of the instructional process, the thrust of this research was to gather educators' thoughts and the factors likely to impact their participation decision (Zlatkin-Troitschanskaia et al., 2018).

Data collected in 2020 from EDDEIN's African Educators' Forum spotlighted the impact of the pandemic on educational service delivery across Africa and other corners of

the developing world. The data showed that more than 60% of the panelists proposed remote instruction collaboration (RIC), believing that it presented ample opportunities for improving instruction, increasing learning outcomes, and advancing professional practice (Educational Development Innovations, 2020). Panelists further alluded to the prospect of engagement as a mechanism for cost-effectively bridging the Liberian diaspora's contributions to educational betterment (Caldwell & Chávez, 2020). Participants further believed that RIC's viability could prove a practical pedagogic innovation in Liberia, and that the interaction between participating professionals could enhance both instructional practice and learning outcomes (Educational Development Innovations, 2020).

In this chapter, I justify the exploration of Liberian educators' perception of remote instructional collaboration in public tertiary classrooms in Liberia. Literature related to RIC across the global educational landscape and the peculiarities of the Liberian contexts shows the instructional gaps in Liberia's public higher educational instructional environment. I also provide a purpose statement aligning the identified problem to the purpose of the study. The problem statement was used to evidentially explain the currency and relevance of the problem and the literary deficits necessitating this research. Two research questions guide this exploratory process and focused on actions regarding the application of RIC and educators' attitudes toward the approach.

Rogers' (2003) diffusion of innovation theory served as the study's theoretical foundation. The critical innovation adoption-facilitating attributes of the theory lent support to its selection appropriateness. The chapter includes details of the study as a fundamentally exploratory qualitative approach intended to unravel Liberian educators'

perceptions of and disposition to remote instructional collaboration in tertiary classrooms in Liberia. The chapter further enumerated some operational definitions providing usage contexts and enhancing text understandability amid the highlighted essential assumptions upon which it relied. Additionally, the chapters addressed issues regarding bias mitigation, as well as the potential contributions of the study to instructional scholarship and practice.

Background

Liberia's higher education instructional landscape has historically practiced the traditional in-person instructional modality (Gbollie & Keamu, 2017). The COVID-19 pandemic required a way to reframe instructional delivery within the context of existing technological modalities. The challenges brought on by the pandemic in most developing countries, such as Liberia, necessitated the transition from in-person to virtual instructions (Cahill et al., 2021). Although education administrators undertook many remedial measures to address service delivery during the pandemic, several issues seemed to undermine the adoption of virtual or remote instruction (Schieffer, 2016a). In the context of this study, RIC is the instructional pairing-up of practitioners in public tertiary classrooms in Liberia. For this study, practitioners of Liberian lineage currently based in the United States and Liberia formed the foundation of the participants' pool.

Contrary to the ideals of virtual instruction, remote instruction is viewed primarily from the distinctive realities of distance versus online engagement. Roe (2020) cited Gottlieb emphasizing that remote education, though reliant on technology, typically orbits between spaces of providers on the one hand and the other, providers and learners

as fundamental actualities of the instructional delivery process (Perales et al., 2019). The concept of RIC, as conceived in this study, is essentially a co-teaching arrangement in which participants are geographically distant yet are held jointly accountable for all aspects of the instruction process (Beninghof, 2020; Ferretti & Hiebert, 2017). Such arrangements require collaboration in planning, delivery, assessment, and reflection. Collaborative instruction requires practitioners and administrators to understand and appreciate the psycho-social, political, and logistical considerations underpinning this mode of instructional engagement, as well as its impact on instructional effectiveness (Wingo et al., 2017). Gathering participants' perceptions of and attitudes toward RIC, as well as appreciating the implementation ecology and the associated demands of the process, was critical throughout this study, as were concerns about methodical sustainability in Liberia.

Problem Statement

The problem investigated in this research was the lack of understanding of educators' perceptions of and dispositions to RIC in Liberian tertiary classrooms. The prevalence of instructional partnerships on the educational spectrum was triggered more by the rise in instructional demands during the global health pandemic (Birch & Lewis, 2020). The literature lacks data regarding Liberian educators' perception of and attitude towards remote instructional collaboration in public higher education classrooms, as well as their thoughts on its influence on instructional practice and learning. Hackman et al. (2021) and Segbe (2020) examined variations of the phenomenon, targeting different sectors of the educational landscape. While Hackman et al. (2021) investigated

instructional engagements in STEM, Segbe (2020) studied the relationship between educators' perceptions of technology and their intentions to use available technologies as instructional tools.

On the other hand, Ishola's (2021) investigation identified the collaborative training between the community health academy, a health system non-profit training agency, and the University of Liberia. The collaboration examined the context of the collaborative environment and participants' expectations and responsibilities (Levitt, 2020; Searle & Shulha, 2016). These literary examples all fell short of spotlighting tertiary-level remote instructional collaboration; however, minimal instances of remote instruction have asynchronously occurred in response to meeting instructional demands at some institutions (Wilkins, 2020). Little or no consideration has gone into RIC and the need to explore this instructional modality in higher education classrooms in Liberia. Harris et al. (2021) noted that practitioners and educational managers with anticipations to institute this pedagogic modality would do well by garnering insights, including psycho-social, political, environmental, outcome, and professional factors, from potential targets to help formulate successful engagement and sustainability strategies (Farinha et al., 2019). Gleaning clearly articulated perspectives from practitioners to collaborative ventures can provide managers with invaluable insights on mitigating policies that will ensure sustainability and increase collaboration success prospects. An investigation of this nature could ignite more profound interest in this phenomenon.

Unlike many collaborative instructional settings referenced throughout this research, the current study considered two communities of Liberian education

practitioners: those living and practicing in the United States of America, and those living and working in Liberia. Differences in instructional culture, outlook, mode of engagement, and practice could provide enormous insights into Liberia's collaborative feasibility and sustainability of higher education RIC delivery. Leveraging the collective expertise of Liberian educators in the United States and Liberia to enhance instructional delivery could contribute to a strategic engagement model to strengthen quality delivery in higher education institutions in Liberia. Additionally, this model could prove insightful for diaspora engagement policies in developing countries' education and other service delivery sectors.

Purpose of the Study

The purpose of this exploratory qualitative study was to explore educators' perceptions of, and dispositions to, RIC in Liberian tertiary classrooms. The investigation included Liberian education professionals currently active in the highly professional and standardized tertiary education marketplace in the United States, as well as those in the less demanding Liberian public tertiary educational environment. Efforts intended to understand educators' outlook more fully on RIC, and the urgency of this investigation propelled its influence on instructions and learning outcomes. For this research, a focus on two communities of Liberian educators identified from EDDEIN's African Educators forum series was the most strategic approach, considering the existing potentialities inherent in the two groups academically working together. Considering the communities of Liberian education professionals targeted in this research, the project compared

participants' insights and their perspectives to inform mitigation strategies. Gaining a greater understanding was crucial to the practice's operational sustainability in Liberia.

The selection of a primary qualitative inquiry method was consistent with Stolz's (2020) assertion that research aimed at understanding and deriving insightful information on people's lived experience of events, or perception of conditions, was best suited for the qualitative approach (Zahavi, 2018). In concurrence, Qutoshi (2018) contended that qualitative inquiry transcends the limits of knowledge generation to serve as an intellectual exercise in interpreting events and enhancing understanding of occurrences or phenomena. Furthermore, understanding practitioners' perspectives of RIC, considering the geographic, psycho-social, and professional distances between the collaborating groups, and understanding their outlook helped improve partnerships in higher education settings in Liberia. Referencing the social identity theory, Krift et al. (2019) suggested that perceptions between collaborating agents are likely to converge due in part to their continuous interactions and willingness to meet shared goals (Scheepers & Ellemers, 2019). Likewise, Van Der Krift et al. (2019) found that individuals are apt to align strongly with affiliate groups. Thus, their perception of self or their environment becomes conditioned by perceptions of groups' realities. Accordingly, Lora (2016) maintained that due to the subjective nature of perception, as influenced by conditioned realities, perceptual impact similar events or situations (Shannon, 2021). Understanding these collaboration dynamics when contemplating policy actions, such as the implementation of RIC becomes beneficial for all stakeholders and policy implementers.

Research Questions

This introductory qualitative study explored Liberian educators' perception of remote instructional collaboration and their influence on instruction and learning. This study intended to understand practitioners' perception of RIC and gauge the perceived impact of this instructional modality on their practice and disposition in Liberian public tertiary classrooms. Through this study, I sought to answer the two overarching questions that drove the process.

RQ 1: How do Liberian educators perceive remote-instructional collaboration in public tertiary classrooms?

RQ 2: What dispositions of Liberian educators would promote engagement in remote-instructional collaboration in public tertiary classrooms?

Theoretical Framework

Rogers' (2003) diffusion of innovation (DOI) theory was the theoretical grounding for this study. The diffusion of innovation theory, popularized by Everett Rogers, emphasizes the institutionalization and adoption of innovation utilizing technology to meet adopters' needs (Moon, 2016; Talukder, 2016b). Founded on the precepts of technology use, the pillars of the theory include the medium of communication, time, and social system adoption. Rogers' theory inherently supports this study and bolsters the prospects of gathering the required data in response to the research questions.

In Liberia's higher education landscape, RIC is considered a novelty that is appealing given its potential to meet various instructional and learning needs. Though the

fundamental construct of this study is collaboration, the collaboration theory by Shuffelton (2018) focused on the dynamics of partnership sustainability and is not underpinned by the mechanism of innovation and its use (Shakenova, 2017). The selection of Rogers' (2003) DOI was appropriately chosen as the theoretical foundation of this study, primarily considering innovation and adoption motivations as the cornerstone of the study. The vision was that the results of this study would provide profound professional insights into the phenomenon as a vital policy approach and expand perspectives of instructional innovation, including the efficient and effective utilization of resources to advance instructions (OECD, 2019)**.**

Nature of the Study

The nature of the study was an exploratory venture requiring qualitative techniques to meet its methodological requirements. A basic qualitative design is consistent with research efforts to gather deeper personal insights and experiences of research targets and their outlook on phenomena, events, and situations of interest (Schieffer, 2016b; Zahavi, 2018). RIC is considered a novelty in Liberia's tertiary educational landscape. As such, investigating practitioners' perceptions of and disposition to this instructional modality required a qualitative design to gather the requisite perceptions about the methodology and participants' attitudes towards RIC (Gordon & Hart, 2022). This research design used semi-structured interviews with open-ended questions to gather the projected insights from the participants. The data collection instrument, a researcher-developed PEPO data model, was used to gather perspectives from participants about RIC, its influence on instruction, and learning outcomes (Rahiem,

2021). By extension, the study sought to determine practitioners' disposition to RIC by exploring factors capable of facilitating or undermining the prospects of collaboration success.

Researchers maintained that exploratory studies are generally preliminary and provide a rational basis for future inquiries informed by prior research (Hallingberg et al., 2018). Correspondingly, the vision remained that these research findings would inform further investigations into various facets of this study and, importantly, advance the overall topic of study (Hanks, 2017; Swedberg, 2020). Hanks (2017) explained the importance of exploratory research as foundational in nature and intended to generate interest for future studies. Therefore, the exploratory nature of this study supports the chosen methodology as a fundamentally qualitative study seeking a deeper understanding of Liberian educators' outlook on RIC in tertiary classrooms and hopefully position the foundation for further research efforts.

Definitions of Key Terms

Below is a collection of critical vocabulary used throughout this study to enhance clarity and understanding of the phenomenon of study.

Adoption of Innovation: Utilizing a new or different approach to problem-solving (Latouche, 2019; Wingo et al., 2017).

Collaboration: A shared process of interaction aimed at achieving a given result (Harris et al., 2021; Levitt, 2020; Min et al., 2016).

Collaborating Environment: Conditions that foster cooperation between and among collaborators facilitating the attainment of shared projected goals (Shannon, 2021; Simons et al., 2021).

Diaspora Liberians: United States-based Liberians working in education (Mekonnen & Lohnert, 2018; Minto-Coy, 2016; Reilly, 2017).

Enabling Factors: Psycho-social, administrative, and logistic variables that positively influence successful collaboration (Min et al., 2016; Shakenova, 2017).

Instructional Collaboration: A co-teaching arrangement in which partnering educators are jointly accountable for all aspects of the instructional process. (Ed & Ed, 2019; Slagter van Tryon et al., 2018).

Remote Instructional Collaboration: An electronically facilitated collaborative undertaking where participants and collaborators are physically distant (Borissova et al., 2020; Hodges et al., 2021).

Tertiary Classrooms: post-secondary classrooms; undergraduate, and graduate learning environments (Rahiem, 2021; Zheng et al., 2021)**.**

Assumptions

A fundamental assumption of this study was that the disposition of education professionals was a certainty at the tertiary level and open to readily embrace the RIC approach. A secondary assumption was that participants were predisposed to this instructional modality, and that their interests would correlate directly to the quality and depth of their responses. The other assumption of the study was that public higher education service providers were receptive to adopting this modality, as it posed an

effective mechanism for leveraging diaspora engagements in educational development. Finally, I also presumed that all facilitating infrastructure existed, and that such consideration had little impact on participants' impressions of and the workability of this instructional methodology. Enumerating these suppositions served to guide in the analysis of the research and in the determination of its conclusions and generalizability.

Scope and Delimitations

This introductory qualitative study explored Liberian educators' perception of remote instructional collaboration and their disposition to the approach in public tertiary classrooms. Exploring Liberian educators' perception of RIC provided opportunities to gain insight into their attitude to the phenomenon and the implications for implementing the modality across Liberia's higher education instructional landscape. The assessment of Liberian educators' perception of RIC included engaging their demographic and professional data, with the participants pool targeting a maximum of 20 Liberian educators practicing in the United States and Liberia. The selection of participants leaned rigidly towards those with current assignments and affiliations with tertiary institutions in the United States and Liberia. Obtaining an equal number of participants and a balanced gender representation to achieve a leveled perspective served as one of the many recruitment goals of this study. Contrary to targeted participation projection, 17 candidates were available to participate, with the majority skewed on the side of United States-based educators who were, interestingly, predominantly males.

Because of the scope and limitations identified, the study did not target Liberian educators practicing in other geographies but focused mainly on Liberian educators in the

two regions. At the time of the interviews and engagements, pre-interview interaction confirmed that targeted participants were current practitioners affiliated with a tertiary institution, regardless of responsibilities, institutional status, or recognition. In Liberia, however, recruitment focused on participants listed on the partner organization's pool of instructors and administrators. This knowledge saved both recruitment and authentication time. The rationale behind the decision was to ensure that the exploration of educators' perception of RIC in public higher education settings in Liberia was informed by practical realities conveyed directly from practitioners' viewpoints. Targeting public tertiary Liberian educators in Liberia was mainly based on their first-hand appreciation of the environment identified for the study, and the prospects in value that such an approach attracted. Therefore, the initial acceptance of the invitation, and subsequent availability of participants, invigorated the investigative process. Fueled by this estimation and the projected impact of such a practice on professional competencies and learning were the motivation behind the investigation. Beyond the challenges identified above, little consideration for other essential variables accounted for this study's rollout. Facilitating factors influencing RIC's adoption and disposition of the phenomenon from the practitioner's viewpoint warranted this research.

Limitations of the Study

This exploratory qualitative study aimed to address the gaps in perception regarding RIC in tertiary classrooms and inform policy actions tailored to instituting and strengthening public tertiary-level instructional approaches in Liberia. However, despite the potential that such research may have on the tertiary classroom instructional

landscape in Liberia, the current study recognized some limitations, including the participants' population of 17 in the United States and Liberia. This number was suitable for generating data saturation but insufficient for universal generalizability. Also, the analysis was limited to participants' responses without any basis for questioning their feedback to the interviewing inquiries. As the phenomenon does not exist in the format described by this author, responses were, unfortunately, limited to participants' imagery of the phenomenon and, critically, their understanding of the data collection tool.

Significance of the Study

This study's significance was interwoven with its outcome and implications for instructional scholarship, practice, and policy. As an initial consideration, this study fills a void in scholarly literature. Literature abounds about instructional collaboration in its many dimensions but remains scant about RIC in developing country contexts such as Liberia. This study stimulated new and related investigations on instructional scholarship and might trigger interest in more extensive scholastic investigations into aspects of this remote instructional collaboration (Nicholson et al., 2018; Oelen et al., 2019). The implications of this study on remote instructional collaboration practice cannot survive the reliable predictions before the conclusion of the current research and findings determination (J. Bashir & Marudhar, 2018). However, based on recorded experiences, including support found in near similar settings and circumstances, instructional collaboration benefits outweigh the drawbacks (Lowell & Ashby, 2018; Schieffer, 2016b).

Accordingly, this study will contribute to an enhanced understanding of ecology,

its dynamics, and the prospects for improving the instructional practice (Rosário et al., 2019). Finally, inherent in this study are policy implications for higher education institutions and government agencies engaged with education and other sectors lacking trained human resources to deliver services to the public effectively. Depending on this study's outcome, higher education institutions can appropriate policies that address instructional gaps, increase learning outcomes for scholars, effectively engage diaspora alums of their institutions, and reduce administrative and operational costs. By default, this practice will afford instructors and classroom beneficiaries a critical collection of 21st-century technology skills vital to market readiness (Kato, 2018**).**

Implications for Social Change

This study has enormous implications for social change. A short list of estimated social change impacts points to the prospects for improving instructional practice and expanding the repertoire of instructional practice (Hargreaves & O'Connor, 2018). In recent decades, social research has emphasized incorporating social change implications in research activities as a necessary output for the foundation of societal transformation. As research ultimately seeks to provide answers and responses to social problems, this study can influence instructional practice in various ways (Stull, 2019). Apart from educational enhancements made possible by the interaction inherent in instructional collaboration, there is the transfer of critical skills, methodical expansions, and the enlarging of the instructional delivery repertoire of tertiary institutions. Beyond the educational enhancement of remote-instructional collaboration are the prospects of improved institutional competitiveness.

Tertiary institutions of higher learning are in a better position in various ways, including the quality of instruction and instructional outcomes. According to Supe et al., (2018), two broad factors, both internal and external, have implications for institutional competitiveness. Supe and colleagues (2018) maintained that internal factors are directly a function of the environment. Institutional competitiveness positions organizations to establish service delivery and contribute to national development. Likewise, instructional quality is an internal factor that impacts the institutional competitiveness of educational entities. Competitiveness is concurrently affected by external factors, including social and political environment, academic regulations, and national political will; these are expressed through the fiscal and legal environment that supports a nation's educational infrastructure (Indrawati & Kuncoro, 2021).

Last but not least, among the social change implications of this study is the diaspora engagement model that may emerge. Developing countries are unceasingly striving for effective modes of engagement in which diaspora communities and their native countries are beneficiaries in cost-effective ways. The model typified in this study suggests that diaspora members need not relocate to contribute to the national development of their native countries but can lend their time, knowledge, skills, and resources, whether personally or community-owned, towards the advancement of their native country's development. Additionally, the model of remote collaboration is practically applicable to other critical service delivery sectors, including health, management, finance, human resources, and technology.

Summary

This introductory section of the investigation provided the study's general background and context fundamental to exploring Liberian educators' perception of RIC and its influence on instruction and learning. The section began with a presentation of the study's context and working definition of the investigated problem, as well as the study's nature, the central research questions, its significance, and the theoretical framework to guide the investigation. The study selected Rogers' (2003) diffusion of Innovation theory as the theoretical framework for conducting the study and guiding the analysis process. Importantly, operational definitions lent understanding to readers on their contextual usage in this study.

The next chapter will include a detailed literature review of the study's background, context, and connection of RIC in the literature. An important realization was the utilization of Rogers' diffusion of innovation theory as the study's theoretical foundation to glean an understanding of the direction of the study. Chapter 3 of the study will examine all aspects of the research methodology, including research design selection and the data collection and analysis processes. Chapter 4 includes the tabulated results of this qualitative investigation and presents them in a consumable form for readers. Chapter 5 will present the study's findings from the analysis process and provide recommendations to enhance readers' understanding of participants' perceived outlook on remote-instructional collaboration and its influence on instruction and learning. Finally, the study will conclude with a detailed narration of the implications for social change of the phenomenon.

Chapter 2: Literature Review

Introduction

Remote instructional collaboration (RIC) is a non-existent pedagogical strategy in Liberia (Upadhyay & Taddese, 2020). The advent of COVID-19 and its influence on educational service delivery, especially at the public tertiary level, exacerbated demands for technologically equipped instructional personnel across many educational landscapes (Khoza & Manik, 2016). Specifically, the pandemic amplified the tertiary-level instructional technology gaps in developing countries (Elangovan et al., 2020). The instructional void motivated education professionals to consider RIC, a phenomenon that attracts dividends to secondary classrooms across the developed world but remains untapped in the developing world, especially in Liberia.

Schieffer (2016a) indicated that RIC is a technology-facilitated collaborative environment in which participants, education professionals included, interact to jointly deliver instructional services to sustain learning and instructional outcomes (Hodges et al., 2021). Though considered an emergency policy measure, in the wake of the pandemic in Liberia, remote instruction has far-reaching implications for instructional service delivery in developing country contexts, especially considering resource access and differentials between communities of practitioners living abroad and those in developing countries (Dar & Resh, 2019). Unfortunately, there is a lack of understanding of educators' perception and disposition to remote instructional collaborations in Liberian tertiary schools.

This basic qualitative study explored Liberian educators' perception of and disposition to RIC in Liberian tertiary classrooms. In an environment where online instruction has yet to gain traction, understanding educators' perceptions, motivation for collaborating, and estimating potential inhibitors to online instructional collaboration could significantly fill the gaps in literature and practice in the Liberian context. Through the results of this study, I hoped to expand tertiary-level instructional policy options and increase education stakeholders' outlook on remote instruction and RIC within the Liberian context.

This chapter includes the central construct of the current study within the context of existing literature, beginning with an overview of the theoretical framework used to frame this study. Next, the literature review strategy, analysis, and synthesis will be presented from the perspective of emerging innovation adoption motivators (purpose for adoption, facilitating environment, implications for practice, and projected outcome), as derived from the literature review process. Finally, the chapter includes an examination of the impact and contribution of each parameter to the collaboration process and presents a balanced perspective to advance the research findings.

Literature Review Strategy

To advance the academic foundations of this study, I used various resources, including Walden University's ScholarWorks search engine, Walden Library Resources, ERiC, ProQuest Central, Google Scholar, Wiley Online Library, and many other valuable online resources. To generate the needed information to facilitate support for the study, a variety of keywords, including *remote/distant instruction*, *instructional collaboration,*

diaspora Liberians, perception or attitudes, and *public tertiary institutions,* informed the search. In cases where search results yielded unexpected outcomes, iterations of the keywords provided proper outlets to engage various databases (Marcos-Pablos & García-Peñalvo, 2020). Additionally, references to dissertations, books, and other printed resources proved vital to the academic foundations of this study. Information emanating from the searches was illuminating and insightful, including works from Heslop et al. (2018), Schieffer (2016a), and Thompson (2017), which supported the literary bedrock of this study as detailed further in this chapter.

Theoretical Framework

The theoretical foundation identified to guide this qualitative study was Rogers' (2003) diffusion of innovation theory (DOI). As the academic pillar of this investigation, Rogers' DOI theory is built on three cornerstones: innovation, time, and the adoption of new ideas in professional practice. Many other theories define innovation as simply the process or act of thinking outside the ordinary bounds, such as the generation of new approaches and adjusting to changing times (Vovides & Lemus, 2018). Rogers' (2003) DOI theory, however, pertains to "the process by which innovation is communicated through various channels over time among members of a social system." Roger's conceptual definition highlights several fundamental concepts the theory thrives on innovation, time, and adoption by a social system (Latouche, 2019; Moon, 2016). Rogers (2003) highlighted the importance of social networks in adopting or affecting innovation. He concedes that "adoption is not spontaneous, but a process," meaning that adoption is

essentially time-dependent and contingent on the role and impact of social networks' appreciation of the derivable potential benefits (Gonera & Pabst, 2019).

In the search to identify a workable theoretical framework for this study, several options, including Daly's (2010) social network for educational change, were available to amplify the critical role social networks play in the institution of change (Arguel et al., 2018). Daly's theory of social network-dependent change believes that skills are mutually acquired and mastered with constant interaction, making transformation possible (Peeples, 2018). However, the theory's limits are its tenets of innovation and its diffusion across a social system. Peeples (2018) makes a strong case for social identity theory, which has, as its strong point, the pursuit and maintenance of individual uniqueness in social networks (Scheepers & Ellemers, 2019). The angle, as mentioned earlier, of individual uniqueness limits the social identity theory as a viable option for the theoretical foundation of this study.

DOI Evaluation, Parameters, and Propositions

Firstly, Rogers postulates innovation diffusion as a process, a systematic collection of actions targeted at a positive end goal. Secondly, Rogers' diffusion unceasingly occurs over time (Rizzo & Porfiri, 2016). Rogers (2003) recognized that distribution takes time and requires direct or observed interaction within and between various social networks, whether networks are structured or not (Dunbar, 2020). Dunbar (2020) further contended that diffusion and social networks are pivotal in disseminating innovation across society. The theory's foundational principles remain time-dependent communications of innovation and its adoption by social structures (Diffusion of

innovation, 2020). The approach effectively accounts for the framework upon which products, services, or ideas have reached society over time (Dearing & Cox, 2018).

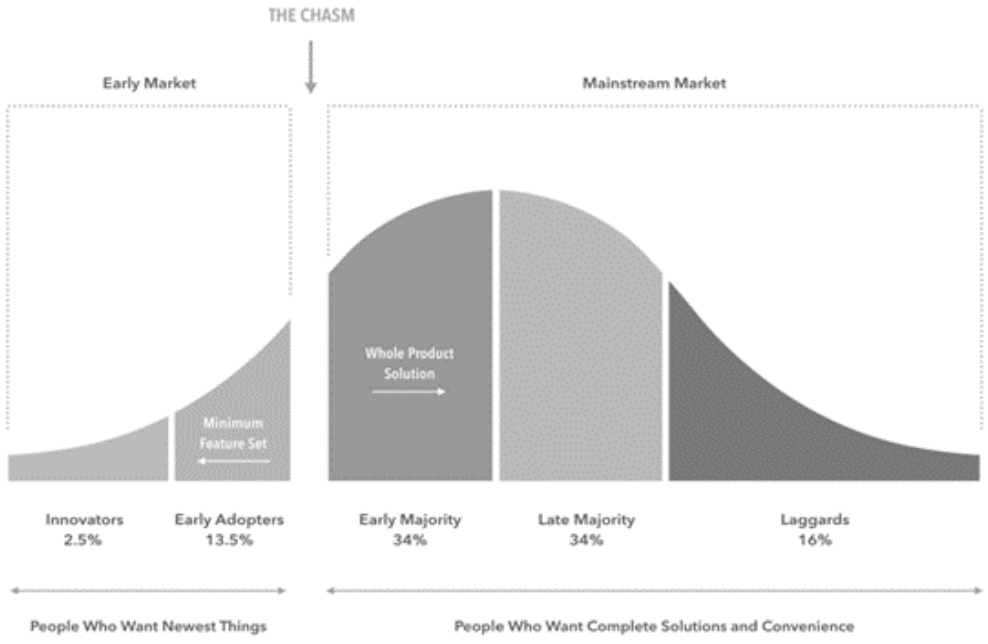
Miller (2018) proffered that the DOI theory is empirically classifiable into three general phases: framing innovation operationalization, examining adopters' response over the diffusion stages, and validating adoption drivers, as postulated by Rogers (Lašáková et al., 2017; Lee & Mirza, 2021). The first three classifications emphasized creating a marketing model that projects the innovation's conveniences and benefits. The operationalization of innovation underscored the procedural communication process where products, services, or ideas are packaged and diffused in various ways to potential adopters (Dearing & Cox, 2018). Concisely, the second classification documents potential adopters' responses to the innovation and its use (Nyoni & Goddard, 2021). In this classification, adopters examined the needs of potential adopters and those of the early majority, late adopters, and the laggards to understand their attitudes and develop innovation using instigation measures (Lee et al., 2017). The third classification focused on identifying, understanding, and managing innovation adopters' drivers. This third classification involves investigating various endogenous and exogenous factors that could constructively contribute to innovation adoption, along with those capable of undermining or delaying adoption (Talukder, 2016b). While the classifications provide a preview of the larger picture of the innovation-adoption spectrum, the works of two other proponents amplified the relevance of the theory.

Moore's Diffusion of Innovation Model

Dearing and Cox (2018) communicated variations of the DOI theory and found connections from their respective background. In Moore's (2014) seminal work "Crossing the Chasm" clarified how societies adopt or reject innovation. Smith (2018) explained Moore's model of diffusion, which posits the division of society firstly into an "early market" composed of innovators and early adopters, people desirous of leading the adoption of new ideas, practices, or products. The second division of adopters is those seemingly requiring global solutions and the conveniences that come with them.

Figure 1

Moore's Diffusion of Innovation Model, cited by Smith (2018)



Pitched on the theory of "chasm," Moore's contribution to the development of this theory dates to the Mid-western American agriculture period in the 1920s. Moore designed the model to demonstrate how appropriated agricultural innovation transmits to

the mainstream of practice. Moore asserts that the chasm was the most significant obstacle facing innovation adoption, emphasizing that adoption was a function of product marketing at their current exposure stage (Hasan et al., 2021). According to Smith (2018), Moore's explanation of chasm accentuates the adoption gap between segments of society always wanting the newest products and the skeptics of innovations, most of whom, for various reasons, delayed their use of the innovation. For Moore, managing the chasm, the innovation-user gap, was critical to the adoption expansion, especially for startups and marketing purposes that target influential segments of the adoption population (Libai et al., 2017).

Bass' DOI Mathematical Model

Another major contributor to the DOI theory using a mathematical model was Bass (1969). Bass proposed that the "probability of non-adopters of an innovation is a function of those who had previously adopted." Fundamentally, Bass' model proffered that the diffusion rate was significantly influenced by the initial adopters, as represented by Rogers and Moore (Lynn et al., 2017). Bass' model is excellent for mathematically estimating adoption projections for new products, considering that no competing alternatives are readily available in the public sphere (Ntwoku et al., 2017). The model is essentially valuable for the determination of long-term sales patterns. Bass' DOI model assumes that early adopters' overwhelming influence on adoption is previous adopters. Using his nonlinear differential equation, represented as in which "p," coefficient of innovation, and "A(t)" is the cumulative adopter function. Bass determined there was no interaction between "P" and "A(t);" hence, the coefficient of imitation "q/M" reflects the

influence of prior adopters, where "M" represents the potential market of adopters. Bass also posited that verbal interactions between people in a social sphere drove the diffusion of new products (Ntwoku et al., 2017).

Figure 2

Bass' Mathematical Model of Rogers' Diffusion of Innovation Model (Bass, 1969)

$$\frac{f(t)}{1-F(t)} = p + \frac{q}{M}\left[A(t)\right]$$

Rogers' Attributes of Innovation

Rogers (2003) stated that innovation must possess five critical attributes to bolster its diffusion prospects: relative advantage, compatibility, complexity, trialability, and observability. In Rogers' wisdom, comparative advantage refers to benefits attracted to adopters of innovation concerning alternate ideas, processes, or products (Emani et al., 2018; Raman et al., 2018). Emani et al. (2018) emphasize this point in their research by noting the perception of adopters and non-adopters of patients' portals for health care and health information purposes. Rogers' relative advantage attribute recognizes the importance of innovation alternates and their influence on adoption decisions. Therefore, innovation is more likely to be adopted if it offers more significant benefits than its alternative(s).

Innovation compatibility, according to Rogers, is how well an innovation aligns and services the current needs of adopters. Innovation compatibility considers the effective alignment of the product, idea, or process with adopters' values, experiences,

and needs (Raman et al., 2018). Innovation compatibility essentially speaks to how well adopters' situations and circumstances align to innovation efficiently and effectively, thus facilitating the attainment of projected goals. Ax and Greve (2017) maintained that there is conceptual duality when considering compatibility. Compatibility increasingly refers to the immediate needs of adopters and the environment within which they work. As such, innovation serving institutional values and beliefs attracts faster adoption than incapables.

Rogers (2003) considered complexity or "insufficiently" a vital factor in determining whether to adopt innovation. How complicated or feasible the innovation is to understand, and use impacts the speed with which adopters either engage with or reject it. Sun et al. (2018) attempted to understand the determinants impacting large-data adoption by large organizations using the technology-organization-environment (TOE) framework to illustrate further the complexity factor and its influence on innovation adoption. The study found that technological capabilities, fiscal investment competencies, data quality, and integration, among other factors, impact large-data adoption in large corporations (Park & Kim, 2021). It is worth noting that while the mentioned factors might be generalizable across organizations, large individual institutions in various sectors may have more specific factors impeding the transition to large-data adoption.

Rogers placed an enormous premium on the trialability of innovation as a critical adoption determinant for potential adopters of that innovation. In Rogers' estimation, trialability is adopters' ability to familiarize themselves with the innovation, testing, and finding answers to questions or challenges that may arise pursuant to an adoption decision Smith (2018). The testing period focused on the alternatives' compatibility,

complexity, and relative advantage (Emani et al., 2018). In a testament to the influence of trialability on innovation adoption decisions, Raman et al. (2021) examined the feasibility of online examination proctoring, highlighting to check whether an innovation met Rogers' attributes of relative advantage, compatibility, and complexity: ease of use or access. Raman and colleagues found that trialability, among the other qualities, provided the critical space to test Roger's innovation attributes (Almoftadi & Aldarabah, 2020).

Finally, Rogers' attribute of observability is particularly essential as it presents skeptics of an innovation adoption as a non-obligatory space to watch and determine whether to adopt. As adoption is the outcome of a decision-making process, observability is the precursor to the adoption process. The conceptualization of whether to adopt is essentially a function of observation based on adopters' peculiar needs (Fu & Hou, 2020). The extent to which innovation is accessible to potential adopters to assess its workings is critical to informing adoption decision-making(Adzobu et al., 2021). The observability construct unfolds in two ways: visibility of the innovation outcomes to potential adopters and process discernibility to potential users. Gharaibeh et al. (2020) advanced this point in their qualitative study explaining the adoption of mobile health applications employing the DOI as its theoretical foundation. The study submitted that direct and indirect observations positively impact adoption decisions. However, observability's influence on adoption decisions becomes more prevalent in intimate settings than in large corporate environments (Talukder, 2016a).

Criticisms of the DOI

Despite the significance of the diffusion of innovation theory in the innovation adoption arena, it has not been without its share of criticisms. Criticism directed at the DOI has ranged from its pro-innovation biases, nonlinearity proposition, socioeconomic implications, and much more (James & Bewsell, 2021). Rogers' (2003) diffusion of innovation theory is ladened with the challenge of equality. Considering the socioeconomic benefits of innovation adoption, Rogers contended that the advantages accrued to individual adopters do not spread over to non-adopters and significantly limit the adoption rate (Domlyn, 2021). Domlyn argued that socioeconomic status is often an essential driver of adoption (Hubert et al., 2018).

Compared to the economic theory of conspicuous consumption, better-resourced consumers tend to demand more goods and services, reflecting status and economic distinctions. Early adopters generally have the financial might to jump at status-defining opportunities with early innovation use (Ramakrishnan et al., 2020). Ramakrishnan et al. (2020) further suggested that a person's urge for social distinction often propels innovation adoption and sets them apart as early adopters. Consequently, innovative individuals further down the proverbial "economic ladder" tend to lose the direct benefits of the early adoption process.

Another criticism associated with the diffusion of innovation theory and closely linked to the socioeconomic demarcation of innovation users is the model's non-linearity. The unique feature of the model characterized the diffusion process as "unstructured" and not a viable predictive mechanism for estimating the number of potential adopters (de

Vries et al., 2018). Critics realized that innovation adoption depended on a collection of often, interdependent factors, including environmental and associated conditions controlled by dynamic and bore propensity to impact and be impacted by other factors (Sun & Gao, 2019). In their study regarding school-wide adoption of the flip-classroom, Sun and Gao tendered that social, environmental, and political dynamics inherent in the innovation adoption context assumed no staticity in adoption factors. Adoption factors, according to Rogers, were constantly changing and asserted that disparities in benefits of innovation adoption between early and non-adopters were reflective of the socioeconomic gaps subsisting between adopters and non-adopters, thus explaining the non-linearity of the model (Almaiah & Mulhem, 2019).

Associated with the socioeconomic factors influencing adoption decisions was what Rogers referred to as the "knowledge gap." This gap, he explained, clarified the disparity in adoption decisions between better-positioned members of society. In line with that argument, McNicholl (2018) contended that members of the social systems and other critics have hinged on the perspective that Rogers' theory negates the influencing dynamics of competitive innovations. The theory minimally accounts for the influence of policymakers, organizations, and the non-adopting publics' impression of the adoption process(El-Haddadeh, 2020). The model further negates the effect of adoption decisions on innovation choices and how adoption rates unfold (Genné-Bacon et al., 2020). It, however, minimally accounts for the impact of policymakers, organizations, and non-adopting publics on the innovation adoption process. In other words, and as Kee (2017) expressed, researchers' engagements with the diffusion of innovation theory have merely

focused on the acceptance and utilization of innovation, without any recourse to the complexity often associated with changing behaviors, adoption, or assumption and beliefs about the innovation (Ax & Greve, 2017).

Finally, and by no means, the least of the criticisms directed at the DOI theory is that much of the emphasis targeted individual adopters' beliefs and behavior rather than institutional adopters. Considering that an individual's innovation adoption decision depended solely on personal reflections, institutional adoption, and adoption processes were contingent upon the integration of innovation, adopters, and the adoption process (Sun et al., 2018). As such, placing people in any adopter category could prove challenging for an associated innovation, given the factor dynamics of the adoption landscape (James & Bewsell, 2021). In other words, adopters are unceasingly engaged in making adoption choices between evolving innovations and the factors influencing decision-making. Each innovation adoption decision has implications for adopting related innovation (Pichlak, 2016).

Deployment of DOI Theory Across Sectors

The contexts and dynamics of associated innovation significantly impact adopters' beliefs and behaviors as a crucial component of adoption decision-making (Sun & Gao, 2019). As earlier discussed in this study, the DOI theory has provided the theoretical platform for many studies undertaken in various sectors - including agriculture, agriculture, engineering, sales, education, architecture, the tech industry, public policy administration, and the health industry - and many other landscapes (Kreps, 2017). While many have focused on the drivers of innovation adoption to understand and

effectively estimate adoption rates more fully, others have pointed their lasers at the adoption environment. The following outlines examples of studies utilizing the DOI framework to understand the innovation adoption process's contexts, drivers, and implications. Demonstrating the applicability of the diffusion of innovation theory, I have selected to highlight the application of the idea in education, technology, agriculture, and health sectors through the prisms of the PEPO framework - which will be elaborated upon further in the following passages.

DOI Theory in Education

Cowley et al. (2021) deployed the DOI theory to investigate educators' perceptions of the effectiveness of third-party credentialing certificate programs and their integration into digital media marketing education. Working with a cross-section multidisciplinary faculty of 122 participants for their study, Cowley and his Team found that less significant certifications attracted higher adoption rates. Simultaneously, the generality of the program received enormous traction from users regarding awareness and the attending benefits. The study revealed that driving awareness and traction for third-party certification were the potentialities of benefiting from career and job readiness opportunities, as represented by the earned certificate. In other words, demands for third-party certification remain directly linked to the job market advantage recipients enjoy. It validates their instructional effectiveness and measures learning outcomes (Burroughs et al., 2019). A primary consideration for underlying innovation adoption centers on the purpose of the innovation against other competing goals and products. Irrespective of

which sectors an idea or product emanates from, a central consideration will first point to the purpose it uniquely serves and the projected benefits to adopters (Garaika, 2019).

Another education-related study by Chizwina and Mhakure (2018) averred that the diffusion of innovation adoption theory explored how technology attributes affected the adoption of ICT in higher education mathematics instruction. Additionally, it sought to investigate how adoption unfolded and what factors might have motivated the adoption of information communications technology in mathematics instruction in higher education. This qualitative study used semi-structured individual interviews to capture the perspectives of 5 higher education math instructors. Data analysis revealed that instructors perceived technology as disruptive and incongruent with the methodical problem-solving procedure in higher education mathematics classrooms. According to the findings, instructors preferred the traditional "pen-paper" routines. Instructors rationalized that the technology-incorporated mechanisms undermined students' comprehension and appreciation of critical problem-solving steps (Guimarães et al., 2018). This particular outcome speaks to the relative advantage of technology adoption in which the decision to adopt is pitted on the relative benefits of the new over the old idea (Sugandini et al., 2018). Math teachers' contention about the solution disparity between the methods inhibited their proclivity towards technology incorporation in the instructional process. In other words, consideration regarding what is not learned as a direct result of technology use would impede holistic learning for their students, hence the non-adoption decision.

As a direct result of the pandemic, higher education institutions across the developing world have had to adapt to e-learning solutions to meet the learning needs of their populations. Daouk and Aldalaien (2019) endeavored to understand the staggeringly moderate adoption rates for E-learning technology in UAE higher education classrooms, despite the enormous financial investments made to equip those learning environments with E-learning systems. The qualitative study used the auto-ethnographic research methodology to identify factors motivating adoption decision and their perceptual measures of success in the Computer Information Sciences (CIS). Using the four pillars of Rogers' diffusion of Innovation theory, this auto-ethnographic qualitative investigation found that usability and complexity were adoption inhibitors for higher education employment of e-learning instructional technologies.

The recommendations, though non-specific, call for the broad incremental engagement of Rogers' adoption of innovation variables to spur the adoption of E-Learning technologies. Arguably, the rationale for such general outcomes is the indefinite determination of the impact of any variable on the adoption decision (Daouk & Aldalaien, 2019). However, understanding the relative impact of individual variables of innovation adoption could inform marketing focus for proponents and likely users.

DOI in the Technology Sector

The adoption of technology has relied closely on the influence or impact, as the case might be, on related context and environmental factors. Adeshina and Ojo (2020) explored factors critical to E-voting adoption in Nigeria utilizing the general elections of 2011. Contextually, considering external and internal environmental factors is essential to

understanding and managing how adoption occurs in some settings (Simoes et al., 2019). According to Adeshina and Ojo (2020), some environmental factors include the political atmosphere. The regulatory framework, accessibility, ease of use of technology, psycho-social and political factors, potential adopters' perception of trust and confidence in e-voting and elections management bodies, political climate and culture, and age-related influences on e-voting practice. Adeshina and Ojo also point to a controlling legal framework, cybersecurity infrastructure to allay fears of any threat, and even significantly, the prospects of verifiability of the e-voting outcomes, in addition to the costs of e-voting access for the participants (Herawan & Sensuse, 2018).

DOI in the Agriculture Sector

The innovation adoption theory applies equally to agriculture as it does in many other sectors. Agriculture seemingly provides the best scenario for Rogers' diffusion of innovation theory. Vecchio et al. (2020) argued that cultural, economic, social, and agroecological contents immeasurably inform adoption decisions in agriculture. Socio-cultural norms of farming communities dictate attitudes and behaviors in farming communities, which may significantly affect adoption choices (Yatribi, 2020). Agricultural processes are historically traditional and, more than often, transferred. Innovations in agriculture are clinically disruptive of prevailing agricultural traditions and impact farming practices. Adopting innovations in this context ultimately impact socio-cultural cohesion and influences generational patterns. The process furthers the ease of transfer to the larger pool of potential adopters. The impact on practice is viewable from the individual, organization, and social systems levels. How different levels perceived or

conceived the effect of innovation on traditional farming techniques and approaches - in addition to other critical factors - will determine the adoption rate.

DOI in the Health Sector

The health sector has been at the center of innovative focus, from communications, collaboration facilitation, patient engagement tools, and modalities to vital data collection, processing, and retention. Endless waves of innovativeness have impacted health delivery services advancement globally (Agner et al., 2020; Hayward et al., 2018; Hughes et al., 2018). Cubric (2020) alluded to the critical importance of the transition, integration, and popularization of artificial intelligence in standard healthcare delivery across the sector, given its socio-economic implications and impact on professional practice and health outcomes. Today, practitioners can quickly detect, resolve, and prevent major health crises thanks to the facilitatory influences of technological innovation and their effects on better health care (Domlyn, 2021). While many factors may undermine innovation adoption in the health sector, including social and economic access to some critical services, health systems have recorded marked improvements in delivery, health practice, and outcomes as a direct consequence of evolving health sector innovations (Cubric, 2020).

The preceding examples list the theory's application to understand and advance the evolving innovation adoption process across all sectors. Innovation and innovation adoption, as earlier stated, cut across all industries. The adoption process is non-linear but multi-dimensional, considering the influences of context-specific factors on the

innovation, and adopters' attitude to the innovation, influenced by endogenous and exogenous factors in the adoption process.

Significance of DOI to the Current Study

The Diffusion of Innovation theoretic choice is consistent with academic efforts to explore, for understanding, Liberian educators' perception of and disposition to the innovation of remote instructional collaboration in tertiary-level classrooms. The theory facilitates understanding drivers and inhibitors to early adoption of remote instructional cooperation in an environment still grappling with the actualization of online educational engagements at the tertiary classroom level (Tokpah, 2020; Walsh et al., 2018). The pillars of the DOI - innovation, time, social system, and adoption - are critical to a holistic appreciation of the theory in the current investigation, hence the choice. Rogers' (2003) perception of innovation attributes - relative advantage, compatibility, complexity, trialability, and observability of innovation - supports the theory's appropriateness as a foundational construct for this academic investigation. Essentially, the DOI provides the guiding framework with an investigative exploration of Liberian educators' perception and disposition to remote-instructional collaboration as a viable construct for instructional delivery in Liberia's higher education classrooms. The framework will ensure an analytical focus on processing and interpreting research findings (Nersisyan & Randall Wray, 2017).

Literature Review of Key Concepts

Critical concepts reviewed through this literature investigation include public higher education, remote instructional collaboration, innovation, and innovation adoption.

These concepts are essential to understanding how and why Liberian educators' perception of remote-instructional collaboration could impact their instructional effectiveness and learning.

The Ecology of Collaboration

Regardless of the setting, collaboration can fall within two constructs: collaboration as a skill and a process. According to Newell and Bain (2018), collaboration is the reciprocally beneficial and defined relationship between people, organizations, or both, driven by shared process, purpose, and goal(s). While this study will focus on the collaborative process as envisioned, it is also vital for academicians to understand the intimate connectivity between collaboration skills and the process. The advent of the Covid-19 pandemic generated the necessity for individuals and organizations to explore ways by which they could continue to serve while ensuring health safeguards (Koh et al., 2020). Collaborations have surfaced to facilitate business under pandemic-imposed conditions as the most practical service delivery model (Ghazi-Saidi et al., 2020). There remain complexities in the various collaboration, and as such, curling a single definition that cuts across sectors can become contentious. However, examining collaborative processes reveals three essential elements: individuals and organizations, cooperation, and shared goal(s). Therefore, collaboration becomes any venture driven by two or more people and institutions towards attaining a common goal (Shannon, 2021).

The ecology of collaboration consists of several endogenous and exogenous variables that influence the success or failure of various collaborative ventures at varying

levels (Fernández-Olmos & Ramírez-Alesón, 2017). They suggested that institutions, especially at the macro level, are better positioned to manage partnership interactions for organizational success (Sydow & Berends, 2019). Schieffer (2016a) examined online adjuncts' lived experiences within virtual collaboration contexts. This phenomenological qualitative study found that focusing more on policy actions and leadership supporting virtual collaboration could advance instructional outcomes in their work. Vovides and Lemus (2018) pointed to the essentialness of training educational personnel in collaboration dynamics and deploying new and existing collaborative models that advance instructional designs bearing the propensity to optimize curriculum outcomes.

Educational collaboration may generally be structured or unstructured. An unstructured collaboration refers to any form of cooperation between educational agents loosely managed - in terms of operations, expectations, and outcomes (Newell & Bain, 2018). Newell and Bain proffer that collaboration success is aptly contingent on critical factors, including environmental considerations, composition, and the collaborating framework (Amelkin et al., 2018; van Belzen et al., 2019). Unstructured collaboration relies largely on less determinate factors and lacks accountability systems since membership is loose (Beiki et al., 2020).

On the other hand, structured collaboration operates within a determinable framework characterized by accountability among members. Consensually, roles and responsibilities are commonplace, and members have mutual expectations of each other. Structured collaboration is more likely to succeed than unstructured enterprise since the commonality of purpose often drives the collaborative process (Datnow & Park, 2018).

Structured joint ventures have established frameworks, clearly articulated guidelines, mutual inter-groups, and collaborators' organizational expectations (Lueck & Nasr, 2019). This study focuses on executing a formally structured collaborative endeavor between Liberian educators in the United States and Liberia to enhance instruction and learning for all participants in public higher education classrooms. Therefore, I look next at the phenomenon of remote-instructional collaboration, meaning, contexts, and expectations within this context.

Remote Instructional Collaboration

Unlike virtual-instructional collaboration, remote-instructional collaboration orbits around the concept of distance, regulations, and not merely any digitized collaborative instructional interaction. Remote-instructional partnerships can mean any form of instructional collaboration executed remotely (Hodges et al., 2021). However, in the context of this study, the focus is on a technology-facilitated co-teaching arrangement between US-based Liberian practitioners and Liberian practitioners in Liberia. The conception of the phenomenon as a co-teaching arrangement in which participants share responsibility and are accountable for all aspects - planning, delivery, assessment, and outcomes - of the instructional process - is the central thrust of this research (Zlatkin-Troitschanskaia et al., 2018).

As described earlier, remote instructional collaboration in Liberia emanated from an analysis of data collected over six months of dialoguing between various panels of Liberia educators during the pandemic (AEF, 2020). The data gathered emanated from Educational Development Innovations' African Educators' Forum dialogues to examine

the impact of the pandemic on educational service delivery across the continent and share redress measures. Nearly 60% of the panelists proposed remote instruction collaboration, which presents ample opportunities for improving instructions and increasing learning outcomes and could effectively bridge the Liberian diaspora's contributions to educational betterment in cost-effective ways (Caldwell & Chávez, 2020; Educational Development Innovations, 2020).

Public Higher Education in Liberia

The effectuation of higher education in Liberia dates to the years following the founding of the then colony established by the American Colonization Society (ACS) in 1822. (Livingston, 1976) recounts the machinations of the ACS in transplanting American education in Liberia, culminating in the Establishment of Liberia College in 1851 (Hetrick, 2020). Livingstone attributes the Trustees of Donations for Education in Liberia - based in Boston, Massachusetts, and the New York Colonization Society - actions to the conception of the Liberia College (pg.250). Though non-operational until 1862, Liberia College became the first American degree-granting institution outside North America. Liberia College became the first tertiary degree-granting institution in the West African region. Simon Greenleaf, then Dean of the Harvard School of Education and author of Liberia's initial Constitution, was approached about the prospects of commencing theological education in Liberia, much like the founding precepts of the Fourah Bay College in Sierra Leone as was done by the British. Anson Phelps, a prominent philanthropist, and president of the New York Colonization Society embraced the idea and used his influence accordingly (Blyden, 2017).

In 1863 the first seven original students were admitted to the college, followed by the equivalent of the remedial admittance enjoyed by some eighteen others two months later. As the college evolved, administrative regulations and guidelines were formulated and imposed on the Boston-based Trustees for Educational Donations (Bournique, 2017). Today, donations to the college's literary collections emanated from numerous sources associated with the college directly or its benefactors. Curriculum in Latin, Greek, mathematics, history, and French drove education at Liberia College (Blyden, 2017). Race and the evolving social tension that came with it tended to undermine the college's progress. Socio-political divisions oozed into the college corridors, fermenting further tension between various social groups. Because of class and religious preservation, the services of the college did not transcend the Americo-Liberian community dominated - economically and politically - by the mulattoes -mixed-race - caste to the exclusion of native Africans.

Abbreviated History of the University of Liberia

The University of Liberia grew from strength to strength over the decades serving as Liberia's most extensive public higher education and predominantly financed by the Government of Liberia and bilateral and private partnerships (Clark Atlanta University, 2021). By 1897, Liberia College experienced a shutdown due to instructional shortages and infrastructural challenges. The appointment of former President Garretson W. Gibson of Liberia triggered growth in student enrollment. Resigning in 1901 to take on the presidency of Liberia for his second stint, the leadership of the college rotated among a distinguished list of local education luminaries with the support of the college's

significant benefactors, the Trustees of Donations based in Massachusetts and the New York Colonization Society (Allen, 1982).

The Liberian National Legislature, in 1951, enacted the University of Liberia, replacing Liberia College as a full degree-granting status and served regionally as the bastion of educational advancement in West Africa alongside Fourah Bay College in Sierra Leone, established by British philanthropy. In recent years and to strengthen the University's position, several strides to bolster its capacity to address the needs of beneficiaries; current President Nelson has taken some crucial measures. Policies aimed at bringing the institution to its international and regional peers, including enlistment in the University Consortium for Liberia, a collaboration between the University, Liberia's Georgia Consulate Office, and educational institutions and education philanthropists in the State of Georgia, the United States. In response to the scourge of the COVID-19 pandemic, the E-Learning program at the university will improve its global competitiveness and better position graduates to serve the economy of Liberia more productively. The University currently has seven (7) colleges, five (5) graduate programs, and three (3) professional schools serving over 18,000 students.

Brief History of Cuttington University

Founded in 1887 under Episcopal Bishop Samuel Fergusson's leadership, the school was initially based in Liberia's southeastern-most Maryland County, 30 years after the then independent colony's annexation to Liberia. Founded originally as the Hoffman Institute for skills and virtue training by the Episcopal Church in Liberia, the institution was transformed into the Cuttington Collegiate and Divinity School when, in 1889, the

cornerstones for the erection of the first campus in Cape Palmas, Maryland, was initiated (Barclay, 2020). The school carried the name of its principal benefactor, Mr. Robert Fulton Cutting, who donated $5000.00 towards the procurement of land for the construction of the school. Over the years after, the college awarded proficiency certificates and later gained authorization in 1922 to grant degrees. Financial and other administrative reasons forced the school's closure in 1929. The transplantation of the church in pursuit of its missionary programs in Africa benefited the early settlement of Liberia (Cuttington University, 2017).

The University strategically situated its graduate professional studies program in Monrovia. Under the then Bishop of the Episcopal Church in Liberia, Bravid W. Harris, and the foresight of Liberia's President William Tubman, the government of Liberia donated 1500 acres of land to the school in Suakoko, Bong County, for agricultural training and educational purposes. Under Rev. Seth Edwards, the institution relocated from Maryland County to Suakoko, Bong County, where it has remained headquartered. Since then, the college has expanded its academic delivery from the new location and institutional offerings under the leadership of a list of clerical graduates (Elwood Dunn, 2020). In 1970, the school rebranded itself as the Cuttington University College, composed of faculties in education, humanities, social sciences, natural sciences, nursing, and theology (Zinnah & Jackollie, 2020). The school currently runs three campuses, a satellite in Liberia's central city of Kakata, Margibi County, to address tertiary educational needs for students in that region. Cuttington remains partly supported by the government of Liberia. By the land grant, government-provided land, the school was

profiled as a partially owned public tertiary institution in Liberia (Cuttington University, 2017).

Outlined History of William V.S. Tubman University

Liberia's third public degree-granting institution of higher learning is the William V.S. Tubman University, formerly the William V.S. Tubman College of Technology or "TC," a preferred reference by many of its alums. Tubman University's founding dates to 1978 due to the absence of a viable skills training program in the Southeastern segment of Liberia. Influential constituents from the region campaigned for the erection of a memorial project for their prominent son, Liberia's longest-reigning president, after whom they named the school. In commemorating his 75th post-mortem birthday celebrations, the County of Maryland donated as part of the proceedings for the festivities (Zinnah & Jackollie, 2020). President William Tolbert, former Vice President to the late President Tubman, launched the construction of the University. Upon commencement of academic activities, the University enrolled 87 students. Over the years since, an average estimation of 60% of Liberia's engineering -architecture, civil, electrical, electronic, and mechanical - luminaries attributed to the University's education who had earned either a bachelor's or an associate degree.

The Liberia National Commission for Higher Education (NCHE), in early 1990, just before the full bloom of the 14-year civil war, was accredited to award a five (5) year Bachelor of Science degree in engineering. As was the case with most institutions during the civil crisis, the University had to shut down due to Infrastructural damages, looting, and the lack of instructional staff, prolonged the reopening of the school beyond its other

national rivals. Invigorated by incessant calls on Liberia's Ministry of Education and the National Commission for Higher Education to reopen the school. With public pressure mounting from citizens and legislative representatives of the region, the Ministry of Education, and the NCHE, between 2006 - 2007, set up an interim management team, followed by a reopening feasibility study (Brooks, 2021). Positive feedback emanated from the study. The rollout commenced under the then President Ellen Johnson Sirleaf in 2008 with the appointment of Dr. Elizabeth Davis-Russell, as president and the first female head of the institution. President Davis is remembered for her thrust to advance the faculty and offerings of the University.

Amid the resource constraints afflicting the reopened University, and the scramble for greater budgetary allotment, Dr. Davis launched the Tubman University Foundation to mobilize private resources for renovations, scholarships, equipment procurement, and to meet instructional salaries and recurrent institutional payments. Under her leadership, reconstruction and construction took place for faculty, student, and classroom purposes. President Davis initiated new academic programs ensuring closer partnership with the local communities to meet their immediate needs (Brooks, 2021). Tubman University now boasts of graduating over 600 students - over its eight graduation exercises - from various academic disciplines offered by the universities' six (6) colleges (Dodoo, 2020). Under President Elliott Wreh Wilson, the University strives for excellence, but not without challenges. A New Dawn newspaper report recalled the mounting calls by students for the resignation of Dr. Elliot owing to what was termed a drop in quality instruction as a direct result of policies imposed by the new president

(Mensah, 2021). To augment the measly allocation from the government, the president of the University, Dr. Elliott Wilson, embarked on purchasing over 500 acres of farmland to improve the institution's financial position to meet essential recurrent expenditures (Mensah & Browne, 2020).

Defining Innovation Within the Context of Higher Education in Liberia

Innovation has been defined in various ways, and literature is replete with examples of how expansively the word innovation - the product or idea - has been expounded (Ettlie, 2019). A study investigating 15 innovation leaders' definitions of innovation found that differing expert backgrounds could explain definitional diversity (Skillicorn, 2016). However, definitional commonalities or consensus are identifiable in such keywords as - new, idea, and inherent value. Therefore, it would be safe to say that innovation, regardless of industry, pertains to the exacting of new ideas of intrinsic value - whether they are acted upon (Talukder, 2016b). Within the context of higher education in Liberia, innovation would be any action, idea, or product that ultimately differs from the traditional and brings added value to its adopters (Esposito De Falco et al., 2017).

In recent months and as a direct response to the COVD-19 pandemic, public tertiary institutions in Liberia have had to innovate to meet the learning needs of their communities. One such innovation in the tertiary landscape has been the E-learning institution for over 18,000 students across Monrovia (Nelson, 2020). Despite protestation from students and rumblings among faculty members of the program about the challenges experienced, the initiation of E-learning programming at the University of Liberia has been an enormous thrust towards contemporizing instruction at any public higher

education institution in Liberia (Nelson, 2020; Tokpah, 2020). Though not a novelty in the more developed learning societies of the western world - virtual learning has subsisted for decades in secondary and tertiary education programming. In Liberia, however, the approach has drawn skepticism from local observers for years; hence as Segbe (2020) suggested, Liberian educators' reluctance toward technology use in classrooms - the same being the general disposition to technology use in many other sectors across Liberia (Knuckles, 2019).

The Gap in Literature

A thorough literature review on public higher education classrooms and remote-instructional collaboration in Liberia proved scanty and non-existent. The phenomenon of remote instruction is yet to gain traction in an environment with deep skepticism regarding online instruction perception in Liberia. It was understandable that educators' incredulity toward educational technology and online instructional processes explained the remote-instructional collaboration gaps. It became imperative to explore educators' perception and disposition to remote-instructional collaboration, understanding the collection of benefits that such an enterprise would attract to public institutions of higher learning. The researcher of the current study, therefore, seeks to understand educators' perceptions of the phenomenon and their disposition to the process by gauging their thoughts using the PEPO data collection mechanism - discussed in succeeding chapters.

The implications for social change of the phenomenon of the study show that this study has extensive impacts on public tertiary classroom instructional portfolios and choices. There are also economic and administrative implications for public tertiary

institutions' policymakers. Within the context of Liberia and considering the numerous human and material resources and infrastructural gaps facing public higher education, this study could unveil new horizons inducing innovative actions for improved instructional delivery, expanded instructional methodological choices, and re-estimation of available infrastructure.

Summary

The chapter included a review of existing literature on the phenomenon of Liberian educators' perception of remote-instructional collaboration in public tertiary classrooms in Liberia. I identified Rogers' diffusion of Innovation theory as the theoretical foundation of this qualitative study. Accordingly, the chapter reviewed Rogers' diffusion of innovation theory in tangent to variations of the idea provided by Bass and Moore. The chapter discussed the literature review strategy, procedure, and process, including methods used to source hard-to-find resource support. A review of literature reveals enormous collection of details around various contexts, forms, and settings of collaborative ventures. However, despite the enormity of references, very little was found to speak to remote instructional collaboration in higher education landscape, thus invigorating the thrust of this investigation – understanding Liberian educators perception of and disposition to remote instructional collaboration.

The next chapter presents the research methodology employed in this study, including the data collection and analysis procedures. The chapter will expound on the research design, the researcher's role in the investigative process, data collection, processing, and analysis methods, and discusses reliability and ethical procedures to

further the research credibility and ethics. Furthermore, the chapter will expound on participants' recruitment, selection, and engagement procedures within the guidelines of ethical human participants interaction in research.

Chapter 3: Research Method

Introduction

The advent of Covid-19 and its impact on higher education instruction has been challenging, especially for many African public higher education institutions (Ebrahim, 2020). Innovating beyond the pandemic's limits required moving through the perennial cluster of resource limitations, governance inadequacies, and often outdated pedagogical cultures, all of which plagued public tertiary institutions across the continent (Ezumah, 2020; Twohig, 2019; Wolfenden et al., 2017). To derive practical solutions to the problems posed to the higher education institutions sector by the pandemic, Educational Development Innovations, an educational nonprofit, launched an online platform (African Educators' Forum (AEF) early into the global health crisis. The forum brings together African educators worldwide, as well as those living on the continent, to intellectually share in the solution-finding process (Educational Development Innovations, 2020).

Salient among the challenges evolving from the conversations on the Forum was the critical need to improve the quality of instruction, especially within the framework of the pandemic and beyond. The innovation of remote instructional collaboration in higher education classrooms drew attention and now serves as the basis for this study. This qualitative study explored educators' perceptions of and dispositions to remote instructional collaboration in Liberian tertiary-level classrooms. This research, among other things, contributed to the instructional ecology of RIC and diaspora communities'

involvement in their native country's education development. This study addressed educators' perceptions of RIC and its implications for instruction and learning.

This chapter focuses on the methodological foundation of the study. An explanation of the design of the study, selection of participants, data source, collection mechanism, and analysis procedures are detailed in this chapter. The chapter further includes an explanation of ethical issues, along with this study's scope, limitations, and delimitations.

Research Design and Rationale

With quality gaps in the instructional environment across the developing world, the ever-increasing imperative for tertiary educational institutions to narrow such critical gaps is important (Bashir et al., 2018; Fleisch, 2016; Kaliisa & Picard, 2017). The concept, process, and practice of remote-instructional collaboration is a novelty in Liberia. It presented grounds for exploring perceptions of and disposition to RIC and the estimated impact on professional practice and learning outcomes. This exploratory qualitative research study answered the primary research questions.

RQ 1: How do Liberian educators perceive remote-instructional collaboration in public tertiary classrooms?

RQ 2: What dispositions of Liberian educators would promote engagement in remote-instructional collaboration in public tertiary classrooms?

These questions provided the grounding necessary to ensure alignment between all research components and were driven by the purpose of the study, around which ancillary questions evolved. Compartmentalizing the research's purpose provided a

unique prism through which readers can understand the phenomenon under investigation and its influence on instruction and learning. The research design fundamentally provides the general framework through which this research is engaged and, as such, imposes limitations on researchers to maintain robust alignment between the design and other critical components of the study (Burkholder et al., 2019; Looney, 2018). The choice of basic qualitative design is essential to the study's strategy (Burkholder et al., 2019). Ensuring an alignment supports the reliability and trustworthiness of the research and its outcomes. Responses to these questions will come from a cross-section of Liberian educators working in Liberia and the United States.

Research Rationale

Considering the study's nature to explore educators' perceptions, the choice of a basic qualitative design seemed most appropriate (Denzin & Lincoln, 2017). According to Burkholder et al. (2019), qualitative research is focused on the construction and meaning of a participant's lived experience, whether by association, observation, or lack thereof (Edmonds & Kennedy, 2016; Babbie, 2020; Cardano, 2020). As a viable option for quantitative research, qualitative research facilitates a critical approach to the research process. Edmonds and Kennedy (2016) affirmed that qualitative investigations are ultimately intended to explore unknown phenomena for deeper understanding. This current research sought to do that. Qualitative research has detailed historical applications and is often branded alternatively as ethnographic or interpretative research (Aspers & Corte, 2019). Asper and Corte (2019) further explain the essence of qualitative investigation as an iterative attempt to gain an understanding of "process" and

"outcome," or as an enhanced interpretation of the phenomenon new to the scholarship (Babbie, 2020). The choice of a basic qualitative study fits the framework described by Asper and Corte, as the research's purpose is to present educators' perception of and disposition to remote-instructional collaboration in public tertiary educational classrooms in Liberia.

Exploratory Endeavor

The study is an exploratory endeavor, a qualitative investigation, intended to explore the depth of a research phenomenon from participants' perspectives (Hanks, 2017; Swedberg, 2020). Edmonds and Kennedy (2016) asserted that experimental research designs are investigations characteristically geared at gathering insightful details about phenomena of interest without reaching universally generalizable conclusions (Cardano, 2020; Davidson, 2018). Exploratory studies provide the bedrock for follow-on investigations without focusing on conclusive findings, given the foundational nature of its results for future studies. As a foundational approach, exploratory research saves time and resources and mainly applies to future research potentiality (Cardano, 2020). In experimental examinations, researchers ensure that collected data are fundamentally influenced by lived experiences or informed by a sense of future occurrence (Swedberg, 2020). The latter is important to stress, considering the phenomenological rarity of the study's focus and the need to generate as much information about its practicality and viability (Vagle, 2018).

As an exploratory study considering the investigation's target, attempting to reach a large segment of educators in Liberia and the United States for the task would have

been logistically counter-intuitive (Majid, 2018; Sudha, 2017). Rather than over-extend the meager resources of time and money apportioned to the study, I conducted a cross-sectional exploratory study (Cherry, 2019). A cross-sectional investigation, as in this case, is the engagement of a representative sample of a larger heterogeneous population for a study at a later point (Wang & Cheng, 2020). Wang and Cheng (2020) further explained that cross-sectional studies help utilize a much smaller sample from which generalizations about the larger population are realizable. The population sample in this study represents a much larger universal pool, not feasibly coverable within this research's timeframe and considering the controlling resource constraints (Weiss, 2017).

The Role of the Researcher

Calhoun (2018) and Van Den Scott (2018) highlighted the critical role of a researcher in the investigative process. As a principal investigator, Calhoun (2018) emphasized that the researcher's role in a study was most delicate. The researcher's role includes ensuring ethical, unbiased conduct of the research, among others. When attempting to mitigate ethical biases, efforts must be made to guarantee the absence of any personal or emotional attachment to participants, or ideas emanating from there, which could impact the outcome of this study in any way. The motivation for this study evolved from participants' inclination to the prospect of RIC in tertiary classrooms in Liberia.

A semi-structured interview instrument was developed using the purpose, environment, practice, and outcome (PEPO), a data collection, organization, and analysis mechanism derived from an extensive literature review on the motivational factors

influencing innovation and collaboration adoption. This mechanism drove the data collection process to reduce bias, whether on the researcher's part or that of participants (Calhoun, 2018). The intent and utilization of a semi-structured electronic questionnaire was to remove the divorce of the data collection process of any undue influences by respondents' knowledge of or familiarity with the researcher. Such a strategy attempted to undermine every possible preconception, and each participant has an equitable timeframe to respond.

Researcher as Data Collection Leader

As the researcher, I am crucial in the data collection, especially in this study's current context. Lambert (2020) explained this vital role in her letters to a doctoral advisor, where she catalogs the researcher's leadership in the data collection, processing, analysis, and presentation processes. Every phase of the process has implications for the researchers' professionalism, neutrality, and focus in completing a task. Amid the functions listed, researchers underpin all aspects of the study process with an ethical dimension (Barreto, 2018). According to Barreto, research's ethical considerations impose the need to ensure that standards apply judiciously at any process level (Parker & Berman, 2016). Regardless of which phase a study is in, the participant identification phase, data collection framework, manipulation, analysis, or presentation of the data are susceptible to ethical transgressions if not meticulously mitigated. Since research intends to benefit a collection of people, it is more than critical to research with the utmost prudence, acknowledging that communities are adversely affected when a study is unscrupulously administered (Schmidt et al., 2020).

Inarguably, organizations benefit more from research conducted with the well-being of the subjects in mind (DuBois & Antes, 2018). As the lead investigator, a critical responsibility will be to ensure alignment and clarity between research questions and data collection targets. Additionally, and importantly, are the responsibilities of determining opportunities for collecting data and positioning oneself to mitigate potential challenges in the collection and analysis process. To further meet the duties of this role, logistics and pre-test data collection instruments will be organized to moderate any complexities in respondents' engagement with the tool.

Researcher as Compliance Manager

Another prism that amplifies the researcher's role is managing regulatory compliance. The researcher stands or should understand the regulatory expectations for research undertakings and must pursue actions to ensure compliance (Mandrioli et al., 2016). This study targeted only adult respondents, pressing me as the researcher to uphold the sanctity of the standards intended to maintain the integrity of the research. Compliance regulation, however, goes beyond the targeting and engagement of human elements for study but necessarily includes the legal framework for conducting such research. Research studies operate within various national, subnational, and institutional regulatory and legal frameworks that require consistent adherence (Largent et al., 2020). As the researcher, I am responsible for ensuring compliance with ethical procedures intended to address biased situations and those capable of undermining the integrity of the research outcome (Mandrioli et al., 2016).

While I worked to guarantee compliance, there is the added responsibility of monitoring the rigor and replicability of the process to generate the same outcome if conducted by another research party. My desire to uncover the unknown was motivated by the gains that such methods present; however, I know that research done haphazardly yields minimum results if not conducted in the most procedurally transparent fashion (Bikson et al., 2018). The hallmark of sound research, or as DuBois and Antes (2018) preferred to call it, "clear science," was primarily based on the study's capacity for replication. To ensure compliance in this study, I qualified respondents by requiring them to declare their consent prior to participation. A consent statement was the initial requirement, which was used to authenticate their consent by initializing the consent statement before responding to the interviews. Furthermore, participants were provided adequate information about the purpose of the study and the critical necessity of their perceptions of the outcome of this investigation.

Researcher as Guarantor of Research Social Value

An equally important role of researchers in the investigative enterprise is to ensure social value. Maher and Chi (2018) amplified the importance of social significance to any research undertaking. What is a study worth if it does not address some social challenge? The research industry, captured by DuBois and Antes (2018), was necessarily motivated by the need to produce a value that informs social improvements, practices, and understanding. So, research must add value to targeted communities, whether it is mobilizing communities into action, building larger schools, developing innovative curricula, or transforming farming practices. Value is encapsulated in the

priorities of the communities' researchers engaged, thus measuring the study's success upon its completion. As the principal researcher, my role in this enterprise is to ensure that the outcome of this study has social relevance and contributes to the expansion and development of Liberia's tertiary-level instructional landscape. To achieve social value, working with targeted communities of Liberian higher education institutions is critical in maximizing the outcome value of this study. Establishing collaborative partnerships at strategic levels of the research process enhances stakeholders' buy-in and acceptance. Notably is the provision of timely access to research findings, which is necessary to advance social value, regardless of the study outcome (Lutge et al., 2017).

Researcher as Relations Manager

Finally, but not least, is the role of the researcher as a relational manager. Whether in the field, acting in isolation, or team, the researcher's role is to superintend relationships in ways that constructively keep the research's purpose in focus. Additionally, a researcher enhances the success prospects of the investigative process by how he conducts himself and accounts - through the methodical alignment of the research endeavor (Gabriel, 2019; Harriss et al., 2017). Gabriel (2019) examined how emotions and transference can affect research outcomes, and the need for researchers to stay aware and be guided by the impact relationship management has on research outcomes. Critical to ethical research was ensuring that relationships - human interactions - are not influenced by undermining factors, including anything that emotionally ties a researcher or his team (Wadams & Park, 2018). These can be instances of researcher-team interaction or researcher and community interaction. The researcher's job is to ensure the

advancement of all procedural and human interactions, which do not undermine the research outcome (Schmidt et al., 2020).

As a native of Liberia, I am intimately tied to all things Liberian and known within the two communities of educators targeted by this research. It is, therefore, essential that as the facilitator, deliberate efforts are made to mitigate bias and that participants are scrupulously engaged in ways that facilitate their objectivity to the data collection interviews. While familiarity between the targeted respondents and me is strong, it has a positive impact and can have an adverse effect if not properly managed. Remaining self-reflexive over the research process and staying conscious of my role helped scale up the study's credibility and my deepened understanding of the research (Dodgson, 2019). It can also be said that the tendency to undermine the research outcome is high when the researchers do not appropriately position themselves to mitigate such risks to the process (Corlett & Mavin, 2018). Accordingly, maintaining a critical distance ensures that a level of objectivity is maintained through the research process and that my engagement with participants remains solely in line with the principles and goals of the investigation.

With the researcher's role established, a shift in focus to the research methods identified the study's conduct. In the next section, I explain the choices made regarding the sample population of the investigation, the rationale, sampling choice, participants' recruitment procedures, data collection, and the analysis process. The subsequent section summarizes the likely threats to the study's validity and data reliability, including ethical considerations, assumptions, and limitations of this investigation.

Methodology

This basic qualitative study aimed to explore educators' perceptions of and disposition to remote instructional collaboration in Liberian tertiary classrooms. Participants projected for this study included two communities of Liberian educators: those living and practicing in higher education classrooms in the United States and those living and practicing in public higher education classrooms in Liberia. Using the database of Liberian educators maintained by Educational Development Innovations, the researcher, and the partnering institution, 20 educators in the previously mentioned categories, were targeted for this study.

Precipitated upon Walden's IRB approval, I embarked on the identification of potential participants ensuring balance in gender, age, and experience of practitioners, in addition to other participant selection requirements intended to capture the nature and context of this study. Each participant was digitally served with a set of semi-structured interviews for the expeditious collection of their responses. During the participant qualification stage of the recruitment process, participants were engaged for their initial consent to participate in the study. Outreach took the form of phone calls and emails authenticating their suitability for inclusion in the study. Each likely participant will receive information on the nature, purpose, and goal of the study, exposing them to adequate prior information for their consent to participate (Sim, 2021).

Contact details for participants were validated at this stage to ensure efficient communication between participants and researchers. Based on participants' initial consent, a final list of participants was compiled and digitally served with the semi-

structured interview protocol. It was noteworthy that the interview protocol was researcher-designed to formally capture participants' consent and responses before their engagement in the interview. As a precursor to engaging Liberian-based higher education instructors, a written formal request was forwarded to the participating university's Institutional Review Boards for their approval to have personnel in their employ participate in the study and the use of their facility to unveil the study's results (Margulis & Zimbler-DeLorenzo, 2021).

A secondary purpose for this level of engagement of public universities in Liberia was to garner their trust and build a collegial relationship with important institutions around whom a study was conducted. This builds credibility and recognition and supports sound research (Fontanesi et al., 2018). The research approval request to public tertiary institutions provided an overview and purpose of the study, including the critical role those institutional participants played in the study. Furthermore, the estimated institutional benefits of the investigation to scholarship, instructional practice, and policy were also highlighted. Meeting these requirements was critical to addressing the ethical foundations and standardization of the research (DuBois & Antes, 2018).

In addition to disseminating the interview protocol and collecting data, within the context of the 20 participants projected, a panel of 5 educators was Zoomed-interviewed to validate information collected through the research protocol from the larger sample population. The panel selection followed the rigor mentioned earlier in this narrative and responded to the same interview questions using the Zoom remote engagement modality. Information emanating from this follow-on activity will essentially be used to support

them and enhance the credibility and integrity of the research process, especially where the results were congruent (Vveinhardt, 2017).

Sample Size and Recruitment

A purposive sample of twenty (20) diverse Liberian educators in Liberia and the United States participants was projected for this investigation. Purposive sampling pertains to the identification of sample elements essential to the goal and nature of the study, but also a strategic approach to accurately capturing key stakeholders' perceptions and contextual factors stakeholders find that may be generalizable (Ames et al., 2019). The number represents a more likely prospect for data saturation and quality of insights in response to the research questions. The strategy to recruit population samples using a coordinator, in addition to other recruitment measures, was in consideration of the difficulties of collecting data remotely, especially in Africa. To expedite the data collection process, a contracted local coordinator undertook the outreach to identify prospective participants only to prompt their involvement in the study. This approach mitigated in favor of timely responses and saves enormous follow-up time (Wutich & Brewis, 2019).

Although considerable benefits of data quality and web-based collection processes, Tassiopoulos et al. (2020) and Marthoenis (2018) corroborated the validity of the challenge in coordinating and collecting data in developing countries. With the array of infrastructural insufficiencies for data mining and collecting in developing countries, such as Liberia, the current strategy was projected to address any opportunity brought about by the acute deficiency in and utilization of data engagements in developing-

country settings (Zoughbi, 2017). Understanding developmental realities, this study opted for the most suitable solution, given the time and material gaps confounding this study. This approach also allowed for a more unbiased participant selection. This researcher's direct interaction will, at least, partially shift to a second party regarding a segment of the targeted population sample in this transfer of Liberia-based participants' recruitment responsibility for expediting the data collection process in Liberia. I directly managed the United States-based participant engagement activities.

Participant selection followed a purposefully identified set of criteria. For the study and considering the focus, participants identified for the study met the following requirements. The study took into consideration participants' demographics covering age range between 25 to 60 years, practicing and resident either in the United States or Liberia. Participants: Participants' professional background including years of instructional practice, institutional affiliation, length of affiliation, and instructional collaboration experience served as the cornerstone of selected participants' profile. Considering the nature and purpose of the study, the participant selection criteria above facilitated the selection of respondents regarded as best suited for the investigation and positioned to provide the quality of insights anticipated for this research(Campbell et al., 2020).

Purposive Sampling

Purposive sampling in qualitative research refers to the mapped-out sampling process guided by procedures and guidelines to ensure that the collected data represents the proper population. Ames et al. (2019) maintained that engaging extensive data could

be time-consuming and often undermine the analytical processes. They offered that purposive sampling presents a great reprieve from extensive data engagement when working with a reasonable data size (Campbell et al., 2020). As a matter of purpose, Campbell et al. reaffirmed that purposive sampling provides a greater chance to meet the study's objectives while concurrently advancing the rigor and trustworthiness of the investigation. In a nutshell, purposive sampling accounts for credibility, transferability, reliability, and confirmability in the research process and data engagement (Ames et al., 2019).

To purposefully identify a population sample best suited to provide the quality of insight envisioned for this investigation, a set of criteria - listed above - was drawn to guide the selection process. These selection guidelines ensured that the selected sample provided the quality of insight suitable for generalizing the population of Liberian public higher education educators and their disposition to "RIC." The identified eligibility protocol determines who can or cannot participate in the study since a critical component of the study is generating feedback from participants better suited to inform the study appropriately (Vallianatos, 2017).

Enlisting participants who did not meet the selection protocols could undermine the study's outcome if their selection failed to meet the stipulated requirements related to the purpose and goal of the study. Besides direct engagement with educators in this researcher's social network, the supplementary strategy of posting an announcement in the WhatsApp chat room of Liberia's foremost public tertiary institution may help with recruitment, considering the platform's access to educators. In the pre-participant

selection phase, prospective educators were preliminarily asked about their years of practice, instructional collaboration experiences, tertiary instructional affiliation, and other requirements earlier in the interviewing protocol (Budde & Prüsmann, 2021). In the pre-selection process, participants were informed of the voluntary nature of the participation, given the nature of the study, and that any level of gratuity, especially for Liberia-based participants, unfolded in the form of phone credits to internet access.

Instrumentation

The qualitative nature of the study required the use of a protocol vital to gathering deep insights into the study's phenomenon and needed a set of open-ended interview instruments (DeJonckheere & Vaughn, 2019). I used semi-structured interviews to engage participants and gather data about their insights on and disposition to RIC in Liberia's public tertiary higher education classrooms. The data collection instrument was researcher-developed, designed, and informed by Rogers' diffusion of innovation theoretical framework while guided by the focus of the study. The data collection instrument employed the PEPO data collection and analysis model principled on Rogers' Diffusion of Innovation theoretical pillar of adoption and derived from a recategorization of collaboration-motivating factors in Literature. The PEPO data collection and analysis tool is a derivative of key adoption motivators: *purpose, environment, practice, and outcome*. The tool reclassified adoption-influencing factors from various sectors, as found in the literature (Rad et al., 2018). The instrument consisted of ten (10) semi-structured interview questions about the adoption motivators of purpose, environment, practice, and

outcome. I tested the instrument for validity by using five non-research participants for feedback.

This four-point - PEPO data collection and analysis tool - was generated from an in-depth investigation of literature related to adoption motivators. All participants' inputs were digitally collected. Participants were provided a safe space to share their perspectives and encouraged to utter their most in-depth and informed personal impressions for each inquiry. The more detailed their responses, the more meaningful the research and its outcome. The instrument was designed to require participants a time investment of 30 minutes to complete. It is essential to note that the instrument was electronically distributed to most participants based on their preference. It contained a formal prior consent component preceding their engagement with the interview questions (Simon et al., 2021).

Data Collection

The study utilized semi-structured open-ended interviews as the most appropriate data collection methodology to facilitate the gathering of detailed and meaningful perspectives from participants. DeJonckheere and Vaughn (2019) affirmed that semi-structured interviews had taken center stage in qualitative data collection, especially in studies requiring more profound insights and responses. This method emphasizes the need for relationship building as a platform for greater participants' cooperation. Understanding trust as an indispensable component of the researcher's access to participants' thoughts, it was essential to leverage participants' time investment in the research process. It was important to note that semi-structured interviews are generically

tailored to provide flexibility and expand participants' likelihood of divulging meaningful details (Pollock, 2019).

In complement to engaging the digitized interview protocol, a follow-on methodological triangulation Zoom interview of 5 Liberian educators - who were included in the 20 initially projected number of participants was used employing the set of semi-structured inquiries. Projected to run for an hour the triangulation interviews were intended to not only expand collected data but also to provide a level of validation, or to counter the results of the digitized interviews. In the follow-on process, participants were selected from the pool of qualified potential participants generated during the pre-selection process. Like all other participants, they were apprised of the intent and purpose of the study.

Confidentiality concerns - identity, safety, and storage of responses - were addressed during the pre-selection meetings - in advance of actual selection. Participants were informed that the primary purpose of the investigation was to gather Liberian educators' perceptions about and disposition to remote educational collaboration in public higher education classrooms in Liberia and the likely implications of the study on the tertiary instructional landscape in Liberia. Upon completing the Zoom engagement, time was allocated to provide participants opportunities for questions, concerns, and observations requiring this researcher's attention (Natow, 2020). Participants were further informed of receiving a summary of the research findings upon completion and follow-on engagement where possible.

The pilot study primarily focused on the validation of the data collection instrument, where feedback from three yet-to-be-identified academics informed modification to the instrument. Secondarily, the pilot facilitated greater engagement with the instrument in terms of its operational mechanics and sequencing to facilitate greater participation. Each interview, the pilot or primary interview, climaxed with a debrief as a platform to address any concerns, observers, or questions evolving during the interviewing process. Participants were provided contacts to communicate any comments in the aftermath of the interview or pilot, with the hope of impacting the richness, authenticity, and credibility of the research outcome. As a contingency against low participant recruitment numbers, a rigorous follow-up process would have followed after the targeted data collection period as to bring participation numbers as closely as possible to the project 20 educators.

Data Analysis Plan

As stated in the previous section, this qualitative research used semi-structured interviews to collect data, digitally facilitated, and utilized the PEPO data collection and analysis tool to compartmentalize the data for effective analysis. Utilizing De Silva's (2019) five qualitative data analysis steps, this study engaged data transcribed from digital recordings into text, and created a framework for categorizing the data, drawing connections between similar data elements - coded, compared and validated the data, and finally processed the conclusion and reported the findings (Amanfi, 2019). As mentioned earlier in this study, the PEPO data collection and analysis tool is a researcher-developed tool derived from an extensive search and reclassification of motivational factors

facilitating collaboration. For this study and its data collection needs, the acronym: PEPO represents the factor classification of purpose for collaborating, projected or necessary collaborating environment, the implications for professional practice, and the outcome consideration.

The purpose examined participants' personal and psychological motivations for collaborating, in this case, remote instructional collaboration. The following classification digs into the necessary or envisioned environment critical to facilitating remote instructional cooperation between participants. Variables under this factor include technology, social, professional, and managerial support. The implications of the remote instructional collaboration on instructional practice pivoted essentially among the facilitating motivations. Finally, participants' projections for and of the collaboration outcomes could fuel their decision to collaborate. Accordingly, the PEPO data collection and analysis tool will inform the construction of the data collection instrument and ensure data saturation - considering the projection of 20 participants – and facilitate analysis along those lines.

Coding

Coding is a requisite step in qualitative data analysis (Jansen, 2020). Coding enables the generation of themes by which conclusions and generalizations emerge and findings announced. Coding promotes validity, reduces bias, correctly captures participants' perspectives, and facilitates transparency (Williams & Moser, 2019). This study utilized inductive coding with the collected data. Inductive coding follows the ground-up logic enabling the generation of the useful codes and facilitating informed

conclusions (Chandra & Shang, 2019). As remote instructional collaboration in public tertiary education classrooms makes immense sense, Jansen (2020) summarized inductive coding as an iterative process conducted until no new codes emerged from the data. Employing descriptive labeling - using single words or nouns to encapsulate data segments - to generate thematic connections between the data, I engaged the data to generate themes and uncover trends that facilitated the production of a narrative pursuant to the research goals and driven by the research inquiries (Lester et al., 2020).

Data gathering for the study was primarily collected digitally, facilitating and expediting the range of services, including the collection, data formatting, analysis, and presentation on various scales (Archibald et al., 2019). Upon receipt of the targeted number of responses, considering the time timeline provided and the minimum requisite participant number suitable for generating data saturation (Lowe et al., 2018). To that end, a comparative study of the analysis reports generated by the digitized protocol, supplemented by manual processing using inductive coding. Inductive coding of participants' responses ensured that codes and themes derived from the analysis process accurately represented their perceptions and the discovery of the attending trends laced through the generated themes. Related codes were then grouped under common themes while I looked for any trends in the emerging information. The data generated were compared to those from the 5-member panel, a process intended to assess for corroboration. Following that process, I evaluated the findings and made policy recommendations, considering the study's implications for positive social change.

Trustworthiness

As a prerequisite of this study, its reliability and validity followed the prescribed URR and IRB approval (# 02-23-22-0527757) essential for this investigation. According to Phillips et al. (2019), reliability and validity are the bedrock of sound quality research. To achieve reliability and validity of the study, data collection, analysis, and reporting processes, I ensured that the selection of participants was not biased, hence outsourcing the selection process seems appropriate (Parker & Berman, 2016). Parker and Berman cautioned against the investigators' subjectivity as a primary contributor to research contamination. Addressing researchers' judgmental infringements in time minimizes the researcher's subjective experience, overshadows the investigative process, and outcomes (Bashir & Marudhar, 2018). Bashir and Marudhar contended that research quality becomes invalidated where the prospects of process replication and its derived outcome are brought into question.

Libarkin and Geo. Research Lab (2018) emphasized that the value of any research undertaking is not only on the accuracy of the measurements obtained but also on the conclusions reached based primarily on the methodology utilized. Validity is, therefore, the outcome of a judiciously operationalized investigation in which researchers strive to preempt and mitigate investigative biases as best as possible (Turner et al., 2020). Turner et al. elevated the conversation further by calling for bias mitigation resulting from design misjudgments and the implications of such misjudgments on research outlook and outcome. Cuncic (2021) clarified that external bias originates from contortions between

research questions and research design. In other words, the misalignment or non-alignment between the driving research questions and the chosen method.

Essentially, Cuncic (2020) emphasized the importance of ensuring research trustworthiness by pre-emptively mitigating situations that could undermine a research's standing by maintaining alignment between all components of the study. Importantly, this anomaly generally leads to distortions in research outcomes, thereby, invalidating the research process in total. Additionally, ensuring the applicability of research outcomes in the real world is as crucial as the investigative process itself. `Holistically, some measures intended to moderate internal validity would be the judicious administration of investigative protocol while providing, as Cuncic puts it, "psychological realism'' for study participants ensured that all have a collective understanding of the purpose and goal of the study and an appreciation of what the phenomenon under study.

Credibility

The credibility of the research study is a combination of several factors, including operational transparency and outcome validation. Bucchi (2019) questioned the data reliability and credibility and the processes leading up to their collection as vital to the authenticity of results and findings. For instance, the credibility of a study is questioned when, for example, participants' selection process is unauthenticated, suggesting that unqualified participants' perspectives could have informed the research findings (Campbell et al., 2020). Purposeful sampling, as applied in this study, is one valuable way to avoid credibility issues in research. Establishing acceptable standards to guide

participants' selection ensures that the quality data is gathered from sources qualified and appreciative of the research phenomenon.

Additionally, as highlighted by Noble and Heale (2019), triangulation enhances the validity and credibility of research outcomes. Procedures for the piloting recruitment will follow similar guidelines laid out for actual participants' recruitment exercises. These include recruitment and interviewing processes, as the data collection procedures emphasized earlier.

Transferability

Transferability portends the prospect of the relatability and applicability of the research outcome and process to other contexts. Amin et al. (2020) indicated that transferability is an important factor impacting the trustworthiness of a research undertaking, citing that the inapplicability of a study in another context of similar circumstances could adversely undermine stakeholders' belief in the research. To advance the transferability of this study, I described the processes and procedures used in the study for replicability purposes. I accurately articulated participants' feedback, reflecting their accurate impressions of and disposition to RIC. Additionally, the other outcome contexts were reflected under considerations of research integrity (Schloemer & Schröder-Bäck, 2018).

Dependability

Advancing the dependability of this study mainly relied on the data triangulation. Triangulation facilitated the measurements for congruence between those "validable" segments of the participants' feedback, pool, and the larger sample. Triangulation ensures

that data was consistent and reflected the authentic representation of participants' perceptions of and disposition to RIC in Liberia's public tertiary higher education classrooms. Additionally, undertaking a process audit that considers and clearly describes the processes regarding data collection, processing and analysis are vital to enhancing the study's dependability (Amin et al., 2020).

Confirmability

Establishing that research-generated data is divorced of biases is the crux of research confirmability and is capable of replication anywhere under similar conditions (Campbell et al., 2020). As a practice and for accountability, researchers are expected to reflexively capture possibilities of bias, ensuring that journalizing such could assuage any negative impact on the study, since the researcher, by documenting, puts themself on alert to avoid any action capable of undermining the integrity of the study in any fashion.

Ethical Procedures

Following standard ethical research procedure, I will seek Walden University Institutional Review Board (IRB) approval (# 02-23-22-0527757) and authority to pursue the data collection process. As part of the ordinary course of academic investigations at Walden University, especially for dissertation-writing students, ensuring IRB approval is a precursor to admissions into doctoral candidacy (Fontanesi et al., 2018; Ramers, 2017). From a regulatory standpoint, the pre-approval candidacy admissions framework allows greater student familiarity with regulatory requirements. Assurances beyond Walden University are that researchers adhere to research standards (Winfield, 2019). Furthermore, other fundamental requirements consistent with the ethical conduct of

research include confidentiality, response anonymity, and full prior consent before coopting participants in the research process are cardinal requirements to meet.

Within the context of this study, semi-structured interviews guaranteed that respondents remained confidential. It is commonplace for researchers to interchangeably use confidentiality and privacy without distinguishing the words from the perspective of a handler and owner of the information. From the lens of a handler, confidentiality suggests that a handler is entrusted with preserving or protecting the knowledge of a subject (Nakalega et al., 2021). The contractual understanding – informed consent will precede every engagement with the data collection process - regardless if written or oral, imposes the responsibility of keeping a subject's information confidential and safe (Schmidt et al., 2020). Risks associated with confidentiality breaches at the level of psycho-social and legal harm attracted to a subject due to a violation. Schmidt et al. (2020) considered risks in terms of frequency of occurrence and depth of damage. Therefore, mitigating confidentiality risks is crucial in research processes. It is critical to mitigate what seemingly comes across as an acceptable risk and could become a full-blown embarrassment for the researcher. Data collected through this process will be digitally stored on a password-protected folder on this researcher's private device for a minimum period of five years.

Summary

This chapter elaborated on the research methodology, including the research design, justification, and methodological concepts. The chapter highlighted the controlling investigative questions and identifies the participants, recruitment procedures,

and sampling procedures. In this chapter, I outlined actions to ensure confidentiality, trustworthiness, reliability, and validity, as well as measures to protect participants' privacy and the implications of these on the quality of and integrity of the study. As discussed in this chapter, the data collection and analysis procedures were essential to informing chapters 4 and 5. Information derived from the data collection process was explained. In contrast, the findings and conclusions reached, recommendations suggested, and social implications emanating from the results and conclusion are detailed in the next chapter.

In Chapter 4, I laid out the research findings in tables and charts disaggregating component of participants' response in meaningful chunks. To advance the comprehensibility of the tables and charts, a detailed explanation is provided after each table and chart for understandability. Proceeding that explanations of table and charts was a delve into the emergent and consolidated themes derived from the coding process. The chapter concludes with a summary of delineation of the data collection and processing procedures, and tabulated findings.

Chapter 4: Results

Introduction

The overarching purpose of this study was to explore Liberian educators' perception of and disposition to RIC in public tertiary classrooms. This exploratory qualitative study aimed to gather an in-depth appreciation of participants lived or projected experiences as a foundation for a more intimate understanding of the phenomenon of RIC (Moreira et al., 2021). Moreira et al. described exploratory studies as generally being qualitative, considering that such investigations, firstly, seek to tackle never-before-answered research questions, and are also vital in collecting participants' actual or perceived appreciation of an experience (Alby et al., 2022). A total of 17 participants responded to the interview protocol. Twelve out of the 17 participants requested a digital copy of the interview protocol to expedite their responses and ensure the accurate transmission of their perspectives. After processing of the initial findings, I found that five participants preferred the Zoom interview from the pool of qualified participants for the validation of the results of the initial interviews. These interviews were to expand the data collection pool and validate data saturation from the initial collection. *This exercise was against the consideration of Lowe et al. (2018) assertion about the rarity of objective means for establishing data saturation*. Lowe et al. (2018) postulated that researchers are at liberty to make saturation determination decisions in replicable and accurate ways, hence the validation interviews mentioned above (Flynn et al., 2021). Two primary research questions informed the development of the investigative process:

RQ 1: How do Liberian educators perceive remote instructional collaboration in public tertiary classrooms?

RQ 2: What disposition of Liberian educators would promote engagement in remote instructional collaboration in public tertiary classrooms?

In addition to these primary research questions, eight researcher-developed supplemental questions using the PEPO data model were used to explain participants' disposition to RIC. The PEPO data structure as derived from the streamlining of collaboration-influencing factors: purpose, environment, practice(professional), and outcome. These factors formed the basis of the supplementary questions framing in support of explanations around participants' disposition to RIC (Kam et al., 2020; Sensuse et al., 2021). Chapter 5 includes a more detailed elaboration of the PEPO data model and helped justify the underlying theoretical framework identified for this project. As stated, the calibration of the data using this framework helped explain participants' disposition to the RIC in Liberia's public tertiary classroom. This chapter presents a review of the study's setting, participants' demographic and professional profiles, a narration of the data collection procedures as detailed in Chapter 3, an explanation of the analysis process, and a detailing of the research findings.

Setting

For this study, only participants of Liberian heritage currently practicing in the educational field, whether in Liberia or the United States, qualified for participation. Accordingly, participants' recruitment targeted professionals in the two locations, regardless of their specific roles with the associated institutions. The study engaged

education professionals at every level of the higher education landscape, understanding that the probability of collaboration at the tertiary level cannot be limited to instructional professionals alone but also to administrators and policy decision-makers. Consistent with the projections, the recruitment of participants logically targeted education practitioners' residents and practicing in Liberia and the United States. Most Liberia-located participants resided in Monrovia, Liberia's capital, and worked in that country's public tertiary classrooms. The other participants lived across the United States, mainly on the East Coast. An essential aspect of the participant selection process was that one had to be a current practitioner affiliated with a tertiary institution at the time of selection. All 17 participants were professionally active during the selection and data collection processes, which ran from April-May 2022.

Participants' Demographic Background

To validate the recruitment requirements for this study, the deployment of several demographic questions to generate a personal and professional profile of participants was imperative. Seventeen (17) participants availed themselves to the interviews with the youngest respondent being 36 years old. Age-wise, over 95.1% were between the ages of 48 and 58, forming the largest age group.

Table 1

Participants' Demographic and Professional Profiles

Category		Participants (N=17) Male	Female	Totals
Age Range				
	25–35 years	0	0	0
	36 – 47 years	2	0	2
	48 – 58 years	8	1	9
	59 +	2	4	6
Highest Level of Education	Bachelor	0	0	0
	Master	3	0	3
	Doctorate	10	4	14
Institutional Designation	Full-Time Professor	4	0	4
	Part-Time/Adjunct	6	1	7
	Administrator/Operations	3	3	6
Length of Current Tenure	1 – 3 years	5	2	7
	4 – 7 years	1	0	1
	5 +	7	2	9
Collaboration Experience	Yes	11	4	15
	No	2	0	2
	Not Sure	0	0	0
Location of Practice				
	Liberia	4	2	6
	United States	8	2	10
	Both	1	0	1

The study identified 12 male and five female participants. In terms of academic designations, four (23.5%) participants were full-time professors, seven (41.2%) were adjuncts, and six (35.3%) were either in administration or at some level in higher education operations. Academically, 14 (82.4%) participants had earned a doctorate, and three (17.6%) were graduate degree holders. This information partly validated participants' professional and academic experiences as qualified for participation in the study.

Against the backdrop of the setting of the study, recruitment was carried out across the continental United States and in Liberia for higher education practitioners with

Liberian lineage. In that respect and considering the logistics of recruiting overseas participants for academic investigations, 10 participants were in the United States, while six were located and practicing in Liberia. The gender breakdown showed an equal number of females in both locations while showing eight and four males based in the United States and Liberia, respectively. One male participant concomitantly taught in both areas.

Participants' collaboration experience was particularly of interest to this study. The table below revealed that most participants' collaboration experience has centered around curriculum and instruction-related issues. Other incidents were limited to policy development, collaborative learning, assessment, research, and publication, while two participants had no prior involvement. Only two respondents pointed to having any experience in instructional cooperation, the details of which are worth future investigation.

Table 2

Participants' Collaboration Experience (N=17)

Areas of Participants' Collaboration	Number
Curriculum and Instructions	6
Institutional Cooperation	2
Policy Development	2
Collaborative Learning and Assessments	2
Research and Publication	3
None	2

Nine (52.9%) participants had a length of 5 years or more experience/professional affiliation with a current higher education institution. Seven (41.2%) participants had

affiliations running between 1 to 3 years at the maximum. One (5.9%) participant had an institutional affiliation spanning between 4 to 7 years. It is worth noting that a significant number of those in the maximum length of institutional affiliation were practitioners located in Liberia. The next chapter captures a complete discussion of the study's findings and their implications of RIC on Liberia's tertiary instructional landscape.

Data Collection

To executive the data collection process of this study, a researcher-developed semi-structured interview protocol was deployed to gather participants' perceptions of RIC in public tertiary classrooms in Liberia. The instrument was a researcher-developed tool designed to gather responses that directly addressed the two primary and supplemental research questions. Immediately after the Walden University IRB approval (# 02-23-22-0527757) on February 23, 2022, a review of the data gathering protocol was conducted by five professors, three of whom were full-time doctoral supervisors at various universities around the United States and two from Liberia. Feedback from this exercise informed adjustments to the interview protocol's improvement in structure, research, research question alignment to the study's purpose, and clarity. Receipt of the professorial feedback prompted final preparation for the deployment of the data protocol underscoring the need to assess the tool for refinement and collection readiness.

The pilot exercise assessed participants' perceptions, per the research questions, and what keywords or phrases facilitated their thinking in the direction. The focus of the approach was not to merely gather their response to the interview questions but to assess for the research protocol's understandability by potential participants. The piloting

interviews ran for between 20-25 minutes each. Piloting participants concurred with the questions' appropriateness, clarity, and understandability. Exploratory studies, as in this current investigation, endeavor to assess and gain an in-depth understanding of never-before-explored life's phenomena (Thomas et al., 2022). Highlighting the importance of piloting in exploratory studies, Fraser et al. (2018) emphasized the importance of evaluating procedural feasibility, data collection process effectiveness, and the efficacy of the collection instrument (Malmqvist et al., 2019). For all practical purposes, piloting allows researchers the prospect of better engineering research processes and procedures to effectively strengthen the data's validity, reliability, trustworthiness, and research outcomes. The pilot's outcome validity is the instrument's readiness for use in the actual study.

The data collection began in earnest once the review of the data collection protocol had been refined. The collection process started in early April 2022. This process was conducted as detailed in Chapter 3. A concomitant ethical review process by Walden University IRB and a local Liberian tertiary institution (hereinafter "the University") partnership application was considered. A research partnership agreement was approved by the University's institutional review board responsible for research activities on January 3, 2022, granting the study access to the instructional community and availing the institution's facilities for the future release of the results of the study.

Upon receipt of Walden University's IRB approval (see Appendix A), the posting of the participation solicitation notice was distributed on several platforms, including the partner university faculty listserv, the alumni association in America's WhatsApp group,

and the researcher's network of professional Liberian educators in North America. These platforms facilitated this study's outreach and engagement challenge. In response to the solicitation notice, potential participants emailed or made phone calls availing themselves of the study.

As part of the authentication process for qualifying participants for the study, I provided an initial appraisal of the nature and purpose of buy-in. Potential participants selected the option of either submitting a written response to the research instrument or a Zoom interview. Upon completion of the participant authentication interviews, the interview protocol was emailed to the twelve requesting respondents complying with their desire to submit written responses. Twelve United States and Liberia-based participants opted for submitting written responses. Using the Google Form version of the interview protocol, a prior consent feature was included that preceded access to the research questions, thereby ensuring that participants initially had to read and consent to participate in the study before advancing to the research instrument. To constantly monitor the collection process, a Google Account was set up as a repository for receiving and processing collected data. A submission monitor feature was associated with the account that made follow-ups to note receipt of the data. Automatically, on the backend of the Google Form, participants' submissions were collated in a Google Spreadsheet, organized to accelerate the coding and analysis process.

Five participants also availed themselves to in-person Zoom interviews. These were US-based practitioners. In these interviews, previously qualified participants were engaged reconfirming their initial consent to participate in the study. Each interviewee

consented to participate and granted permission to the recording of the interviews (Grobler, 2018; Woolfall et al., 2016). Participants were interviewed separately, with each conducted during the evening hours of the final week of the designated data collection period in April 2022. The week before, participants and This Researcher test-ran each interview for less than 5 minutes to position interviewees for the best placements in the interviewing space. Each interview ran between 40 - 45 minutes, controlling for noise, managing comfortability, and technical smoothness. I texted gentle reminders to participants an hour before each Zoom interview.

During the interview, participants were provided with an overview of the investigation, its purpose, and the participants' role in the process. Responding to the study requirements, as policed by the IRB, each participant had to consent to participate in the investigation by clearly stating their "I consent" prior to tackling the research questions. Participants responded to each research question, beginning with inquiries about their demographics, collaboration, professional affiliation, and experiences. Note taking by this researcher was a critical segment of the interviewing process. At the end of the individual interviews, participants' responses were manually transcribed on the Google Form-generated spreadsheet. A forwarded copy of the transcription for participants' validation and processing commenced soon after. The interviewees' approval of the transcription informed this Researcher's subsequent action. Emails of gratitude were sent out to respondents for their participation with data placed under a password-protected automated system for confidentiality and security. This probe then proceeded to analyze the data following best practices as laid out by (Lester et al., 2020).

Table 3

Research & Interview Questions

Research Questions		Interview Questions
RQ1: How do Liberian educators view remote instructional collaboration in public tertiary classrooms in Liberia? (1-3)		1. What specific collaborative experience do you recall? 2. What is your understanding of remote instructional collaboration? 3. From the perspective of a tertiary education classroom in Liberia, what would remote instruction look like?
	PEPO Data Model	
RQ2: What disposition of Liberian educators will facilitate remote instructional collaboration in tertiary classrooms? (4-12)	Purpose (4-5)	4. What personal factor(s) might influence you to collaborate remotely? 5. What professional factor(s) might influence you to collaborate remotely?
	Environment (6-8)	6. From a psycho-social perspective, what collaborative environment must exist to encourage your involvement? (Hint: mindset between collaborating partners) 7. From a technological perspective, what environment might facilitate your decision to collaborate remotely? 8. From an administrative perspective, what policies or atmosphere might facilitate your decision to collaborate remotely
	Professional Practice (9-10)	9. How could remote instructional collaboration impact your instructional/administrative practice? 10. How could remote instructional collaboration impact the practice of your collaborating instructional/administrative partner(s)?
	Outcome (11-12)	11. What projected professional outcome(s) might influence your decision to collaborate remotely? 12. How does the projection of learning outcomes factor in your decision to collaborate remotely?

Data Analysis

The PEPO data collection model was used to collect, organize, and analyze Liberian educators' perception of and disposition to the phenomenon of RIC in public tertiary classrooms in Liberia. Based on Rogers' (2003) diffusion of innovation theory, a 12-question interview protocol was structured around the synthesis of collaboration motivators replete in literature: purpose, environment, practice, and outcome, aptly fashioned as the PEPO data collection framework. I fashioned the interview protocol

consistent with the framework's four collaboration-motivation prisms: purpose, environment, practice, and outcome.

Despite the efforts involved, researchers rely on several approaches considering the study's goal. Qualitative or otherwise, data analysis is perhaps the most complex component of the research process (Castleberry & Nolen, 2018). To minimize the complex nature of data analysis, I utilized the inductive open coding thematic analysis process - a flexible approach to desegregating qualitative data into meaningful consumable chunks of information (Chandra & Shang, 2019). This researcher used the open coding process to assemble, categorize, and group data around evolving themes emanating from the data (Williams & Moser, 2019). Using Braun and Clarke's (2021b) steps in thematic analysis, This researcher first set out to get familiarized with the data by conducting a series of three reads to gain an appreciation of the quality and nature of participants' responses. This probe highlighted the emerging initial impressions of the data in preliminary codes. Next, this reduced each data segment by transforming the chunks into broad, meaningful ideas. Each idea was then defined and rationalized within the context of the primary research questions. The study utilized open coding rather than theoretical coding, considering the study's exploratory nature and the rationale against employing predetermined codes (Saldaña, 2020). Data was manually processed and facilitated by the convenience of Google Sheets. A password-protected Google spreadsheet collated the data on the backend for written submissions and transcriptions recorded in the same place. After coding each research question group ensuring alignment to the PEPO data analysis model, a search for emerging themes ensued.

Categorizing the emerging themes represented the totality of responses and revealed an interesting trend. Later, the definition and collation of the themes required alignment to respondents' perspectives within the context of the two driving research questions.

Results

This section of the study focused on presenting the findings as logically, replicable, and comprehensively as possible. Consistent with the research and supplemental questions, the study's findings are laid out in the order of participants' outlook and within the framework of the research objective. The research questions evaluated participants' understanding of the research phenomenon and how they saw it unfolding in a public tertiary classroom in Liberia. A set of supplementary questions was annexed to the second central research question and represented in the PEPO data collection model to understand the participants' disposition of RIC. An outcome depiction of this model is contained in Table 5. A representation of other outcomes is spread out across Tables 2 – 4.

RQ#1: "How do Liberian educators perceive remote-instructional collaboration in public tertiary classrooms?" was essentially a definitional assessment intended to evaluate the participants' sense of what RIC is in practice and how they imagined the practice might materialize in a public tertiary classroom in Liberia. In response, 17 respondents submitted answers to the questions. Six themes evolved from the open coding of participants' responses. The emerging themes included virtual space and joint instruction from responses to research question one. Other emerging themes included

quality service and growth, a structured collaboration environment, improved instruction and practice, and meaningful learning outcomes.

Table 4

RQ1: Statement Excerpts and Emerging Themes

Research Question	Statement by Respondent	Theme
RQ1: How do Liberian educators view remote instructional collaboration in public tertiary classrooms in Liberia?	2 - Providing an environment/ virtual space where teachers and students can meet and connect to provide the opportunity for successful learning to take place.	Joint Instructions and Virtual Space
	5 - My understanding of remote instructional collaboration is where the instructor (s)r is more or less facilitating the learning from a distance together with others.	
	13 - The collaboration in a virtual space, no face-to-face contact	
	12 - My understanding of remote instructional collaboration is where the instructor (s)r is more or less facilitating the learning from a distance together with others.	
	15 - remote instructional collaboration is where the instructor (s)r is more or less facilitating the learning from a distance together with others.	
	16 - My understanding of Remote Instructional Collaboration is when like-minded professionals come together virtually to share common ideas in helping to facilitate instructional changes that are relevant to the development of society.	

Theme 1: Virtual Space

All 17 respondents concurred in their understanding of RIC as the existence of a virtual space of joint instruction. According to Obla et al. (2021), virtual space is a flexible tension-less instructional environment facilitated by technology. Respondents generally tagged virtual spaces to provide viable opportunities for learning, resource

sharing, collaborative learning, and instructional collaboration, among other considerations. Participants additionally pointed to virtual space being an engagement platform for multi-level academic interaction between and amongst practitioners and students at the tertiary level. In virtual space, respondents collectively referenced all forms of technological-facilitated learning processes characterized by non-physical interaction between learners and practitioners (Sprute et al., 2019). To further capture the essence of this instructional modality, respondent 1 described the instructional process as "providing an educational experience for students in a non-traditional mode." Respondents 2, 5, 13, and 17 underscored the "non-traditional" instructional approach as a novelty in Liberia's tertiary instructional landscape - accentuated against the backdrop of the virtual newness of modality in the post-pandemic tertiary education landscape.

Respondent 16 referenced virtual space as a collaborative space that connects local and diaspora instructional professionals to develop and implement instructional activities that render Liberian college (tertiary) students competitive in the global educational space." The respondent lifted several values of this virtual space, including serving as a collaborative venue, connecting cross-geographic practitioners, and conducting instructional activities.

Respondents reflected their understanding of RIC by accentuating " virtual space" as a critical feature of the RIC. Respondent 17 was even more emphatic, describing virtual space as a "platform that provides individuals the opportunity to be actively engaged in learning and instructional activities remotely, without having to be present physically or in person." Respondents acknowledged the value of the interaction

between learners and practitioners on the one hand and practitioners and learners in a non-physical space.

Theme 2: Joint instructions

Another crucial feature of RIC is the focus on the mode of instruction. 95% of the respondents mentioned “joint instruction” to describe their understanding of the RIC. (Weiss et al., 2019) declare joint instruction as signifying a shared instruction process between practitioners within a familiar place and time. Two factors stand out in this definition: commonplace, practice, and time. In the broader scheme of things, time is never static, meaning it can take on a level of fluidity covering a wider span or captured in a particular moment. So, for example, typical time could be reflected in a semester class run by two professors simultaneously in charge of instruction or alternating instructional days.

Respondents 3, 5, 6, 11, 14, 16, and 17 pointedly highlighted the feature of collaborative instruction in their responses. Respondent 16, for example, described RIC as a meeting of like-minded professionals combining virtually to share common ideas in helping to facilitate instructional changes that are relevant to the development of society. In this explanation, the respondent stresses “like-mindedness” in apparent recognition of the commonality of instructional goal(s) between and amongst practitioners. Respondent 11 emphasized the vital feature of “working together to develop and deliver a curriculum.” Joint planning and delivery of instruction epitomize the often-minimized scope of joint instructional collaboration.

Respondent 3 lifted the concept of collaboration between diaspora and local practitioners, which essentially tied in with the idea of joint instruction. On the question of how participants saw "RIC" unfolding in a public tertiary classroom in Liberia, respondents, rather than provide a projection of the form such interactions should take, listed some impediments that could undermine the actualization of the "RIC" in public tertiary classrooms in Liberia. Amongst the issues raised were internet accessibility and technology-proficient instructors by 41% of respondents, learning outcomes by 35%, cost-effectiveness by 24 %, and user-friendly technology by 29%. Participants' concerns connected integrally to the identified themes and increased appreciation of respondents' disposition to "RIC."

It is worth emphasizing, at this point, that both themes are not exclusive when discussing the concept of remote instructional collaboration. Rather, the concept is reliant upon the convergence of these parameters. In other words, the digitization of instructional interaction is practically only where the contact and communication between participating parties is facilitated by technology. Collaborating practitioners are enabled, in this instant case, to pursue all aspects of the instructional process, regardless of distance. Communication technology facilitated interaction between practitioners spatially distant accentuate the phenomenon under investigation. The absence of one component vitiates the idea and concept of remote instructional collaboration. In this narrative and for all practical purposes, the two themes would naturally crop out of the data together. The research questions were framed to determine if participants' understanding of the phenomenon separately highlighted these key components.

Using the PEPO data model, responses to Research Question 2 were consistent with the model's structured pillar of purpose, environment, practice (professional), and outcome. Accordingly, the emergent themes derived from the codification of responses gathered from participants and which highlighted respondents' disposition to "RIC" in public tertiary classrooms included the following.

Table 5

RQ2: PEPO Data Model: Emergency and Consolidated Themes

PEPO Data Model	Emergent Themes	Consolidated Themes
Purpose	Contribution to Quality Education Opportunity for Growth & Development	Quality Service and Professional Growth
Environment	Shared Vision Mutual Respect Articulated policy guidelines	Structured Collaboration Environment
Professional Practice	Instructional Enhancement Improved Professional Competencies Improve Collaboration Practice	Improved Instruction & Practice
Outcome	Increased learning outcome Meaningful contribution	Meaningful Learning Outcomes

Theme 3: Quality Service and Growth

The extraction of participants' personal and professional disposition to RIC resonated in their collective motivation: to deliver quality instructional service and the opportunity for growth. While detailed in the chapter following, it was interesting to discover that 98 % of respondents construed their involvement in RIC as reflective of quality service. Sogunro (2017) proffered that quality instructional service combines many factors, including andragogical competency, technological abilities, content and knowledge

currency, resourcefulness, and dispositional attributes, in addition to existing institutional policies." According to the findings, participants personal quest to collaborate instructionally included: "The desire to reach students in difficult situations in Liberia." This statement was an apparent testimony to Respondent 9 empathizing with calls to attract better quality instructions at public tertiary institutions, considering the "massive brain-drain" afflicting Liberia (Nelson, 2020). Respondent 5 insinuated that "students would be the victim of unprepared instructors and that if instructors collaborated remotely, enhancing effective teaching." Respondent 16 pointed to "granting Liberian students access to global resources" as a cardinal motivation for availing oneself of the RIC. This statement is the respondent's tacit recognition and projections of RIC's benefits to public tertiary classrooms in Liberia.

Respondents spotlighted the importance of RIC as an opportunity for instructional growth and development to provide quality instructional services and understand the poor pedagogic landscape. In this context, instructional growth, and development account for improving content and instructional knowledge. Respondents allude to a collection of attributes and manifestation of skill sets to register growth and development. Among the dividends occasioned by RIC that explain their motivation to collaborate are opportunities for increasing the repertoire of and reflectively deploying instructional strategies and increasing the currency of content knowledge. To that end, respondents were unequivocal in their decision to collaborate, believing that such practice would enhance their capacity to become more effective instructionally. Respondent 4 emphasized the value of professional interactions, stating that "the professional factor to

influence me to collaborate remotely would be interacting with other professionals in my area of education." The general imputation here is a validation of the mindset that growth occurs at varying levels with uneven depths when professionals interact over time. That learning concomitantly is achieved in the process.

Moreover, Respondent 6 reinforced this assertion as the quote suggests that RIC presents "opportunities for knowledge transfer, networking opportunities, and professional development." This quote reinforced the previous one wherein allusion to professional growth from the prospects of networking and knowledge transfer factored in their decision to collaborate instructionally. Like most participants, Respondent 15 was keen on the dividends of collaboration where recognition of the "capacity gap is a key professional factor; effective teamwork and sharing" factored in the decision to collaborate.

Theme 4: Structured Collaboration Environment

Unhesitatingly, participants recognized the collaborating environment as the key to any participation effort. A structured collaboration environment combines many factors, including a shared collaboration vision, mutual respect, resource availability, and clearly defined policy guidelines. Larsson et al. (2022) alluded to an effective collaboration environment as a construct of human, resource (technology), and administrative necessities critical to facilitating the attainment of a collaborative goal. Respondents recognized the impotence of enabling environments guided by precepts of a common purpose. Respondent 5, for example, spotlighted the importance of "communication and community - that is, shared understanding of teaching and learning

goals for the learning community." The respondent's assertion was an apparent allusion to considerations of the critical importance of healthy communication between collaborators as a foundation for productive engagements. Respondents 10 and 16 were emphatic in their declaration about "good team spirit, unity of purpose and assisted learning outcomes" as a basis for trusting partnerships. Healthy communications and interactions are invaluable for building a good team spirit founded on trust and a shared vision. Respondent12 re-echoed the sentiment stating that "the greatest ingredient for collaboration relies on the trust between collaborating partners." Trust, as described, transcends all aspects of the interaction process as alluded to by respondents.

In addition to having a shared vision and mutual trust as a precipice for collaboration, participants were keen on the importance of a structured administrative environment that thrives on the presence of clearly articulated policies and expectations. Respondent 16 highlighted the essentialness of clearly laid out guidelines that control the collaboration environment. These are not limited to the institution of policies to guide the instructional practice and the collaboration process. Respondent #14 stressed the necessity of a "legal framework, commonality in program designs, and the requisite professional qualifications" to guide collaboration efforts. Respondent 2 was instructive in the recollection that the instructional landscape in Liberia lacked a policy framework and underscored the "preference for succinct policies to control the practice of collaborating remotely." Respondent 1, however, spotlighted an existing framework postulated by Liberia's Education Ministry to guide the delivery of remote instruction as a policy benchmark and called for "adherence to the national commission's remote

policies as a framework to be used by tertiary institutions." On this point, the respondent's reference to the national commission policy framework is a set of expectational guidelines for tertiary institutions offering remote services, not catering directly to RIC.

Theme 5: Improved Instruction and Practice

On the implications of RIC on professional practice, respondents submit, in preponderance, that the approach could positively impact practitioners' quality of instruction and increase the effectiveness of their practice. Bach et al. (2020) conceded that instructional improvement is a combination of successful teaching strategies reliant on outcome-based designs that ensure equity for all. It is easy to construe instructional improvement as professional competencies since they are most often used interchangeably. The latter pertains to content delivery. At the same time, the former focuses on the gamut of knowledge, skills, and attitudes necessary for successful practice (Williams, 2021). To this end, 90% of the respondents were open to RIC against the expectation that such interaction could enhance instructional skills. In concurrence with this definitional variance, Respondent 3, for example, declared that RIC has the propensity to usher in new knowledge that could enhance instruction and, in some cases, administration." Participants were unanimous in their appreciation of the potentialities of RIC and the prospects of an upgrade to instructional delivery.

Respondent 13 supported the assertion by further highlighting the impact of RIC on instructional improvement, disclosing that "remote collaboration is an excellent approach to intellectual ideas exchange that are pertinent to the social development of a

society." There is a strong correlation between social development and quality education undergirded by high-standard instructions (Lumadi, 2019). According to Respondent 12, "increased instructional interactions and engagements between practitioners most assuredly expands partners' repertoire of instructional strategies and skills." Respondents underscored the projections by other respondents that a derivation of sustained interactions is a scale-up of one's pedagogic skills in addition to a similar impact on professional practice.

Following instructional enhancements are the broader implications for professional practice. As stated earlier in this text, improved professional competencies improve the collectivity of pedagogic skills, knowledge, and resource management within an instructional context through deliberate actions. Respondents collectively aver those professional competencies including practitioners andragogic, technological, facilitation and engagement, people and resource management skills combined. Respondent 7 spoke to "improve their ability to engage with innovative learning tools that may not be available at their institutions," referencing the empowering attribute of RIC to practitioners. Increasing professionals' understanding of the instructional environment, mastering student-teacher interaction, and intercourse with otherwise inaccessible resources, among other attainments, and topped by advancements in learning outcomes. Respondent 4 acknowledged the value of RIC in improving professional practice simply because through the process, "the acquisition of new knowledge through information-sharing actualizes." RIC as an instructional approach subsists on the premise of constant interaction and sharing between and amongst practitioners and that such interaction,

according to connectionist theory, is a generator of learning (Shirai, 2018). To that end, respondents spotlight the idea of "new knowledge" as key to the enrichment to practice such enterprise do precipitate.

By extension, RIC additionally presents opportunities for reimagining and expanding the realm of collaborative practice and perfecting same over time. With RIC's implementation, practitioners are empowered to improve the collaboration practice and all aspects of the approach with time and purposeful reflection. Respondent 16 projected awareness of RIC's impact on professional competence, emphasizing how "crucial to the progress of the parties involved."

Progress in this context embraces pedagogy and professional competencies, as the latter remains a logical component of the broader collection of capabilities expected in teacher leaders, particularly those involved in the collaborative enterprise (Hunzicker, 2019). Reflective practitioners consistently evaluate their effectiveness and the efficacy of the approaches employed in delivering instructions. According to Respondent 5, the reflections can morph into "opportunities for creating more authentic learning experiences for the students." Therefore, it is inarguable that the natural derivation of RIC's deployment is strengthening instructional, professional, and collaborative competencies.

Theme 6: Meaningful Learning Outcomes

The final prism of the PEPO data model examined the implications of collaboration outcome(s) on their decision to participate in RIC. When asked about their outcome motivations to collaborate, respondents were unequivocal in their shortlisting of two

determinants: increasing learning outcome and meaningful contribution, in this context, to their native country's education development. As defined by McMillan et al. (2020), learning outcomes are a measurable articulation of students' attainable and expected knowledge, skills, and values collection. The attainment of projected learning outcomes directly results from their interaction and engagement with particular academic programs. Driven by belief in their competencies, participants were overwhelming in their acknowledgment of learning increases as a motivation for their involvement in RIC. A 100% of Respondents pointed out that "projection of learning outcomes was the cardinal factor influencing their decision to remote collaborate." In other words, increased learning outcomes inspired participants to collaborate remotely instructionally. That inspiration to generate increased learning outcomes was explainable as participants' incentive for collaborating. Making meaningful contributions has consistently proven to be a prime factor in maintaining many educators in the field (Shah et al., 2020). Shah et al. contend that in addition to increasing learning outcomes as a primary retention motivation, practitioners' outlooks on the impact of their contribution to their community and institution as equally valuable examples of meaningful contribution as an essential collaboration factor. There were no discrepant cases extracted from the findings.

Evidence of Trustworthiness

Credibility

Data and analytical credibility are crucial aspects of the research process (Moreira et al., 2021). Credibility reflects the level of research acceptability and agreement with the findings evolving from the process. Ensuring research credibility requires researchers

to undertake the investigative process following established institutional policies and practices designed to protect participants and the process from abuses and biases (Dogan et al., 2017). Conspicuous among the fundamental requirements for granting credibility to the research process is an institutional review board (IRB) approval. The rigorous scrutiny by Walden University's IRB Office of the research process and procedures was an explicit expression of confidence in the likely outcome of the study, given the processes and procedures laid out for the investigation (Ruel, 2019). Other measures positively influencing the credibility of the study's data analysis process include the triangulation of data, participants' post-interview feedback, and the researcher's reliance on data saturation implications as reflective of the quality of collected data (Braun & Clarke, 2021a).

Since most participants submitted their responses in written format, it pretty much represented their outlook on the topics and questions. However, the Zoom-interviewed participation minority received transcripts of their interviews and affirmed the captured accuracy of their opinions. Participants transmitted their approval via email, stating their agreement with the accuracy of the transcription they received. Saunders et al. (2018) accentuated the understanding that saturation generally represents the collected data quality. In conceptual parallel, there is a strong correlation between the quality of collected data and saturation. In other words, the greater the quality of the data collected, the more readily researchers obtain data saturation, which essentially speaks volumes for the credibility of collected data.

Additionally, the data quality often facilitates the ease of data analysis, wherein the quality of outliers is minimal when they emerge (Urbano et al., 2014). Accordingly, high outliers, global, contextual, or collective, negatively impact the analysis process and overall research outcome. The credibility of the current data is evidenced by the littlest of outliers emerging from the data set and analysis process.

Transferability

An essential aspect of research trustworthiness is the replicability or reproducibility of the process in another context, environment, and on a different scale. Ulrich and Miller (2020) pointed to the importance of reproducibility in research against the backdrop that the research practice is, in and of itself, reliant on the investigative experiences and processes instituted by researchers prior. The reproducibility of the initial research process would necessarily rely on the transfer processes and practices to guarantee results' consistency (Miceli, 2019). To guarantee the transferability of this research, I appropriately itinerated and explained each logical step of the research process and comprehensively articulated it for guidance in similar investigations. In the data analysis process, I utilized Saldana's data codification steps referenced by Chandra and Shang (2019) in their examination of inductive coding – an approach mentioned earlier in the chapter as the identified path to the data analysis process, as well as the route to guaranteeing reproducibility when undertaken.

Dependability

To remain conscious of the need for and implications of consistency in the conduct of the research process and the reliability of the eventual outcome, I ensured the

proper documentation of the procedures and techniques employed in the conduct of the study while accounting for procedural and outcome stability (Amin et al., 2020). To increase the study's trustworthiness and to appreciate the importance of outcome reproducibility in research processes, all efforts were made to ensure that time-tested results were consistent with the processed data. Strongly supporting the dependability of the research outcome were efforts to interpret the findings without recourse to personal biases, where the recommendations represented the realities and trends determined by the dataset (Filippov & Trush, 2017).

Confirmability

Confirmability in the study was pursued by adherence to the principles guiding the conduct of academic research as prescribed by IRBs across the research landscape (Ruel, 2019). Ensuring that the findings from the study are confirmable by others in the field essentially imposes upon the researcher the responsibility of reconciling laid-out procedures and processes and the research outcome. A different result or outcome during the re-conduct of the same research - given the itinerated processes and procedures - means confirmability is lost, it would render the study untrustworthy (Chung et al., 2020). Accordingly, the study was undertaken recognizing that reproducibility of the outcome ought to be consistent with the thrust of the data. To avoid contamination of the research findings, this probe remained as reflexive as possible throughout the study, ensuring that proximity to the topic did not interfere with or skew participants' outlook on the topic and the investigation results. Additionally, documentation of the study's

proceedings and consistently solicited inputs from supervisors where the situation demanded, helped shape the study's final product.

Summary

The researcher of this chapter presented a tabulation and narration of the study's results. The chapter presented a demographic profile of the study's 17 participants providing a glimpse into the background and experiences of respondents. Beyond the participants' profiles, the chapter examined and tabulated the results of the participant's perspectives on and disposition to RIC. Driven by the study's two research questions, the results unveiled participants' rather basic understanding of RIC. Furthermore, the study revealed, among other considerations, participants' motivation for likely availing themselves to RIC, including the desire to provide quality instructional service and opportunity for professional growth in a collaboration-conducive environment, as well as opportunities for improving practice and the satisfaction of meaningfully contributing to one's community. A tabulated summary of the six thematic outcomes preceded the provision of thematic definitions, explanations, and excerpts from respondents. Trends emerging from the thematic exploration will facilitate discussions and recommendations in the next chapter.

Chapter 5 will include a discussion of the study's findings in more detail, present in-depth interpretations of the results, make recommendations from the data analysis process, and highlight the social change implications of the research findings. The findings' social implications will primarily consider the instructional practice, the guiding policy landscape, and diaspora communities as sources of instructional resources.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This culminating chapter includes an elaboration of the study findings as outlined in the previous chapter. Discussions of the results further include an examination of the findings within the framework of existing literature and then through the prism of Rogers' (2003) diffusion of innovation (DOI) theory and insights generated by the evolving trends. Furthermore, with this interpretation and the study's limitations established, an explanation of the study's implications for positive social change will be presented. The study's limitations will be presented, along with recommendations for future research. Finally, a summarization of the chapter and the research as a whole will conclude the study.

This study aimed to explore educators' perceptions of and disposition to remote instructional collaboration in public tertiary classrooms in Liberia. Seeking to understand educators' outlook and attitudes toward RIC, a basic qualitative methodology guided this study's data collection and processing activities. The underlying belief was that by understanding the educators' appreciation of and disposition to the instructional approach, appropriate programs and policies could be developed to equip education administrators and policymakers to comprehensively pre-empt and address projected challenges faced during implementation. This investigation utilized Rogers' (2003) diffusion of innovation theory as its theoretical foundation as a means of gathering perspectives of native-Liberian educators based in Liberia and the United States around RIC. Extracts from Rogers' DOI theory were the motivations for innovation adoption as

the basis for understanding participants' disposition to RIC. To that end, the PEPO data collection model, as the name depicts, is critical to the collection, organization, and analysis of educators' motivations to accept the instructional approach.

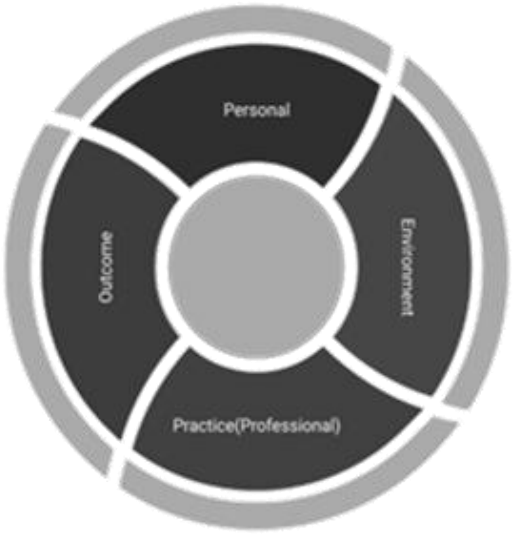
The PEPO data collection model is a researcher-designed tool to capture participants' perspectives on RIC. The tool adopted the acronym "PEPO" from the recategorization of collaboration motivating factors spurring the propensity to collaborate. PEPO represents personal, environment, practice (professional), and outcome. The motivations for adopting innovation, in this instance, the willingness to participate in RIC, is explainable through those four prisms that serve as the framework for attaining participants' feedback from RQ 2.

The cyclical nature of the model shown in Figure 3 explains the fluidity of adopters' motivation(s) toward innovation. With fluidity, the model suggests the reality that adopters' incentives shift with time and circumstances continuously. The model further reinforces changeability of adoption incentives, which pervades the innovation landscape. Understanding key factors and their impact on adoption commitment remains critical to policymakers. El-Haddadeh's (2020) investigation into the dynamics of influences on digital innovation adoption decisions speaks to the variability of adoption factors. This research encased its data collection and analysis process through the prisms of purpose, environment, practice, and outcome, as supported by findings from and adoption decisions around cloud computing services (Bauchi, 2019). The findings from IT and senior managers highlighted the impact on adoption decisions of users' current and potential IT capabilities, organizational receptivity to innovation, perceptions of risk,

and adoption barriers that influence adoption decisions. Essentially, adoption decisions pivot on a set of changing dynamics with the purpose, personal or institutional, of explaining adopters' responses to the question of "why adopt?" Appreciating one's ideal for an adoption decision does not, in and of itself, provide a full justification for adoption decisions. A variety of influential factors inform considerations of innovation adoption decisions.

Figure 3

The Cyclical PEPO Data Model of Collaboration Motivating Factors



Besides adopters' subjective motivation(s) for co-opting innovation, the adoption environment is vital in the decision-making process. The adoption environment includes the space, the existing institutional culture, and policy frameworks that guide innovation use. The existing institutional culture accounts for interpersonal relations, institutional beliefs, technology accessibility, and the controlling managerial and legal frameworks for

innovation use. The influence of interpersonal relations in the adoption setting is crucial, given the varying personality dynamics which could, in the context of RIC, alter the prospects of its adoption, even in the long-term (Ma & Lee, 2019). On the other hand, there are innumerable guiding institutional and legal frameworks controlling innovation use, which inarguably can impact adoption decisions and make risk mitigation a pre-emptive necessity (Orlando et al., 2018).

Finally, there are considerations of adoption decision implications on overall institutional outcomes. Institutional adopters, especially, assess the derivable benefits of their decision to adopt in tangent with projected adoption impact on personal, institutional, and community outcomes. Conner (2020) elaborately explained these constructs relying on a variety of innovation adoption theories, including the theory of planned behavior, wherein one's behavior is accordingly self-dictated at a particular time, condition, and place. The subscript of this theory rests on the understanding of behavioral intentionality. Bandura's (2001) social cognitive theory, as referenced by Conner (2020), explained aspects of the collaborative process proffering that learning acquisition is a direct result of dynamic and reciprocal interaction. Resultantly, adopters' subjective considerations of likely outcomes, among other essential considerations, factor critically in their decision to adopt (Ali et al., 2022). The outcome motivation is, therefore, clearly considering the psycho-social and performance impact of the adopted innovation on professional practice and institutional outcomes.

In summary, the data collection and analysis model is a confluence of adopters' idiosyncratic considerations and is liable to constant shifts before and during

engagements with the adopted innovation. In this instant case of RIC, participants translated their disposition to this instructional approach through four critical researcher-tailored lenses labeled as the PEPO data model.

While the themes emerging from RQ-1 tended to evaluate participants' understanding and the depth of knowledge of the approach, RQ-2 focused on gaining deeper insights into participants' attitudes towards RIC from the lens of purpose, which lends understanding to the question of "why adopt or participate in RIC?" Questions around participants' estimation of factors conducive to an inviting environment followed, assessing the psycho-social, technological, and institutional policy environments nurturing the desire to participate in RIC. Questions in this category gathered participants' outlooks on the potential implications of the approach on professional practice, as well as those of their collaborating partner(s). The facilitating impact of RIC on professional practice was among the factors influencing innovation adoption decisions. Finally, the last of the four lenses pivoted on the importance of RIC's influence on learning outcomes, instructional community, and institutional standing. Practitioners were more willing to adopt innovations with projected yields of learning advancements and increased impact on instructional performance, that would then lead to higher institutional productivity. Whether adoption decisions are motivated by one or a combination of these three considerations, the outcome factor in innovation adoption decision-making ultimately plays out vitally in the process.

Recollection of Findings

This exploratory qualitative study employed semi-structured interviews to understand Liberian educators' perceptions of and disposition to RIC in public tertiary classrooms. The study identified educators of Liberian lineage practicing in the United States and Liberia exclusively to gather the needed data. Based on the participation requirements, 17 participants participated in the investigation by providing insights through written submissions or Zoom interviews. Five out the 17 participants provided their insights via Zoom. Guided by the PEPO data collection model, the findings revealed six themes including (a) virtual space, (b) joint instruction, (c) quality service and growth, (d) structured collaborative environment, (e) improved instruction and practice, and (f) meaning outcomes. These emergent themes were consistent with participants' responses to the research and interview questions. Facilitating the interpretation of the research's findings, a reconfiguration of the originated ideas morphed into three driving categories: (a) virtual collaborative space, (b) meaningful educational contributions, and (c) outcome motivation for possible participation in RIC.

Interpretation of Findings

The overarching goal of the first research question was to assess participants' understanding of RIC, a novelty in the Liberian tertiary level pedagogical arsenal. Respondents were correct regarding the key features that characterized remote instructional collaboration: the virtuality of space, joint instructional practice, and a structured environment.

Virtual Collaborative Space

According to Liu et al. (2022), a virtual instructional space is a technology-facilitated, non-physical learning environment. The concept of remote instruction thrives on the reality of virtual interaction and collaboration. RIC, as the foundational thrust of this research, offered participants the prospect of instructionally engaging alongside other practitioners without necessarily being in the same space. Participants perceived RIC correctly as a virtual space for instructional interaction between practitioners on the one hand, and students on the other to provide meaningful learning experiences. In their responses, participants acknowledged the "distance" nature of the approach and pointed to technology-facilitated instruction (Hargreaves, 2019). Participants limited joint instruction to merely sharing instructional time and space. The research findings showed that participants lacked depth in their responses regarding the ecology of instructional collaboration.

There are various approaches to implementing collaborative instruction (Hargreaves, 2019). Literature is replete with examples of the "one teaches - one support" format, especially in K-12 settings. Other important considerations include parallel, alternate, stationed, and team-teaching approaches. further contended that regardless of the method used - whether virtual or not - instructional collaboration methodologies differ in significance to the degree of collaborating partners' involvement in instructional activities. Irrespective of the approach instructional partners deploy in the collaboration process, ensuring that the environment supports the collaboration's overall goal is vital.

The prospect of shared-visioning hinges on the educators' propensity to participate in RIC.

According to the study participants, a deep commitment to shared goals must drive partnerships in a collaborative space. Bernstein et al. (2018) emphasized the importance of a shared vision as a convergence. The convergence affords collaborating partners ample opportunities to seek redress when operations-related tensions subsist (Manca, 2022). Manca suggests that education managers are under obligation to ensure that a properly structured environment that protects users and that the precepts guiding that process are articulated clearly to participants. The interactional atmosphere pivots on an environment that supports participants' actions for the collective. According to Castilho and Quandt (2017), the freedom and creativity facilitated by the institution of safe, collaborative spaces are critical to the success of the process and mitigate against many factors undermining successful collaboration or intent to participate.

Dispositional Factor Motivators

The second recategorization of the emergent themes of this study found that participants were more disposed to enlisting in RIC - in terms of purpose and motivation - as a contribution to quality educational services. As current educators, participants acknowledged the dire need for improved instructions and the importance of contributing meaningfully to academic improvement. From a personal and psychological perspective, the study found that participants were more ready to avail themselves of the process, despite acknowledgments regarding some operational challenges. According to

participants, motivations underpinning their propensity to contribute meaningfully are explainable in the influence on the process, practice, and policy.

Participants revealed that among the factors informing their decision to participate in RIC included the opportunity to give back to their home country's educational development. The sentiment of giving back resonated with a majority citing the innate level of satisfaction such contributions would generate. Giving back conceptually would allow participants to be not simply early adopters of RIC but better positioned for future collaborative experiences. Perfecting the RIC will require enormous data to inform practices and policies to guide the enterprise. Data from the study speaks clearly to participants' delight at the prospects of being early adopters and contributing to the pool of knowledge generated by participating in the process.

Structured Collaborating Environment

Structured environments, according to (Uzma, 2020), is the presence and reliance on existence sets of legal frameworks and policies by which participants and institutions are held accountable. Participants generally argued that the presence of policy guidelines was an enabling factor for mitigating conflict in collaborative governance and essentially critical of its sustenance. Batory and Svensson (2020) stressed the importance of meeting regulatory requirements in the collaborative process as fundamental to the success of cooperative ventures such as RIC. While such policies might not exist in less-sophisticated environments like Liberia, it goes without saying that regulations bring recognizable levels of security when binding frameworks exist, control participation, and are essential for implementation enforcement and accountability.

Finally, most participants recognized that participation in the RIC was not simply a one-sided affair but that, by default, a significant positive shift was apparent in terms of the acceptability of the practice as vital in the pool of instructional strategies. As a direct personal impetus, participants were of the conviction that their participation in RIC would meaningfully impact their practice and those of their collaborators. While many decry the poor state of Liberia's technological landscape, they remain hopeful that such a hurdle was surmountable, and that RIC could serve as a stimulus in the technological surge in higher education instruction in Liberia.

Outcomes Motivation

The last of the recategorized themes, but by no means the most negligible dispositional factor for participants, were considerations founded on projections, recognitions, and fulfillment generated by positive outcomes from RIC based on their participation. Of the many estimates of derivable benefits, participants pointed to the prospects of increased learning outcomes, improved pedagogy practice, and enhanced instructional service delivery as their propulsion for involvement. Outcome [projections have pivotally factored in adopters' decision to engage with innovation (Kohli & Melville, 2019). In agreement, Kholi and Melville spotlighted the essential roles of product, service, and process outcomes in adoption decisions. The results revealed that outcome projections factored in participants' resolve to avail themselves of the RIC methodology, with the estimation of learning outcomes topping the considerations.

In their majority, participants estimated that increased learning outcome is an essential consideration to participate in RIC. Most participants did not limit learning

outcomes to better scores - as ordinarily one is led to think - but included the gamut of new acquisition learners' takeaway from RIC. According to Nortvig et al. (2018), the learning outcome is a measurable articulation of students' intellectual and cognitive skills. Expressive and attitudinal skills, among other considerations. Participants underscored the increased prospects of RIC's ability to improve learners' collection of intellectual, cognitive, articulation, and attitudinal behavior as a direct consequence of the benefit of the approach (Vovides & Lemus, 2018). To this end, participants believed that the superior outcomes are increases in students' performance improvements mainly influenced by the collection of resources and leadership available. In addition to increases in academic performances, participants recognize that the learners acquire a higher awareness of competitive exposure in a collaborative learning environment (Wisdom et al., 2014).

According to most participants, outcome motivation was not limited to increased student performance alone but collaborating with instructional partners. They insisted that distinct from students' learning and skills acquisition increases, participating agents of RIC were likely to pedagogically enhance their craft (Connelly & Xu, 2019). Connelly and Xu point to the outcome of reciprocal learning, which essentially repositions collaborating partners as a direct intent to solidify either partner's place in the collaboration. Instructional repositioning manifests as constructive shifts in instructional practice, armed by strategies adopted through interaction or acquired for the exchange. Love et al. (2022) averred that high-impact exercises such as collaborative instruction

correlate to increased learning outcomes and empower participating elements of the collaboration.

Gokarna et al.'s (2022) seminal study investigating higher education effectiveness factors illuminated that instructional effectiveness is among the many factors vital to influencing the effectiveness of educational institutions (Cowley et al., 2021). Accordingly, participants believed enlistment in the RIC was more than an opportunity to participate in a collaborative venture as it allowed for contributions to constructive institutional impact. Additionally, it increased instructional outcomes and enhancements propelled through mutual learning. Improved learner experience morphed from enhanced pedagogy to improved institutional image and instructional practices with implications on institutional effectiveness.

Theoretical Context

This section of the chapter focuses on the theoretical interpretation of the study's findings within the context of existing literature. Rogers' (2003) diffusion of innovation theory pivots around five adopter categories and attributes that influences innovation adoption decisions. It is critical, however, before proceeding further to draw attention to the dichotomy between diffusion and adoption, essential concepts in Rogers' diffusion of innovation theory. Min et al. (2021) amplified the distinction between the two concepts in their study of Uber Mobile app adoption in which diffusion, a critical first step in the adoption process, pertains to recognizing an innovation's usefulness for likely adoption. According to "Rogerist" theorists, diffusion is the preliminary foundation for innovation adoption.

Early adopters considered the palatability of personal and institutional needs and the capacity of the innovation to effectively and efficiently mediate those needs (Dedehayir et al., 2019). Adoption refers to the decision and determination to continue using innovation to negotiate personal and institutional conditions. Adoption entails deploying innovation to facilitate individual and institutional outputs. Understanding the distinction between the two pillars of Rogers' theory enables users to apply the method appropriately in various situations. Rogers' theory rests on a collection of adopter categories from which this study has Participants resounded in their acceptance of the concept of RIC and their participation prospects. They raised concerns about Liberia's technological infrastructure and tech-deficient instructional staffers, but the general impression was the acceptability of the RIC. Acceptability by early adopters is the mainstay for potential RIC participants. A critical feature of Rogers' five attributes of innovation adoption is adopters' recognition of its relevance and importance.

Relative Advantage

RIC represents a departure from the traditional higher education classrooms in Liberia, including more than one instructor and tech dependent. A co-teaching structure indubitably brings much more to instructional practice and student learning. Numerous research resounds the value and correlations between quality instructional collaboration and learning outcomes (Supena et al., 2021). Even more, is the convergence resources present at any one time and the generated impact that combination brings, including the impact on instructional practice. The data suggested that among the conditionalities impeding participants' engagement with home institution are the relative costs of

relocation and accessible technologies. RIC according to participants presented a better option for institutions and practitioners.

Compatibility

RIC does meet the compatibility index considering the prevailing need for a shift in instructional delivery occasioned by the worldwide pandemic, but the need to meet global competitiveness and national demands. The approach is consistent with participants' appreciation of the need for quality instructional service in tertiary-level classrooms in Liberia. Equally compatible with personal and institutional values is the opportunity to distinguish service. Compatibility of the approach extends the experiences of 88% of the participants who declared an aspect of collaborative encounter, so they harbor some appreciable level of collaboration expectations. Majority of the respondents suggested that the in keeping with comparative costs of relocation and collaborating virtually was rather more compatibly convenient.

Complexity

By its nature, RIC lacks sophistication. Other than the challenge of mitigating interpersonal and intrapersonal tensions, the approach is inherently user-friendly. RIC presents users with opportunities for personal growth and development in an environment propelled by the convenience of users' ability to enlist in the approach (Adzobu et al., 2021). Rogers' theoretic attribute of non-complexity is a crucial feature of this approach and a catalyst for improving the instructional environment and learning outcomes. Participants' comfortability, as revealed by the data, revealed little – if any – trepidation

about the approach other than the mechanics of interpersonal communications and understanding.

Trialability

The capacity for testing the approach is another pertinent feature of RIC According to Rogers, trialability is the ability of likely users to test out an innovation to determine whether adoption is prudent (Genné-Bacon et al., 2020). Like many similar innovations, it presents the simplicity of a creation that is easily replicable practically in various environments and with minor challenges. The study participants' perception underscored an appreciable level of collaboration insight and, therefore, was open to testing the approach considering that all participants were active educators during the study and had some form of engagement with remote instruction - whether directly as instructors, administrators, or policymakers. Accordingly, that experience lent support to participants' outlook on RIC and informed its expectation of benefits to the instructional landscape and instructional service delivery. The data essentially revealed that participants had generally experienced collaboration at some point in their career and were quite unreserved about the practicality of the approach.

Observability

As an instructional approach, RIC meets the observability attribute of Rogers' diffusion of innovation adoption. Observability is vital in forming adoption decision-making (Mohammadi et al., 2018). Observability enables potential adopters to evaluate an innovation for its ability to meet the other attributes while being utilized. According to Kapoor and Dwivedi (2020), observability provides ample possibilities for assessing

innovation for its relevance and impact. Relevance and comparative impact reflect an innovation's relative advantage and compatibility over another. Observability provides potential adopters a chance to adopt innovation and the flexibility to earmark specifics essential to maximizing adopters' deployment of innovation (Hubert et al., 2018). The majority of the participants who were currently in a collaborative engagement concurred that RIC and the format described in this study were – for intents and purposes - practically observable.

Limitations of the Study

The study aimed to assess Liberian educators' perception of and disposition to remote instructional collaboration in public tertiary classrooms. Undertaking this assessment required engagement with educators of Liberian lineage. As a consequence of the purpose of the study, the following limitations confounded this investigation. Firstly, the preponderance of the educators residing in the United States skewed the results more towards US-based participants' perspectives rather than a balance between the two groups of participants earmarked. Even more apparent was the omission of students from this exercise. While the voices of educators, administrators, and policymakers are vital in educational decision-making, scholars' voices were very often missing. In the conceptualization of the study, an estimation and inclusion of students' voices might have further enriched the findings of this study. As a direct result of these omissions, the generalizability of the findings is unfortunately limited and cannot represent tertiary-level education stakeholders' collective perception of or disposition to remote instructional collaboration in public tertiary classrooms.

Recommendations

The exploratory nature of this study presents ample possibilities for future studies in remote instructional collaboration in public classrooms in Liberia - regardless of the educational level - this study opens up a new educational oasis vital to expanding the post-pandemic instructional improvement landscape in Liberia. This study and its findings accentuate the ever-present instructional knowledge void at the tertiary and open up immeasurable opportunities for exploration. From the direct lens of this research, future studies might focus on several angles, including remote administrative collaboration, professional development, and resource sharing. This research strengthens this researcher's assertion that there can be no better time to investigate aspects of the current study than now.

Several recommendations evolved from this study's results, which explored Liberia educators' perception of and disposition to remote instructional collaboration in tertiary classrooms. As an instructional approach vitally new in the Liberian setting, a lot depends on the education administrators to actualize the practice and garner the dividends envisioned by participants - as reflected in the study's results. Among the recommendations identified include:

The Limited Scope of Understanding:

The research findings revealed that participants had a good grasp of what remote instruction entailed and a minimal understanding of what remote instructional collaboration entailed. As such, most participants rested their perception on a technology-facilitated co-teaching arrangement. Simons et al. (2021) highlighted that instructional

collaboration encompasses the teaching aspect, including the catalog of instructional activities - planning, teaching, assessing, reflecting, and reteaching. To this end, this study's first recommendation would be to increase tertiary-level instructors' understanding and scope of instructional collaboration. There are a variety of collaboration models applicable to specific situations and requiring varying skills and mindsets (Yoon, 2021).

Technological Readiness

Participants concurred - in unison - that while remote instructional collaboration carried enormous benefits for learners, it was important that education administrators ensured that the technical foundations necessary for implementing remote instructional collaboration were in place to guarantee success. In this regard, a recommendation was that education authorities undertake programs to adequately assess and enhance the capacity of instructional personnel while working to create the requisite infrastructure needed for the effective Implementation of RIC. Preferably, institutions can embark on reasonable pilots to test, observe, and improve implementation for ongoing effectiveness. It is equally important that the set of institutional frameworks are established to guide implementation while protecting users – instructors and students alike. Though the current technological environment lacks the legal administrative and precepts essential to averting personal and institutional liabilities, efforts are made to initially address the more obvious likely situations beforehand (Batory & Svensson, 2020).

Explore Diaspora-Relations in Tertiary Education Delivery

Unpinning the current study was a focus on diaspora engagement in tertiary-level classrooms. As a matter of future research and recommendation for implementing RIC, studies investigating cost-effective mechanisms for attracting and retaining diaspora involvement in education could prove beneficial. A further suggestion is that institutions place proximate focus on their education-involved foreign-based alums. In his seminal study on diaspora engagement, Tsegay (2021) asserted that diasporas represent an invaluable resource in their native country's socio-economic development. Tsegay used the contributions of Ethiopian diasporans to their native country's higher education development and dividends accrued through that effort. According to Gevorkyan (2022), Panibratov and Rysakova (2020), and Williams (2018), the diaspora provides a source of dependable knowledge, skills, and resource pool that continuously elude their native countries. Effectively leveraging these communities could prove most useful for higher education and other sectors in national development (Gevorkyan, 2022; Panibratov & Rysakova, 2020; Williams, 2018).

Positive Social Change Implications

Research is meaningless if the intent of the study and its findings are not bettering the conditions occasioning the investigation (Eyler & CHES, 2020). Investigation awakens society's knowledge and understanding of various situations and situates individuals, institutions, and communities to face challenges from an informed perspective. In this research, the effort to understand Liberian educators' perception of and disposition to remote instructional collaboration was against the acute inadequacies

in the country's current human resources landscape. The covid-pandemic no less exacerbated this challenge by unceremoniously unveiling the global contemporary instructional inadequacies confounding tertiary classrooms, especially in Liberia. To increase institutional competitiveness and relevance, improve learning outcomes, expand effective instructional models, and enhance managerial awareness and skills, the results of this study, as revealed in the results, has implications for positive social change.

Implication for Instructional Practice

This study pivots on the annals of instructional practice; therefore, the results primarily have implications for instructional practice. Not only did the results unveil a practice never-before deployed in Liberia's tertiary classrooms, but they also had consequences for collaborating instructors' practices. Not only is pedagogy positively impacted in a common instructional space, but access to the varied instructional approaches of partners does unsuspectingly become adopted by partners over time. Social learning theory is applicable in this instance, whereby the efficacy of cooperating partners' instructional arsenal, approach, and effectiveness is improved by and through association (Wenger & Wenger-Trayner, 2020). RIC's applications and the projected associated successes could broaden the academic landscape and unveil new dimensions in higher education instructional practice in Liberia.

Expanding Managerial and Administrative Scope

The impact of RIC's application cannot be limited to only personnel on the instructional landscape but also to education managers and administrators. While instructors are held responsible for the classroom or operational implementation of RIC,

education managers are equally accountable for creating and managing the environment facilitating the approach's success. Creating a facilitating environment will require, among other things, the institution of the appropriate legal and logistical frameworks vital to the effective administration of the program. As framed by McCurdy (2020), the success of collaborative governance relies essentially on an appropriate collection of legal guidelines that inspire practitioners and policymakers and strengthens partnership accountability (Kolesnikov et al., 2018).

Multi-Sectoral Model of Diaspora Engagement

Many development sectors of developing countries continue to toil with various engagement models intended to leverage - their often overlooked - resources of diaspora communities worldwide (Woldegiyorgis, 2021). Alleyne and Solan (2019) encapsulated the reality that emigration rates from developing countries will continue to grow and given emigrants' involvement in their host country's economy over time, they are empowered to contribute to the development of their native country's economy, thereby slowing down future emigration. The conceptual principles underpinning RIC speaks directly to this prospect. The advent of the Covid-19 pandemic and the attendant effects on instructional delivery during the immediacy of the health crisis exposed the unexplored potentialities for higher education brought about by the global situation (Oyarinde & Komolafe, 2020). The impact of the pandemic on instructional delivery highlighted not only the vast instructional technological gaps in tertiary classrooms across the developing world but also the lack of globally competitive 21st-century classroom skills. Woldegiyorgis (2021) emphasized the value of engaging diaspora

communities across the various higher education sectors as a direct means. The ultimate goal was to attract and leverage the variety of skills-sets essential to effective higher education service delivery, hinged on the quality of intellectual and financial resources accessed through the engagement (Zeleza, 2019).

Methodological, Theoretical and/or Empirical Implications

From the methodological perceptive and considering the research findings, there were strong correlations between the research findings and the method selected. The quality and depth perspectives are directly a derivative of the chosen research method. By extension, the emerging themes and the underpinned findings generated from the analysis validated the rightness of the chosen qualitative approach. Using a basic qualitative approach facilitated the exploratory nature of the research.

Theoretically, the results of the study essentially support the decision to identify Rogers' diffusion of innovation theory as the foundational pillar of the investigation. Considering the array of Rogers' attributes of innovation: relative advantage, compatibility, complexity, trialability, and observability, there are additional considerations about the social influence and perceived risks factors on innovation adoption. Indeed, the RIC's social influence could have enormous effect on the professional and social landscapes as a vehicle for incalculable academic and societal transformation. Within the context of framework, the theoretical foundation served to strengthen the research findings and its implications for positive social change.

Finally, from an empirical viewpoint, it is evident that the current study's generalizability is brought into question – consideration a number of factors: sample size, targeted population, and the implications, holistically for other populations. This opens up new avenues for future explorational studies as opportunities for expanding literature on the phenomenon with a focus a on and impact for professional practice, policy, and learning outcomes.

Conclusion

This study aimed to explore Liberian educators' perceptions of and disposition to remote instructional collaboration in public tertiary classrooms. Based on the qualitative data analysis from a combination of semi-structured Zoom interviews and written submissions by participants, the study found that considerations of purpose, environment, impact on and for professional practice, and outcome projections influenced the propensity to engage in RIC. The findings, when reclassified, suggested that participants were more likely to get involved in RIC, where considerations for making meaningful educational contributions and projections of impactful outcomes would motivate their participation decision. These results revealed participants' attitudes to the instructional practice within the context of tertiary classrooms in Liberia. The results, however, raise new questions about students' perceptions and expectations regarding their involvement as RIC recipients. How, in students' estimation a remote collaborative instructional methodology and collaborative dynamics might impact their learning would make an interesting investigation.

The study utilized a basic exploratory qualitative design, much akin to answering the research questions. The results validated findings of similar other research related to the benefits of instructional collaboration and the likely disposition of practitioners to enlist in a venture of this sort. To gauge participants' attitudes to the phenomenon, the development and utilization of the PEPO data model proved most useful as the results - therefore - provided a synthetization of factors critical to the collaboration decision. The results and attending findings of the study validate the methodological correctness of the selection research. The results open up new questions about the impressions of other stakeholders such as students and a broader representation of Liberia's academic diaspora outside the United States.

The conclusions of the study suggest that public tertiary institutional managers and administrators would do well to consider examining the policy and logistical environment vital to the effective implementation of the RIC as part of a larger institutional repertoire of instructional strategies. Additionally, and critical to better understanding the findings of this study, a future investigation could also target private institutions, considering the functional similarities of their situations. This research and its findings have contributed – however minimally - to the knowledge gap around Liberian educators' perceptions of RIC. To successfully operationalize RIC, further investigation including assessing other essential stakeholders and widening the scope of participants might better equip policymakers and administrators with the requisite tools to implement this instructional methodology effectively.

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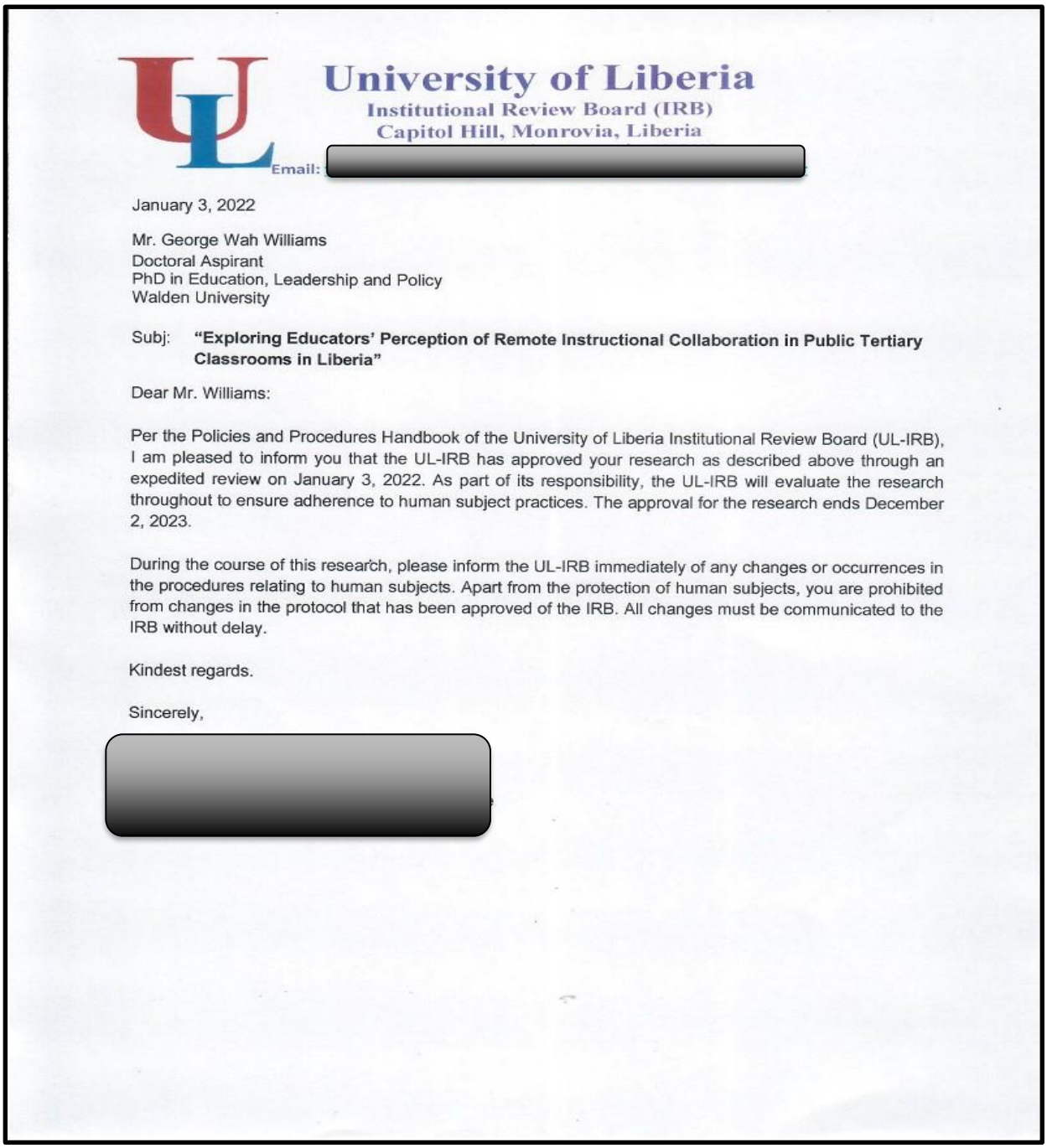
Appendix A: Cooperating Letter of Approval



University of Liberia
Institutional Review Board (IRB)
Capitol Hill, Monrovia, Liberia
Email: [redacted]

January 3, 2022

Mr. George Wah Williams
Doctoral Aspirant
PhD in Education, Leadership and Policy
Walden University

Subj: **"Exploring Educators' Perception of Remote Instructional Collaboration in Public Tertiary Classrooms in Liberia"**

Dear Mr. Williams:

Per the Policies and Procedures Handbook of the University of Liberia Institutional Review Board (UL-IRB), I am pleased to inform you that the UL-IRB has approved your research as described above through an expedited review on January 3, 2022. As part of its responsibility, the UL-IRB will evaluate the research throughout to ensure adherence to human subject practices. The approval for the research ends December 2, 2023.

During the course of this research, please inform the UL-IRB immediately of any changes or occurrences in the procedures relating to human subjects. Apart from the protection of human subjects, you are prohibited from changes in the protocol that has been approved of the IRB. All changes must be communicated to the IRB without delay.

Kindest regards.

Sincerely,

[redacted]

Appendix B: Research Protocol

Participants' Recruitment: Doctoral Research Interview

Demographics:

- What age range are you?*
  - 25 - 35 years 36 - 47 years 48 - 58 years 59 + years
- Highest Level of Formal Education?*
  - Bachelor's Degree Master's Degree Doctorate
- Where do you currently reside and practice professionally?*
  - Liberia United States Both
- Are you professionally affiliated with a tertiary (higher education) institution?*
  - Full-time Professor Part-time/Adjunct Administrator/Operations
- How long have you been affiliated with your current institution?*
  - 1-3 years 4 - 7 years 5 + years
- What gender are you?*
  - FemaleMale Other Unwilling to say
- Have you ever had a professional collaboration experience?*
  - Yes No Maybe
- What specific collaborative experience do you recall?*
- What is your understanding of remote instructional collaboration?
- From the perspective of a tertiary education classroom in Liberia, what would remote instructional look like?
- What personal factor(s) might influence you to collaborate remotely?
- What professional factor(s) might influence you to collaborate remotely?
- From a psycho-social perspective, what collaborative environment must exist to encourage your involvement? (Hint: mindset between collaborating partners)

- From a technological perspective, what environment might facilitate your decision to collaborate remotely?
- From an administrative perspective, what policies or atmosphere might facilitate your decision to collaborate remotely?
- How do you imagine remote instructional collaboration could impact your instructional/administrative practice?
- How do you imagine remote instructional collaboration could impact the practice of your collaborating instructional/administrative partner(s)?
- What projected professional outcome(s) might influence your decision to collaborate remotely?
- How does projection of learning outcomes factor in your decision to collaborative remotely?
- What insight(s) has your involvement in this study generated for higher education instructions in Liberia?