A Policy Transfer Response to Education Outcomes

& Information and Communication Technology Challenges in Liberia

by

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A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

Approved February 2023 by the Graduate Supervisory Committee:

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ARIZONA STATE UNIVERSITY

May 2023

ABSTRACT

Effective policy development will be critical to address educational challenges within the Global South. To accelerate economic, political, and social goals, the Global South is under increasing pressure to mimic policy development from other countries. In 2016, the Liberian Ministry of Education leveraged policy transfer to address systemic primary education challenges. Originally known as Partnership Schools for Liberia (PSL) and later renamed the Liberian Education Advancement Program (LEAP), the education policy outsourced the management of primary schools through a public private partnership inclusive of eight organizations. As part of the pilot, 185 schools were randomly selected in the policy pilot; 93 operating under the new public private partnership and 92 remaining under government operations. However, the sample schools did not represent the country. Rather, LEAP schools were selected based on infrastructure standards, proximity to major roads, and cell phone capabilities.

This research creates a new conceptual framework related to education borrowing, incorporating existing theories and new concepts into a single explanatory mixed-methods case study design. It aims to examine stakeholders in the education borrowing process, factors influencing the adoption of LEAP, and the process of establishing policy transfer. The research also explores whether differences exist in education access, the availability of information and communication technologies, and education quality between LEAP and non-LEAP schools.

The quantitative component of the research includes secondary data analysis, through semi-structured interviews with 19 participants with direct knowledge and experience related to LEAP. The quantitative approach utilizes Pearson's Chi-Square Test for Independence, Fisher's Exact Test, and independent sample t-tests. The qualitative component of the research employs Braun and Clarke's (2006) thematic framework to analyze the process components of policy transfer.

The findings suggest improvements in some elements of education, support existing research on education borrowing, and notes persistent challenges in these areas and the cultivation of new obstacles due to LEAP. Through the addition of new conceptual and contextual research, the study contributes new knowledge to global development and intersecting disciplines regarding how countries like Liberia navigate the successes and challenges of education borrowing.

Keywords: Global South, Liberia, policy transfer, education borrowing, and primary education

DEDICATION

To the extraordinary people of Liberia, thank you for sharing your history and allowing me the opportunity to be a part of your future. Your kindness is appreciated more than you will ever know.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank God, who continues to provide guidance and strength in all areas of my life. Thank you for expanding my faith throughout this journey and giving me the courage to do what many believed was unattainable. With You, all things are possible.

Completing this milestone would not be possible without the support of my committee: Nalini Chhetri, Netra Chhetri, Jessi Hanson-Defusco, and James Pippin. I also extend my gratitude to the family and friends who walked alongside me during this experience, providing support, encouragement, and laughter. There are key moments in life when you are introduced to people who will forever change your life. Thank you, Guy, Elena, Brandon, Delbert, Sonya, and Maria, for always being my biggest champions. I appreciate each of you more than you will ever know.

To my forever family, I am beyond grateful for you. Belinda, thank you for your unyielding support and for always making me feel like I have an extended family. Kenny, thank you for your wisdom and for pushing me to become better every day. Sue (mom), thank you for your unconditional support and love. Finally, I am eternally grateful to my wonderful husband Rodrick and incredible daughter Aliyah. You stood by me every day, offering encouragement and creating the space for me to follow my dreams. I cannot thank you enough for believing in me.

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DEFINITION OF TERMS

The following terms are defined and organized alphabetically to assist the reader in understanding the context in which the terms are used and applied throughout the research.

Digital Divide: The gap in opportunities experienced by those with limited accessibility to technology, especially the Internet. This includes accessibility limitations in social issues, cultural issues, disability issues, economic issues, learning issues, etc. (Rao, 2005).

Digital Inequalities: The socio-economic disparities inside the online population (Stiakakis et al., 2009).

Emerging Economies: Low-income, rapid-growth countries using economic liberalization as their primary engine of growth (Hoskisson et al., 2000). Global North: Refers to countries with the highest level of development, the highest level of industrialization, and mature democracies. These nations are highly industrialized, have political and economic stability, and have high levels of human health (IGI Global, 2019).

Global South: The nations of the world which are historically regarded as having a relatively low level of economic and industrial development and are typically located to the south of more industrialized nations (IGI Global, 2019). Information and Communication Technologies (ICTs): All devices, tools, content, resources, forums, and services, digital and those that can be converted into or delivered through digital forms, which can be deployed for realizing the goals of teaching and learning, enhancing access to and reach of resources, the building of capacities, as well as management of the educational system (Kundu & Dey, 2018).

Neoliberalism: A political and economic policy model that emphasizes the value of free market capitalism while seeking to transfer control of economic factors from the government to the private sector. Also incorporating the policies of privatization, deregulation, globalization, and free trade, it is commonly—though perhaps incorrectly—associated with laissez-faire or "hands-off" economics. Neoliberalism is considered a 180-degree reversal of the Keynesian phase of capitalism prevalent from 1945 to 1980 (Longley, 2021).

Policy Transfer: "A process in which knowledge about policies, administrative arrangements, institutions, etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place" (Dolowitz & Marsh, 1996, p. 344).

Public Private Partnerships (PPP): Any arrangement between the government and the private sector in which partially or traditionally public activities are performed by the private sector (Savas, 2000).

INTRODUCTION

Introduction

Within the Global South, a substantial gap exists for many countries between the aspiration to provide quality public education and the ability to deliver desirable outcomes. Pedró et al. (2015) suggested that this gap may be the result of factors that include "the fragility or failure of some states, situations of national conflict or crisis, and a lack of financial, human and institutional capacity" (p. 4). These types of challenges are prevalent among emerging economies and a key factor limiting the achievement of global agendas such as Education for All, Millennium Development Goals (MDGs), and the Sustainable Development Goals (SDGs) (Pedró et al., 2015).

Effective policy development will be critical to address educational challenges within the Global South. As such, there is increasing pressure within the Global South to "mimic" policy development from other areas to fast-track economic, social, and political progress (Mishrif & Selmanovic, 2010). As globalization continues to influence the landscape of development, many countries are now leveraging policy transfer (isomorphism, lending, borrowing, or learning) to replicate policies deemed successful in other sectors or countries. The practice of policy transfer has altered the educational landscape within the Global South in many ways, with one of the more notable changes being greater participation of the private sector.

In the most simplistic terms, policy transfer is the process of adopting policies created in one geographical area to another (Dolowitz & Marsh, 1996). Within education, a core outcome of policy transfer has been "the widespread adoption of models for the outsourcing of educational provision to alternative providers, both public and private"

(Bates et al., 2021, p.1). Both policy transfer and public private partnerships (PPPs) have been frequently leveraged to address systemic education challenges particularly in the areas of access, quality learning, and information and communications technology (ICT). Public private partnerships are generally understood as contractual agreements between public and private sectors for the purpose of administering designated educational services or outcomes (Verger et al., 2021). The influence of neoliberalism, postcolonial structures, and current global education priorities has established a unique platform that promotes policy transfer and the private sector within the primary education landscape; yet, key questions remain regarding the effectiveness and utility of such practices. The present study therefore focuses on Liberia in an effort the address the limitations related to the research scope as well as research-based information on education within the country.

Research Background

In 2016, Liberia noted the establishment of a new education policy, the Liberia Education Advancement Program (LEAP), as a pathway to advance the country's primary education system (Liberian Getting the Best Education Sector Plan, 2016). The Liberian Ministry of Education leveraged policy transfer as a mechanism to outsource the management and operations of selected schools through a public private partnership public (PPP). The implementation of LEAP in Liberia is evidence of the growing trend among policy makers to "borrow" education reforms from other areas and, more specifically, illustrates the increasing presence of the private sector within the primary education landscape.

Initially known as the Partnership Schools for Liberia (PSL), the PPP shifted management of randomly selected primary schools to the private sector beginning in the 2016-2017 academic year. Later renamed the LEAP, this public private partnership outsourced a portion of primary education to eight organizations. According to the Liberian Ministry of Education (2021), the objectives of the program were to: (1) increase positive learning outcomes within public education, (2) create strategies that maximize learning experiences, (3) enhance the physical structures for primary learning, (4) develop qualified staff, (5) establish and disseminate effective models of learning throughout the education system, and (6) establish an education platform that delivers exemplary learning experiences while adhering to fiscal allocations (Liberian Ministry of Education, 2021).

The rationale by the Ministry of Education to establish LEAP was clear: "in Liberia, we are failing too many of our children. Our teachers, our schools, and our system face deep and embedded challenges. Unfortunately, it is in the poorest communities where those challenges are greatest" (Front Page Africa, 2020). The PPP outsourced the management of selected schools to eight for-profit and non-profit organizations. The original organizations included Bridge International Academies, Omega Schools, Rising Academies, BRAC, Street Child, More Than Me, Youth Movement for Collective Action, and Stella Maris.

Leveraging new institutionalism, institutional isomorphism, and policy transfer as theoretical frameworks which explain how institutions change and become more similar in practices, including policy development, LEAP was selected as the focus of this study to illustrate emerging economies borrowing education policies from other geographical locations. The country of Liberia was selected due to the interconnected areas of economic, political, and social conditions that warrant further study within a framework that aims to enhance the collective knowledge related to global development as well as intersecting disciplines of study such as comparative education, public policy, and technology. Despite systemic and sustained efforts within the primary education landscape, challenges remain as it relates to policy development and subsequent courses of action that effectively address education access, quality, and ICTs within Liberia. The LEAP was instituted to address these critical challenges, and in many ways, this policy approach has the potential to enhance the social conditions, economic state, and human capabilities of Liberia through positive education reform. However, the magnitude of the educational challenges raises critical questions regarding whether LEAP is the optimal policy approach to address primary education transformation in Liberia.

Problem Statement

Since becoming a country, Liberia has faced a series of difficulties resulting from unequal distributions of power and wealth (Dennis, 2005). These issues have been key in influencing the country's overall educational trajectory. The undercurrent of social unrest prompted a rebellion in 1979 that would ultimately lead to two civil wars lasting until 2003 (Petterson et al., 2021). As a result, substantial components of Liberia's education infrastructure, including physical structures, personnel, and the resources necessary to facilitate learning, have been negatively impacted. At the core of the infrastructure needs for Liberia is rebuilding and enhancing school architecture. In 2016, approximately 20% of Liberia's primary schools had physical structures (Liberian Ministry of Education, 2021). While it is important to note that physical structures are not a prerequisite for quality learning, it helps to create favorable learning conditions. During the consecutive civil wars that lasted over two decades, a large number of teachers left the country, creating a substantial shortage of essential education resources (Davidson et al., 2011). Nearly a decade later, the country would face a devastating Ebola outbreak that lasted between 2014 and 2016 which would further exacerbate an already limited primary education system (Swanson et al., 2018). The onset of COVID-19, just three years after the conclusion of the Ebola epidemic, represented another major obstacle for Liberia, further impeding the pathways to quality education.

Access to education is another major challenge facing the Global South, including Liberia. Despite global attention aimed at improving education access, approximately 258 million school-aged children, representing one-sixth of the world population for this category, remain out of school (UNESCO, 2019). Within Sub-Saharan Africa, nearly 32 million primary school children (18.8%) remain on the periphery of formal education systems in comparison to 1.1 million (1.7%) of European and North American primary school-age children. Similar to global trends, Liberia has struggled to reach the 50% threshold of primary school attendance among eligible students (Gove et al., 2015).

More recently, the global narrative related to education has transitioned from access to quality. The importance of inclusive and quality education is illustrated through global agendas such as Sustainable Development Goal #4: *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*. Within the umbrella of education quality, improvements in student learning and achievement have become important areas of focus both globally and within the Liberian primary education system. Assessment of student learning in Global South countries such as Liberia demonstrates low levels of basic literacy skills (Gove et al., 2015). Challenges related to education quality are further compounded for girls in Liberia, where only 25% of those who complete primary school can read at basic levels (Romero et al., 2017). The National Learning

Assessment Policy (2021) for Liberia identifies low performance in learning outcomes and limitations in systemically assessing student achievement as critical challenges within primary education. To illustrate this challenge, the study notes that students in Grades 2 and 3 fail to meet oral reading standards and many students are unable to read in any capacity (National Learning Assessment Policy, 2021).

Numeracy outcomes in Liberia parallel student performance in literacy. Approximately 74% of students in grade 3 and 78% of students in grade 5 demonstrated proficiency standards related to addition math concepts (Cloutier et al., 2011). These numbers declined considerably for multiplication to 44% (grade 3) and 53% (grade 5) (Cloutier et al., 2011). Further, research notes that approximately 1% of the assessed population was unable to solve any subtraction problems (Cloutier et al., 2011). The current state of numeracy and literacy in Liberia create knowledge and corresponding skill gaps that diminish capacities in economic, social, political, and economic sectors. The state of education overall, and the literacy and numeracy challenges specifically, have created a call to action, garnering a demand for reforms from both internal and external stakeholders.

The difficulties facing Liberia's primary education system extend beyond access and education quality to include the essential mechanisms in which learning is delivered. As ICTs become more pronounced within society, greater access to these resources occurs for certain populations of students in schools (Sinha, 2018). According to the World Bank (2021a), approximately 57% of the population had access to the internet in 2019. For this percentage of the world's population, tremendous benefits exist, which include greater access to knowledge and the corresponding social, political, and economic advantages. However, these statistics also suggest that slightly less than half of the world's total population experiences unequal availability, diffusion, and adoption of the ICT ecosystem, which is critical in determining individual potential and collective capacities.

Within education, nearly 1.3 billion school-aged children do not have internet access in their homes (UNICEF, 2020). In Liberia, estimates indicate that approximately 20% of households have access to reliable electricity, and less than 7% of the population has access to the internet (Upadhyay & Taddese, 2020). The digital divide, the gap between those who have access to ICTs and those who do not, is becoming more pronounced in areas such as Liberia. This divide in the availability of critical ICT resources, in conjunction with the education challenges related to access and quality, is creating a compounded system of marginalization for key segments of the world's population.

The Liberian primary education system faces a variety of obstacles related to access, quality, and ICT integration. Independently, each challenge represents a substantial barrier to delivering inclusive, quality primary education. Addressing the current state of Liberia's primary education represents a massive undertaking that will require strategic, multifaceted, and local approaches, with effective policy development representing an instrumental area of focus. The current education conditions, coupled with the limited availability of ICTs, places Liberia on the spectrum of the global development agenda that lacks many of the essential resources to access key areas of knowledge and cultivate the skills necessary to thrive within the 21st century. Liberia is therefore challenged with overcoming significant historical barriers, addressing existing education and ICT gaps, and developing strategies that mitigate the potential of falling further behind both Global North and Global South countries as the pace of development in both sectors (education and ICTs) continues to increase rapidly. These challenges place greater strain on the

institutional capacity of Liberia, creating potential justification to leverage policy transfer and the private sector as a means to address fundamental challenges within the country's education system.

Purpose Statement

As a result of the emerging role of policy transfer and the private sector in primary education within the Global South, the current study seeks to examine this phenomenon within this Sub-Saharan African country. The purpose of this single explanatory mixedmethods case study is to examine the impact of this policy transfer as it relates to education access, quality, ICTs within Liberia's primary education system, and the conditions in which LEAP was developed. This approach was selected due to the inherent strengths in examining education research, answering both "how" and "why" research questions, and exploring planned versus actual outcomes within a specific geographical area. The quantitative component of the research includes a secondary analysis that leverages Pearson's Chi-square Test of Independence, Fisher's Exact test, and independent sample ttests to determine the extent to which LEAP and non-LEAP schools influenced education outcomes in access, ICTs, and education quality. The qualitative component of the research leverages semi-structured interviews of 19 individuals to examine the stakeholders involved in the creation of LEAP, the factors fostering the need for LEAP, and the process of implementing this education borrowing practice.

Access as an educational outcome was selected to align with global priorities and trends that target improved access to education (UNESCO, 2019). For the purposes of this study, student school enrollment, student attendance, and school fees will serve as measurable proxies for access (Spaull & Taylor, 2012; Wolf et al., 2016; İşcan et al., 2015).

The research also seeks to examine the influence of LEAP as it relates to ICT access. For the purposes of this research, ICTs will be inclusive of the spectrum of resources and embedded infrastructures necessary to effectively support and sustain primary education systems within the Global South. The research has identified ICT infrastructure, such as electricity, and the availability of ICTs, such as mobile phones, radios, and televisions, as measurable proxies for the current state of ICTs in Liberia (Samarakoon et al., 2017; Keengwe & Bhargava, 2014; Fu, 2013).

The research also targets education quality. Recognizing that education quality can be assessed in a variety of ways, the current study has identified literacy and numeracy as proxies for education quality. Each of these areas represents a central focus of current global education agendas and the corresponding discourse regarding the current "learning crisis" that is occurring in much of the Global South (United Nations, 2019). In addition, discussions related to PPP will be limited to operations and management to align with the type of partnership that LEAP demonstrates. The current research integrates a variety of broad concepts; therefore, providing clear definitions regarding how these concepts will be measured becomes instrumental to understanding the scope of the present study and the selection of corresponding research questions.

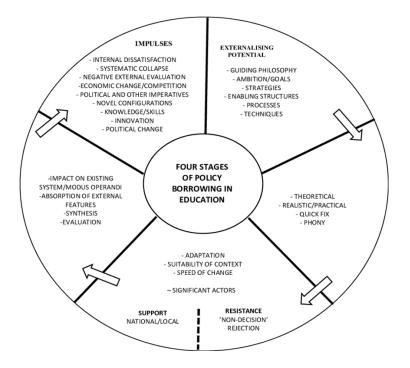
Research Questions

The central research questions emerged from the theoretical, conceptual, and contextual literature related to policy transfer, education reform, and ICT access within primary education. The current study is unique in that it evaluates both the origins and outcomes of these interconnected factors in Liberia. The current research suggests that discussions of policy development must be expanded to include the outcomes of such initiatives, and studies of education reform must also consider the policies which largely shape these outcomes. This expanded perspective, which is presented in the current research, enhances the collective knowledge related to the topic of global development and offers potential new insights by examining the global challenges holistically. The research leverages a mixed methods approach to explore: (1) whether this policy transfer practice was successful in improving fundamental education outcomes- access to primary education, the availability of ICTs, and quality learning within the academic environment; (2) the stakeholders involved in the creation of LEAP; (3) the factors influencing the development of LEAP; and (4) the process in which LEAP was implemented.

To address the four primary components of the research, the study leverages the *Four Stages of Policy Borrowing in Education* (Figure 1) developed by Phillips and Ochs (2003) as the guide for establishing the research questions. Stage one considers the myriad of factors prompting the establishment of policy borrowing, which include internal dissatisfaction with the current state of affairs as well as international pressures which document unfavorable standards based on globally established standards (Phillips & Ochs, 2003). Stage two consists of all factors surrounding the decision to change the current course of action. Within this stage, a more formalized framework is established based on institutional interests, aims, practicality, and feasibility (Phillips & Ochs, 2003). Stage three is the implementation phase which encompasses all logistical parameters necessary to move from concept to application. The final stage is referred to as internalization or indigenization, which is where "the policy 'becomes' part of the system of education of the borrower country, and it is possible to assess its effects on the pre-existing arrangements in education and their modus operandi" (Phillips & Ochs, 2003, p. 456).

Figure 1

Four Stages of Educational Borrowing



Source: Phillips & Ochs, 2003

The research questions address each component of the policy borrowing model, anchoring the research in an established model that explains policy transfer within education systems. Research question one addresses stage four of the education borrowing model, which assesses the effects of the policy. Research questions two and three align with the first two stages of the model, which explore the factors influencing the decision to adopt a particular policy. Research question four aligns with stage three of the model, which explores the process in which the policy was implemented. The research questions are as follows:

(R1) To what extent is there a difference between LEAP and non-LEAP schools ona) education access, b) the availability of ICTs, and c) education quality?

(R2) What stakeholders are included in the education policy borrowing process that created the LEAP?

(R3) What factors influenced the selection of policy borrowing as a mechanism to address education reform within Liberia?

(R4) How was the education borrowing process implemented to establish LEAP?

Advancing Scientific Knowledge and Research Significance

The proposed research addresses the limited knowledge that explores how policy transfer influences educational challenges for Global South countries such as Liberia. This gap is supported by Yaghi (2021), who discussed education policy transfer and observed that gaps exist in the existing research regarding the stakeholders involved in the process. The current study also leverages the findings of Marsh and Sharman (2009), who advocated for researching policy transfer within emerging economies as a way to develop new theories, affirm existing theories, and determine the quality of outcomes generated through this process.

The present study seeks to add new knowledge to current research disciplines in several ways. Although considerable research exists on policy transfer, educational outcomes, and ICTs within the primary education landscape, few studies have embarked on the exploration of the factors collectively. Combined, these areas represent a nexus of global development challenges and warrant a focus on comprehensively understanding the varied issues facing primary education. LEAP also represents a relatively new initiative that was launched in 2016 as a three-year pilot. As such, the current research related to the topic is somewhat limited, and much of the research has been conducted by those contracted by the Liberian Ministry of education. Due to Liberia's political and social

history, limited research-based information exists on the country holistically and particularly in the areas of ICT, learning outcomes, and PPP. This study also seeks to bridge that gap, to some extent, with a focus on primary education. Finally, the current research puts forth a new conceptual framework, drawing upon different elements from institutional theory, institutional isomorphism, policy transfer, public private partnerships, and education reform to advance the existing knowledge related to education policy development in Liberia.

The significance of the research is that it adds to the collective body of knowledge regarding how emerging economies respond to global challenges. Within this case study, several dimensions exist that are essential areas of focus within the global development discourse. First, issues of access to primary education continue to permeate development conversations, particularly the low levels of enrollment that still occur in Sub-Saharan African countries (Hawke, 2015). Second, despite continued focus, quality education within countries such as Liberia remains a core challenge. Third, the prevalent role of ICTs within education becomes increasingly important as the need for digital access expands holistically, especially in light of COVID-19, which caused access to digital resources to become unstable, compromised, or eliminated. Fourth, the role of PPPs has yet to establish definitive results related to effectiveness as a response to global development challenges (Verger et al., 2016). Finally, the practice of policy transfer continues to increase, yet the research is limited when examining these strategies within the context of education challenges within Sub-Saharan Africa. These factors illustrate the convergence of many development topics such as education access, education quality, and policy development and provide a unique opportunity to explore these areas both independently and holistically.

Assumptions

Leedy and Ormrod (2010) posited, "assumptions are so basic that, without them, the research problem itself could not exist" (p. 62). The focal point of this research relates to policy transfer that outsources primary education to PPP. More specifically, the study attempts to ascertain the conditions in which policy transfer is adopted, the process of implementation, and the extent to which these policies are successful in navigating the educational and ICT challenges deeply embedded within Global South primary education systems. As such, the research assumes that policy transfer and PPP will continue to play a pivotal role within the education landscape. Further, the research assumes that the global challenges related to education will likely persist in current and new forms, making responses to these issues a relevant area of exploration. The research also assumes that global agendas will continue to target education due to the embedded benefits from human rights, human capital, and human capabilities perspectives. As such, global narratives will continue to influence emerging economies' responses to education, particularly in public policy development. These assumptions provide a platform to justify the research focus and its corresponding importance.

Delimitations

The current study does not consider policies beyond those related to the Liberian Education Advancement Program. This study also targets only those schools selected (treatment and control) as part of the randomized controlled trial (RCT) defined by LEAP. The research gap that the current study addresses relates to the inconclusive evidence

regarding the efficacy of policy transfer, particularly within Sub-Saharan African countries. As such, the current study focuses on the impact of policy transfer and PPP within the context of education access, quality, and ICTs, although other areas of exploration could be explored to address the research gap.

Limitations

A primary limitation of the study relates to the researcher's inability to travel to Liberia. The core components of the research were developed during COVID-19, which placed substantial restrictions on travel. As the restrictions due to the pandemic decreased, challenges existed in successfully pivoting the research to include an on-site component. Recognizing the potential value that can be added by conducting research on-site, the researcher has made tremendous efforts to cultivate authentic relationships and experiences to support the study. This includes multiple dialogues with stakeholders beyond the scope of the interview to create meaningful relationships that foster a deeper understanding of Liberia. The researcher has also identified and participated in a variety of experiences to better understand the culture and traditions of Liberia. In addition, the researcher has expanded the number of interviews conducted to provide a more comprehensive and diverse perspective on the research topic. Collectively, this approach has afforded the researcher a richness in understanding not only the aims of the research, but the people, culture, and conditions connected to this important work.

Another limitation of the study is embedded in the mixed methodology. The quantitative section of the research relies on existing data collected to assess the three-year LEAP pilot. Although the data set represents one of the most comprehensive sources of information regarding LEAP, the current research is unable to verify critical aspects of the

data, such as completeness and quality. In addition, the data was organized by baseline, midline, and endline, each time period containing multiple data files. The structure and organization of the data created challenges in comparing data across time periods. In addition, some of the data files had missing information, limited response rates, or missing variable names.

The limitations in the data are the core reason fueling the selection of mixed methods so that qualitative methods can be incorporated to affirm or refute the research findings. In addition, limitations exist related to case study methodology. This approach, by design, examines one specific initiative. As such, generalizations to larger contexts are somewhat limited (Yin, 2009). More specifically, naturalistic generalizations align with case study research by allowing the readers to reflect on the details of the study and determine whether the information presented can be considered within a different context (Stake & Trumbull, 1982). The study is limited to Liberia and those individuals with direct knowledge of LEAP. However, literature and research inclusive of other regions are used to support certain components of the current study and to better situate the study within a global development context.

Positionality Statement

As an academic scholar, it is essential to discuss the identity of the researcher as a mechanism to better contextualize the research focus, approach, findings, and conclusion. Examining researcher positionality is particularly important within the field of global development as it establishes foundational aspects of the research with the objective of minimizing the perpetuation of global development narratives that fail to fully consider the contextual realities of the targeted research. Further, positionality and reflexivity are

important in framing the experiences of the researcher and how these experiences may both positively and negatively influence the overall research.

The compilation of this research was developed through intersecting identities that are influenced by natural, social, and professional experiences. As a heterosexual, African American female, I have lived all my life in the United States. Much of my environmental experiences have been shaped by small communities, adjacent to indigenous communities, in which I have lived. As such, I have had the privilege of living in a Global North country, yet I have experienced restricted structural systems based on gender, race, socioeconomic status, and educational attainment. It is this collective of identities and lived experiences that have established the platform for which I approach this work.

This research is heavily influenced by the belief in people and that the creation of opportunities that empower human capabilities is essential to a thriving global world. This belief is reinforced by the values that education is transformative and has the potential to cultivate new opportunities and realities. As a researcher, I have more than 20 years of higher education experience within the United States, yet my experiences regarding the educational systems of other countries are limited. As such, the research is guided by a framework of learning and seeking to understand education more holistically. It is also important to note that my lived experiences differ from those targeted in my research. As such, common ground was cultivated not through shared experiences but shared beliefs regarding the importance of education. It is this approach that has guided this work and has yielded the outcomes that highlight one component of the multifaceted experiences within the Global South.

LITERATURE REVIEW

This section is dedicated to the multifaceted and intersectional cornerstones of the present study. The section begins by highlighting the global focus on primary education, which thereby reinforces the importance and significance of the research. The section proceeds with a discussion of the theoretical framework and a review of the literature with a critical examination of new institutionalism, institutional isomorphism, policy transfer, and PPPs. The review of literature also focuses on the factors that pose challenges to primary education and serve as an additional aspect of the present study: (1) primary education access, (2) primary education quality, and (3) primary education ICT access. Next, the section provides an overview of Liberia, connecting global agendas, theory, and literature to the geographical area of focus. Building upon the theoretical framework and literature review, this section also establishes the conceptual framework which positions the present study within theoretical and practical applications.

The assembly of the review of literature consists of a comprehensive survey of peerreviewed articles, books, dissertations, and organization publications, particularly within the field of global development. The Arizona State University Library database represented the primary source of information (EBSCOhost and ProQuest). The study also leveraged Google Scholar to identify supporting literature. Search terms included: policy transfer, policy borrowing, policy learning, new institutionalism, institutional isomorphism ICTs, ICTs and education, digital divide, PPPs, developing countries, Global South, emerging economies, Africa, Sub-Saharan Africa, and various combinations of these terms.

Global Focus on Primary Education

Education has been and continues to be inextricably linked to positive global development outcomes. Within this discourse, primary education represents a fundamental component of learning systems globally. The importance of primary education has been and continues to be a topic of global conversation, with definitive goals identified in agendas such as Education for All, Millennium Development Goals, and the Sustainable Development Goals (King, 2007). With a global focus on access, quality, and the elimination of disparities, particularly for marginalized populations, primary education is arguably one of the most influential educational factors in determining individual capabilities and underscores the critical role that primary education plays within the development landscape. As a foundational cornerstone, primary education provides the knowledge and skills which are critical to individual development, which in turn foster expanded levels of participation within society, and addresses challenges of inequalities especially among marginalized populations.

From an economic perspective, education is viewed as an investment in the individual with the ultimate goal of improving the economy. As such, the advantages of education and economics include greater employability and access to high-skilled jobs (Ma et al., 2016). Hanushek and Wößmann (2010) also connected economic benefits to education and identified three areas in which education has the potential to positively impact economic growth: (1) increased workforce, (2) enhanced innovation, and (3) expanded abilities to leverage technology. Education has also been linked to the potential to impact agricultural production, which is particularly important as this process is core to the livelihoods of much of the world (Owuor et al., 2021).

The connections between greater education opportunities and poverty alleviation are also documented by extensive research (Arsani et al., 2020; Omoniyi, 2013). Beginning in the 1990s, education became more pronounced in aims to reduce poverty (Tarabini, 2010). More specifically, a report conducted by UNESCO (2003) indicated that increased levels of education could reduce poverty levels by approximately 50% globally. Within Sub-Saharan Africa, reports suggest that nearly 40% of the population lives on the equivalent of \$1 per day, and education will be instrumental in the efforts developed to respond to this global challenge (United Nations, n.d.). Giovetti (2020) also underscored the essential role of education as a resource to mitigate poverty by suggesting that the strength of education is inherently built upon its ability to address many of the interconnected factors that impact vulnerable communities.

Further, education has been linked to global development outcomes in areas such as health. More specifically, higher levels of education, especially among girls, have been linked to healthier children and reductions in the spread of disease (World Bank, 2022). Demonstrating the connections between education and global outcomes, Muedini (2015) posited politics and human rights as additional factors positively influenced by education. From a human rights perspective, education is a platform that enhances the available opportunities to individuals. As such, education is viewed as a universal basic right and as one of the key factors needed to promote the quality of life.

The positive development outcomes linked to primary education extend across all sectors of society. Due to the overarching ability of education to address many of the current global challenges, agendas aimed at improving primary education have become paramount to the development discourse. The increased attention placed on primary education as a vehicle for impacting global outcomes has resulted in an increase in policy transfer practices within the Global South. Given the critical importance of primary education, emerging economies such as Liberia operate within the predicament of needing to deliver on these global education outcomes while lacking the resources, infrastructures, and systems to do so effectively. This predicament becomes critical to understanding why many Global South countries seek solutions such as policy transfer and PPPs as viable strategies to respond to the challenges experienced within primary education.

Theoretical Framework

The current study utilizes new institutionalism, institutional isomorphism, and policy transfer as the theoretical frameworks for the proposed research. Both new institutionalism and institutional isomorphism are part of the larger theoretical framework of institutional theory, and policy transfer transcends a variety of disciplines, most notably public policy, global development, and comparative education. One of the notable strengths of global development as a field of study is the ability to leverage theories from a variety of external disciplines and apply these frameworks to development phenomena. The theoretical frameworks presented offer context regarding the influence of globalization and explain the corresponding behaviors of the Global South as these institutions seek to model other countries. Through these frameworks, the generalizations and limitations of the current study are also identified and better understood. Further, these frameworks offer both depth and breadth of information that connects the current work to the larger body of existing knowledge. The frameworks also clearly establish the core assumptions for which the present research is founded and facilitate the contribution of new knowledge to a variety of interrelated fields of study. As foundational and directional guides, these frameworks enhance the current research approach and provide the basis for the conceptual framework.

New Institutionalism

As studies of organizations grew in popularity, new institutionalism emerged in the 1970s to redirect attention to institutions themselves rather than the actions occurring within these entities (Britannica, 2021). As key developers of this work, March and Olsen (1984) argued that examining organizations without consideration of the limitations that influenced behaviors provided a limited and somewhat distorted view of institutional behaviors. New institutionalism aligns with the umbrella of institutional theories in that it seeks to apply formal understanding to organizational change. However, this theoretical approach moves beyond the formal structures of organizations as the impetus for change to consider how informal components such as culture and norms also influence change within institutions (Portillo & Humphrey, 2018). New institutionalism posits that the operations and occurrences within an organization are influenced more by interconnected relationships as compared to the organizational scope (Palmer et al., 2008). New institutionalism further distinguishes itself from other institutional theories with a focus on increasing similarities among organizations "even if they were engaged in quite different activities in varied contexts, and why "managers" would adopt administrative practices developed in dissimilar industries (Palmer et al., 2008, p. 739).

As a general body of knowledge, new institutionalism consists of three documented areas: (1) rational choice, (2) sociological, and (3) historical (Britannica, 2021). Each of the three areas examine the ways in which institutional systems and structures guide the actions of actors (stakeholders) within the institution. However, the approach to explaining

the interplay between institution and actor differs among the three institutional areas in fundamental ways. Rational choice institutionalism has origins in economic theory and examines the role of rules within organizations. Operating under the assumption that institutions are an assemblage of rational decision-makers (Aspinwall & Schneider, 2000), rational choice institutionalism posits that decisions are made based on institutional structures, the interests of members, and the information available at the time (Schneider & Ershova, 2018). This area of new institutionalism posits that the self-interests of actors within the institution serve as a principle guide for actions. As such, outcomes within institutions do not always reflect the most optimal outcomes as they are driven by individual interests more so than a collective good (Diogo et al., 2015). Within the context of the present study, rational choice underscores the critical role of various stakeholders within institutions and helps to illustrate the reasons why countries such as Liberia do not yield optimal outcomes to the complex challenges facing Global South areas.

Social institutionalism, as the name implies, has origins within sociology theory. As such, this branch of institutionalism places great emphasis on examining organizational change and behavior through norms, social systems, and culture (Britannica, 2021). Core to the ideas of social institutionalism is that culture and norms play an important role in influencing institutional outcomes (Britannica, 2021). This is particularly important as it suggests that some decisions occurring within organizations, particularly policy-making efforts, may not be the result of rational choice, feasibility, and optimized outcomes. Rather, these actions have underlying societal drivers that are influenced by culture. What is deemed appropriate becomes instrumental in defining the actions of members of the institution. As such social institutionalism suggests that a strong relationship exists with the level of appropriate behavior occurring within an institution and aims at achieving legitimacy (Diogo et al., 2015). Social institutionalism offers a series of guidelines for actors, which becomes important when assessing institutional change. Although these guidelines are important to the process, the attempts at gaining greater levels of legitimacy also represent an important dimension, especially when considering the longstanding dynamics between the Global North and Global South, which place a tremendous premium on global status.

Historical institutionalism considers formal and informal rules, structures, limitations, and prior decision-making of institutions as instrumental in influencing policymaking (Britannica, 2021). Historical institutionalism also includes the qualitative components of rational choice institutionalism and the cultural aspects of social institutionalism, making it one of the more challenging areas of the theory to explain and measure (Britannica, 2021). Historical institutionalism suggests that institutions should be examined within the context of time durations rather than specific points of time as this perspective holds tremendous insights into how systemic intricacies help to explain how change occurs presently (Icoz & Martin, 2021). Historical institutionalists argue that the actions of institutions are largely governed by previous experiences, which minimizes both major and innovative changes. According to historical institutionalism, actual and future actions are the reflection of experience, and radical changes in public administration hardly occur (Diogo et al., 2015). This becomes particularly important when considering the historical contexts for many Global South countries, which have experienced considerable challenges across a variety of sectors. Historical institutionalism adds yet another dimension of understanding regarding not only the current conditions of many Global

South countries but how historical experiences and conditions contribute to the present landscape.

New institutionalism is a theoretical framework that has been applied by academic scholars and research practitioners to policy development. More specifically, new institutionalism serves as a core theoretical framework that explains the conditions in which policy development and change occur. It offers meaningful context regarding how institutions are structured and the corresponding functions of these entities, including the establishment of policy. Within this framework, a series of values and norms are created with rational choice, social and historical institutionalism acting as key influencers of institutions. The concepts of new institutionalism become essential in determining which actors have the influence to determine policy direction and focus (Cohen et al., 1972). Simply stated, new institutionalism provides a blueprint of the multifaceted and interconnected factors that influence the innumerable ways in which policy can be developed, particularly within Global South countries.

Institutional Isomorphism

With the framework of new institutionalism established to explain how institutions change holistically, institutional isomorphism offers an explanation regarding why institutional changes result in greater similarity. As institutions become more similar, so do the actions within the institution, including policy development. Institutional isomorphism has emerged as a popular platform within institutional theory and has been applied to explain change within different systems, including Global South countries. The ideals of isomorphism have existed within the biology sphere since the 19th century (Krause, 2013). Beginning in the 1980s, DiMaggio and Powell (1983) began to apply the

concept to organizations to explain why these groups increasingly resembled each other in foundational and operational ways over time. Although definitions vary, isomorphism is generally understood as "a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (Hawley, 1968, as cited in DiMaggio & Powell, 1983, p.334). In the most simplistic terms, institutional isomorphism refers to the systems that organizations must adhere to in order to obtain "social legitimacy" (Connolly et al., 2009, p. 6).

As a result of the inherent complexities in understanding organizational change, institutional isomorphism has many interconnected concepts embedded within this theoretical framework. The three primary vehicles that foster isomorphism and for which extensive literature exists include: normative, coercive, and mimetic. These three pillars can operate independently or interconnectedly depending on the organization and the complexities surrounding the area of change. As such, differentiations and delineations among the three categories are often difficult to determine (Sowa, 2009).

Normative isomorphism attempts to explain organizational change within the context of professionalism in the pursuit of obtaining greater levels of legitimacy (Farquharson, 2013). This category of isomorphism examines how stakeholders within the institution and formal structures, such as level of educational attainment and professional experiences, establish a core set of institutional norms that ultimately influence decisions and operations within the organization (Nukpezah & Abutabenjeh, 2018). Normative isomorphism moves beyond the professional norms established by members within the institution to also include the formal and informal professional organizations that govern individuals within the organization (George et al., 2018). These professional systems

provide additional context regarding the ways in which institutions change and the conditions that are often prevalent to influence the growing similarities among countries.

Coercive isomorphism, as the name implies, occurs when pressure is applied either externally from entities upon which the organization of focus depends upon or internally from cultural pressures (Farquharson, 2013). The prevalence of coercive isomorphism is more likely to be evidenced when structural power imbalances exist (Farquharson, 2013). According to Lai et al. (2006), political pressure coupled with the aim of seeking greater levels of legitimacy act as driving factors of coercive isomorphism. These factors become particularly important within the context of Global South countries such as Liberia, which often face considerable pressures from political entities both internally and externally, which must be balanced with additional pressures to obtain legitimacy. According to Jarvis (2014), "these pressures can assume various forms; force, persuasion, consultation, signaling, co-option of policy elites and organization leaders, resource allocation, organization intervention and restructuring, resource incentives, or government mandate and the legal exercise of administrative state power" (p. 242).

Mimetic isomorphism is useful in understanding organizational change that occurs in unknown conditions and is illustrated by entities examining each other to identify the optimal course of action (Farquharson, 2013). As institutions encounter challenges such as those defined by global agendas, there is a tendency to replicate the responses of other countries, oftentimes with minimal consideration of the context in which the original strategies were developed or applied (Seyfried et al., 2019). The rationale for mimicking varies; however, Sağsan et al. (2011) suggested that institutions borrow from other institutions that are perceived to be prestigious or have effectively responded to similar challenges. Within the context of global development, mimetic isomorphism occurs when institutions such as Liberia examine what other countries are doing as it relates to education reform. The mimicking of emerging economies is particularly interesting, and the borrowing country may mimic neighboring countries due to similar historical and social conditions, as well as Global North nations due to long-standing influence as global leaders.

Institutional isomorphism has become increasingly popular in global development. Over time and within the field of global development, organizations would come to refer to countries as a way to explain the influences that impacted change. In the early stages of organizational development, these entities demonstrate high levels of variation; however, as organizations become more established, greater levels of "homogeneity" occur (DiMaggio & Powell, 1983). Krause (2013) noted that the core to the idea of institutional isomorphism is that organizations are no longer encouraged to evolve based on "functional need," but rather "change is driven by mimicry" (p. 1). As new ideas or innovations are considered, the perceived benefits of such innovations are often much higher than the platform in which the strategy was designed to address (Selznick, 1957, as cited in Powell & DiMaggio, 2012). Cohen and Eimicke (2001) suggested that the implementation of many government initiatives has more to do with the popularity or trendiness of the project, and in many cases, little planning regarding the effectiveness of such endeavors occurs. The current examination of LEAP leverages the elements of isomorphism to establish many of the pertinent conditions influencing policy transfer. Understanding these conditions becomes key to developing a more comprehensive understanding of why countries such as Liberia engage in policy transfer as a response to many of the goals established through global agendas.

Policy Transfer

Policy transfer represents a core component of the theoretical and conceptual framework for the present study. For the purposes of this research, policy transfer is the practical application of both new institutionalism and institutional isomorphism. According to Dolowitz and Marsh (1996), policy transfer is "a process in which knowledge about policies, administrative arrangements, institutions, etc., in one time or place is used in the development of policies, administrative arrangements, and institutions in another time or place" (p. 344). Expanding upon this framework, Mossberger and Wolman (2003) suggested that policy transfer is the process of adopting the practices leveraged within one area and applying these principles to address issues of reform in another location. Evans (2019) adopted a similar definition of policy transfer by suggesting that the practice is the extraction of institutional systems, structures, or ideas from one place to another but adds that this phenomenon dates back to Aristotle, who encouraged learning through both the successes and failures of others.

Core to understanding policy transfer is the idea that different elements can be transferred as part of this process. These elements include objectives, systems, structures, policy elements, processes, stakeholder roles, ideas, and lessons learned (Dolowitz & Marsh, 1996). As such, determining the overall effectiveness of policy transfer is often complex, with certain elements within the process demonstrating greater levels of success than others (Stone, 2017). Further, policy transfer is not a static or constrained process. Rather, Stone (2017) contended that "transfer can take place across time, within countries

across policy sectors as well as across countries" (p. 58). The multifaceted aspects of policy transfer are important to the current study as these factors both guide and frame the context of policy transfer, creating a platform to better inform the overall research and more effectively answer the questions pertinent to the study.

Types of Policy Transfer

While policy transfer in theory and practice can be traced back centuries, the escalating prevalence within the Global South has increased the study of this phenomenon within a variety of disciplines. Although the umbrella of research that encompasses policy transfer is vast, most scholars agree that the process occurs on a spectrum between voluntary and coerced (Dolowitz & Marsh, 1996). The impetus for voluntary policy transfer originates with the recipient institution and generally has higher levels of local participation, oversight, and control. The voluntary policy transfer process is also often fueled by the search for new policies to address challenges in which the country currently underperforms or seeks to optimize performance. More specifically, Bugdahn (2007) asserted that voluntary policy transfer is often influenced by the search for policies that are successful in other locations, supported by all stakeholders of the recipient country, and resource feasible.

Voluntary policy transfer occurs through three primary platforms: learning, competition, and mimicry (Heikkila & Gerlak, 2013). The learning facet assumes that a government's approach to the policy transfer process is grounded in rationally with an expectation of positive outcomes that are the result of "lesson drawing" (Odoch et al., 2022). Competition as a voluntary transfer process is leveraged when governments are compelled to compete with other institutions. This influence occurs in a variety of forms,

including competition for resources, legitimacy, or the desire to be viewed as an advanced nation in policy development efforts (Bößner et al., 2020). In contrast, mimicry processes are based on the perception that the donor policy is better than existing policies (Odoch et al., 2022).

Two types of processes have been identified when policy transfer mechanisms are not deemed voluntary: negotiated and coercive. According to Yaghi (2021), "coercive policy transfer is where one government or supra-national institution pushes or obliges another government to introduce a policy" (p. 7). Both types of policy transfer, as the name implies, arise when external agents place stipulations on the types of policies developed in another area. Building upon this framework, Dolowitz and Marsh (1996) suggested that this type of transfer is the result of force enacted by one governmental entity upon another government. The mechanisms of the negotiated coercive process contend that the recipient country holds some level of control and choice in the policy transfer. However, questions remain regarding whether such countries do indeed have a "choice" when external global entities hold tremendous influence over the policy transfer process. Coercive transfer policies often differ in the extent to which local stakeholders are involved in the process, with the coercive process demonstrating limited levels of participation by the recipient country. The spectrum is important as it underscores that policy transfer is rarely an absolute reflection of voluntary or coercive tendencies but is more likely to incorporate attributes from both aspects.

Degrees of Policy Transfer

Research regarding policy transfer also asserts that the process occurs at different degrees and is categorized as copying, emulation, hybridization, synthesis, and inspiration

(Dolowitz & Marsh, 1996). This component is useful in understanding policy transfer as it moves beyond the factors influencing the transfer (voluntary or coercive) to the potential dimensions that are actually transferred. Direct copying is the process of transferring a policy as originally designed to another location with no changes (Gavens et al., 2019). In this process, the local context of the recipient country is ignored, and the policy is adopted based on perceived success in other areas. Hare (2017) provided contextual examples of this process, referencing Honduras' replication of a Los Angeles gang prevention program which failed to consider differences in core systems and structures that likely impacted the overall outcomes of the policy. Further, Hare (2017) noted the increasing occurrences of community cleanups as a neighborhood enhancement strategy modeled by efforts within the United States.

Emulation within policy transfer includes the replication of certain components of policy but differs from direct copying in that the process allows for modifications based on the needs of the recipient country (Rose, 1991). Research on policy transfer has also shown that the transfer process does not always occur as a replication from one place to another. Rather, hybridization is a process in which ideas are borrowed or transported from two locations, and synthesis is where policy ideas are transported from three or more areas (Newmark, 2002). Inspiration policy transfer occurs when the borrowing country is motivated to develop unique policies as a direct result of the policies established in other locations (Lesch & McCambridge, 2021). "Inspiration is not directly linked to drawing lessons; rather, policies implemented elsewhere are used as stimuli for formulating new domestic programme" (Lim & Horesh, 2016, p. 994).

Determinants of Policy Transfer

A comprehensive understanding of policy transfer also requires an exploration that moves beyond which policies move from one location to another. Rather, policy transfer also requires an examination of the factors that contribute to mimicking as well as the context in which such options are deemed the most optimal approach. The conditions in which policy transfer occurs are often complex and are influenced by a variety of factors which include sector improvements, policy innovation, political agendas, and economic development (Ochs, 2006). Burdett and O'Donnell (2016) noted that the factors influencing policy transfer, particularly within education, become more complex as "the impetus for educational policy change [is] not always linked solely to educational reasons and outcomes, but instead are heavily influenced by the strong currents of the surrounding sociopolitical milieu" (p.113). Leveraging the conceptual framework of this study, the proceeding section details the determinants identified in the conceptual framework model that is instrumental in influencing policy transfer.

Dissatisfaction With Current Conditions or Existing Policies

One of the most influential determinants of policy transfer is dissatisfaction with current conditions or existing policies. Yahyazadehfar et al. (2018) expounded upon this idea by asserting that when countries are satisfied with sector outcomes and supporting policies, there is little need to change or search for new policies. Dissatisfaction with current conditions is particularly relevant when discussing policy transfer and emerging economies, as these areas often face numerous global challenges. Marsden and Stead (2011) built upon dissatisfaction as an impetus for policy transfer by stating that when this

occurs, organizations seek historical solutions within the same institution or search for external responses to identical problems.

Adding to this, Stone (2017) suggested that dissatisfaction can also occur in the form of a "crisis" in which government officials or citizens require a response that differs from the current course of action. Zhang and Marsh (2016) contributed to the literature related to the determinants of policy transfer and asserted that citizen discontent with services or unmet expectations acts as key drivers of this process. In these instances, the authors note that citizens' frustrations often translate into demands for quick solutions, making policy transfer a more appealing option in comparison to policy innovation (invention). This aspect of policy transfer is pertinent as it supports both the determinants identified in the conceptual framework model as well as the policy development spectrum which places policy invention and isomorphism as endpoints of the scale.

Internal and External Pressure

Applying policy transfer to the education landscape, Cowen (2009) noted that the origins of educational policies developed at the country level frequently originate from global agendas and discourses. Building upon the notion that policy transfer within education is deeply influenced by global narratives, the Phillips and Ochs (2003) *Policy Borrowing in Education* model identifies cross-national attraction as the first phase in the process. Within this framework, policy is adopted as a direct response to the pressures of global narratives which determines outcomes, metrics, and strategies (Xheneti & Kitching, 2011). As global agendas and the corresponding discourses are established, policy transfer represents a key way in which these outcomes are carried out by nations (Odoch et al., 2022).

More specifically, Duke et al. (2016) suggested that policy borrowing is often used by emerging economies in an effort to keep pace with global agendas. For example, many international organizations have established performance indices across a variety of sectors that compare outcomes across countries. Since many Global South countries perform considerably low on these metrics, particularly in comparison to their Global North peers, there is increased pressure to borrow policy (Ali, 2012). Hang (2022) discussed external pressures to transfer policy by highlighting the postcolonial structures that remain within education systems. The author states that "in Vietnam, the pressure to learn from abroad is in many ways driven by the implicit assumption that 'best' practices exist, and that this 'best' is found either in the West or supported by Western-dominated knowledge production" (p.463).

Stone (2017) identified a different type of pressure that fosters policy transfer which is generated by political and policy communities. Within this ideology, policy transfer emerges due to perceptions by key stakeholders that previous policy attempts have failed or are in response to "crisis" (Stone, 2017). Bennett (1997) also noted that the mobility of transnational businesses could exert some level of pressure on countries to adopt potential policy initiatives as a way to attract new businesses or maintain existing business arrangements. Negotiated coercive policy transfer evolved and is primarily illustrated through processes that require compliance with prescriptive courses of action as a condition for receiving financial, capital, personnel, or knowledge resources (Zhang & Marsh, 2016). Discussing the policy transfer in China, Zhang & Marsh (2016) highlight that coercion can occur when countries become members of organizations and these countries become subjective to the rules and regulations of the governing entity.

Financial Dependency

Coercive policy transfer has origins and prominence in both colonial and postcolonial structures. From a historical perspective, this type of policy transfer occurred when reigning empires such as the Roman and British Empires created regulations at the conclusion of wars and conflicts (Zhang & Marsh, 2016). Ugyel and Daugbjerg (2020) contended that a considerable number of early research studies focused on coercive policy transfer among Global South countries due to the wide-scale occurrence of this practice, particularly from the World Bank and International Monetary Fund. Although the research regarding coercive policy transfer notes a high occurrence within the Global South, Stone (2017) asserted that a drawback of this process is the absence of learning by the adopting country, which becomes more apparent in the voluntary transfer process. As such, countries are subjected to greater negative lessons and one-size fits all models that have permeated the global development discourse for countries such as Liberia.

Policy transfer is also strongly linked to economic conditions and the corresponding dependency on external financial resources that is prevalent among many Global South countries. More specifically, Duke et al. (2016) highlighted the principles of new institutionalism and isomorphism by noting that institutions such as the World Bank, UNESCO, and the Organisation for Economic Cooperation and Development (OECD) are key actors contributing to the surge in policy transfer as financial resources are often associated with particular policy development initiatives. In addition to global institutions, Evans (2019) identifies nations such as the United States, Britain, and Japan as well as transnational organizations like Time Warner as core contributors to the financial dependency experienced by the Global South as it relates to policy development. Evans

(2017) claimed that in exchange for financial resources, emerging economies must adopt Western-based "processes of policy transfer that often undermine the sovereignty of nation states to make public policy in the national interest" (p. 3)

Steiner-Khamsi (2010) discussed this phenomenon within the context of emerging economies, suggesting that this is a core rationale behind policy transfer and the continued dependency of the Global South on both the financial resources and policies of the Global North. Steiner-Khamsi (2016) also suggested that economic drivers of policy transfer are often overlooked as the focus is largely placed upon social, political, and cultural influences. This oversight is particularly important within the development landscape as there is a substantial transfer of financial resources between the Global North and Global South, which serve as a structural blueprint for which many initiatives, including policies, are initiated. The financial dependence of the Global South on global stakeholders is particularly important as it highlights a possible reason why policy transfer occurs as well as why many of these policy development processes are unsuccessful. Supporting this idea, research notes that "global isomorphism" has afforded developing countries high levels of resources with no definitive conditions placed on effectiveness (Pritchett, 2014). Providing further support of this idea, Pritchett (2014 stated:

This is in part because the external pressures were not for learning performance at all, but nearly exclusively for (a) increased enrollments and (b) expanded inputs. If countries did not demonstrate progress on those two there was external advocacy and encouragement to change, but as long as they could demonstrate progress on these two fronts the 'international community' was happy to provide financial assistance and support (p. 17).

Limited Knowledge and Expertise

Evans (2019) asserted that limited knowledge and expertise as it relates to policy development occurs in both established and emerging economies. However, the author

asserts the prevalence of policy transfer in "developing countries, transition societies, or countries emerging from conflict [as] such states still need to engage in lesson drawing from successful exemplars or to engineer effective national development or reconstruction" (Evans, 2017, p.3). Ugyel and Daugbjerg (2016) examined policy transfer within the context of the process as well as agent participation, noting that local stakeholders often play an instrumental role in the policy transfer process, but affirm that limited capacity and expertise are critical barriers to the successful implementation of policy in certain emerging economies. The limited knowledge and expertise are informative to the present study as substantially impacted education and skill levels for large segments of the current population.

Discussions related to limited knowledge and skill extend beyond a focus on the current state for many countries such as Liberia to a discourse that recommends a deliberate focus on these areas by governments. Competence building by governments becomes critical to the development of innovative policies (Borras & Edquist, 2015). The absence of these competencies, as the conceptual model suggests, is more likely to create isomorphic policy development as governments and stakeholders are more reliant on the knowledge, skills, and training of external institutions. Research suggests that emerging economies with diminished competencies and capabilities may be further disadvantaged as knowledge is often leveraged as a mechanism to exert power. More specifically, the literature suggests that there are many "ways in which expert knowledge can be mobilized in policymaking processes, as "ammunition" for substantiating organizational preferences, a tool of legitimation, or a mechanism of symbolic authority" (Littoz-Monnet, 2017, p.21).

The intricate nature of policy transfer combined with the complex issues in which these policies seek to create a platform of conditions that require advanced expertise. The absence of such competencies illustrates the rationale of why many emerging economies select policy transfer, but also highlights critical junctures within the policy development process where this skill gap explains why these types of policies fail.

Status and Legitimacy

Considerable research exists connecting policy transfer to status and legitimacy. However, because status and legitimacy can be defined in multiple ways, the research also varies in the exploration of how this factor influences policy transfer. McCarthy-Jones and Turner (2015) examine policy transfer in developing countries and observe that political legitimacy plays an instrumental role in the development of policy. The authors argue that political stakeholders might refer back to historical actions that can be leveraged to "legitimate" current policy actions. This finding informs the present work in two ways: (1) it supports a core determinant identified in the conceptual framework, and (2) it supports the theoretical framework of new institutionalism which draws upon the historical context of institutions as a core influencer in policy mimicking.

Díez-Martín et al. (2022) observed a connection between institutional theory and legitimacy. More specifically, the authors suggest that institutions seek to align institutional behaviors, norms, and practices with "societal expectations" in an effort to demonstrate greater levels of conformity and subsequently establish legitimacy. This perspective is useful in framing yet another determinant of institutional isomorphism and policy transfer. For many emerging economies, obtaining legitimacy may be the primary reason for policy replication. Institutions with real or perceived legitimacy may be afforded

expanded opportunities, including resources, knowledge, and support that may not otherwise be available. Dolowitz and Marsh (1996) identified another dimension of status and legitimacy and suggested that it can also be used as a mechanism of justification for potentially contested solutions. In this regard, the reforms in other areas are used to reinforce the decisions to adopt identical or similar policies in the recipient nation.

Education Borrowing (Transfer)

With a more holistic understanding of policy transfer established, the literature review transitions to the education sector. Within the education landscape, policy transfer is often referred to as education or policy borrowing. Regardless of the terminology, the principles of policy transfer are generally understood as being embedded within the literature and research regarding education borrowing. Steiner-Khamsi (2016) suggested that education borrowing can be categorized into two broad areas: normative and analytical. The normative areas of education borrowing primarily focus on advocacy for the process, whereas the analytical aspects of education borrowing are dedicated to understanding the conditions influencing and surrounding the process. The research regarding education borrowing has been historically pronounced within the discipline of comparative education. However, more recently, policy transfer within education has gained widespread attention as a greater number of scholars research the topic among emerging economies. The literature and research related to policy transfer and education become pertinent to the current study as it illustrates the multifaceted, multidimensional, and multidirectional mechanisms in which policy transfer may occur within the educational landscape.

As education systems become more complex and connected through globalization, the spread of education reforms deemed successful in one area to another location has proliferated the policy development landscape. The longstanding pattern of emerging economies leveraging Western-based solutions to core challenges is also experienced within education. Gupta (2022) researched education borrowing in India through the examination of the new early childhood development policy. Among the key findings of this study, the author notes that it is "problematic" to presuppose that policies can be transferred from the Global North to the Global South. Gupta illustrates how historical arguments for early childhood education have been championed by global agendas and ultimately adopted by the Government of India as part of a new policy. Gupta's (2022) assessment of the policy notes key gaps, including potentially erroneous assumptions about current education structures, objectives, and available resources.

The challenges of education borrowing due to disconnects between the policy host and recipient are further demonstrated by Clapham and Vickers (2018), who examine policy borrowing as England attempted to replicate mathematics teaching for mastery best practices originating from Shanghai and Singapore. The authors note cultural conflicts in the original policy concept as it relates to core education systems in England, and this fundamental misalignment has impacted the overall success of implementing the policy. These studies support the current research by showcasing the ease at which discourses can be translated into policy, as well as the potential pitfalls and oversights that occur when addressing education reforms.

While researching education reform in which Vietnam borrowed education policies from the Escuela Nueva model in Columbia, Le (2020) asserted that both Western-

dominated practices and influences act as a prominent force influencing the need for education change in the Global South. In what the author terms the "coloniality of policy lending and borrowing," Le (2020, p. 461) asserted that the influence of international organizations such as World Bank has expanded beyond financial opportunities to leaders in discourses related to global development. The multifaceted roles of key global organizations underscore the ways in which dominant discourses are generated and the mechanisms that reinforce Global South's dependency on these entities. Although the dominance of Western-based practices is evident within the education landscape, some literature suggests that new avenues of policy transfer exist that appropriately combine hegemonic approaches and local contexts. Forestier et al. (2016) reviewed education reforms and the corresponding borrowing in Hong Kong. Core to the research findings is the acknowledgment of colonial origins and influences throughout the country's history. The authors also describe the policy transfer process, which consisted of surveying policy from other countries, partnering with international organizations to gauge progress, and hiring relevant expertise to support the various phases of the process. The research showcases how countries can be targeted in the policy elements that are ultimately transferred and how these aspects should be connected to local knowledge and needs. The authors advocate for this approach, asserting that it warrants consideration by other countries seeking to policy borrow as a way to balance historical global discourses with current Global South realities.

With access to knowledge continues to represent a central focal point within the global development discourse, proponents of policy transfer assert that this practice holds the potential to diffuse knowledge to spaces in which effective policy development has

been systemically constrained. Policy transfer supporters also view the process as a way to leverage the successes and failures of policy initiatives through research rather than implementation (Wolman, 1992), creating a more streamlined approach to policy development. Supporting this idea, Burdett and O'Donnell (2016) noted that policy transfer holds tremendous potential and is a process frequently engaged in by policymakers who survey the policy development landscape for potential practices that can address the critical needs of various government sectors. In this regard, more options for policy development become available for countries as globalization has facilitated greater levels of connection among and between countries that exponentially expand access to policy initiatives throughout the world. Moreover, the appeal of policy transfer is supported by the viewpoint that this process serves as a faster, more cost-effective policy approach that holds the potential to address challenges across a variety of sectors as compared to policy invention and innovation models (Kanda & Milhaupt, 2003).

The embedded political components of policy transfer are also viewed as a potential benefit by proponents of this process. Steiner-Khamsi (2010) suggested that policy borrowing is beneficial as it may serve as a neutral solution to opposing ideals on policy development and may become the preferred option when opposing actors are unable to agree on policy efforts. Policy transfer serving as a political bridge or compromise suggests that this process has the potential to advance policy initiatives that may have otherwise been stalled through disagreement or lack of consensus. This benefit becomes particularly important to Global South countries such as Liberia which rely on effective policy to address the current state of affairs within the country. Overall, the potential of policy transfer is particularly important within the context of the present study as it demonstrates possible explanations as to why countries such as Liberia select policy transfer as a means to address sector challenges such as those evidenced within primary education.

Despite the potential of policy transfer, several concerns and criticisms exist surrounding the policy development practice. Duke et al. (2016) noted a key issue with policy transfer is the failure to consider "local context." Within the field of global development, local and indigenous knowledge are frequently cited as instrumental to the success of policy and practice. The exclusion of this critical input may help to explain the limited success of many policies, particularly within the Global South. Government actions and political culture represent additional local contexts that are highly influential factors within policy transfer frameworks (Alasuutari, 2014). These factors influence which policies are considered for transfer as well as the components that are included once the policy is transferred.

Additional reasons for policy transfer critiques include the holistic or partial failure of such strategies in achieving stated outcomes. Dolowitz and Marsh (2000) identified three areas in which policy transfer failure occurs: (1) uniformed policy transfer, (2) incomplete policy transfer, and (3) inappropriate transfer. Each type of policy transfer speaks to a specific gap in the policy transfer process. It is the potential failures of policy transfer coupled with the increasing reliance of such practices that make further investigation critical to global development to better ascertain the utility and effectiveness of such endeavors. Uniformed policy transfer occurs when all pertinent knowledge regarding the policy is not considered or acquired by the recipient country, which results in critical gaps in understanding that become fundamental to developing, implementing, and sustaining the policy in the recipient country (Dolowitz & Marsh, 2000). Incomplete policy transfer is the result of transferring partial components of a policy without fully considering how each part impacts the overall policy. Finally, inappropriate policy transfer occurs when policies from one institution are applied within a different context or process to another location, resulting in partial or total failure.

Ultimately, policy transfer is inclusive of multiple dimensions that should be considered when adopting such policy development strategies. The potential of policy transfer allows emerging economies to progress in critical areas by building upon the knowledge and experiences of other locations. However, the failure to appropriately adopt and adapt essential components of the transfer process can impede the overall effectiveness and success of such policies, compounding the challenges of an already strained system. An important aspect of the current research explores the extent to which LEAP was successful. The factors contributing to and impeding the success of policy transfer can be applied to the current research to more accurately determine whether LEAP positively affected the identified primary education outcomes and, if so, the degree to which these outcomes were impacted.

In many ways, the trends emerging in education parallel larger global discourses. While policy transfer and education borrowing hold tremendous potential and promise, such approaches must be undertaken with caution and consideration of the multitude of factors likely to influence the overall effectiveness of such strategies. The current education conditions demonstrated across many countries within the Global South highlight the need for effective policy. However, the increasing expectation of countries such as Liberia to find external policy solutions and adopt education "best practices" has created a platform for both potential and pitfalls. With the literature review providing a holistic understanding of policy transfer and education borrowing, the next section transitions into a review of public private partnerships to better contextualize how the private sector emerged as the policy transfer response for Liberia's primary education challenges.

Public Private Partnerships

Definitions

As a result of the broad scope of PPPs, there is currently no consensus on definitions related to the concept. At the most basic level, PPPs represent an agreement that is inclusive of the public and private sectors as key stakeholders (Hodge & Greve, 2007). Iossa and Martimort (2015) offered a similar definition of PPPs by stating these arrangements are between public and private entities for the "delivery of some services" (p. 2). Tilak (2010) provided one of the more comprehensive definitions suggesting that PPPs occur when "public sector agencies (central, state, or local) join with private sector entities (companies, foundations, non-governmental organizations, academic institutions or citizens) and enter into a 'business' relationship to attain a commonly shared goal that also achieves objectives of the individual partners" (p.2). Within education, PPPs have been defined as contractual partnerships involving the public sector seeking private sector services for a specified duration of time (Verger et al., 2021). Public private partnerships have a variety of definitions reflecting the different dimensions and scope of the concept. The vastness in definition and practical application illustrate why PPPs are highly researched. Yet, limited information exists related to the intricacies and impact (Languille, 2017), which is a gap in research that the current study seeks to contribute new knowledge.

Factors Fueling PPPs

Beginning in the 1980s, neoliberal ideas began to gain traction as evidenced by the dismantling of key policies that promoted greater levels of state control (Robertson & Verger, 2012). Conflicting Keynesian ideas which promoted state-management models, neoliberals advocated for the state to create systemic structures in which the market was optimized, particularly within the education sector. Key to this transition was the emerging role of the private sector in the stead of services previously controlled by the state (Robertson & Verger, 2012). By the 1990s, this transition from government to private led services was being considered and implemented in a variety of sectors, including education (Robertson & Verger, 2012). During this time, the popularity of PPPs was also noted and supported on a global scale. Global, multi-lateral and bilateral organizations such as World Bank, OECD, DFID, and USAID, with headquarters in the Global North, began strongly advocating for these types of partnerships leveraging achievement of the Millennium Development Goals as the rationale for support (Robertson & Verger, 2012). The popularity of PPPs intensified throughout the 1990s as this contractual arrangement was deemed beneficial in a variety of social sectors in the United States and Europe.

In addition to neoliberal ideologies, proponents of PPPs posited that such arrangements were a benefit due to the inherent structure, which leverages the positive aspects of both the public and private sectors (Hodge & Greve, 2007). Further, such models suggest that when combined, public and private sector partnerships have the potential to create greater optimization of contractual agreements. Proponents of PPP also suggest that the inherent advantages of such arrangements rest within the ability to upgrade core systems within the confines of public budgets (Connolly et al., 2009). In addition, advocates of PPPs in education suggest efficiencies related to financial savings, operational efficiencies, and improved outcomes (Patrinos, 2006) as additional factors influencing the selection of this type of partnership by public government institutions.

Further, as economics continues to influence policy within the education sector, there has been an increase in financially-driven solutions within this landscape. Ball (2020) explored policy transfer through dimensions of networks and highlighted the influences of economics through the privatization of education. The author suggests that "various 'partners,' consultants and education businesses deliver 'development' and aid policy (for potential profit), develop local policy infrastructures and embed prevailing Western policy discourses, either directly or as 'spillovers' into the local policy systems" (Ball, 2020, p. 325). Building upon this idea, Carney (2016) suggested that PPPs in education are a market-driven response to global narratives related to access and quality challenges and a failing state to effectively address these outcomes. Carney (2016) further posited that the economic influences of policy transfer position PPP as the solution to these challenges through other global narratives such as "choice and fee payment to greater accountability and education quality (Watkins, 2011, as cited in Carney, 2016, p. 538).

Private Management and Operations of Schools

Although PPPs can take on many roles within the education sector, the World Bank has identified five overarching categories of services (Table 1): (1) management, (2) operational, (3) education, (4) facilities, and (5) facilities & education (World Bank, 2009). The current research focuses on the management, professional, and support services component of PPPs as this type of service delivery reflects the partnership developed as part of LEAP. The effective management and oversight of schools are instrumental in determining the overall success of such institutions. When education systems, such as those in emerging economies, lack the resources to manage schools, the private sector is often solicited to support governments in this work (Patrinos et al., 2009). The management service arrangement between the public and private sectors varies and can include oversight of one school or administrative authority of multiple schools, such as the case in Liberia. Further, the management services provided by the private sector can be designated to single or multiple organizations. Regardless of the structure of the privately managed school agreement, the solicitation of services by the public generally targets finances, staff, planning, and leadership (Patrinos et al., 2009).

Table 1

Types of Contracts in Education

What governments contract for	What governments buy
Management, professional support services (input)	 School management (financial and human resources management Support services (meals and transportation) Professional services (teacher training, curriculum design, textbook delivery, quality assurance, and supplemental services)
Operational services (process)	• The education of students, financial and human resources management, professional services, and supplemental services
Education services (outputs)	• Student places in private schools (by contracting with schools to enroll specific students)
Facility availability (inputs)	• Infrastructure and building maintenance
Facility availability and education services (both inputs & outputs)	• Infrastructure combined with services (operational or educational outputs)

Source: World Bank 2009

In a report examining public and private school management by OECD (2021), the findings highlight that "privately managed schools tend to have more autonomy, better resources, better school climate and better performance levels than publicly managed schools" (p.19). The benefits of privately managed schools are also observed in Uruguay. Balsa et al. (2022) leveraged a random evaluation of three middle schools and observed that students in these schools were more likely to remain in school and successfully move

to higher grades. The research also noted better mental health conditions among students attending these schools and inferred that these findings might be linked to the positive education environments cultivated within private school environments, which often provide greater levels of student support and parent engagement. The benefits of privately managed schools are further demonstrated through the work of Rathod and Khedkar (2021), who examine both government and privately funded schools in the Solapur District of India. The findings for the research were inclusive of 400 primary education teachers in which survey results reveal better organizational structures and culture among the privately operated schools as compared to the government-led institutions. The authors suggested that these findings are important within the context of core areas that define and influence school quality.

While researching privately managed schools as compared to public schools in Trinidad and Tobago, the study reports that despite differences in teacher and student quality, outcomes related to test performance and dropouts showed no differences between public and private schools (Beuermann et al., 2015). A study by Crawfurd (2018) of the education system in Punjab, Pakistan mirrors in many ways the LEAP policy transfer initiative. According to Crawfurd (2018), the government partnered with the private sector to manage more than 4,000 low-performing public primary schools. The study leveraged difference-in-difference methodology and observed an increase in enrollment for the targeted schools, but a slight decline in student academic performance. The research does note that it is difficult to attribute these findings to the privatization of the schools and suggests that randomly selecting the schools, a method deployed by LEAP, may be a better research approach.

Inconclusive Research on PPPs

Although the use of PPPs, particularly in the Global South, continues to increase, research regarding effectiveness is inconclusive. The uncertainty regarding PPPs is documented by Verger et al. (2021), who stated that "within some policy and academic circles—such as international development and comparative education—the PPP debate is often too generic and fails to adequately differentiate the extent to which PPP modalities work, for whom, and in which sense" (p. 158). More specifically, PPPs' growing popularity for educational delivery contrasts with insufficient supporting evidence. In fact, existing research on the outcomes of PPPs often yields contradictory results across multiple impact dimensions, including expanding access, improving educational results, and distributing educational opportunities or promoting educational innovations (Ashley et al., 2014; Aslam et al., 2016; Languille, 2017; Verger et al., 2016).

Underscoring the challenges in determining the effectiveness of PPPs within education, Fennell (2007) suggested inherent challenges with such a model. The author noted that current models within the United States and Europe had demonstrated mixed results regarding effectiveness and overall impact. The author notes at the core of these challenges are the merging of two entities with potentially different objectives that have the potential for overlap and conflict. As such, Fennell (2007) advocated for caution when considering the deployment of such strategies within developing countries. Core to the challenges related to PPP is the idea that services that promote public good should be fully controlled by the public sector (Robertson & Verger, 2012). In response to the continued challenges related to primary education reforms, a growing body of research has been developed which explores PPPs as a mechanism to deliver education. The research continues to shed light on both the potential benefits and consequences of such endeavors. It is the nexus of this debate that drives much of the current research, which seeks to determine the effectiveness of such approaches within the Global South as a means to improve primary education reforms.

Global Education Challenges

With the policy and private sector strategies leveraged by many emerging economies discussed, the literature review now focuses on the education challenges that these types of approaches seek to address. Within the Global South, countries face a variety of obstacles as it relates to primary education. Many of these challenges are interconnected, creating a compounded series of conditions that require complex solutions. Arar et al. (2020) noted that neoliberalism is instrumental in defining education challenges at local levels. Not only is neoliberalism instrumental in defining global agendas, but it is also a key factor in influencing policy development and the subsequent transfer of these policies from one area to another. The present study targets three core areas of challenges: access, quality learning, and information and communications technology availability. Each of these areas independently warrants considerable study within global development, and extensive literature exists for each topic. However, due to the interconnections of each challenge, the present study has opted to explore all three areas with the aim of advancing a more holistic research framework that explores these factors as a collective rather than independent issues.

Access to Primary Education

The emergence and continued global focus on primary education access are one of the most noteworthy examples of the influence of neoliberalism within an educational context (Bruns & Rakotomalala, 2003). More specifically, the global attention placed on primary education access is evidenced by the various agendas set forth by global narratives such as those set by the United Nations led tWorld Conference on Education for All, World Education Forum, and the Millennium Development Goals (MDGs). For decades, there has been a global focus on primary education with a concentrated effort on improving access to primary education. Operating under platforms such as universal primary education (UPE) and free primary education (FPE), these global policies emerged and, in some cases, re-emerged during the 1990s with the goal of making education available to all primary school-aged students. At the core of these improvements were policy developments and changes that prioritized enrollment based on the potential for expanded capabilities at the individual and societal levels. Interestingly, the rise of universal primary education access policies coincided with the mainstream introduction of PPPs in education in areas such as the United States and Western Europe (Fennell, 2007). Patrinos (2005) suggests that the introduction of PPPs in the Global North would ultimately create new options for emerging economies to consider to address the access and quality challenges within their education systems.

Within Liberia, the globalized neoliberal influences related to education access resulted in the creation of a policy that authorized free and compulsory primary education in 2001 (Waydon et al., 2016). Operating within this policy framework, substantial resources have been allocated and considerable efforts have been undertaken to make primary education a reality for all Liberian students. The policy was demonstratively clear on the provision of universal primary education access. However, the policy also included two key aspects of the neoliberal discourse: (1) a focus on the development of marketable

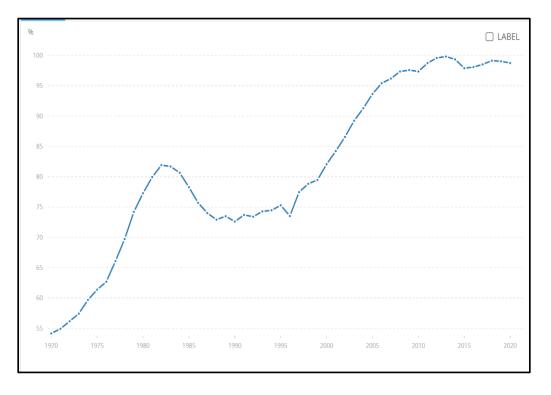
skills and (2) the identification of the private sector as key providers of education services (Waydon et al., 2016), underscoring the deeply entrenched influence of neoliberalism as it relates to educational policy and practice. The Liberian universal primary education represents a key policy fueling access to education. However, the country has struggled to reach the 50% threshold of primary school attendance among eligible students (Gove et al., 2015). The shortcomings of such policies in delivering universal access to education have created tremendous pressure among policymakers to deliver on the promises of universal primary education. This pressure and the subsequent decisions of policymakers represent the core of the current research and a key rationale behind the decisions to leverage policy transfer not only in Liberia but in the larger landscape of the Global South.

Once the universal primary education policy was implemented, Rodriguez-Segura and Kim (2021) noted improvements in primary school enrollment from 72% in 1970 to 89% globally (2018). More specifically, the global trend in primary enrollment has noted considerable increases. Immediately following the implementation of universal primary education (UPE), Uganda experienced a substantial incline that peaked around 2004 (World Bank, 2020a). Ssewamala et al. (2011) observed that primary school enrollment in Uganda increased from 3.1 million (1996) to 7.5 million (2007). The adoption of free primary education in Kenya also experienced unprecedented enrollment increases of nearly 1.2 million students, representing an enrollment rate increase that was previously unparalleled (Riddell, 2003). Similarly, following the adoption of UPE policy, Tanzania experienced increases from 53% (2000) to 73% (2002) (World Development Indicators, 2015, as cited in Valente, 2019). Benin has also seen increases from around 50% to more than 100% between 1990 and 2012 (McNabb, 2018). Malawi experienced similar surges,

with enrollment increases of approximately 50% within the first year of launching FPE (Riddell, 2003). In Ghana, where UPE was implemented at a slower pace, the country experienced increased enrollment but at a much lower rate in comparison to other Sub Saharan African countries (Oluwakemi & Ogunrinade, 2021).

Holistically, the increases originally experienced by many Sub-Saharan African countries at the onset of universal primary education appear to be leveling off at a time when continued improvement is needed (Figure 2). Projections based on current enrollment trends suggest that full universal primary education enrollment in Africa will not be achieved for another 28 years (Evans & Mendez Acosta, 2021). Further, the costs of realizing universal primary education are likely to increase as efforts seek to reach the most marginalized populations (Evans & Mendez Acosta, 2021). For countries such as Uganda, the rapid enrollment increases prompted by UPE have shown continued declines (World Bank, 2020a). In Tanzania, primary enrollments decreased 2.7% between 2009 and 2014; however, the country is demonstrating increased enrollment as of 2016 (Kapinga, 2017). Within Liberia, one of the greatest challenges is the nearly 60% of eligible students who remain out of school (Waydon et al., 2016).

Figure 2



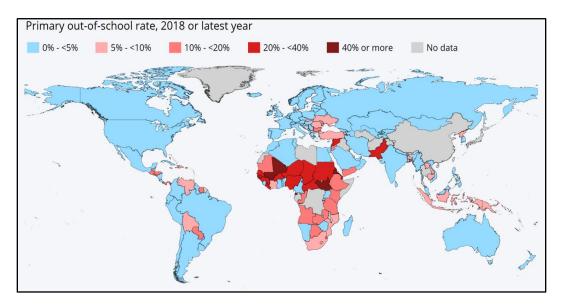
Primary Education Enrollment in Sub Saharan Africa

Source: World Bank (2020a)

The enrollment increases experienced by many Sub Saharan African countries are noteworthy evidence of the potential effectiveness of primary education policies. However, the primary enrollment trends for many Sub Saharan African countries suggest that continued barriers remain as it relates to realizing universal primary education access. These barriers are evidenced by the fact that millions of children still remain on the periphery of education opportunities (Figure 3). The existing primary education limitations, coupled with greater advocacy for non-state providers as the more effective option to address these issues, suggest that an examination of these primary enrollment access challenges is needed to both identify and quantify the discourse related to this topic.

Figure 3

Primary Out-of-School Rate 2018 or Latest Year



Source UNESCO (2019)

Funding Primary Education

One of the key variables influencing the extent to which primary education access can be achieved relates to the government budgets allocated to support this policy initiative. In Africa, budget allotments for education average 4.1% among low income countries (LICs) and 4.8% for low middle income countries which excludes external support that in some cases, represents nearly 30% of total budgets (Lewin, 2020). Similarly, the Liberian government only spends approximately 2% of its total budget on education (Gove et al., 2015).

For many countries, financial constraints immediately emerged as a direct result of the staggering increases in primary enrollment after the implementation of UPE and free primary education (FPE). Omwami and Keller (2010) investigated public funding and budget challenges within the primary education systems of Sub Saharan Africa. The authors identify government budgets as substantial barriers to realizing universal primary education access. More specifically, the authors suggest these budgets do not have the capacity to support such an ambitious endeavor, and in many cases the resources pale in comparison to the resources allocated to primary education in the Global North.

The government budget shortfalls have created opportunities for external stakeholders to "invest" in the primary education systems during a pivotal period. Within Kenya, Riddell (2003) asserted that "the new policy of free primary education will be likely to lead to a tradeoff between a dependence on parents and a dependence on external finance to meet the bills" (p. 5). Entities such as World Bank and UNICEF would quickly become key financial contributors to supporting budget shortfalls at the onset of primary education. For example, in Kenya, the World Bank allocated nearly \$50 million to support this policy initiative. According to the literature on financial assistance, approximately half a trillion dollars has been invested into education systems by mechanisms such as bilateral and multilateral agencies, with substantial portions being allocated to Sub Saharan Africa (Lewin, 2020). The significant financial investment highlights the continued and considerable contributions that are needed to support global agendas within the Global South.

While external investments in primary education provide much needed resources, questions arise as to the sustainability of such efforts. Meki Kombe and Herman (2017) explored the longevity of donor-supported investment in Zambia's primary education system. The authors examined the Primary Reading Programme, an initiative designed to improve literacy that was funded by the Department for International Development (DFID). When external funding was no longer made available, the study noted considerable declines in the overall quality of the project, with a complete cessation to many aspects of the project. The authors, therefore, conclude that the contributions of external stakeholders must be balanced against the internal resources of governments to sustain such initiatives. Ultimately, government spending on education will continue to play an important role in supporting primary education access. For countries such as Liberia, where high levels of poverty are combined with sporadic economic growth, these factors exacerbate the challenges facing primary education access.

The small percentages of government spending coupled with reliance on external funding create potential challenges for countries such as Liberia, especially in the wake of COVID-19. Education expenses in 2020 projected declines which will impact spending for 2021 and potentially beyond (World Bank, 2020b). Further, the onset of COVID-19 required a redistribution of financial resources to support health-related efforts. Mitra (2020) suggested that many countries with limited financial resources will likely consider education PPP as a way to address potential gaps in funding. The challenges within primary education underscore the critical role of policy development, creating a platform to better understand why policy transfer occurs within emerging economies such as Liberia.

School Fees

Historically, the costs of education were often offset by fees passed along to parents or guardians of children. School fees were leveraged by governments to supplement and sustain newly emerging budgets to support the growing demand for primary education systems. Fees were used in a variety of areas, such as tuition, learning resources, and support for school-related associations (Gardner, 2020). When discussing barriers to primary education access, costs represent an essential area of consideration. Primary education fees have a long history within Sub Saharan African countries, dating back to postcolonial periods (İşcan et al., 2015). A longitudinal study was conducted by İşcan et al. (2015) that included seven Sub Saharan African countries- Ethiopia, Ghana, Kenya, Malawi, Tanzania, Uganda, and Zambia. The authors note a similar trajectory for many of the countries studied, which included a colonial/postcolonial period of free primary education followed by the introduction or increase in fees during the 1980s-1990s, which was followed by another period aimed at primary education fee elimination. The current trend of fee abolishment is influenced by global agendas that underscore a belief that additional financial costs represent a substantial barrier to primary education fees and note when present, these costs resulted in a decline in primary school enrollment of seventeen percentage points (İşcan et al., 2015).

A study by Ngugi et al. (2015) conducted an interpretive policy analysis of FPE within Kenya. The authors note that in theory, policy makes primary education free to all. However, in practice, embedded financial costs still exist in areas such as uniforms and other related fees, which create substantial obstacles to certain populations, especially the most marginalized groups. Research by Iipinge and Likando (2013) also demonstrated the occurrence of primary education fees despite the existence of universal primary education policy in Namibia. The authors observe that fees for primary schooling were in place from 1990 to 2012, and these costs prevented certain learners from accessing primary education (Iipinge & Likando, 2013). Providing additional support for the continuation of fees despite policy designed to remove primary education costs, Sakaue (2018) assessed the impact of

informal fees and school choice using the economic model developed by Gertler and Glewwe (1990) and human capital theory to address the inequities in access to education. This qualitative study posed three research questions: (1) what are the reasons for "high informal fees" in public primary schools; (2) how do these fees impact school choice for poor and non-poor households; and (3) what effect do high informal fees have on attendance and choice for poor and non-poor households? The research leveraged difference in difference (DD) quasi-experimental design to address these fundamental questions. The research highlighted an increase in the occurrence and "size" of informal fees. Further, the authors observe that the fees in rural areas double from 40% to 80% within six years.

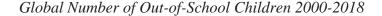
Zuilkowski et al. (2018) researched universal primary education in Sub Saharan Africa and found that the low cost of many private schools represented another factor influencing enrollment in public primary schools. The low cost of private school is particularly important as it underscores the continued role of neoliberal influences through the private sector in education and makes private school a viable option considering that many public schools charge fees that are comparable to private education. Ultimately, the "hidden" costs of primary education represent a critical factor influencing access to education. The costs of seemingly free primary education have created a twofold challenge: (1) substantial limitations in access to those unable to afford the additional fees and (2) the emergence of the private sector as a financially competitive alternative to public education. The true costs of primary education become particularly important for countries such as Liberia, with extreme levels of poverty occurring throughout the country. The literature related to costs as a barrier to primary education also supports the current research study, which attempts a further exploration of access to primary education.

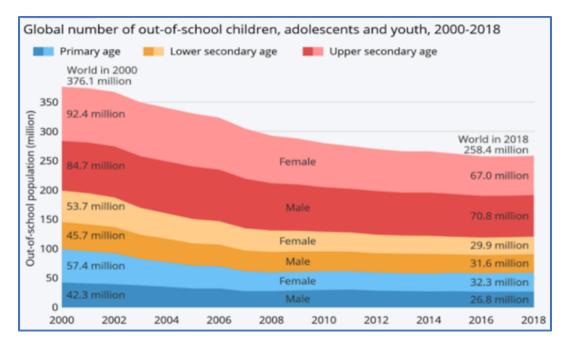
Male-Female Disparities

Another key factor limiting access to primary education relates to gender, with a disproportionate impact on girls. The implications of educating girls have become so persuasive it has now become firmly etched within the global development agenda as indicated by Sustainable Development Goal # 4 Target 4.5: *By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.* Eliminating gender disparities is also reflected in SDG #5. *Achieve gender equality and empower all women and girls.* These goals highlight the global platform that now exists to address gender disparities. This platform has fostered considerable discussions and corresponding efforts aimed at bridging the current gaps for girls in primary education. The consequences of not fully addressing these gender disparities could result in significant portions of the population remaining uneducated at a time when maximum individual contributions are needed to address the collective challenges of the country.

Despite the global focus on educating girls, continued disparities exist (Figure 4). Nearly 129 million girls remain out of school, and approximately 30 million of that population represent primary school-aged children (UNICEF, 2021). In addition, slightly more than half of the girls currently out of school are projected to ever attend primary schools (Mollel & Chong, 2017). Detailing the disparities that exist between boys and girls, d'Aiglepierre and Wagner (2013) noted that between 1999 and 2009, 22 countries educated girls to boys at a ratio of 90:100, and within nine countries, gender disparities were 80:100. The authors go on to suggest that much of these disparities occur in Sub Saharan Africa, Asia, and the Middle East (d'Aiglepierre & Wagner, 2013). Within Liberia, nearly half of the current population is female, and a substantial percentage of that population is primary-school aged. The gender demographics within Liberia, coupled with the educational challenges faced by girls, provide further justification to why the proposed study is needed and necessary within the field of global development and other connected disciplines.

Figure 4





Source UNESCO (2019)

Examining the obstacles to gender equality in primary education, social structures and systems have been identified throughout the literature as an influential determinant. Shabaya and Konadu-Agyemang (2004) noted that "deep-seated cultural, institutional, and political barriers have conspired to create and perpetuate gender and girls' disparity in access to education" (p. 396). The authors underscore this inequity by stating that women represent the largest percentage of the illiterate population throughout the world, and girls are more likely to drop out of school prior to completing primary education. When discussing social structures, Stelter (2018) studied the social factors limiting girls' education in Nigeria and noted that males were more likely (72%) to have access to opportunities for education during their lifetime as compared to females as a result of perpetuated ideals regarding the role of girls in African societies. Although staggering, these statistics are an indicator of the deeply entrenched social norms as it relates to girls and boys.

Mollel and Chong (2017) leveraged survey design to study socio-cultural influences of access to education for girls in Mtwara District, Tanzania. Using purposive and random sampling, the study included 150 participants across 67 primary schools. The overall results concluded low levels of access and success for girls within the region of study and a progressive decline in these variables as time progresses. The factors identified as instrumental influencing the access of girls to primary education concluded early marriages, negative perceptions of girls in education, traditional ceremonies (unyago), social roles, and male preferences. Despite a global focus on achieving gender parity in education, the research demonstrates the continued work that is required, including further research, such as the current study, which is required to understand the current constraints related to achieving universal primary education access for the Global South.

The barriers to primary education extend beyond social structures. In many African countries, financial resources are limited and boys are often prioritized as the individual to send to school to the continued detriment of girls (Mwesigye, 2015). Within many Sub

Saharan African families, both girls and boys are direct or indirect contributors to family income. These indirect roles are particularly prevalent among girls, who are often tasked with household chores and providing childcare so that adults have greater opportunities to earn money (McNabb, 2018).

Ihebuzor (2014) examined policy designed to increase female access to basic education within the Democratic Republic of the Congo. Like other Sub Saharan African countries, policy and legislation have adopted free and compulsory primary education within the Democratic Republic of the Congo. However, Ihebuzor (2014) noted that much of the current primary education system still relies on fees which disproportionately and negatively impact girls, the poor, and rural children. These fees are allocated to a variety of school functions such as teacher salaries and operational costs. As it relates to the current study, the author also notes that approximately 70% of public primary schools are operated by religious groups. This is particularly important as the non-government entities within primary education continue to emerge throughout the literature review either in theory as a solution to current challenges or in practice as reflected in the Democratic Republic of the country.

Examining the long term impacts of gender inequalities, Baliamoune–Lutz and McGillivray (2015) research gender inequalities as it relates to income per capita levels. Using Sub Saharan Africa, North Africa and the Middle East, the researchers use gaps between male and female primary education as one of the metrics of focus. The authors observe that disparities in primary education enrollment between males and females have a negative impact on income. This finding is particularly significant as it underscores the importance of realizing full primary enrollment, especially for marginalized populations.

Wodon et al. (2018) provided a comprehensive description of the impact of gender-related disparities:

Girls dropping out of school early are more likely to marry or have children early, before they may be physically and emotionally ready to become wives and mothers. This may affect their own health. It may also affect that of their children. For example, children of mothers younger than 18 face higher risks of dying by age five and being malnourished. They may also do poorly in school. Other risks for girls and women associated with a lack of education include intimate partner violence and a lack of decision-making ability in the household (p. 1).

Research related to gender disparities in education suggests that policy transfer may further magnify existing inequalities by reinforcing school systems and infrastructures that already exist (Oxfam, 2019). Ssenyonjo (2020) examined the influence of PPP that leverages a low-fee private school model within Africa's education systems. The author used theory by Fairclough (critical discourse) and Harvey (space times) to assess the relationship between PPP and education within Liberia, with an emphasis placed on the equity and inclusiveness of such strategies. Among the key findings of the research, the study noted diminished equitable access to populations such as rural, poor, girls and students with disabilities. The research finds are significant as it relates to the current study in that the popularity of PPP within education raises critical questions as to the extent to which these arrangements have the ability to address deeply entrenched challenges for Global South countries, such as access to primary education.

Urban-Rural Disparities

An additional challenge in realizing primary education access relates to rural populations. A number of Sub Sharan countries have high concentrations of populations residing in rural areas which create a series of challenges in educating these groups (Lally, 2021). Of the millions of children who remain out of school, research suggests that the rural poor are among the most impacted (UNESCO, 2015a). For example, in Senegal, the average out-of-school rate is 38%; however, the percentage is considerably higher within rural areas (49%) (Lally, 2021). Similarly, Tanzania has a large rural population and notes primary enrollment differences between urban (90.6%) and rural (72.2%) (Lindsjö, 2018). As global education moves towards inclusive education, eliminating the barriers for the rural population will become critical to the education reform discourse.

Underscoring the challenges faced by Global South countries in achieving universal primary education access, Kyohairwe (2016) examined the challenges of Universal Primary Education in Uganda using the human rights approach to address the inequities in access to primary education for marginalized populations. The research explored which groups of people are experiencing right to education violations and where unequal power distributions exist that impede full policy achievement. The research hypothesized that although UPE was successful in increasing enrollment, not all children had access to primary education. The research leverages qualitative, cross-sectional, descriptive design and notes differential benefits favoring urban populations in comparison to their rural peers. Lindsjö (2018) also explored the potential constraints of primary education for rural populations within Tanzania. The author leverages a fieldwork approach to demonstrate that the costs of education represent one of the most substantial expenses for rural households. The research explored three different rural villages but noted a consistent theme, "education, even 'free' primary education, is expensive in the rural context and families to spend a large proportion of their income in order to secure a future for their children" (Lindsjö, 2018, p. 26).

The barriers to rural primary education access represent a recurring theme across many countries within Sub Saharan Africa. Serem and Ronoh (2012) investigated the unevenly distributed access to primary education for pastoralists in Kenya. The research specifically explores the challenges of access to primary education for particularly disadvantaged communities. The authors used an ethnographic study research design to address the research questions and problems. The research also showed conditions unique to pastoralists, such as conflict with neighboring communities, as a significant challenge. Poor infrastructure and limited community involvement in FPE were also cited as critical barriers to primary education access. The research illustrates key barriers to access that have the potential to improve a critical area of FPE policy, particularly for populations living in rural areas or challenging environments. The implications of this research provide another example of marginalized populations that must be explored if universal access to primary education is to be achieved.

Areas and populations of northeastern Kenya represent another area of emerging literature regarding the barriers experienced by rural groups. Okilwa (2015) supported other research findings by noting that issues such as education access and equity remain core challenges of rural populations such as those living within the northeastern region of Kenya. Of particular importance, the author notes that the challenges experienced by these rural groups are not new but a continuation of marginalization that occurred during colonial times. Okilwa (2015) identified several factors- "nomadic lifestyle, female genital mutilation, resource deprivation and poverty, harsh geographic conditions, and poor infrastructure" as critical barriers to accessing education in rural regions of the Global South (p. 5).

Quality Learning in Primary Education

Education quality has also emerged to become a pivotal platform of the global dialogue. Similar to primary education access, neoliberal ideals have also been instrumental in shaping the importance and conceptualization of school quality. Core to neoliberal ideology is the development of constructs that can be measured and quantified. Accordingly, DeSaxe (2015) noted that school success is increasingly being defined through "quantifiable measures" (p.8). Within this context, student performance, particularly on test scores, is becoming increasingly synonymous with education school reform. Globally, the neoliberal trend of standardized testing is evidenced by The Organisation for Economic Co-operation and Development (OECD), the coordinator of the Program for International Student Assessment (PISA), which currently has 90 participating countries (OECD, 2021). As Liberia continues to address educational challenges related to quality, there has also been a deliberate focus on standardized testing. Currently, the country is transitioning from the primary school certificate assessment to the development of the first National Learning Assessment system within primary education (Dayal et al., 2021). The strategic efforts towards improved assessment mechanisms within Liberia fortify the education connection between human capital and improved learning outcomes, which simultaneously reinforces key neoliberal principles.

The relationship between primary education access and quality is inherently connected, with each factor exerting influence on the other in critical ways. Issues of student learning cannot be discussed until the challenges of access have been at least partially addressed. However, as the literature has shown, rapid increases in enrollment, such as those that have occurred due to primary education policy, have created a substantial strain on government budgets with direct impacts on education quality. While primary education access is an important precursor to realizing the global agenda, outcomes associated with improved learning, it is the quality of the learning that occurs that holds the true potential to create a more educated and productive population.

Literacy and Numeracy

Global agendas focusing on improving enrollment soon realized that getting students in the classroom did not inherently translate to learning. In 2016, approximately 600 million children did not meet minimum learning standards in reading and numeracy (Imchen & Nadem, 2020). This learning phenomenon has recently been coined the "Learning Crisis" highlighting the pervasive learning gaps occurring in much of the world (Imchen & Nadem, 2020). While the Learning Crisis addresses the students enrolled within education systems which are in a position to experience formal education, it omits the children who have yet to reach the classroom. Building upon the ideas of the Learning Crisis, the World Bank has adopted the "Learning Poverty" framework to underscore that 53% of children in low and middle-income countries are unable to read at global standards by age 10 (Imchen & Nadem, 2020).

Research on primary education quality, particularly student learning, in Sub Saharan African countries is extensive. Mwesigye (2015) explores universal primary education in Uganda and notes low completion rates among students. More specifically, at the onset of UPE, only 22% of students progressed through the primary education pipeline to grade seven (Mwesigye, 2015). These figures improved slightly to 29% by 2009, but were staggeringly low for rural populations. Despite continued efforts, full universal primary education represents a challenging goal for many Global South

countries. Research by Kyohairwe (2016) of UPE in Uganda provides a comprehensive assessment of the quality challenges experienced by many Sub Saharan African countries. The author states that primary education in many ways, is characterized by limited numbers of students advancing through the education pipeline, limited learning in math and reading, teacher challenges and resource challenges at all levels.

The literature on countries such as Nigeria, with more robust economies and greater access to resources, parallels other countries with regard to literacy. Overall, the country has low levels of literacy, with tremendous variation between the northern, primarily Christian region (80%) and the southern, primarily Muslim region (35%) (Stelter, 2018). Adeniran et al. (2020) researched the "Learning Crisis" in Nigeria by developing a metric of quality that uses alignment between curriculum, literacy, and numeracy assessments. Core to the research findings is that Nigeria is experiencing a learning crisis with disproportionate impacts on poor, rural, and government-operated institutions. Ultimately, the research calls for greater levels of support at the system, teacher, and parent levels in order to address these challenges.

Core to the ideas of neoliberalism is the assertion that the market is better served through privatization. Neoliberal frameworks suggest that the private sector is more innovative and adaptable as it relates to responding to societal needs. Within primary education, a series of learning challenges exist that the government has not been able to fully address. However, with Sub Saharan Africa, like much of the world, PPP are largely present within the education landscape. As such, questions arise as to which entiretygovernment or private sector is more equipped to navigate the current climate that has been characterized as both a "learning crisis" and "learning poverty" which is an indicator established by the World Bank and UNESCO in 2019 highlighting education challenges.

Student-Teacher Ratios

Samoff (2007) suggested that "expanding access without corresponding attention to the structural transformation of the education system will ensure low quality education for at least some learners and perhaps most" (p. 493). The rapid increases in enrollment as a result of UPE and FPE placed unforeseen and unplanned strains on education systems that were already, in many ways struggling. As more students realized the opportunities for primary school enrollment, education infrastructures experienced increased student-teacher ratios, which were among the highest in the world, and declining student performance on key academic outcomes (Deininger, 2003). For example, the student–teacher ratio for public primary schools in Uganda increased from 37.6 in 1996 to 59.4 within one year (World Bank, as cited in Kan & Klasen, 2021). Riddell (2003) notes that primary education conditions in Malawi were already strained prior to the implementation of FPE with 70:1 student-teacher ratios in some areas and more than 100 students, on average, attempting to learn in a single classroom (Riddell, 2003). Within Liberia, the ratios are similar to other SSA countries and are reported as 44:1 (Dalieh, 2017).

Matshipi et al. (2017) researched overcrowding in rural South Africa primary education schools. Providing context for the current study, the authors note key concerns among education stakeholders regarding the nearly 11 million children that are forced to learn in overcrowded classrooms. The authors go on to suggest that this overcrowding directly translates to a lower performance for both teachers and learners. Using qualitative, semi-structured interviews, findings from the research observed critical challenges in school-to-community ratios, extensive time to build new schools, and delays in repairing existing schools. The direct impacts on learning are limitations in interactions between teachers and students, as well as diminished teaching quality as teachers are challenged to manage such crowded classrooms.

Issues of overcrowding are prevalent throughout Sub Saharan Africa, which is at least in part a key contributor to the overall quality challenges that are pervasive in the area. Dalieh (2017) examined the challenge of overcrowding in Liberia's public schools in Monrovia. Using qualitative, case study the researchers used various education personnel to address the core research questions. Participants of the study perceived the government as the key stakeholder responsible for the cause of the overcrowding with implemented legislation with provisions and support. The participants also indicated that the government should ultimately be responsible for addressing the issues of overcrowding within classrooms. The findings from this study are noteworthy as the focus on Liberia mirrors the current study. The study also provides a perception of the role of the government as the entity to deliver solutions. This finding is interesting as it has the potential to conflict with the emergence of PPP within the education landscape.

Examining issues of overcrowding in Uganda's public primary schools, Jones (2016) noted that the student-to-teacher ratios are indeed a factor influencing learning. This research occurred through the use of test results for more than 250,000 children and found that the challenges of overcrowding do not inherently warrant policy intervention. Instead, the author advocates for pivots in current pedagogy as a successful strategy to improve learning outcomes. This particular finding is noteworthy as it suggests that the issues of

overcrowding may be effectively addressed at more local levels providing greater levels of control within each public school.

Limited Resources

The significant increase in students attending primary education institutions is also evidenced by factors such as a "shortage of classrooms, teachers, instructional materials, and other related facilities" (Ssewamala et al., 2011, p. 472). A core barrier related to primary education quality can be characterized as policy without provision. While universal primary education policy put in place the mechanisms for increased enrollment, in many cases, the accompanying provisions were not considered. As such, many Global South primary education systems were overwhelmed by an influx of students without the corresponding resources necessary to foster learning. This theme was very prevalent within Sub Saharan African countries such as Zimbabwe, Kenya, and Uganda (Iipinge & Likando, 2013; Sifuna, 2007; Ssewamala et al., 2011). The conditions in Tanzania were similar, with the country demonstrating insufficient resources in key areas of learning, such as physical learning infrastructures and learning resources (Riddell, 2003). South Sudan represents one of the more recent countries to adopt a universal primary education policy. Immediately following the presidential decree, South Sudan instituted several enrollmentincrease based initiatives, which created greater demands for an education that the current system was not positioned to support (Lodou & Oladele, 2018).

Du Plessis and Mestry (2019) examined issues of limited resources within rural areas of South Africa. Noting the conditions that may exist in certain rural areas, such as remoteness, lack of essential resources such as electricity, and limited infrastructure related to education systems, the authors note that these conditions are exacerbated within the

learning environment. In many cases, the authors note that governments are unable to provide sufficient resources to support the enhanced challenges such as financial, physical, and human capital. The liability of governments to provide these resources transitions the responsibility to parents, who are often unable to provide the necessary financial support. As such, students in these areas continue to experience learning in subpar learning environments, which directly impacts the ability for learning to be delivered and received.

Agencies external to the government have also emerged to address shortages in resource allocation to primary education. For example, the shortage of essential resources prompted global responses of support and greater levels of intervention by the global development community. This is illustrated in a study of Malawi, that leveraged these external resources to address 38,000 classroom and 25,000 teacher shortages (Riddell, 2003). The challenges related to resource constraints create yet another avenue for the emergence of PPP. The collective obstacles experienced in a variety of intersecting areas of primary education build a compelling case as to why government leaders would consider PPP within the primary education sector. Within Liberia, the primary challenges parallel the obstacles demonstrated throughout the literature review thus far. Although the effectiveness of PPP is still inconclusive to some degree, the rationale for support becomes clearer as to why many believe this is the only solution to the current "learning crisis."

Teacher Credentials

The research related to teachers and primary education quality is extensive. One of the fundamental challenges relating to learning quality is teacher qualifications. Illustrating the challenges of teacher qualifications, Riddell (2003) observed that nearly 50% of teachers were untrained following the implementation of FPE which represented an increase of more than 30% as compared to the level of teaching credentials that existed before the policy initiative. In response to these challenges, countries such as the Malawi Integrated In-Service Teacher Education Project (MIITEP) created accelerated teacher training and support systems at substantially reduced costs (Riddell, 2003). Within South Sudan, the percentage of qualified teachers has decreased from 43.7% to 39.8% since 2011, which coincides with when the country established independence (Lodou & Oladele, 2018). Buhl-Wiggers et al. (2017) examined teacher effectiveness within Africa that leveraged data from an RCT in northern Uganda. The datasets consisted of four cohorts that followed student progression from grade 1 to subsequent grades. The research included an assessment of the Northern Uganda Literacy Project (NULP), which is a literacy intervention that leverages mother-tongue instruction to improve early skills in these critical areas of learning. The research affirms the critical role of teachers in fostering learning.

The challenges related to teacher qualifications extend beyond the ability to effectively educate students. Bold et al. (2017) studied universal primary education in several African countries (Kenya, Mozambique, Nigeria, Senegal, Tanzania, Togo, and Uganda) through an analysis of the Service Delivery Indicators Program. The research leveraged school, student, and teacher data to determine that teacher absences were prevalent among the countries at an average rate of 44%. The authors note the gap between scheduled and actual time students interact with teachers is a critical factor influencing the quality of learning received and the academic performance of students.

Considerable work continues to be performed to address the challenges of teacher quality. Within Ghana, Wolf (2018) leveraged a randomized-control trial to explore a

program developed to support kindergarten student teachers. The exploration occurred during the pre-service phase of teacher training and focused on factors such as mentors and training occurring within the classroom as mechanisms to potentially improve quality teaching. The findings of the research are promising and demonstrate that teachers had a better understanding of the national curriculum and child-led learning. However, the positive results did not translate into improvements in learning outcomes.

The role of teachers in the learning process has been documented as instrumental in the literature. However, critical issues remain with the number of teachers as well as the quality of educators. These challenges create another layer of challenges for education systems with SSA. As such, the potential of PPP to address these obstacles becomes critical to the development discourse. Holistically, we have seen a variety of challenges that are pervasive and persistent across many countries within SSA. What remains unknown is what strategies are the most effective in responding to these challenges. The growing popularity of PPP suggests that it is now one of the most considered options, but does this preferred option demonstrate the results needed to address the critical global challenges in primary education? The challenges of access and quality have therefore been incorporated into the current research, which seeks to provide a platform for answering this question. The challenges in education extend beyond access and quality to also included the platforms in which education delivered such as information and communication technologies.

Information and Communication Technologies for Development (ICT4D)

The literature regarding ICTs is extensive, with several definitions of the concept emerging. Fu (2013) suggested that ICT is "the broad term that "includes computers, the Internet, and electronic delivery systems such as radios, televisions, and projectors, among others, and is widely used in today's education field" (p.12). Adding greater specificity to the term (Toro & Joshi, 2012), add video, DVD, telephone, satellite systems, computers, networks, video conferencing, and electronic mail to the umbrella of resources included within ICT. Other studies (Brown et al., 2010; Weber & Kauffman, 2011) focus on what ICT does rather than what it is and suggests that the concept is a critical platform for data, information, and communication transmission leveraged through the internet or other resources. A more recent definition of ICT suggests that it is "digital technologies with certain properties, features, and functionalities" (Thapa & Hatakka, 2017, p. 2618). The broad and varied definitions of ICTs underscore the far-reaching influences this ecosystem has on society, as well as the multitude of contexts that must be considered when conceptualizing and practically applying ICTs within different sectors.

The prominent role of ICTs within society has now become inextricably linked to the discipline of global development. As a field of study, information and communications technology for development (ICT4D) is still relatively new. However, both scholars and research practitioners agree, at least in part, that the field of study largely concentrates on emerging economies and populations with limited material access to ICTs within these geographical locations (Walsham, 2017). Despite the potential of ICTs within the development and the billions of dollars invested in supporting such initiatives, the existing literature demonstrates continued challenges in realizing the potential of ICTs within development. Understanding and conceptualizing ICT4D requires an understanding that moves beyond the technical artifacts to the robust conditions, ecosystems, and infrastructures included within the ICT4D framework. The global research and discourses surrounding ICT4D have in many ways been transferred to the education landscape. Information and communications technology for education (ICT4E), like other sectors, seeks to optimize the potential of ICTs. Discussions related to ICTs and education largely focus on how these resources can be integrated and leveraged within the education space to better impact areas such as teaching, learning, performance and operations. Wagner (2018) provided a framework of the potential applications of ICTs within education which include: (1) formal instruction and learning, (2) informal instruction, (3) content delivery, (4) teacher training, (5) data collection, and (6) communication. Collectively, these areas serve as the platform for the ways in which ICTs can be used in education and assist in shaping the goals that institutions seek to achieve as they seek to integrate technology into academic environments.

Technological Determinism

In order to understand the comprehensive framework related to ICTs and development, an examination of the philosophical underpinnings that support the continued expansion of ICTs in all sectors, and particularly education, is required. Core to these philosophies is the prominent discourse and somewhat pervasive assumption that technology alone will alleviate global challenges. This utopian or technological deterministic viewpoint has served as the foundation for many misguided attempts at effectively leveraging ICTs within global development. Toyama (2015) illustrates this concept through the deployment of ICTs in India's education system. Despite substantial technological investments and advancements, the author notes these ICT integrations did not address the education conditions within the country. The perspective offered by Toyama (2015) is compelling as he asserts that in many instances, ICTs not only fail to

improve conditions, but in many cases, the integration of such resources have made existing situations worse. The author ultimately offers a perspective titled the "Law of Attraction" which helps to frame essential considerations for ICT4D which suggests that "the degree to which technology makes an impact depends on existing human capacities" (Toyama, 2015, p. 39). This principle is key in understanding both the successes and failures of ICT4D, suggesting that this work must consider individual and collective capacities as a core component of any global development initiative.

Local Knowledge and Context

Core to the expanded ICT framework and related to technological determinism is the role that local context plays within the ICT4D landscape. In many ways global agendas advocate for the mass deployment of ICTs without contextual considerations. Kaloostian et al. (2020) noted that the One Laptop Per Child (OLPC) initiative failed to address issues such as learning, sustainability, and the availability of resources to support the ICT ecosystem. As such these initiatives were largely unsuccessful and in many cases created greater challenges within the ICT landscape. Although global narratives soon realized that providing ICT access did not fully address the issues of inequity, this practice has continued in a variety of forms. Most recently and widespread, Kaloostian et al. (2020) noted the widespread distribution of laptops during COVID-19 as the One Laptop Per Child 2.0, questioning whether lessons were learned as it relates to the mass distribution of technology with examining local context.

Despite the promise and potential of ICTs, research continually illustrates how ICTs are failing to deliver on many of the highly touted claims in part due to a failure to fully consider imperative local contexts. For example, Hussain and Amin (2018) investigate the relationship between gender justice, women's empowerment, and ICTs. The findings of this research are particularly noteworthy in that they demonstrate the dichotomy of ICT pitfalls and potential. More specifically, when studying women in Afghanistan, the authors note that participants indicated a strong belief in the potential of ICTs to positively influence empowerment. However, despite this perspective, the research notes that in most cases, changes in empowerment did not occur as women continued to operate in traditional roles, underscoring the critical role that local contexts continue to play in ICT adoption, integration, and use.

Supporting the literature on how ICTs must leverage local knowledge, context, and capacity, Rangaswamy and Nair (2010) illustrate the potential of ICTs through the exploration of a mobile phone business in Mumbai. Through this research, the authors suggest that ICTs can be successfully introduced and sustained through entrepreneurial approaches that bridge existing gaps in "physical, digital, social, and human resources" (Rangaswamy & Nair, 2010, p 63). Further, the research highlights how information systems and strong social networks can be integral to the adoption of ICTs. The study also highlights the fundamental role that individuals contribute to the successful integration and expansion of ICTs. Rangaswamy and Nair (2010) suggested that individuals have the ability to leverage local resources and approaches, which are often overlooked in ICT4D discourses. This approach, as the authors observe, raises questions regarding the validity of ICT approaches that utilize large-scale infrastructure approaches. This work underscores the importance of ICT adoption and diffusion approaches that differ from many of the mainstream strategies leveraged within global development. The potential in the approaches identified by Rangaswamy and Nair (2010) is particularly insightful for countries such as Liberia as alternative methods may yield more systematic and sustained outcomes related to ICTs.

Rangaswamy and Sambasivan (2011) also documented the important role of local context by researching resource-constrained areas in India. Core to this research is the idea that the successful adoption of ICTs should consider how new technologies will interface with current systems within the Global South, including the potential for both positive and disruptive outcomes. Rangaswamy and Sambasivan (2011) highlighted how local stakeholders engage in cost savings, develop alternative approaches to ICT integration that build upon existing local capacities, and engage informal systems (gray markets) as primary means of leveraging these critical resources in previously underutilized landscapes. Again, the literature highlights the pivotal role of local stakeholders as well as the potential that can be leveraged when this knowledge system is appropriately and effectively leveraged.

The importance of local context is also evidenced through the availability of digital content and resources that reflect local knowledge systems. Heeks and Bukht (2018) identified language as a significant barrier to optimizing ICTs, particularly in the Global South. Dalvit et al. (2007) affirmed this challenge by suggesting that "many projects involving the implementation of ICTs in rural areas in Africa have failed because of the language barrier posed by the use of English" (p. 32). The digital content largely present in ICTs is a reflection of the Western-dominated influence on many sectors within global development. As such, it is important to not only consider these often dominant influences on factors such as ICTs but seek ways to dismantle this influence so that greater local representation is leveraged.

Infrastructure Barriers

The global development discourse related to the ecosystem of ICTs also includes important discussions related to infrastructure. Although many consider infrastructure to be limited to the tangible artifacts associated with the ICT ecosystem, it is important to consider a much broader definition of infrastructure such as that provided by Hussain et al. (2020), who suggest that infrastructure "incorporates a wide range of humans and material and non-material objects that are orchestrated in a particular way to provide certain information services" (p. 3). Despite considerable efforts to improve ICT access through policy and strategy, Sub Saharan Africa still lags in comparison to other countries (Samarakoon et al., 2017). A core reason for the ICT inequities has been attributed to infrastructure challenges, particularly access to electricity (Samarakoon et al., 2017). Similar to Liberia, countries such as Burkina Faso, Democratic Republic of Congo, Malawi, and Tanzania have rates of electricity access at approximately 20% (Samarakoon et al., 2017), which translates to limited electricity access within primary schools (UNESCO, 2015b). These limitations are particularly important in better conceptualizing ICTs within the present study as it illustrates many of the foundational challenges that exist for countries such as Liberia in leveraging ICTs.

Describing the conditions that ICT integration must overcome in rural areas of Kenya, and supporting the structural-related ICT infrastructure challenges, Waweru (2014) noted that many countries experience obstacles with limited or no electricity access. As a result of these barriers, the utilization of computers, laptops, and other electronic devices becomes implausible. Similarly, Ogembo et al. (2012) investigated the challenges of implementing ICT in rural primary schools in Kenya. Leveraging participation from 37 primary schools, the results highlight infrastructure challenges prevalent among the schools, including limited electricity. The study concludes that while ICT integration in rural areas may yield many benefits, however, key challenges exist in making this a reality. Similarly, education systems in Nepal remain disconnected from electricity. As such, Dhital (2018) suggested that schools that fall within this category are unable to offer learning experiences that leverage the highly promoted benefits of ICTs as an instrumental sector change agent. The integration of technology must consider basic infrastructure needs such as desks and classrooms before any meaningful discussions regarding ICT integration designed to foster access to and use of education technology for underserved populations.

Despite considerable progress in bridging ICT infrastructure gaps, Africa still lags behind other geographic regions throughout the world. Africa is still limited in mobile broadband coverage, particularly in rural areas (Bogdan-Martin, 2020). Further, research suggests that while Africa represents nearly 16% of the total population, only a smaller percentage (4%) has reliable access to the internet (Lavery et al., 2018). Examining the education systems in Indonesia, Hermawan et al. (2018) noted that the integration of ICTs is essential for the country's global future. Core to realizing the objective of ICT integration is addressing the current and systemic infrastructure challenges, which the author notes require targeted focus and policy development. Regardless of region, an emerging theme arises for Global South countries related to insufficient infrastructure and the ability to realize the ICTs within education. While the challenge of infrastructure is documented, many countries face considerable obstacles in translating the identification of the problem into sustainable activities that yield greater levels of equitable ICT access. Within Liberia, the infrastructure demands parallel those of other emerging economies. As such, policies such as LEAP which seek to provide greater ICT opportunities for students, become important aspects of research to ascertain whether such strategies are indeed achieving outcomes that address the technical and social components of digital inequities.

The literature regarding infrastructure challenges and ICT integration is plentiful, with much of the research also referencing cost as an additional barrier to fully achieving digital economies. In many ways, discussions related to infrastructure must also include costs, as developing the systems to support ICTs often require large financial investments. For example, Donner and Walton (2013) suggested that high costs also serve as a substantial barrier to addressing current digital inequities, highlighting the expenses of ICT hardware and mobile phone data. Lavery et al. (2018) supported the high financial costs of ICTs noting that costs for fiber optics are estimated at \$100,000 US per km. Al-Ansi et al. (2021) discussed the high costs of ICTs within education and identified a two-pronged issues: (1) high costs related to devices such as mobile phones and laptops, and (2) high costs for schools to support these devices, such as reliable Wi-Fi access. Combined, high costs of ICTs are demonstrated across the ecosystem of the digital economy (infrastructure, purchase, use, sustainability, and scalability), highlighting why financial resources are a pivotal part of this complex equation, and suggesting why alternative low-cost innovations are needed to address this global challenge.

Acquiring the appropriate infrastructure and overcoming the related cost barriers represent only two of the obstacles related to integrating ICTs within education. Hardware and software challenges represent the next phase of obstacles that warrant consideration when bridging the current ICT gap among emerging economies. A key gap in ICT hardware relates to the availability of computers (Dhital, 2018). Building upon the complexities of hardware, Razzuk (2013) suggested that proper maintenance of such resources also poses challenges to education systems in emerging economies such as Bahrain. Some literature suggests that some hardware and software challenges that exist for the Global South may be diminishing with the rise of mobile phones. However, Heeks and Bukht (2018) cautioned that much of the world still does not have access to mobile phones, and a substantial portion of those who do have access are still reliant on 2G connectivity. As such, the authors posit that this level of connectivity represents a minimum standard for mobile phones and lacks the connectivity and bandwidth to leverage the resources associated with the ICT ecosystem effectively.

Accessing ICTs in the Global South

Despite the current challenges related to philosophical approaches, limited leveraging of local contexts, and infrastructure barriers, emerging economies continue to make substantial strides in accessing and using ICTs. The continued penetration of mobile phones has often been cited as one of the most notable benefits to Global South countries, expanding access to ICTs and the corresponding potential embedded within this ecosystem. In addition to mobile phones, Donner and Walton (2013) highlighted the potential of public access venues (PAVs) through research in South Africa. The research notes that critical gaps remain in accessing and using ICTs, and PAVs represent instrumental infrastructures that help bridge current gaps in school resources and mobile phone deficiencies. Donner and Walton (2013) illustrated the resourcefulness of individuals operating within ICTconstrained areas who strategically navigate public and mobile access to technologies. Further, the research suggests that dedicated spaces such as PAVs have the potential to complement other ICT-driven initiatives, providing greater options and opportunities for end-users, particularly those from traditionally marginalized populations such as lowincome and rural areas. This research demonstrates another dimension of potential as it relates to ICT4D. More specifically, the research suggests that approaches to improving ICT availability, adoption, and diffusion may not be dichotomous- ICT devices for every individual or PAVs. Rather, the authors advocate for hybrid approaches in which different types of ICTs are available, and the local stakeholder has the autonomy to determine how best to use the available ICTs.

Within the education landscape, handheld devices such as mobile phones and tablets are widely used and hold tremendous promise. Keengwe and Bhargava (2014) noted that "mobile technologies have a huge potential to transform education provided these technologies are designed and implemented in such a way that they are relevant to the social and cultural context of learning" (p. 737). Mobile technologies are being leveraged to address the myriad of challenges facing educational systems. For example, Kaliisa and Picard (2017) examine mobile technologies in Africa's education systems and note many benefits of integrating ICTs into academic spaces such as improved learning experiences for both students and teachers.

The Global South is leveraging ICTs within education to address issues of access. For example, the onset of COVID-19 resulted in primary and secondary schools in Zambia leveraging an educational content platform developed by the government, which was accessible through mobile devices (Sintema, 2020). Building on addressing education access challenges, Drolia et al. (2020) researched the potential of mobile technologies within education landscapes for refugee populations. Core to this research is two notable findings: (1) mobile technologies are highly accessible in many refugee populations, and (2) the use of such devices has the potential to enhance both formal and informal learning experiences.

Emerging economies are also leveraging ICTs to the extent possible to improve learning quality. The UNESCO and Nokia Life+ project which was implemented in 2013 to foster the acquisition of greater English literacy for primary schools in Nigeria. As part of the project, teachers were provided with daily content that supported enhanced curriculum and teaching strategies (Kabir & Kadage, 2017). The delivery of the curriculum via mobile platforms allowed more relevant and timely course materials to be integrated into the classroom, fostering expanding learning experiences for both teachers and students. Fabian et al. (2018) investigated the influences of mobile technologies on mathematics through a quasi-experimental mixed methods approach. Based on the analysis of 52 primary school-aged students participating in the study, the authors concluded that using mobile technologies as part of the mathematics curriculum not only improved students' attitudes about the use of such devices but also demonstrated improvement in overall performance (Fabian et al., 2018).

Although access to mobile technologies continues to increase, these resources are still not available to all populations. As such, countries such as Liberia still rely on other ICT resources as an essential way to connect, communicate and learn. For example, in response to COVID-19, Liberia leveraged existing ICT infrastructures such as radio to support education systems. More specifically, education providers such as Rising Academy developed a 20–week program consisting of diverse educational content (Lamba & Reimers, 2022). Isbell (2020) explored the accessibility of ICTs to support education in Kenya and noted that although most individuals have access to mobile phones, only 50%

of the population has access to the internet. As such, radio continues to be the optimal platform for connection and communication. Dawadi et al. (2020) defined radio and television as traditional technology and noted the presence of these resources within areas such as Argentina, Chile, and Brazil which face similar challenges to Sub Saharan Africa with diminished capacities in infrastructure, broadband, and internet access.

Digital Divide

The ICT ecosystem constraints highlight the uneven distribution of this globally important and influential collective of resources. Despite the potential of ICTs, Sarkar (2012) noted that the digital divide has existed, formally and informally, for as long as ICTs have been deployed as a critical resource in transforming the human condition. "The digital divide commonly refers to the gap between those who do and those who do not have access to new forms of technology" (Van Dijk, 2006, p. 221). Cullen (2001) adopted a similar definition of the digital divide as it relates to those who do not have access to ICT and added choice to the definition to include those who may not opt to use technology even when it is made available. Still, others view the digital divide as an issue that extends beyond access to technology and suggest that it should be viewed as a gap in ICT literacy and aptitude (Ohemeng & Ofosu-Adarkwa, 2014).

One of the broader definitions of the digital divide is provided by Fink and Kenny (2003), who suggest that the concept is inclusive of gaps in ICT access, ability, use, and impact. Within the digital divide discourse, considerable emphasis has also been placed on the internet, which has been viewed as fundamental in fostering access to information. Van Deursen and Van Dijk (2019) note that policymakers have been fundamental in reinforcing the view that greater levels of internet access would eliminate the digital divide.

Heeks and Ospina (2019) contributed to the concept of the digital divide by identifying equality as a key factor within the field of ICT4D, which assess the extent to which resources are equitably available to all eligible stakeholders.

Although the definitions of the digital divide vary in scope, a central theme emerges regarding specific populations who are disproportionately impacted as a result of digital inequities. Within the digital divide, two categories emerge as a central part of the framework- the "haves" and the "have nots" (Selwyn, 2004). Those in the former category are viewed as having substantial access to ICTs, particularly internet access and the corresponding knowledge available through the platform. The latter experience limitations in ICT access which are instrumental in perpetuating yet another dimension of inequality and social exclusion for historically marginalized populations (Castells, 1999).

Cullen (2001) identified several groups: low-income, those with limited education, women, individuals living in rural areas, and disabled populations as important to the digital divide discussion. James (2005) added yet another dimension to the concept by discussing the global digital divide, which examines differences in ICT benefits between the Global North and Global South. The global digital divide noted by James (2005) is particularly important within Global South populations who often lag behind their Global North counterparts in ICT access and use, particularly in areas such as Sub Saharan Africa. The digital divide has created a series of complex challenges for emerging economies that seek to realize the full potential of ICTs. These challenges must be thoughtfully and effectively addressed if individual potential and collective capabilities are to be realized for the Global South. Like many other sectors within global development, discourses related to ICTs continue to evolve. Regardless of the changes, ICTs remain a pivotal aspect of consideration as a mechanism to facilitate the achievement of global agendas such as the SDGs. Without question, ICTs have the potential to positively influence core areas that correlate to an enhanced quality of life which includes expanded capabilities and opportunities. One of the most important areas relates to resilience. According to Heeks and Ospina (2019), ICT4D must consider the comprehensive availability of "assets" that allow institutions to effectively respond to external conditions. ICT4D also requires that institutions have different options available and the capacity to optimize these choices as a strategy to best respond to challenges and changes within an ever-changing environment (Rockefeller Foundation, 2009, as cited in Heeks & Ospina, 2019).

The potential of ICTs also includes local empowerment (Rangaswamy & Sambasivan, 2011), social justice (O'Donnell & Sweetman, 2018), and poverty eradication (Rodriguez & Sanchez-Riofrio, 2017). However, the potential of ICTs must be balanced within the constraints and realities that currently exist, which still exclude large segments of the world's population. Collectively the benefits of ICTs, when effectively integrated into sectors such as education, create a compelling case for widespread adoption. It also highlights fundamental disadvantages for countries such as Liberia which face a myriad of immediate and long-term implications due to the limited availability of such a transformative resource.

Within the context of the present study, the literature indicates a variety of challenges that exist as it relates to integrating ICTs into education. The experiences illustrated by many emerging economies parallel those of Liberia. Leveraging the potential

and responding to the ICT challenges within education requires multifaceted and multidimensional considerations. At the core of such approaches is the recognition that the digital divide that currently exists in the Global South is far more complex than limitations in ICT artifacts. In many ways, the current gap in ICTs is a microcosm for the systemic and socially embedded issues that serve as the platform of focus for global development. Warschauer (2004) suggested that issues of social inclusion must be considered as part of the framework to respond to ICT-related challenges. This approach must also consider the dimensions such as poverty (Anwar, 2019; Becerril-Velasco, 2019), and empowerment (Morris & Henderson, 2016; Nikulin, 2017), both of which are crucial to human capabilities.

When contextualizing ICT4D and ICT4E, two important considerations are warranted. First, universal acceptance of the value of ICTs does not yet exist. This is demonstrated through the work of Karim and Hussain (2019) who studied Rohingya Refugees and found that most participants did not support educating their children exclusively through mobile-based programs. This finding is significant in that it highlights that different populations may have different perspectives about the integration and perceived benefits of such resources. As such, western-based viewpoints, fueled by global agendas that assert that the use of ICTs is a "universally" assumed value may fail to consider critical viewpoints which must be acknowledged during ICT integration processes.

Second, many of the mainstream development agendas and models are simply not working. Highlighting the failure of such approaches, Ojo (2016) observed that: Overall, the constraints of limited expertise, political bureaucracy and policy inertness also underscore the problematic nature of the international donor-driven ICT initiative and policy transfer because of the importance of the local context, institutional capacities, and domestic politics in the design and implementation process of ICT4D were underestimated. (p. 708)

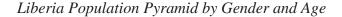
However, the landscape of ICTs in the Global South shows tremendous promise. Leveraging local knowledge and approaches has created levels of success not realized by many conventional development approaches. This suggests that the responses to optimizing the full potential of ICTs should reside with local stakeholders. In order for factors such as resiliency, hope, and empowerment as well as access to be realized, new strategies are needed. The complexities illustrated through the literature inform the present study and provide a platform to understand the potential and challenges of ICTs within Liberia. More specifically, the literature related to policy transfer, PPPs, education access, education quality, and ICTs all suggest the value of local context and approaches. As such, the extent to which local approaches were leveraged within LEAP became a critical area of focus when determining the overall impact of this policy transfer approach. The current state of education in Liberia reflects a core component of the present study. It is also important to discuss key aspects of the country to better situate the present study. The following section will highlight key attribute of Liberia.

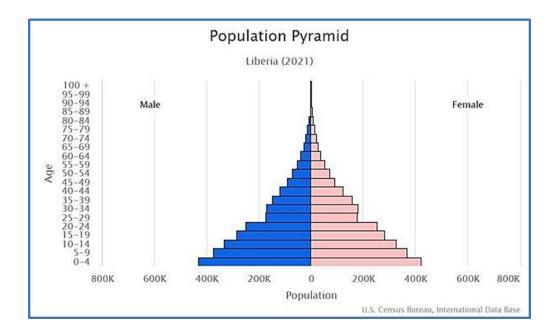
About Liberia

Located on the West Coast of Africa, Liberia is situated between the Atlantic Ocean, Sierra Leone, Guinea, and Cote d'Ivoire. Liberia is the oldest African republic with established independence occurring in 1847. The government structure of Liberia models the United States with a president, Senate, and House of Representatives (World Book Encyclopedia, 2015). The country consists of 15 counties with superintendents appointed

by the president overseeing each respective area (World Book Encyclopedia, 2015). Currently, the population of Liberia is approximately 5 million people with a near equal distribution of males and females (World Data, 2021). The country has a large youth population (Figure 5) with 40% of the population representing ages 0-14, with much of the remaining population ages ranging between 15-64 (56%) (Central Intelligence Agency, 2021). The substantial youth population underscores the importance of the current study and Liberia's continued focus on primary education systems, as these structures serve as the foundation for higher levels of learning and greater societal contributions (Waydon et al., 2016).

Figure 5





History

The origins of Liberia are deeply connected to and influenced by the United States. In 1691, legislation passed in Virginia would establish the platform for the creation of Liberia long before the country would come to exist. More specifically, Act XVI, established a responsibility for slave owners to provide transportation out of Virginia once the individual received freedom (Shenandoah County Historical Society, 2021). Nearly a century later, the American Colonization Society (ACS) was founded in 1816 with the primary goal of separating Black citizens (recently freed slaves) from America (Wander, 1971). The impetus for the creation of the American Colonization Society was grounded in the desire to prevent disruptions to the institution of slavery and corresponding economic wealth generation (Robinson, 2021). In adherence to this organization's objective, the American Colonization Society purchased land in West Africa which would ultimately become Liberia (Wander, 1971). The capital of Liberia was named Monrovia in honor of United States President, James Monroe who was a major supporter of the American Colonization Society (Robinson, 2021). The origins of the country within this context are particularly interesting as it reflects the pervasiveness of westernization that would become foundational and influential components of Liberia's primary education system.

The land acquisition by the United States was conducted to the detriment of the indigenous populations that lived in the area, adding yet another layer of tension between America, Americo-Liberians, and the indigenous populations. Gobewole (2021) noted that these land agreements were questionable and in some cases illegal as indigenous populations did not fully understand the terms of the land acquisition. Furthermore, the indigenous populations were poorly compensated with small amounts of money or goods (Gobewole, 2021). Although the Americo-Liberians represented a small portion of the total population (5%), this group would ultimately continue the exploitation of the indigenous populations of Liberia, mirroring the experiences that the Americo-Liberians

were subjected to as slaves within the United States (Dillon, 2007). At the core of this exploitation was the perceived belief of superiority by the Americo-Liberians which was largely fostered by their American origins and western cultural influences (Ballah, 2019). The tension between these two groups represents a continued and prevailing issue throughout Liberia's history, influencing all sectors of the country's social, political, economic, and educational structures (Outram, 2016).

Within Liberia, there are two distinct groups of people - the indigenous population with ancestry history in Africa and the Americo-Liberians with ancestry history from African Americans (World Book Encyclopedia, 2015). The indigenous populations of Liberia can be traced back to the 1300s when ethnic groups such as the Bassa, Kissi, Gola, and Kru migrated to what would eventually be known as Liberia (Sherman, 2010). Influenced by Mali and Songhai cultures, these ethnic groups integrated social and political systems as well as key skills in areas such as cotton spinning, iron melting, and rice cultivation into the region (Sherman, 2010). Ultimately, 16 ethnic groups would occupy the area that would become Liberia and included the Kpelle, Lorma, Kru, Kissi, Bozzi, Vai, Gola, Grebo, Mano, Bassa, Bandi, Sapo, Krahn, Geo, Mandi, and the Dei (Ballah, 2019). The diversity of the population represents a defining characteristic of Liberia. However, a key challenge to access and quality of Liberia's primary education system relates to the exclusion- current and historical- of the indigenous populations in formal education structures. As such, policy transfer initiatives such as LEAP, which aim to improve primary learning, are tasked with enhancing access and quality primary education holistically, but specifically for historically marginalized populations such as the indigenous groups within Liberia.

By the 1870s, the economy of Liberia experienced significant declines due in part to the limited ability to compete with European markets and the mismanagement of the government's financial structure (Lyon, 1981). The state of the economy and the refusal of the United States to provide financial assistance to Liberia resulted in the country seeking financial assistance from Britain (Lyon, 1981). The terms of the loan would ultimately go unmet, with Liberia unable to make payments on the principle of the loan for nearly 28 years (Lyon, 1981). The economic conditions would continue to decline and by the early 1900s would result in a budget intervention by the United States that included a loan from international bankers that was guaranteed by Liberian economic revenues (Wiafe-Amoako, 2018). The early years following the establishment of Liberia are categorized by economic challenges, global financial assistance, Global North interventions, and tensions between key groups- the Americo-Liberians and the indigenous populations- within the country. Each of these factors would, directly and indirectly, impact primary education from low levels of government funding, significant international financial investments, global initiatives targeting access and quality, and conflict that would disrupt core learning systems. These collective factors would contribute to the emergence of policy transfer within Liberia's education systems and establish the pathway for LEAP to become a reality.

In 1944, William Tubman became president of Liberia and implemented a series of strategies aimed at improving the country's economy (Rozario, 2003). Most notably, Tubman instituted the Open Door Policy (ODP), which aimed to leverage foreign investments of the country's natural resources and the Unification Policy (UP) which was designed to address growing tensions between Americo-Liberians and the indigenous

populations (Frempong, 2000). However, Tubman was largely unsuccessful in stabilizing the Liberian economy and strengthening relationships between the Americo-Liberians and indigenous populations (Wiafe-Amoako, 2018). As such, despite dedicated efforts to improve the overall condition of Liberia, the country would continue on a trajectory of challenges that would further magnify issues related to the current study.

William Tolbert emerged as Liberia's next president during the early 1970s. The True Whig Party (TWP) continued political dominance during this time. "Despite the USstyle Constitution, the 'Americo' élite maintained a political culture based on a presidency with largely unrestricted powers, secured by practices of co-option, incorporation and an extensive, centralized network of patronage" (Outram, 2016). During his tenure, Liberia also experienced tremendous economic downfalls largely resulting from declines in key exports for the country. The economic conditions, coupled with growing disparities between the Americo-Liberians and indigenous populations resulted in increased tension between the two groups. As such, Liberia would face a series of violent events that would significantly impact the social, political, and economic sectors. In 1979, a riot occurred resulting from a discontent with the government (Rozario, 2003). A year later, Tolbert would be killed, paving the way for the first non-Americo-Liberian president, Samuel Kanyon Doe (Rozario, 2003).

During Doe's presidency, a tremendous amount of scrutiny and controversy existed. First, Doe was elected as president under questionable electoral processes, which further divided the country between those who supported him and those who supported the perceived winner, Jackson Doe (no relationship) (Outram, 2016). Second, the United States operating under President Ronald Regan, would provide Liberia with more than 400 million dollars in aid (Wiafe-Amoako, 2018). Despite the substantial financial investment, subsequent audits would yield inconclusive answers regarding the financial expenditures and an uncooperative President Doe, unwilling to provide answers regarding how the money was spent (Wiafe-Amoako, 2018). In 1985, a failed coup against Doe would result in the vicious killing of ethnic groups who opposed the president, garnering international attention and concern (Outram, 2016).

In 1989, an attack on the Liberian government would result in a civil war (Gershoni, 1997). Orchestrated by Charles Taylor, a former employee of President Doe, the civil war would persist despite peace-keeping missions. Describing the impact of the civil war, Gershoni (1997) noted disruptions to more than half of the country's population, substantial numbers of individuals killed, extensive damage to governmental infrastructure, and the complete elimination of laws governing essential functions of Liberia. A decade from the start of the first civil war, and only three years after the end of that civil unrest, Liberia would undergo a second civil war in 1999. According to scholars, the second civil war was in many ways a continuation of the first civil war. More specifically, Kieh (2009) suggested that the "post-first civil war peace-building project was a dismal failure. The proximate causes included the use of ethnic scapegoating by the Taylor government, the regime's abuses of human rights, and its failure to tackle the chronic social and economic problems" (p. 7).

Ellen Johnson-Sirleaf would become the 24th and first female president of Liberia in 2006 through a democratic election process. Under President Johnson-Sirleaf the country faced major challenges as a result of Liberia's social, economic, and political tensions. At the core of these challenges was a longstanding history of corruption within all sectors of the country. President Sirleaf developed targeted efforts aimed at addressing issues of corruption, forcing high-level leaders to step down from positions of authority (Wiafe-Amoako, 2018). Providing additional context of the corruption occurring within the governmental operations, Wiafe-Amoako (2018) cites the 2005 partnership with Mittal Steel. The company agreed to allocate 900 million in mine development over the course of 25 years; however, allegations emerged that the contract included a bribe of approximately \$100,000 (Wiafe-Amoako, 2018). Liberia's efforts to address corruption are also evidenced by the acceptance of the Governance and Economic Management Assistance Program (GMAP) in 2006, and the adoption of the Liberian Anti-Corruption Commission (LACC) in 2008 (Outram, 2016).

Despite the challenges facing Liberia, President Sirleaf embarked on a series of post-conflict and transformative reforms that in many ways altered the historical trajectory of Liberia (Werker & Beganovic, 2011). Strategies under the Sirleaf administration included a greater focus on agriculture, international partnerships, and employment opportunities for the citizens of Liberia (Werker & Beganovic, 2011). As the first democratically elected woman president in Liberia, Sirleaf is also known for the strides made in women's empowerment and enFhancing peace-building strategies (Svensson, 2008).

The election of Liberia's 25th President, George Weah, represented the first time in over 170 years that the presidential transfer occurred between two democratically elected officials (Spatz & Thaler, 2018). Under the leadership of President Weah, Liberia continues to pursue the strategic national plan, Liberia Rising 2030 which aims to achieve middle-income country status (World Bank Group, 2018). Core to the realization of the Liberia Rising 2030 plan will be a continued focus on economic development. Similar to other sectors of Liberia, the civil wars substantially and negatively impacted the economy. The country experienced economic improvement between 2010-2013 with an increase in businesses and export of goods (Central Intelligence Agency, 2021). The onset of the public health crisis in the form of the Ebola outbreak reversed much of the economic progress achieved in prior years. The reallocation of resources to address Ebola and the diminishing value on key exports for Liberia represent two key factors impacting the current state of the economy (Central Intelligence Agency, 2021). According to the World Bank (2021b), the Liberian economy decreased by 2.3% in 2019. In addition, high inflation rates and continued declines in GDP are anticipated in subsequent years due in large part to another health crisis, this time caused by the COVID-19 pandemic (Word Bank, 2021b).

The current economic conditions within Liberia have fostered limited opportunities for citizens. As such, poverty represents a core to the challenges within the country. According to World Bank (2021b) approximately 80% of Liberia's population faced food insecurity in 2017 with many of those impacted living in rural areas. Kollie (2018) noted that despite Liberia's resource-rich environment and fluctuating history of economic development, the country still remains one of the poorest nations in the world. Liberia's current poverty levels are instrumental in understanding the country's primary education system, levels of ICT access and use, and the context in which strategies aimed at improving these conditions must operate.

In addition, the consecutive civil wars destroyed or diminished core infrastructures within the country, particularly in the areas of electricity and water supply. According to USAID (2021), Liberia has partnered with development agencies to improve the current

rates of access which are among the lowest in the world (12%). Much of the country's water infrastructure was also destroyed during the civil wars. As such, the country is reliant on limited sources of water which are provided at extremely high costs (Wiafe-Amoako, 2018). UNICEF (2021) estimates that approximately 10% of the Liberian population has access to clean water. Although the country has access to water sources such as rivers and rainforests, Liberia lacks the infrastructure to effectively address this critical resource (UNICEF 2021).

Despite the historical and current challenges, Liberia continues to make significant strides towards improving many sectors of the country. By 2030, Liberia hopes to expand electricity access to nearly 1 million citizens, representing 75% of the population in Monrovia and 30% of the country's overall population (USAID, 2021). Although this goal is noteworthy, it illustrates the potential of uneven development with disproportionate impacts to marginalized groups, particularly those living in rural areas. The country is also working towards a stronger economy through the development of natural resources. Liberia has also made significant strides towards improving all sectors of the education system with specific emphasis placed on primary education. Collectively these efforts demonstrate a continued commitment by Liberia to improve current conditions to establish a better future for its citizens.

Education System

The influence of the United States in Liberia also extended to the country's education system. To the detriment of Liberia, the education structure was modeled so closely after the United States; the system minimally considered the conditions and needs of the country (Carlon, 1975). As such, much of Liberia's education history is interwoven

with assistance from outside entities. Carlon (1975) suggests that external providers of education to Liberia have been so pervasive the budgets of these endeavors at times have exceeded the total country's budget. Providing further support to the critical role that external partnerships have played in education, Carlon (1975) stated:

As a result of this, education became and remained the legacy and eminent domain of philanthropic organizations until well into the middle of the 20th century. Mission schools of various denominations mushroomed and flourished in the country for more than a century after the arrival of the Afro-American settlers. Missionaries (mostly foreign) dominated and monopolized available educational services to Liberian youth, both of settlers and indigenous Africans, at least throughout the first century of life of the Liberian republic. (p. 258)

The longstanding history of external involvement in Liberia's education system is important to understand the country's reliance on external assistance and the reasons why programs such as LEAP are now being considered to address core learning challenges.

The ideals of free primary education have an extensive history within the Liberian education system and are illustrated in the early 1900s through the government agreement in which the state provided free tuition on the condition that parents assumed the costs of textbooks and related school materials (Walker, 1921). In 1912 Liberia enacted legislation for compulsory education; however, this policy was never fully realized (Roucek, 1955). However, compulsory education was not truly free until 1944 when school-related fees were formerly eliminated (Carlon (1975). During this time, early education systems within Liberia were designed exclusively for Americo-Liberians and represented another formal structure of division between the perceived elite populations and the indigenous populations (Dillon, 2007). As such, a core challenge during this time was the failure to include the experiences of Liberia's indigenous populations into the education system, which would substantially limit the expansion of education throughout the country

(Walker, 1921). This challenge is particularly significant as the trend has continued throughout history and is now deeply entrenched in the primary education discourse within Liberia.

The education system in Liberia continued to transform, and by 1922, the government had established primary education for more African school-aged children in remote areas of the country (Akpan, 1973). Yet, the school systems continued to experience challenges over the next several decades. Underscoring the challenges of education in Liberia, Roucek (1955) noted:

Liberia's progress is seriously impeded by the lack of education on the part of most of its inhabitants. The problem of education is made more difficult and complex because of the ethnically varied population and the poor system of communication...In 1947, the government was spending four times as much for education as 10 years previously, and the total number of public schools had grown from 162 to 222 in a single year. But these schools are not sufficient for a country of more than 1,500,000. It is evident that the educational standards are low. (p. 412)

The trend of continued focus and spending on education continued into the 1950s (Carlon, 1975). By the 1970s, there was a concerted effort towards education improvement within Liberia's education systems, with a particular focus on primary education. Over time, the focus has included curriculum improvements, accelerated learning to address over-aged populations in early grades, and improved teacher quality for rural elementary teachers (Kandakai & Tarlowoh, 1995). However, much of this progress would be halted as greater levels of conflict arose within the country.

Currently, primary education within Liberia includes grades 1-9 and targets students ages 6-14 years old. Portions of primary education such as daily operations and management operate under a decentralized model, whereas funding, infrastructure, and resources are largely centralized throughout the country (Waydon et al., 2016). Funding for education is coordinated through a variety of areas, including the government, local organizations, parents, and international agencies (Waydon et al., 2016). Despite varied funding sources, education spending continues to face significant challenges. For the 2015-2016 fiscal year, projections suggested that an additional US \$131 million was needed to address critical education challenges within Liberia (Waydon et al., 2016). The Liberian government has developed policies targeting greater access for girls and eliminating discriminatory practices (Liberian Ministry of Education, 2018). One of the most significant contributions to primary education was leveraged through policy efforts to reestablish free and compulsory primary education Reform Act which extended free and compulsory education through the ninth grade (Liberian Ministry of Education, 2018).

Liberian Education Advancement Program (LEAP)

LEAP was established in 2016 to address primary education access and quality challenges in the country. While many supported the new endeavor, outsourcing schools on such a large scale was also met with much criticism. Kishore Singh, an education rights advocate, critiqued the new program on the basis that the delivery of education represents an essential function that should be provided by the government, and failure to do so should be considered a violation of human rights (United Nations Human Rights, 2016).

The widespread criticism grounded in the assertion that the government should operate public services such as education and global attention prompted a revision of the original proposal. The program was altered to become a three-year pilot that included eight for-profit, non-profit and religious-based organizations (Table 2): Bangladesh Rural Advancement Committee (BRAC), Bridge International Academies (BIA), Youth Movement for Collective Action (Liberian Youth Network), More than Me, Omega, Rising Academies, Stella Maris, and Street Child (Hook, 2017). Collectively, these organizations would manage 93 schools serving more than 27,000 students. This allocation represented approximately 3.4% of the total public primary schools and 8.6% of the total students (Romero et al., 2019).

Table 2

Liberia Education Advancement Program Original Partners		
Organization	Number of Schools Allocated	
Bridge International Academies	23	
Youth Movement for Collection Action	4	
Bangladesh Rural Advancement Committee	20	
Omega (Ghana)	19	
Rising Academy Network (Sierra Leone)	5	
Street Child	12	
Stella Maris	4	
More Than Me	6	

Liberia Education Advancement Program Original Partners

Source: Front Page Africa, 2020

The selection of these partners was based mainly on the alignment of the organization's mission with the overall objective of LEAP and was conducted through a competitive bid process (Romero et al., 2019). It is important to note that although Stella Maris was ultimately selected as a partner, the organization failed to meet the financial requirements of LEAP. As a result, the organization was not paid and was dropped from the program due to poor performance. The overall operating budget for the three-year pilot

was approximately \$15 million, and the government agreed to conduct Randomized Control Trials (RCTs) to assess the progress and impact of the program (Global Initiative for Economic, Social & Cultural Rights, 2020).

Under the new policy, much of the existing educational structure remained the same. Teachers working within LEAP schools remained employed by the government, and education continued to be free for students (Romero et al., 2017). As a result of the public-private partnership, spending per child doubled, increasing from \$50 to \$100, and the government also created special provisions to attract high-skilled teachers to LEAP schools (Romero et al., 2017). Bridge International did not receive the additional financial incentive as the organization operated under a different contract (Romero et al., 2019). Although the financial expenditures per child were equal for LEAP participants, it should be noted that contracted partners could raise additional funds in support of this program. The government also maintained control of all LEAP physical infrastructures (e.g., classrooms, buildings). As part of the contractual agreement, all eight organizations were required to teach the Liberian-based curriculum, but this could be supplemented with other forms of instruction (Romero et al., 2017).

In 2017 (year two), the Liberian government expanded the LEAP program and added another 109 schools to the pilot (Global Initiative for Economic, Social & Cultural Rights, 2020). The additional schools represented the government's commitment to ensuring the success of the pilot. The increase in school participation also provided perceived educational benefits to a broader population of primary students. However, the controversy regarding the project increased as some believed that the government was increasing efforts when limited research existed to indicate whether LEAP was operating as intended and producing the benefits as declared (Front Page Africa, 2018). The program continued in a similar structure for years two and three. Despite the mixed opinions and results, the government plans to continue the program with scaled-up participation for those organizations showing the most positive results (Front Page Africa, 2018). In addition, the Liberian government indicated discussions with Sierra Leone, which is considering this model to address its educational challenges (Edwards, 2019). Ultimately LEAP illustrates the critical role of policy transfer within the Global South and establishes an ongoing need to explore the outcomes of such policies, particularly those policies that outsource components of delivering education to the private sector.

At the conclusion of year three, the results of LEAP demonstrated both potential and challenges. Despite improvements in key education metrics during the early years of the LEAP pilot, longer-term research indicates "treatment effects plateau for the primary contracted outcome, learning gains, after the first year" (Romero & Sandefur, 2022, p.17). More specifically, the research indicates declines in enrollment, and an increase in the dropout rates for students over time (Romero & Sandefur, 2022). Explorations of LEAP also note declines in physical punishment, but identify issues of sexual assault as continuing and pervasive among LEAP schools (Romero & Sandefur, 2022). The research also indicates that initially reported gains in learning did not continue as the LEAP pilot continued (Romero & Sandefur, 2022). The findings from the research underscore the need for the present study as additional examination is needed to better understand the outcomes and potential implications within a global development context. The findings are also instrumental in establishing the conceptual framework which will be discussed in the subsequent section of the research.

Conceptual Framework

The conceptual framework builds upon the work of Radaelli (2000), who connects institutional theories and policy transfer, as well as Marsh and Sharman (2009), who couple policy transfer and institutional isomorphism. Using new institutionalism as a broad framework explains not only why developing countries such as Liberia change but the influences impacting this change. New institutionalism posits that Global South actions are often grounded in political dynamics that are magnified through attempts to leverage power and control. Further, new institutionalism adds the critical dimensions of social and cultural norms, which at times outweigh factors such as feasibility, utility, and sustainability. New institutionalism also considers the trajectory of countries over time and how these factors influence policy decision-making. This aspect is particularly important when examining emerging economies such as Liberia, which have a history of economic, political, and social challenges. The social and cultural norms, as well as their influence on policy making play a critical role, but are often overlooked. The tendency to overlook social factors within policy development is a key reason for the selection of the current framework which attempts to bring this important aspect to the forefront of the research. The conceptual framework originates with stakeholders and posits that conditions with limited diversity of stakeholders or a disproportionate representation of external stakeholders are likely to move institutions towards adopting isomorphic, policy transfer practices.

While new institutionalism elucidates how institutions change holistically, institutional isomorphism focuses on a particular path of change in which institutions in general, and emerging economies, more specifically, become similar and less diverse over time. Institutional isomorphism is a useful theory that offers an explanation for many of the institutional-level changes occurring within global development. As institutions become more homogeneous in systems and structures, these entities also become more similar in operations and practices. While the present study focuses on the isomorphism of institutions, the conceptual framework must also account for occurrences in which this does not occur. The research identifies these instances as institutional inventions, which reflect greater levels of heterogeneity throughout the institution. This research leverages the work of Jordan and Huitema (2014), who suggest that policy invention includes the development of an entirely new policy, the creation of new elements within policy, the establishment of new policy development processes, or the addition of new actors who bring new insights into the policy development landscape.

The conceptual model suggests that institutional invention and institutional isomorphism act as key drivers of institutional practices, including policy development. However, the conceptual framework acknowledges that invention and isomorphism as it relates to policy are not dichotomous, but rather, policy development occurs on a spectrum between these two entities. The selection of a spectrum suggests that while policy development can be truly inventive or isomorphic, most policies are the result of both aspects with differing degrees depending on the context in which the policies are created. This spectrum becomes particularly necessary to account for the multitude of factors and instances in which policy can be formed within the Global South.

The convergence of similarities among institutions, particularly within the Global South, transcends into the policy development arena, which has resulted in increased occurrences of policy transfer (mimicking, borrowing) within the field of global development. With the policy development spectrum established, the conceptual framework identifies several determinants which are based on a comprehensive literature review that influence whether institutions are more likely to operate as inventive or isomorphic. Subsequently, the types of policies developed are more likely to be aligned with the type of institution, with inventive organizations generating original policies or components and isomorphic organizations developing policies that are borrowed from other institutions.

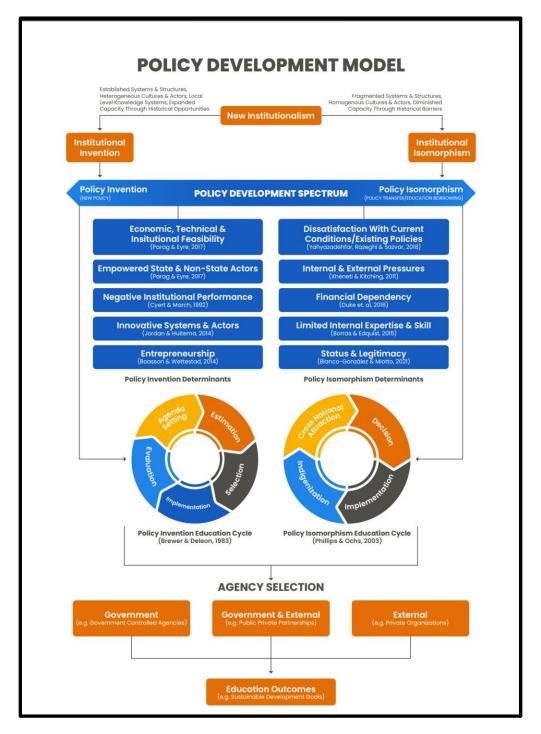
Further, the conceptual model suggests that the process of policy development differs depending on whether the institution is inventive or isomorphic. The institutional inventive policy development process follows a development cycle such as that posed by Brewer and DeLeon (1983), which consists of five phases: (1) agenda setting, (2) estimation, (3) selection, (4) implementation, and (5) policy evaluation. In contrast, isomorphic institutions are more likely to undergo a process established by Phillips and Ochs (2003), which consists of four phases: (1) cross national attraction, (2) decision, (3) implementation, and (4) indigenization. The condensed policy cycle of education policy borrowing in addition to the starting point of the process as compared to the Brewer and DeLeon (1983) model may help to explain some of the disconnects between intended and actual outcomes of policy development within the Global South. More specifically, the conceptual framework suggests that the starting point for policy development has key differences which may impact the overall success of the policy development process. Further, the isomorphic policy development process omits key phases found in the Brewer and DeLeon (1983) model, which may influence the success of policy development.

Once the policy development process is complete, the conceptual model suggests that the next phase of the process is agency selection- the determination of which entity or entities will be responsible for the newly created policy. The current model suggests three primary options for both inventive and isomorphic institutions: (1) government, (2) government and external partners, or (3) external partners. The second option, government and external partners (PPPs), serve as the focus of the present study. Within education, and in support of the current study, policy transfer is useful in more thoroughly understanding that the decisions to address education reforms through the use of PPP are often the result of mimicking what has been done, successfully or not, in other countries. Agency selection is a core part of the conceptual framework as this entity represents the responsible party for delivering on the education challenges, which in the current study are access, quality and ICT availability within primary education.

Combined, new institutionalism, institutional isomorphism, and policy transfer result in considerable similarities among policy initiatives over time. The conceptual model (Figure 6) provides a visual and contextual foundation of the current research. The collective policy development process is deeply influenced by new institutionalism, which is driven by the diversity or lack thereof of key stakeholders within the process. The model incorporates literature related to institutional isomorphism to identify the most prevalent factors that influence the conditions in which policy innovation or policy isomorphism is likely to occur. The model also suggests that two different policy development cycles occur depending on the innovative or isomorphic practices of the institution. In addition, the conceptual model puts forth three primary options for agency selection to underscore the increased presence of PPP within the educational landscape. Ultimately, the conceptual model frames the current study by situating the establishment of LEAP within three key theoretical frameworks, highlighting the conditions impacting the decision to outsource public primary education, and identifying the core education challenges of access, quality, and ICT availability.

Figure 6

Policy Development Model



METHODOLOGY

Introduction

This section provides a comprehensive overview of the mixed-method research approach leveraged to address the questions and scope identified as part of the current study. The overall aim of the research focuses on (1) primary education outcomes related to access, the availability of ICTs, and education quality; (2) the stakeholders involved in policy transfer; (3) the factors influencing policy transfer; and (4) the process of implementing policies transferred from other locations. Each of these focuses was assessed through an examination of LEAP holistically and included a comparison of LEAP and non-LEAP schools to more effectively answer research question one. In order to achieve the study's objectives, the following research questions have been developed and are restated below:

(R1) To what extent is there a difference between LEAP and non-LEAP schools ona) education access, b) the availability of ICTs, and c) education quality?(R2) What stakeholders are included in the education policy borrowing process that created the LEAP?

(R3) What factors influenced the selection of policy borrowing as a mechanism to address education reform within Liberia?

(R4) How was the education borrowing process implemented to establish LEAP? Research question one (R1) represents the quantitative component of the study. As such, the null hypotheses for R1 are as follows:

H₀₁: There is no relationship between the type of school, LEAP or non-LEAP, and access to primary education.

- H_{02} There is no relationship between the type of school, LEAP or non-LEAP, and the quality of primary education.
- $H_{03:}$ There is no relationship between the type of school, LEAP or non-LEAP, and the availability of ICTs for teachers and students.

Research Approach

The research leverages mixed methods to address the core research questions of the study. More specifically, the study uses a case study within an explanatory sequential research design. Creswell et al. (2011) defined mixed-methods research as a research approach that consists of both quantitative and qualitative elements. Adding greater specificity to the concept of mixed methods, Tashakkori and Creswell (2007) suggested that this approach includes the integration of quantitative and qualitative methods during all aspects of the research, including the data collection, analysis, and interpretation phases. Current research identifies approximately 40 mixed-methods approaches (Tashakkori & Teddlie, 2003). However, Creswell (2003) suggested that six mixed methods- three concurrent and three consecutive- reflect the most widely used approaches within different research disciplines.

Ivankova et al. (2006) noted an increasing use of mixed methods within social and health sciences disciplines. Providing context to support the greater prevalence of mixed methods research, Tashakkori and Newman (2010) identified seven rationales for leveraging mixed methods research: (1) complementary, (2) completeness, (3) development, (4) expansion, (5) corroboration/confirmation, (6) compensation, and (7) diversity. Each of these factors is important independently but collectively serves as an instrumental platform when considering mixed-method research. Further, these factors influence and contribute to the overall strength of a mixed-methods research design and reflect a core reason why this methodological approach continues to grow in popularity.

Expanding upon the factors identified by Tashakkori and Newman (2010), the complementary factor recognizes the uniqueness of both quantitative and qualitative approaches and leverages components of each approach to create an interdependent framework that adds value to the overall research. The completeness factor recognizes that quantitative and qualitative methods independently may not be sufficient to study particular research areas (Tashakkori & Newman, 2010). The development factor suggests that the findings from one research approach, quantitative or qualitative, can serve as the building framework to develop and improve upon the subsequent phase of the research (Tashakkori & Newman, 2010). Expansion as a supporting rationale for mixed methods allows the research to provide greater details related to the findings (Tashakkori & Newman, 2010).

The fifth factor identified by Tashakkori and Newman (2010), corroboration, allows the research findings from one methodology to be confirmed through an alternate research approach. In addition, there is also extensive research related to the disadvantages of both quantitative and qualitative research. As such, the compensation factor as a rationale for mixed methods allows the research to mitigate these challenges by adopting a more holistic approach to the research (Tashakkori & Newman, 2010). Finally, diversity allows the researcher the expanded latitude to address the research in a way that is not restricted by the parameters embedded within the quantitative and qualitative research paradigms. Ultimately, mixed methods research is considered advantageous due to the collective qualitative and quantitative aspects, which, when combined, create robustness in the overall findings (Schoonenboom & Johnson, 2017).

Within the umbrella of mixed methods, the sequential explanatory approach was selected as the optimal research option for this study. This approach consists of the collection and analysis of quantitative data, followed by the collection and analysis of the qualitative data. Sequential explanatory methods are often used in education research as the approach inherently aligns with the multidimensional complexities embedded within academic studies (Creswell, 2003). A key strength of this methodological approach is that it leverages the qualitative research process to more comprehensively explain and contextualize the quantitative findings. This research approach allows the quantitative data to be expanded through the qualitative research to enhance the overall findings of the research through the integration of both numbers and words (Almalki, 2016). The literature related to sequential explanatory design also notes that the quantitative, qualitative, or both components can serve as the primary source of information within the research. For the purposes of this research, the qualitative section of the study reflects the most robust component, and as such, the research is categorized as quan \rightarrow QUAL.

Within the sequential explanatory design, the researcher opted to use the case study approach as the research requires an examination within the current context while leveraging multiple sources of data to comprehensively explore policy transfer and the subsequent outcomes (Yin, 1984). Further, case study represents the optimal approach for the current study because, as Anderson (1993) suggested, it effectively addresses both how and why questions while simultaneously allowing an exploration of what was planned and what actually occurred for a particular phenomenon. Case study also identifies a specific geographic area and a targeted number of individuals, which for the purposes of this research, includes Liberia and those individuals connected to the establishment, deployment, or operations of LEAP. Benefits of case study methodology also include an alignment with both quantitative and qualitative data collection (Heale & Twycross, 2018). Figure 7 summarizes the overall research approach and how both quantitative and qualitative components were integrated to form the present methodological approach.

Figure 7

Research Approach

Phase	Procedure	Product	Research Question Alignment	
quantitative Data Collection	Reviewed PSL/LEAP Data collected as part of 3-year pilot and available through Harvard Dataverse (2019)	Numerical Data	(R1) To what extent is there a difference between LEAP and non-LEAP schools on a) education access, b) the availability of ICTs, and c) education quality?	
quantitative Data Analysis	Conducted Descriptive and Inferential Statistics (SPSS Software)	Quantitative metrics connected to the research		
Connecting quantitative to QUALITATIVE Phase	Identified gaps in quantitative data and developed QUALITATIVE research approach	Semi-structured Interview methodology	Summation of quantitative (R1)	
QUALITATIVE Data Collection	Semi-structured interviews	Transcribed interviews using Otter.Al software	(R1) To what extent is there a difference between LEAP and non-LEAP schools on a) education access, b) the availability of ICTs, and c) education quality?	
QUALITATIVE Data Analysis	Coding and thematic analysis using NVivo qualitative analysis software	Summary of key themes based on similarities and differences	 (R2) What stakeholders are included in the education policy transfer process? (R3) What factors influence the selection of policy transfer as a mechanism to address education reform within the Global South? (R4) What is the process of implementing education policies within the Global South that are transferred from other areas? 	
Integration of quantitative and QUALITATIVE results	Interpretation of quantitative and QUALITATIVE data	Discussion, recommendations, and application of findings	Summation of (R1, R2, R3, and R4)	

Source: Hughes (2022) Adaptation.

Research Justification

The embedded advantages of a mixed methods research approach, as well as the sequential explanatory framework, provide justification for the selection of this

methodology to effectively address the current research aim and questions. In addition, the case study analytical process, which brings a depth of exploration to particular research topics combined with the use of such approaches within social science in general, and education research more specifically, helps to solidify the selection of the research approach. Further, this approach was selected for the current research due to the broad scope of the questions, which focus on both outcomes and origins of policy transfer.

At the onset of this research, an examination of potential data sources yielded minimal information related to education in Liberia. Although the research identified a publicly available data set focusing on the first three years of LEAP, a review of this information determined that the data was quantitative and focused primarily on education outcomes. The limitations in existing data to address the totality of the research questions prompted the decision to leverage mixed methods as the desired approach. By utilizing both quantitative and qualitative approaches, the current research harnesses the methodological strengths of each strategy. More specifically, mixed-method was selected as the preferred approach to creating an analytical platform that has the flexibility to draw upon both quantitative and qualitative aspects to more effectively address the complexities of policy transfer within the Global South.

Research Definitions

Due to the definitions and conceptual frameworks related to education access, ICTs, and quality, a core component of the current research is the specification of how these concepts were defined and measured. Education access was measured by school enrollment, self-reported student attendance patterns, a student survey inclusive of reasons for not enrolling in school, and a principal survey inquiring whether the school charges fees. Information and communications technology were measured through the frameworks of infrastructure and availability. More specifically, infrastructure were examined through existing data which observes the presence of electricity within the classroom and surveys that ask students if electricity is present within their homes. The availability of ICTs were assessed through existing survey data examining the extent to which students and teachers have access to radios, televisions, and mobile phones. Finally, quality was measured by student performance on literacy and numeracy tests. For all metrics included within the study, the research recognizes that multiple definitions exist for the concepts being measured. As such, there are also different ways in which the concepts can be evaluated. However, the data available and the existing research related to education reform serve as key rational for the current methodological approach. All the referenced data were obtained through a secondary analysis of existing data sources. However, the quantitative findings were supplemented by qualitative data

Quantitative Method

The research first deployed quantitative methods to determine to what extent there is a difference between LEAP and non-LEAP schools on a) education access, b) the availability of ICTs to support education, and c) education quality. The first phase of the research consists of a secondary analysis of data collected by researchers contracted by the Liberian Ministry of Education to assess the effectiveness of the LEAP three-year pilot project. The population that was ultimately included in the LEAP data sets was limited to public Libera schools with (1) six or more classrooms, (2) six or more teachers, (3) a maximum of 65 students per classroom, (4) school proximity no more than 15 miles from the main road, and (6) 2G connectivity (only applicable for Omega Academics, and Bridge International Academies). Of the 2,619 public primary schools within Liberia, 299 institutions were identified as meeting all criteria (Romero et al., 2017).

Data Sources

The LEAP data have been made publicly available via Harvard Dataverse. The data was collected in 2015 (year prior to implementation), 2016 (first year of LEAP), and 2018 (end of LEAP 3-year assessment period). The original research that assessed LEAP yielded multiple school-level datasets that were useful to the present study. Five major categories of data obtained from the original three-year evaluations were analyzed as part of the current study: (1) school enrollment, (2) student academic performance, (3) teacher and principal surveys, (4) student surveys, and (5) classroom observations. The LEAP data related to enrollment was collected at the school level. For student performance, metrics related to literacy and numeracy were obtained through one-on-one assessments of students and were documented by a proctored test examiner (Romero et al., 2019). In addition, LEAP conducted surveys of teachers and principals, with additional questions targeting working teachers within English and Mathematics disciplines (Romero et al., 2019). Survey questions included perceptions of LEAP, classroom teaching practices, school operating procedures, and the availability of learning resources (e.g., textbooks, chalkboards). The survey of students asked questions in areas such as school attendance, reasons for not attending school, and the availability of ICTs at their homes. Finally, classroom observations were conducted in accordance with the Stallings Classroom Observation Tool (Romero et al., 2019).

Data Analysis

Leveraging the multitude of data tables included within the original three-year LEAP pilot (2015, 2016, 2018), the research has identified specific variables related to each aspect of research question one. As part of the overall methodological approach, the current research includes the file and table names used as part of the original research as part of the source documentation. This process aligns the present study with the original research and allows the findings from the current study to be replicated in the future. The first phase of the quantitative research consisted of a review of the data files to gain familiarity with the structure and composition of the data. Through this process, the researcher identified several data code documents which provided details regarding the variables, labels, and coding systems deployed as part of the original research.

Leveraging the data code documents and SPSS variable view, the researcher identified potential variables relevant to the current study. Frequency analyses were conducted on the identified variables to determine applicability, feasibility, and inclusion in the findings. This process was instrumental in confirming appropriate variables and determining alignment with the overall study as well as the specific research questions. The process also allowed the researcher to determine the completeness of variables and to identify consistency in coding, missing data, and potential outliers. The calculated frequency analysis also served as the foundation for assessing potential errors within the data and created the framework for dating cleaning. All tables were exported to Excel for additional review and cleaning. The cleaning process included an additional review of the data and the creation of pivot tables to explore all variables in greater detail. Additional steps within the data cleaning process included the removal of incomplete data, the elimination of "Don't Know" and "Refused to Answer" responses, as well as outlier data that did not align with the source data codebooks.

After cleaning the data, a review of potential statistical analysis tests was conducted, which yielded Chi-Square Test of Independence, Fisher's Exact Test for Independence, and Independent Sample t-tests as the optimal analytical strategies. The independent variable for this study was the type of school: LEAP or non-LEAP, which was determined by the "Treatment" variable. For this research, LEAP schools were coded as "1," and non-LEAP schools were coded as "0." The dependent variables for access to primary education were total school enrollment (2015, 2016, and 2018). The enrollment data reflects the time period just prior to the implementation of LEAP (2015) as well as the first (2016) and last (2018) year of the three-year pilot. Additional dependent variables related to access included whether students missed school today, or yesterday, within the last five days, month, and three months. The research also identified an access-dependent variable that asked students the reasons why they were not attending school. The final dependent variable related to access examines whether the school charged fees.

The dependent variables related to ICTs included a focus on both infrastructure and availability. The infrastructure variables identified as part of this research included two questions: (1) the presence of electricity within the classroom and (2) the presence of electricity at the student's home. The availability of ICTs was measured through proxy metrics, which included access to mobile phones by principals, teachers, and students. The availability of ICTS was also examined through the presence of televisions and radios in students' homes. These variables were selected in alignment with the current literature, which suggests that each of these factors meaningfully influences access, quality, and ICTs within primary education systems in the Global South (Mavellas et al., 2015).

The primary education-dependent variables related to quality included student test scores in literacy and numeracy. More specifically, the literacy variables included student assessments in the area of identifying objects, determining the correct sequence of days within the week, using the correct pronouns, reading comprehension, and listening comprehension. For numeracy, the researcher identified addition, subtraction, multiplication, division, and word problems as proxy metrics. The literacy and numeracy dependent variables each included a series of questions that were asked of the student related to the concepts. These questions were combined by a theme to create a number of correct responses score for each student. The number of correct responses served as the analytical basis to compare student performance between LEAP and non-LEAP Schools.

Data analysis and statistical calculations were completed using SPSS 28.0. The researcher first performed descriptive statistics, including frequency and cross-tabulations. To examine the extent to which LEAP and non-LEAP schools influenced education access and ICTs, the research conducted a Chi-Square or Fisher's Exact Test analysis on all previously identified variables. Both Phi (φ) and Cramer's V were used to measure the strength of the association between the independent and dependent variables. However, the

researcher only included Cramer's V values in the findings to align with similar research approaches related to education policy.

In addition, the researcher conducted independent samples t-test to compare means between non-LEAP and LEAP schools related to the dependent variables identified for both literacy and numeracy. Following research standards, the results were reviewed to identify statistically significant differences at an alpha level of .05. When determining the alpha level for the current research, the family wise error rate was considered, which is the probability of making Type I errors when testing multiple hypotheses. Rather than reduce the alpha to .01, the researcher opted to keep the .05 standard and note the possibility of family-wise error rate within the study. As part of this analysis, the normality of distribution of the dependent variable, as well as the homogeneity of variance, were reviewed. More specifically, Levine's Test for Equality of variances was leveraged using a *p*-value above .05. This process confirmed that the results were comparable and ensured that the findings were valid. This component of the research also leveraged and reported Cohen's d to determine the overall effective size of the variables analyzed.

Qualitative Method

The current study also leveraged qualitative analysis to both supplement the quantitative findings and more thoroughly address the limitations of the quantitative data. The researcher opted to use semi-structured interviews as the qualitative data source to align with the richness of information embedded within the case study methodology. Further, the use of multiple data sources, quantitative and qualitative, allowed triangulation which increased both the reliability and validity of the research

(Lauri, 2011). The methodological design of the present study purposefully selected data collection modes that, when combined, optimize the strengths of each approach while mitigating any potential limitations inherently identified through social science research literature.

Participants and Sampling

A core aspect of a case study is the establishment of the research parameters, which include setting the key parameters of who was included in the research and how participants were identified. For the purposes of this research, the larger boundaries included those institutions and individuals connected to the creation, implementation and operational components of LEAP in Liberia. This includes both treatment and control populations identified as part of the LEAP RCT methodology. In addition, the research targeted individuals with knowledge of LEAP who may not be directly connected to this policy work. The selection of this group was intentional to provide a more holistic view of LEAP from diverse perspectives. More specifically, the researcher recognized the multifaceted dimensions of education policy which often operates within a platform of differing viewpoints, and a focus on those directly connected to the policy may omit other stakeholders who are also impacted or see the impact of this work.

Due to the nature of the current research, purposive sampling was used to identify key participants. Etikan et al. (2016) asserted that purposive sampling

is a nonrandom technique that does not need underlying theories or a set number of participants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience. (p. 2)

Recognizing the potential limitations of one sampling technique and accounting for factors not originally considered by the researcher, the study used snowball sampling to incorporate additional knowledge and expertise relevant to the research questions. Throughout the course of data collection, snowball sampling allowed the researcher to include other individuals or agencies identified as pertinent to the current research. The two sampling techniques provided a comprehensive platform of richness in information to more thoroughly explore the research aims. The researcher targeted participants from the Ministry of Education, external partners, LEAP schools, and LEAP parents.

The research used LinkedIn and Facebook Messenger as the primary recruitment tools. Within both social media platforms, the researcher conducted searches using the following terms: Partnership Schools Liberia, Liberia Education Advancement Program, Rising Academy, Bridge Liberia, Stella Maris, BRAC Liberia, U-Movement, Street Child, Social Finance, Liberia School, and Liberia Teacher. A total of 54 recruitment participation requests were sent via LinkedIn and 24 via Facebook Messenger. In addition, snowball sampling yielded an additional 13 individuals, who were contacted via email and WhatsApp. Of the total recruitments, 32 responded, and 19 participated in the study. Participants represent two external agencies, 11 LEAP providers, two principals and teachers at primary education schools, and three community members.

Semi-Structured In-Depth Interviews

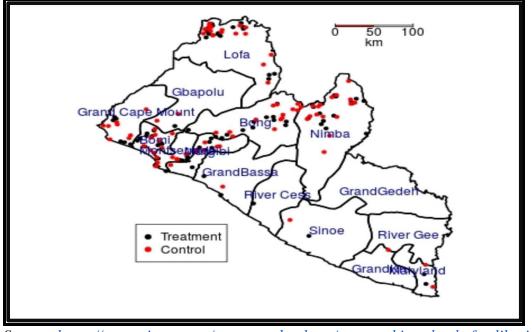
Semi-structured interviews are leveraged as part of the qualitative data collection process. The semi-structured interviews were conducted through the use of open-ended semi-structured interview questions. The interview questions (Appendix C) were developed based on the core research questions and literature review related to the study topic. The development of the questions included four broad areas of questions related to (1) primary education outcomes, (2) policy stakeholders, (3) policy transfer influences, and (4) policy transfer processes. The questions were developed with an inherent level of flexibility, allowing participants to respond to the prompts in a way that optimized the collective knowledge, perspectives, and experiences related to LEAP. The design of the questions was also created to generate context not previously considered by the researcher, further adding to the different dimensions of the present study. Prior to administration, the questions were reviewed by Liberian education subject matter experts and individuals with extensive cultural knowledge about the country to ensure validity, reliability, and appropriate cultural context.

The semi structured interview process also included follow-up interviews. This component of the research was leveraged to confirm information obtained through the original interview. Further, follow-up interviews were an essential part of the research as it allowed the researcher to clarify key parts of the study to ensure that the analysis reflected the sentiment of participant responses. This process enhanced the overall quality and accuracy of the results by creating a more comprehensive understanding of the research focus as well as the themes which emerged.

The in-depth interviews and follow-up questions were primarily conducted via Zoom and WhatsApp. However, recognizing the technology limitations that currently exist in Liberia, the interview questions were also submitted via email. This process was essential to ensuring that both urban and rural areas were considered as part of the research. Figure 8 provides additional detail regarding the treatment and control groups as well as the geographic assignments of schools as part of the LEAP RCT pilot. The map was instrumental in assisting the researcher with conceptualizing the scope of potential participants.

Figure 8

LEAP and Non-LEAP Schools by County



Source: <u>https://www.gi-escr.org/resource-database/partnership-schools-for-liberia</u>

Data Collection

The qualitative data was collected through semi-structured interviews with the objective of obtaining participant responses that not only address the core research questions but also illustrate themes of convergence and divergence. Data was collected using three mechanisms: Zoom, WhatsApp, and email. Interviews conducted via Zoom and WhatsApp lasted between 35 and 45 minutes. Participants leveraging email as the mechanism to provide responses were encouraged to completed and return the qualitative questions within a two-week time frame. The audio files from Zoom were transcribed using Otter AI software. The interviews via WhatsApp were recorded via a digital recorder, and files were uploaded to Otter AI software for transcription. Interviews via email were already provided in a transcribed format; however, the researcher uploaded these responses to Otter to maintain consistency in the research process. All transcriptions were reviewed for accuracy by the researcher using the original source files.

Data Analysis

The interview data were analyzed leveraging Braun and Clarke's (2006) thematic analysis framework, which is a systematic way of categorizing data to identify emerging themes. There are six stages to Braun and Clarke's (2006) analysis, and the first phase consists of gaining familiarity with the data. To do this, the researcher listened to the audio files, reviewed the transcripts, and created relevant notes. Stage 2 requires the establishment of initial codes as a process of preliminarily organizing the data. In alignment with this process, each transcribed interview was reviewed and coded based on the original interview questions using NVivo qualitative analysis software. This process yielded 72 codes and 41 themes. Once established, the themes and codes were reviewed by the researcher to determine areas of similarity for potential combinations. Stage three of the process requires further refinement of the themes, which yielded 30 codes and 24 themes. The researcher leveraged both manual and NVivo processes to conduct this process. Stage four involves further review of the themes. During this process, the researcher leveraged the conceptual framework as a guide for the analysis to ensure alignment with the overall scope of the research. Once the themes were further reviewed and refined, stage five requires that the themes be named. The final phase, stage 6, is the development of the findings, which contextualizes the thematic analysis. This process yielded the final 16 themes, which are reported as part of the study.

Although the primary objective of this section is qualitative in nature, the analysis of the semi-structured interviews also includes a quantitative aspect. As part of the qualitative research, the researcher identified high-level themes for each research question and provided the necessary contextual detail to support each theme which was inclusive of the participants' responses. In addition, this section will also note the number of participants stating each theme and the number of times the theme was referenced throughout the interview. Both the number of participants and references were obtained by leveraging the text query feature in NVivo. Adding this dimension to the qualitative analysis enhanced the overall richness of the results and leveraged a core strength of mixed methods research which is the ability to merge components of both quantitative and qualitative approaches throughout the research, including how findings are reported.

Confidentiality

Maintaining research confidentiality and anonymity represents a core consideration of the study in alignment with IRB protocols. In addition, the condition of anonymity facilitated a more authentic process in which participants provided perspectives that better reflected the intentions of the study. More specifically, the following codes in Table 3 were used to identify participants.

Table 3

Participant Codes

Original Category	Code
Male	М
Female	F
External Provider	EP
Ministry of Education	ME
LEAP Provider	LP
Primary Education Staff (Principals, Teachers)	PS
Community Members	СМ

Within each of these coding systems, participants were assigned a number based on the interview sequence. The coding system was developed and maintained using Excel, with access limited to the primary researcher. The overall coding system was developed with an inherent level of flexibility to allow the research to add new codes as the scope of research expanded. In addition, the coding system models coding structures embedded in best practices for maintaining confidentiality in case study research.

Through this chapter, the framework of the research method was identified and aligned with the research questions. In an effort to better conceptualize this approach, this section provided a discussion of the mixed methods, sequential explanatory design, and case study. Collectively, this narrative provided the platform and justification of the current research approach. In addition, the data sources, participants, and analysis were highlighted. Ultimately, this section provided the platform to better conceptualize and contextualize the findings reported in the subsequent chapter.

RESULTS

Quantitative Analysis

This chapter presents the key findings of the research. The quantitative data analysis, including both descriptive and inferential statistics are presented first, followed by the qualitative findings which report the thematic analysis from the semi-structured interviews. As discussed in greater detail in Chapter 3, the quantitative component of this research includes a secondary analysis of data originally collected through an evaluative research project, which examined the effectiveness of the three-year LEAP pilot. More specifically, the research leverages chi-square and Fisher's Exact Test methodology to assess the extent to which the type of school, LEAP or non-LEAP influences access to education and the availability of ICTs. In addition, the research conducts independent sample t-tests related to student performance on literacy and numeracy exams to determine whether a statistically significant difference exists in student outcomes based on the type of school, LEAP or non-LEAP.

A review of the original data indicated sources of information collected at the beginning, mid, and end points of the LEAP pilot, with multiple data files contained within each period of time. Upon further review of the data source files, it was determined that not all data are available for the different periods of time, making comparisons across time periods challenging. In addition, there are some discrepancies in files with identical or similar names, which cannot be explained by the current research. As such, the present study leverages the data within the endpoint files primarily. However, a few files are used from the beginning and midpoint data files as these sources of information represent the only data available to potentially address components of the research questions. In response to the different files used, the researcher has opted to use a detailed source documentation mechanism, which includes the source of the information, file locations, and names of the data files used for all findings presented. The source documentation process provided greater clarity related to the data elements leveraged as part of the research. This process also streamlined the data cleaning and analysis. Although some characteristics of the original source do not reflect optimal data collection practices, the research has chosen to use this as a portion of the analysis as it reflects one of the most recent and comprehensive sets of data on education in Liberia in general and LEAP in particular.

Primary Education Access

(R1) To what extent is there a difference between LEAP and non-LEAP schools on: (a) education access, (b) the availability of ICTs, and (c) education quality?

Access to primary education remains an important challenge within global south countries such as Liberia. Despite dedicated resources and global agendas, access to education remains a fundamental obstacle within emerging economies. As with most 137

objectives targeted by global agendas, issues of access are multidimensional, multifaceted, and inclusive of different definitions. For the purposes of this research, and based on the available data, this study has opted to use school enrollment, student attendance, reasons why students are not in school, and school fees as proxy measures for access. Collectively, the identified variables align with many of the global discourses related to access and help to provide a more comprehensive assessment of access to primary education within Liberia.

School Enrollment. A core component of the research assesses the extent to which the LEAP influenced access to primary education. For the purposes of this study, enrollment was identified as a proxy measure for access. Enrollment data was reported for academic years 2015, 2016, and 2018 as part of the original LEAP pilot evaluation. The enrollment for 2015 represents baseline data indicative of enrollment prior to the implementation of LEAP. The enrollment for 2016 represents the first year of LEAP and the data for 2018 reflects the final year of the three-year pilot. Enrollment data was available by school and reported based on LEAP and non-LEAP designations. Overall, the data shows higher levels of student enrollment for LEAP schools when compared to non-LEAP schools for all three reporting years. Total enrollment figures are 48,553, 51,805, and 45,004 for 2015, 2016, and 2018 respectively. Between 2015 and 2016, both LEAP (11%) and non-LEAP schools (2%) schools experienced an increase in enrollment for an overall increase of 7%. For the 2018 reporting period, there were enrollment declines between 2015 and 2018 for both non-LEAP (-15%) and LEAP (-.60%) schools for an overall decline of -7%.

This decline is noteworthy for several reasons. First, an overall aim of LEAP was to provide greater access to education and the data suggests that while increases in enrollment occurred originally, access for children did not continue to increase, and in fact, experienced a decline. Second, this trend of declining enrollment parallels other global south education policies such as universal primary education, which experience initial increases in enrollment but are challenged to sustain or increase enrollment over time. The global declines in enrollment have been linked to several factors included limited resources to sustain enrollment efforts and poor planning which fails to consider the potential impact of such policy initiatives.

A two-way contingency table analysis was also conducted to evaluate whether school enrollment in Liberia for 2015, 2016, and 2018 was significantly different depending on whether the school was a LEAP or a non-LEAP school (see Table 4). First, the statistical assumptions of a chi-square analysis were verified. The variables (year and school type) were both categorical. Second, all observations were independent. Third, the cells were mutually exclusive, so that an individual could belong to only one cell. Finally, values in each cell were greater than five.

The baseline scores were recorded in 2015 before LEAP was introduced. From 2015 to 2018, enrollment in the non-LEAP schools declined by 3,392 students, whereas enrollment in the LEAP schools declined by only 157. Thus, 96.6% of the decline in school enrollment occurred in the non-LEAP schools. School type (LEAP vs. non-LEAP) and enrollment were found to be significantly related; Pearson $\chi 2$ (2, N = 145,362) = 145.61, p < .001 and Cramer's V = .032. Although the difference in enrollment between the two

types of schools could not be attributed to LEAP in 2015, before LEAP was introduced, the decline in enrollment from 2015 to 2018 occurred almost entirely in the non-LEAP schools. The null hypothesis was rejected. School enrollment in Liberia was significantly different depending on whether the school was a LEAP or a non-LEAP school.

Table 4

School Enrollment in Liberia, 2015, 2016, and 2018

		Non-LEAP	LEAP	Total
2015				
	Number enrolled	22,282	26,271	48,553
	Percent total	45.9	54.1	100.0
2016				
	Number enrolled	22,758	29,047	51,805
	Percent total	43.9	56.1	100.0
2018				
	Number enrolled	18,890	26,114	45,004
	Percent total	42.0	58.0	100.0
Total				
	Number enrolled	63,930	81,432	145,362
	Percent total	44.0	56.0	100.0
Differ	ence (2015 to 2018)			

Difference (2015 to 2018)

Number enrolled	-3,392	-157	3,549
Percent total	96.6	3.4	100.0

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Student Attendance. To better understand and further contextualize primary education access, the research identified variables in which students were asked questions regarding school attendance. More specifically, the research identified five variables: (a) daily attendance, (b) attended school yesterday, (c) missed school within the last five days, (d) missed school within the last month, and (e) missed school within the last three months as additional metrics to gauge different dimensions of access to primary schools within Liberia. Data examining attendance patterns of primary education students within Liberia is limited. As such, an exploration of this data may yield insights regarding areas of challenge and potential as it relates to developing more sustainable responses to education access.

Students were asked whether they attended class during the survey. Approximately, 78% of students surveyed reported attending class the day the survey was administered. In contrast, 22% of students indicated that they did not attend school that day. When examining the findings in greater detail, students within LEAP schools (53%) had a higher percentage of daily attendance when compared to students in non-LEAP schools (47%). It should be noted that the higher percentage of students reporting being in class that day in LEAP schools may be the result of overall higher enrollment in these types of

schools. However, the greater percentage of enrollment is promising as it may indicate the potential of such policies in addressing one component of primary education access.

In order to determine whether a statistically significant difference exists in students reporting missing school within the school week between LEAP and non-LEAP schools, a Person chi-square was conducted. The analysis of this variable removed the "Don't Know" and "Refused to Answer" categories. The statistical methodology was identified as the preferred approach due to the frequency data available, reporting daily student school attendance by LEAP and non-LEAP schools. In addition, the available sample size per cell was more than five. As such, the assumptions associated with utilizing chi-square were confirmed. The research question exploring student attendance at school that day between LEAP and non-LEAP schools was not statistically significant, χ^2 (1, N = 1397) = 1.27, p >.05, Cramer's V = .030. Although the school designation between LEAP and non-LEAP appears to have influence on overall enrollment and the percentage of students reporting being in class today, there does not appear to be a statistically significant difference. The finding is important as it shows that the type of school does not influence whether students attend school daily. Table 5 provides a detailed summary of the reported values related to whether students were in school today.

Table 5

	Did Student Sit in Clas	ss Today
Non-LEAP	LEAP	Total

No	157	51%	153	49%	310	22%
Yes	511	47%	576	53%	1087	78%
Total	668	48%	729	52%	1397	100%

 $\chi^2 (1, N = 1397) = 1.27, p > .05, Cramer's V = .030$

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse*. (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

An additional variable used as part of the current research to assess primary education access relates to whether students were present in class the previous day. A review of the data holistically indicates approximately 51% of the students indicated "Yes" and 49% of the surveyed population indicated "No." However, when examining the data by LEAP and non-LEAP students, a greater percentage of non-LEAP (56%) students reported being in school the previous day as compared to LEAP (44%). This finding conflicts with the objectives of LEAP, which state or at least imply that greater levels of access are occurring within LEAP schools. Although the number of total respondents (n=311) is lower than the previous student attendance question related to daily attendance, this finding is particularly interesting as it illustrates a potential area in which government controlled and managed schools may be outperforming LEAP schools.

A Person chi-square was conducted to determine whether a statistically significant difference existed between student attendance in class yesterday and the type of school, LEAP or non-LEAP. To maintain consistency throughout the research, the analysis of this variable removed the "Don't Know" and "Refused to Answer" categories. A Pearson chisquare was identified as the preferred approach due to the data type and sample size. As such, the assumptions associated with utilizing chi-square were confirmed. There was no statistically significant difference between school attendance yesterday and type of school; $\chi 2 (1, N = 311) = 3.08, p > .05$, Cramer's V = .099. Although access represents an essential pillar embedded within LEAP, the strategies implemented do not appear to influence student attendance the previous day. Both LEAP and non-LEAP schools have similar trends descriptively and no statistical significance inferentially based on the variable 'did you attend school yesterday'. Table 6 provides a detailed summary of the reported values related to whether students were in school yesterday.

Table 6

-	Did Student Sit in Class Yesterday								
	Non-LEAP LEAP			EAP		Total			
No	70	46%	83	54%	153	49%			
Yes	88	56%	70	44%	158	51%			
Total	158	51%	153	49%	311	100%			

Student Self-Reported Sit in Class Yesterday

 χ^2 (1, N = 311) = 3.08, p > .05, Cramer's V = .099

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

The research also analyzed whether students missed school within the last five days. Sixty-seven percent of the total valid responses indicated that they did not miss school within the last five days, and 33% indicated missing school during the reported time. Although 67 % of students reported not missing school within the last five days, nearly one-third of the students responding to this question did miss school during this time. When examining differences in missing school within the last five days between LEAP and non-LEAP schools, the data are comparable and similar to the overall totals reported. The data is potentially promising as it indicates that students may be remaining in school for consecutive days, which represents a critical component to addressing access as well as grade to grade progression. Of all reasons cited for missing school, student illness (11.3%), work (3.5%), and owing fees or other costs (1.7%) were the most frequently expressed reasons.

In order to determine whether a difference exists in students reporting missing school within the school week between LEAP and non-LEAP schools, a Person chi-square was conducted. The statistical methodology was identified as the preferred approach. In addition, the available sample size per cell was more than five. As such, the assumptions associated with utilizing chi-square were confirmed. The research question examining student attendance within the last five days of school between LEAP and non-LEAP schools was not statistically significant; χ^2 (1, N = 2869) = .76, p > .05, Cramer's V = .016.

Although the school designation between LEAP and non-LEAP appears to have influence on overall enrollment, school attendance within a week does not appear to differ. The finding is important as it shows that the type of school does not influence whether students miss school within the week. The finding also suggests that further exploration of additional variables related to access is needed to better ascertain the differences noted in overall enrollment between the two types of schools. Table 7 reports findings related to whether students missed school over the last five days.

Table 7

Student Self-Reported Did You Miss Any Day of School in the Last Five Days

_						-
	Non-LEAP		LEAP		Total	
No	981	51%	953	49%	1934	67%
Yes	458	49%	477	51%	935	33%
Total	1439	50%	1430	50%	2869	100%

Did You Miss Any Day of School in the Last Five Days?

 χ^2 (1, N = 2869) = .76, p > .05, Cramer's V = .016

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Students were also asked whether they attended class within the past month. The findings indicate that 65% of students reported "No" and 35% reported "Yes." It should

also be noted that the total number of participants in these types of student attendance questions continues to decline (N = 48), which in itself is another finding as it suggests the need for greater consistency in sample sizes and the need to further explore student attendance patterns at daily, weekly, and monthly levels. However, examining attendance by month represents the first occurrence in which the "No" values have a higher frequency than "Yes" values. This is an important finding as it suggests that while schools may be able to manage student attendance both daily and weekly, challenges exist with retaining students for the entire month. This potential threshold could serve as the foundation for additional exploration and targeted strategies if this finding can be confirmed through additional research.

A Person chi-square was conducted to determine whether a statistically significant difference existed between student attendance within the past month and type of school, LEAP or non-LEAP. Pearson chi-square was identified as the preferred approach based on data type and sample size. As such, the assumptions associated with utilizing chi-square were confirmed. There was a statistically significant difference between school attendance within the month and type of school; $\chi 2$ (1, N = 48) = 7.38, p <.05, and Cramer's V = .392. The chi-square findings of a statistically significant relationship further support the potential that the month timeframe may be essential in better conceptualizing at what point students enrolled in school begin to experience challenges related to access and continued attendance in school. Table 8 provides a detailed summary of the reported values related to whether students were in school within the month.

Table 8

Student Self-Reported Did You Sit in Class in the Past Month

_			Did You	Sit in Class	in the Past	Month
	Non-LEAP LEAP				Total	
No	11	35%	20	65%	31	65%
Yes	13	76%	4	24%	17	35%
Total	24	50%	24	50%	48	100%

 χ^2 (1, N = 48) = 7.38, p < .05, Cramer's V = .392

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, Harvard Dataverse. (https://doi.org/10.7910/DVN/5OPIYU). Copyright 2022 by The President & Fellows of Harvard College.

The final variable identified is related to attendance, which asked whether students attended school within the past three months. The findings indicate that 80% of students reported "No" and 20% reported "Yes." Although the total number of participants in these types of student attendance questions continues to decline (N = 30), the data at a minimum highlights an area of additional exploration related to access. Similar to the trends referenced in monthly attendance by students, student attendance within the past three months is yet another example in which the occurrence of "No" values have a higher frequency than "Yes" values. Unlike the monthly attendance variable, the data shows that LEAP schools appear to perform better, with more students reporting attending school within this time. It is worth noting that of the non-LEAP students surveyed, no student reported attending school within the last three months. This is an important finding as it suggests that school attendance beyond the month is not only a challenge, but also once students stop attending classes, they may be less likely to return.

A Fisher's Exact Test was conducted to determine whether a statistical association is present between student attendance within the past three months and type of school, LEAP or non-LEAP. To maintain consistency throughout the research, the analysis of this variable removed the "Don't Know" and "Refused to Answer" categories. A Fisher's Exact Test was identified as the preferred approach due to the inclusion of frequency data available for student school attendance within the past three months by LEAP and non-LEAP schools. In addition, the available sample size per cell was less than five. Therefore, the assumptions associated with utilizing Fisher's Exact Test were confirmed.

There was no statistically significant association between school attendance within the past three months and type of school; p > 05 and Cramer's V = .380. Although the findings were not statistically significant, the results suggest additional exploration of student attendance beyond the one month threshold. More specifically, an examination of this variable with a larger sample size may be essential in better conceptualizing the point at which students enrolled in school begin to experience challenges related to access and continued attendance in school. Table 9 provides a detailed summary of the reported values related to whether students were in school within the last three months.

Table 9

Student Self-Reported Did You Sit in Class in the Past Three Months

	Nor	n-LEAP	Ι	LEAP		Total
No	11	46%	13	54%	24	80%
Yes	0	0%	6	100%	6	20%
Total	11	37%	19	63%	30	100%

Did You Sit in Class in the Past Three Months

P >05, Cramer's V = .380

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Reasons for Not Attending School. Recognizing that enrollment numbers and student attendance data do not necessarily provide a holistic picture of the complexities regarding access to primary education within emerging economies and particularly within sub-Saharan Africa, the research identified additional variables related to primary education access that are supported through current literature. More specifically, the current research identified a variable that asked students the reasons for no longer attending

school. For both non-LEAP (48%) and LEAP schools (52%) of respondents, the most common reason for not attending schools relates to the fees associated with attending school. This finding is particularly important as it aligns with much of the collective literature related to barriers to access to education for emerging, which identifies school fees as a substantial obstacle, especially for poor and marginalized groups. The response "I Stopped to Work" also illustrates the confounding issues related to the costs of attending schools as well as the social issues of poverty that often prioritize work for students over attending school. Additional reasons for not attending school include student pregnancy. The findings related to pregnancy underscore the barriers that girls face related to accessing education and the inequities that still remain between boys and girls. The percentage difference between LEAP (60%) and non-LEAP (40%) for the pregnancy category also reflects the largest gap between the two different school types. Data from this self-reported student information is important as it contextualizes many of the issues impacting education access within the global south and confirms, at least to some degree, the continued existence of such challenges within Liberia.

Moving beyond descriptive statistics, the research examined whether a difference was present in reasons for not attending school between LEAP and non-LEAP schools, using a Pearson chi-square statistical methodology. A review of statistical analysis approaches determined that chi-square was the appropriate measure due to the categorical nature of the variables. The sample size per cell being more than five further supported the necessary assumptions for chi-square were met. The research question examining why students were not enrolled in school between LEAP and non-LEAP schools was not statistically significant; $\chi 2$ (3, N = 626) = 3.51, p > .05 and Cramer's V= .075. Although the school designation between LEAP and non-LEAP appears to have influence on overall enrollment, school attendance within a week does not appear to differ. The finding is important as it shows that the type of school does not influence whether students attend school. The findings also suggest further exploration of additional variables related to access are needed to better ascertain the differences noted in overall enrollment between the two types of schools. Table 10 summarizes these results.

Table 10

Student Self-Reported Why Are You Not in School

	Non	-LEAP	LEA	'P	To	tal
My parents can't afford school fees anymore	108	48%	115	52%	223	36 %
I got pregnant	64	40%	98	60%	162	26 %
I stopped school to work	13	50%	13	50%	26	4 %
Other	101	47%	114	53%	215	34 %
Total	286	46%	340	54%	626	10 0 %

Why Are You Not in School

 χ^2 (3, N = 626) = 3.51, p > .05, Cramer's V= .075

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

School Fees. Although many Sub-Saharan countries such as Liberia have introduced universal primary education policy that aims to eliminate the fees associated with attending school, education costs still remain a barrier to access as financial costs associated with school attendance still exist. Regardless of the fee amount or type, these costs pose significant barriers for many families who struggle with issues of poverty. The data shows that 72% of non-LEAP schools as compared to 28% of LEAP schools charge school fees. The fees included standard school, registration, uniform, feeding, and materials. This finding is important as it demonstrates that LEAP schools are considerably lower in the number and percentage of schools charge fees. However, the finding is noteworthy as LEAP schools are not supposed to charge fees. This finding demonstrates a potential discrepancy in policy theory and actual practice. Regardless, the difference in school fees between LEAP and non-LEAP schools has the potential to allow greater access to primary education overall and remove an important barrier to access for the most underserved populations within Liberia.

In addition to descriptive statistics regarding whether schools charge fees, the study also attempts to ascertain if a statistically significant difference exists based on the collection of fees between LEAP and non-LEAP schools. A Pearson chi-square was conducted to determine if a statistical significance existed and if so, to what extent. The chi-square analytical approach was selected due to the categorical characteristics of the variables. In addition, the sample size of the data adhered to greater than five, thus the assumptions in which chi–square are predicated were met. Examining the research question regarding the relationship between school fees and school type demonstrated a statistically significant relationship; $\chi 2$ (1, N = 185) = 17.390, p < .05, and Cramer's V=.307. This finding is particularly important as it highlights a variable which is referenced extensively in the literature as being a substantial barrier to education access, particularly in sub-Saharan African countries. Although the data indicates that the elimination of fees is not universal among LEAP schools, there is a statistically significant difference between LEAP and non-LEAP schools, which offers a key consideration when addressing issues of access within the primary education sector. Table 11 examines the extent to which public primary schools in Liberia charge school fees.

Table 11

	Does This School Charge Any Fees?							
	Non	on-LEAP LEAP			Total			
No	50	39%	77	61%	127	69%		
Yes	42	72%	16	28%	58	31%		
Total	92	50%	93	50%	185	100%		

Does this School Charge Any Fees?

 $\chi^2 (1, N = 185) = .17.39, p < .05, Cramer's V = .307$

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Primary Education ICT Infrastructure and Availability

Information and communications technologies continue to be a critical focus within the global development dialogue. Within this narrative, frequent discussions and research exist regarding the growing divide between global north and global south countries. While many factors have been identified as contributing to the digital divide, limited infrastructure remains a critical area of focus and concern. For many countries, reliable electricity sources are at the core of ICT infrastructure challenges. As such, the research has identified two variables related to the availability of electricity within the classroom and the student's home as proxy measures to assess the current state of ICT infrastructure related to primary education. In addition, recognizing the limitations in ICTs such as computers, laptops, and tablets, the research also assesses the extent to which teachers and students have access to phones, radios, and televisions as proxy metrics for ICT access.

Infrastructure. When discussing information and communications technology within the global south, a recurring theme relates to limitations in the infrastructure necessary to support such resources. As emerging economies such as Liberia seek to establish a greater ICT footprint, cultivating the appropriate infrastructure becomes paramount to this process. One of the most often cited infrastructure challenges within Liberia relates to the availability of electricity. The data collected included classroom observations that explored the extent to which surveyed classrooms were wired with working electricity. The data shows similar trends for both treatment and control

groups. More specifically, both populations identified 4 schools that were wired with working electricity representing 5% of the total schools. Further, 95% of schools do not currently have electricity within the classroom. The similarities in the number and percentage suggest that there are no substantial differences in the critical infrastructure necessary to foster ICTs within the classroom, and the designation as a LEAP school does not appear to influence the availability of this resource.

To determine whether a difference existed in the availability of electricity in classrooms between LEAP and non-LEAP schools, the study leveraged a Fisher's Exact Test analysis. The statistical approach was determined to be the optimal approach as all variables related to this analysis are categorical. In addition, all assumptions necessary for chi-square were not addressed, and it was determined that the Fisher's Exact Test was more appropriate due to the data having some cell sizes smaller than five. For this research question, the study investigated whether a statistically significant relationship existed between whether a classroom had electricity and the type of school, LEAP or non-LEAP. The analysis revealed no statistical relationship between electricity in the classroom and type of school; p > .05. The effect size for this finding, Cramer's V, was small (.011). Table 12 examines the extent to which classrooms have electricity.

Table 12

Electricity Wired and Working in the Classroom

_	Electricity Wired and Working in the Classroom							
	Non-LEAP		LEAP		Total			
No	66	47%	73	53%	139	95%		
Yes	4	50%	4	50%	8	5%		
Total	70	48%	77	52%	147	100%		

p > .05, Cramer's V = .011

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Similar to the findings for electricity within the classroom, 80% of students do not have access to electricity within their home. This finding is particularly insightful as it provides much needed context into the infrastructure conditions and needs in order to effectively integrate ICTs into learning spaces. Although this resource is critical and widely used within certain populations, the limitations in electricity make the integration of ICTs into the classroom and corresponding support at home a key challenge facing Liberia. This finding supports the existing literature related to ICTs in countries such as Liberia and adds new context regarding how the lack of ICTs potentially impacts learning within the primary education landscape.

In an effort to investigate whether a difference existed in the availability of electricity at the student's home by LEAP and non-LEAP schools, the study leveraged a Pearson chi-square. The statistical approach was determined to be the optimal approach as all variables related to this analysis are categorical. In addition, all assumptions necessary for chi-square were assessed and it was determined that the data met these assumptions. The analysis revealed no statistical relationship between electricity at home and type of school; $\chi 2(1) = .18$ and p > .05. The effect size for this finding, Cramer's V, was small (.007). The findings are important as it highlights that students within Liberia remain on the periphery of access to ICTs both in school and at home. The findings are also important as it illustrates the complex and often confounding challenges facing primary education systems such as Liberia. While LEAP was implemented to address many of these challenges, the data suggests limited progress in ICT infrastructure. This finding is important contextually as some LEAP providers prioritize the integration of ICTs into the learning landscape such as Bridge International Academies, while others leveraged no technology, potentially creating a further tiered learning system between those using technology, even on a small scale, and those who do not (See Table 13).

Table 13

Electricity Within Student's Home

	Electricity Within Student's Home							
	Non-LEAP		LEAP		Total			
No	1392	49%	1423	51%	2815	80%		
Yes	337	49%	357	51%	694	20%		
Total	1729	49%	1780	51%``	3509	100%		

 $\chi 2(1) = .18, p > .05$, Cramer's V = .007

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse*. (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Access to ICTs. Access to information and communications technology continues to be a barrier for emerging economies. Considerable research has explored the potential of mobile phones to bridge this gap and the extent to which individuals within the global south have access to this resource. Principals and teachers were surveyed regarding their ownership of mobile phones. The data shows a similar trend for both non-LEAP and LEAP schools. Specifically, the data somewhat promising in that 95% of those surveyed indicated that they have access to a mobile phone. It is important to note that the ownership of a mobile phone by teachers and principals cannot be linked to potential usage to foster learning in the classroom. However, the findings are encouraging in that it indicates the potential of greater penetration of mobile phones into geographic spaces that have struggled to acquire this important technology.

The research examined whether a difference existed in access to mobile phones by LEAP and non-LEAP schools through a Fisher's Exact statistical test. The statistical approach was determined to be the optimal approach as all variables related to this analysis are categorical. In addition, all assumptions necessary for Fisher's Exact test were assessed and it was determined that the data met these assumptions. The analysis revealed no statistical relationship between principal and teacher access to mobile phones by school type; p > .05. The effect size for this finding, Cramer's V, was small (.001). Although access to mobile phones continues to improve in Liberia, it appears that education policy such as LEAP has yet to reach a level to influence access to this critical resource. It is also important to note that providers such as Bridge International Academies leverage tablets as a core part of teaching. However, the current research was unable to identify any variables related to this practice. As such, access to ICTs may indeed be improving, but no data has been identified to comprehensively quantify to what extent this is occurring. Table 14 provides a detailed summary of the results related to mobile phone access by teachers or principals.

Table 14

_	Mobile Phone Ownership by Teachers of Principals							
	Non-LEAP		L	EAP	Total			
No	5	50%	5	50%	10	5%		
Yes	87	50%	88	50%	175	95%		
Total	92	50%	93	50%	185	100%		

Mobile Phone Ownership by Teachers or Principals

p > .05, Cramer's V = .001

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

The limited access to electricity underscores the important role that phones can play in bridging some of the digital divide occurring in Liberia. The findings related to students having someone in the household with a phone align with the current literature in many ways, suggesting that although mobile phones are becoming more prevalent in emerging economies, it has yet to reach a level of penetration that can holistically address the digital divide. More specifically, a greater percentage of students (85%) reported not having anyone in the household with access to a mobile phone. The percentage of students reporting not having anyone in the household with a phone was 52% in LEAP and 48% in non-LEAP. While this data finding is particularly interesting, it should be noted that the total number of responses is considerably smaller for this question (n=479) as compared to the other questions that yielded responses from more than 3500 students.

The current study also seeks to examine whether a difference exists in access to a mobile phone within student's households and the type of school, LEAP or non-LEAP. The study utilized a Pearson chi-square as the preferred research approach considering the research question and type of data available. In addition, all assumptions necessary for chi-square were assessed and it was determined that the data met these assumptions. The analysis revealed no statistical relationship between access to a mobile phone at home and type of school; $\chi 2(1) = 3.56$ and p > .05. The effect size for this finding, Cramer's *V*, was small (.086). The findings related to electricity and infrastructure can possibly be explained by the original framework of LEAP, which included a part of the memorandum of understanding the premise that LEAP would assume existing government schools. Table 15 summarizes the extent to which primary education students have access to a phone within their home.

Table 15

Does Anyone in Your Home Have a Phone?

_	Does Anyone in Your Home Have a Phone?						
	Non-LEAP		LEAP		Total		
No	194	48%	213	52%	407	85%	
Yes	43	60%	29	40%	72	15%	
Total	237	49%	242	51%	479	100%	

DI 0

 $\chi 2(1) = 3.56, p > .05$, Cramer's V = .086

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, Harvard Dataverse. (https://doi.org/10.7910/DVN/50PIYU). Copyright 2022 by The President & Fellows of Harvard College.

Table 16 provides a summary of the extent to which primary education students have access to a television at home. The findings related to access to television indicate that approximately 82% do not have access to this ICT resource in the home. The differences between LEAP and non-LEAP are comparable at 51% and 49% respectively. Although televisions represent a possible avenue in which education curriculum can be further cultivated and delivered, this resource has yet to reach an access level to which it can be a viable addition to the ICT resources within Liberia. The findings related to television access also support existing literature that highlights gains in mobile phone use, but there are continued limitations in other areas such as television access. This finding also suggests that opportunities to "leapfrog" progress in ICT infrastructure and access may warrant additional considerations with mobile phones representing an essential component of this potential process.

In order to better understand the availability of ICTs, the research identified access to televisions as another proxy measure. More specifically, the research seeks to explore whether a difference exists in access to a television within student's households and the type of school, LEAP or non-LEAP. The study utilized a Pearson chi-square as the preferred research approach considering the research question and type of data available. In addition, all assumptions necessary for chi-square were assessed and it was determined that the data met these assumptions. The analysis revealed no statistical relationship between television at home and type of school; $\chi 2(1) = 1.41$ and p > .05. The effect size for this finding, Cramer's *V*, was small (.020). The findings related to television access are explained holistically by the literature related to ICT infrastructure, the documented infrastructure challenges within Liberia, and the findings from this research will highlight limited electricity access within the classroom and home.

Table 16

Do You Have a Television at Home?

_	lome?					
	Non-LEAP		LEAP		Total	
No	1410	49%	1478	51%	2888	82%
Yes	320	51%	302	49%	622	18%
Total	1730	49%	1780	51%	3510	100%

Do You Have a Television at Home?

 $\chi 2(1) = 1.41, p > .05$, Cramer's V = .020

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

The limited access to ICTs in Liberia creates unique challenges in measuring the extent to which this resource is available. As such, an important component of the current study is to provide additional research-based information regarding the extent to which primary education students have access to ICTs. One of the more prevalent ICTs referenced within the literature with higher levels of penetration are radios. In alignment with this body of research, the current study identified a variable in which students were asked if they listen to the radio at home. The data findings are comparable regardless of LEAP school designation. More specifically, the data suggests that approximately 62% of students listen to a radio at home as compared to about 38% of students that do not.

Access to ICTs represents an important component of the current research. As such, the study investigates whether a statistically significant difference exists in access to a radio within the students' home and the type of school, LEAP or non-LEAP. The study utilized a Pearson chi-square as the preferred research approach considering the research question and type of data available. In addition, all assumptions necessary for chi-square were assessed and it was determined that the data met these assumptions. The analysis revealed no statistical relationship between access to radios at home by students and type of school; $\chi^2(1) = .69$ and p > .05. The effect size for this finding, Cramer's *V*, was small (.014). Although the findings related to radio access do not show a statistically significant difference by type of school, the descriptive findings are promising (see Table 17). The findings suggest that radio remains the most accessible type of ICTs available within Liberia. As such, strategies that leverage radio, such as those occurring during the COVID-19 pandemic, may still represent the optimal option to deliver education through an ICT platform.

Do You Listen to a Radio at Home?

_	Do You Listen to a Radio at Home?								
	Non-I]	Fotal						
No	676	50%	672	50%	1348	38%			
Yes	1052	49%	1108	51%	2160	62%			
Total	1728	49%	1780	51%	3508	100%			

Do You Listen to a Radio at Home?

 $\chi 2(1) = .69, p > .05$, Cramer's V = .014

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse.* (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Classroom ICT Use. Hohlfeld et al. (2008) established a theoretical framework for conceptualizing the digital divide (see Figure 1). Within this framework, Hohlfeld et al. asserted that three levels exist: (a) access to infrastructure, (b) use by students and teachers, and (c) empowerment of students. In addition to the three levels of the digital divide, Hohlfeld et al. posited that in order to move to higher levels, the level prior must be effectively addressed. Within a global south context, this suggests that issues of infrastructure must be addressed before any meaningful dialogues related to use and empowerment can be meaningfully discussed. Recognizing the limitations in infrastructure

and access, it is therefore not surprising that the current research has identified only one variable regarding the use of ICTs within the classroom.

Figure 1

Levels of Digital Divide in Schools

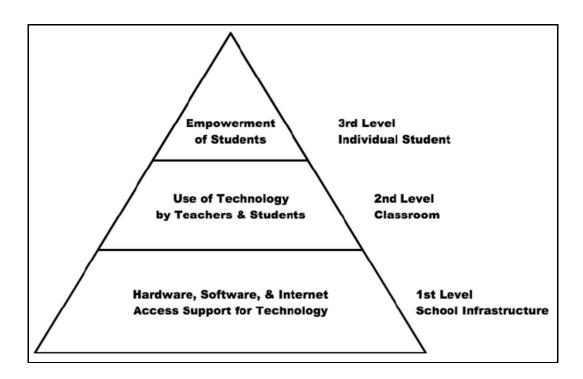


Table 18 provides data on the extent to which ICTs were used during instruction. More specifically, the question assesses the extent to which ICTs were used to support learning functions such as reading, instruction, discussions, practice drills, and class assignments. For both LEAP and non-LEAP schools, the largest percentage indicated that ICTs are not being used as part of instruction in any capacity. This supports the current literature regarding the limited ICT use occurring in the classrooms of emerging economies and provides specific information about the use of ICTs to facilitate learning in Liberia. Despite the high percentage of ICTs not being used, it should be noted that LEAP schools reported some level of ICT use. This is a very promising statistic as it suggests that policies such as LEAP have made some incremental strides in changing the existing ICT landscape within primary education.

Table 18

% ICTs Used During Instruction									
Non-LEAP LEAP Total									
% ICTs Used in Classroom	N	% of Total	Ν	% of Total	Ν	% of Overall Total			
0%	70	50%	70	50%	140	93%			
10%	0	0%	3	100%	3	2%			
20%	0	0%	4	100%	4	3%			
30%	0	0%	1	100%	1	>1%			
40%	0	0%	1	100%	1	>1%			
50%	0	0%	1	100%	1	>1%			
Total	70	47%	80	53%	150	100%			

Percentage of ICTs Used During Instruction

Note. Adapted from "Partnership Schools for Liberia," by R. Mauricio, S. Justin, and S. Wayne, 2018, *Harvard Dataverse*. (<u>https://doi.org/10.7910/DVN/5OPIYU</u>). Copyright 2022 by The President & Fellows of Harvard College.

Primary Education Quality

Inferential statistics can provide a useful framework for the examination of student performance data. Combined with the previous analysis, the objective is to provide a comprehensive analysis of the data to better understand the performance of primary school students in critical areas of learning. This analysis serves as a platform to answer important questions regarding whether differences exist, and the extent of those differences, as it relates to literacy and numeracy performance in LEAP and non-LEAP schools. More specifically, as part of the LEAP three-year pilot assessment, students were asked to complete an examination which included questions, grouped by theme, related to both literacy and numeracy (Appendix A). The present research identifies core themes related to literacy and numeracy and conducted independent sample t-tests to determine whether a statistically significant difference existed. The objective of analyzing the data this way was to identify specific areas within literacy and numeracy. Much of the current literature discusses literacy and numeracy within a broad scope and fails to provide context regarding these two concepts. The present research attempts to identify specific areas within literacy and numeracy that potentially differ between the two school types.

The current research also explores the extent to which LEAP has influenced key indicators associated with education quality. The present study moves beyond metrics of enrollment to examine the extent to which positive learning outcomes are occurring within the primary education system in Liberia. The findings related to education quality are particularly important as this data bridges a key gap in the current information available regarding education quality in Liberia. Literacy. A core component of the current research seeks to determine the extent to which LEAP influenced education quality in literacy. To address this research question, the study identified several variables related to literacy, which were asked participating students in LEAP and non-LEAP schools. For the purposes of this research, the variables are used as a proxy for literacy. For each variable, a series of questions were asked related to the theme. The research combined these questions to calculate the correct number per participating student. The correct percentage represented a score per student, which was used to calculate the independent sample t-tests. Table 19 provides a list of the variables, description, and number of questions.

Table 19

Variable	Description	# Questions
Object ID	Students were asked to identify 6 items based on a presented picture.	6
Day sequence	Students were asked to identify the correct day of the week based on the prompt	2
Preposition	Based on the provided picture, students were asked to complete the sentence by filling in the blank with the appropriate word using either "in" or "on".	3
Reading level I and II comprehension	Students were asked to read a story and asked questions related to the story	4 (10)*
Listening comprehension	Students were asked to listen to a story on a tablet and answer questions related to the story.	5

Summary of Literacy Variables

Note. * Number in parenthesis represents the total number of questions identified in the data code book, but differs from what was available in the dataset.

Students were asked to identify six objects (chicken, rat, table, shirt, table, and cow). The identification of visual objects represents a foundational cornerstone of literacy by expanding vocabulary and serving as a critical building block for reading. An independent sample t-test was conducted to compare object identification scores for LEAP and non-LEAP students. When examining these scores between LEAP (M = 5.18, sd = 1.28) and non-LEAP (M = 5.20, sd = 1.24), there was no statistically significant difference ($t_{3620} = -0.55$, p > .05) (see Table 20). The analysis suggests that although non-LEAP schools performed slightly higher on the identification of objects, this difference is not statistically significant. Although not statistically significant, this finding is particularly interesting as it showcases a literacy metric in which non-LEAP schools outperformed peer institutions with enhanced resources and learning strategies provided by external providers. The finding also showcases an area of literacy where students overall, regardless of school type, performed well.

Table 20

	LE	AP	Non-l	LEAP				
	М	SD	М	SD	df	t	р	Cohen's d
Object ID	5.18	1.28	5.20	1.24	3620	548	.55	018

Identification of Objects

As part of the literacy component of the research, students were also asked questions related to day sequences. More specifically, students were asked two questions designed to determine the extent to which students could identify days of the week based on the following two prompts: "If today is Tuesday, yesterday was ..." and "If today is Saturday, tomorrow will be ..." In order to examine whether a relationship existed between LEAP and non-LEAP schools and students' ability to correctly identify questions related to day sequences, an independent sample t-test was conducted. When examining these scores between LEAP (M = 1.47, sd = .67) and non-LEAP (M = 1.41, sd = .70), there was a statistically significant difference ($t_{3620} = 2.60$, p < .05) (see Table 21). The analysis suggests that LEAP schools performed higher than non-LEAP schools and this result is statistically significant.

Table 21

Day	Sequence
-----	----------

	LE	LEAP Non-LEAP						
	М	SD	М	SD	df	t	р	Cohen's d
Day Sequence	1.47	.67	1.41	.70	3620	2.60	.009	.086

The present study also identified a variable related to prepositions. Students were asked three questions using the following prompt: "On this page, there are a number of images and sentences with blanks. Based on each picture, I want you to complete the sentence by filling in the blank with the appropriate word using either "in" or "on." More specifically, students were asked the following questions: "The cat is _____ the chair", "The 173

dog is _____ the box", and "The goat is _____the pen." An independent sample t-test was performed to compare the outcomes of this literacy construct between students attending LEAP and non-LEAP schools. The results of this analysis between LEAP (`M = 1.81, sd = 1.00) and non-LEAP (`M = 1.71, sd = 1.0) indicate there was a statistically significant difference ($t_{3620} = 3.02$, p < .05). The analysis suggests that the result is statistically significant and LEAP schools performed higher than non-LEAP schools (see Table 22).

Table 22

D	• , •
Pre	positions
1	00000000

	LE	AP	Non-l	LEAP				
	М	SD	М	SD	df	t	р	Cohen's d
Prepositions	1.81	1.00	1.71	1.00	3620	3.02	.003	.100

The research also identified variables related to reading comprehension. Specifically, two variables, Reading Comprehension 1 and Reading Comprehension 2 were identified and students were asked questions based on a previously read story. For the purposes of this analysis, the research has opted to combine these two literary elements due to the similar nature and construct of the variables. In total, four questions were identified for this literacy component. Using an independent sample t-test to compare reading comprehension test scores between LEAP and non-LEAP schools, the analysis attempts to better contextualize the potential differences in learning between the two types of schools. The results of this analysis between LEAP (M = 1.23, sd = 1.33) and non-LEAP

(M = 1.06, sd = 1.24) show there was a statistically significant difference ($t_{2453} = 3.21$, *p* <.05) (see Table 23). The analysis suggests that this result is statistically significant and LEAP schools performed higher than non-LEAP schools. Reading comprehension represents one of the largest differences in mean scores between LEAP and non-LEAP schools. This finding suggests potential promise in the methods adopted by LEAP schools to address critical gaps in current literacy attainment within primary schools in Liberia.

Table 23

	LEAP		Non-LEAP					
	М	SD	Μ	SD	df	t	р	Cohen's d
Reading comprehension	1.23	1.33	1.06	1.24	2453	3.21	.001	.130
I and II								

Reading Comprehension

The final literacy variable for this study relates to listening comprehension. Students were giving the following prompt:

This is a listening exercise. I'm going to have you listen to a short story. I will play the story for you on my tablet. I will do this ONLY once. After you have heard the story, I will ask you some questions. Please listen carefully and answer the questions as best you can. A total of five questions were included in the listening comprehension of the student assessment. Similar to other identified literacy metrics, an independent sample t-test was completed to determine whether and to what extent a difference in student performance existed in listening comprehension between the two types of schools. The results yielded a statistically significant difference (t_{3485} = 3.22, *p* <.05) between LEAP (M = 3.20, sd = 1.58) and non-LEAP (M = 3.02, sd = 1.64) schools (see Table 24). Greater achievements appear to be occurring in yet another component of literacy within LEAP schools.

Table 24

Listening Comprehension

	LEAP		Non-LEAP					
	М	SD	М	SD	df	t	р	Cohen's d
Listening comprehension	3.20	1.58	3.02	1.64	3485	3.22	.001	.109

Overall, the findings related to literacy show higher levels of achievement in LEAP schools as compared to non-LEAP schools. More specifically, four of the five measures assessed had higher performance rates (mean scores) for students within LEAP schools. The areas in which students performed higher than their peers were also shown to be statistically significant. This finding holds tremendous promise as countries such as Liberia have strained primary education systems combined with diminished institutional capacity to enhance the existing structure. The data suggests, at least to some degree, the provision of learning by external providers has the potential to impact learning in a positive

way. The findings also align with and support the findings of the three-year pilot which report greater learning gains in LEAP schools as compared to non-LEAP schools.

Numeracy. The current research also examines education quality through numeracy. Numeracy represents an important component of learning that is frequently discussed within research and literature. Within these narratives, challenges emerge as it relates to the ability to effectively deliver quality numeracy outcomes within emerging economies. This challenge influences a core part of the research and the subsequent focus on numeracy within Liberia. Similar to literacy, a series of questions were asked to students based on numeracy-related themes. For this research, the study uses the following variables: (a) addition, (b) subtraction, (c) multiplication, (d) division, and (e) word problems as a proxy for numeracy. The research combined these questions to calculate the number correct per participating student by theme. Table 25 provides a list of the variables, description, and number of questions.

Variable	Description	# Questions
Addition	Students were asked to complete addition problems.	5
Subtractions	Students were asked to complete subtraction problems.	5
Multiplication	Students were asked to complete a series of multiplication problems.	5
Division	Students were asked math questions related to division.	5
Word Problems	Students were asked word problems.	6*

Summary of Numeracy Variables

Note. *Word problem #6 had an a and b component to the question

Students were asked to complete five addition problems as part of the assessment. More specifically, students were asked to complete the following: 5+2, 0+3, 13+6, 7+14, and 17+9. Using an independent sample t-test to compare addition test scores between LEAP and non-LEAP schools, the analysis attempts to analyze student performance in an essential area of numeracy. The results of this analysis between LEAP (M = 3.52, sd = 1.34) and non-LEAP (M = 3.27, sd = 1.43) show there was a statistically significant difference ($t_{3318} = 5.31$, p < .05). The analysis suggests that this result is statistically significant and LEAP schools performed higher than non-LEAP schools (see Table 26).

	LE	AP	Non-l	LEAP				
	Μ	SD	М	SD	df	t	р	Cohen's d
Addition	3.52	1.34	3.27	1.43	3318	5.31	<.001	.109

Similar to addition, students were asked to complete five subtraction problems as part of the assessment. The questions included in this section of the exam were: 2-2, 3-0, 14-7, 19-8, and 11-4. Using an independent sample t-test to compare subtraction test scores between LEAP and non-LEAP schools, the analysis attempts to analyze student performance in an essential area of numeracy. The results of this analysis between LEAP (M = 2.92, sd = 1.36) and non-LEAP (M = 2.72, sd = 1.39) show there was a statistically significant difference (t3120 = 4.09, p <.05). The analysis suggests that this result is statistically significant and LEAP schools performed higher than non-LEAP schools. Additionally, when compared to the addition results, the means for both LEAP and non-LEAP groups are lower. This finding suggests that although the number of questions (five) was the same for addition and subtraction, students, regardless of school type, were less likely to answer subtraction problems correctly as compared to addition (see Table 27).

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	LE	AP	Non-LEAP					
	М	SD	М	SD	df	t	р	Cohen's d
Subtraction	2.92	1.36	2.72	1.39	3120	4.09	<.001	.146

The research also identified several numeracy questions related to multiplication. More specifically, students were asked to complete five multiplication problems as part of a more comprehensive assessment of literacy and numeracy. Students were asked the following questions: 3x3, 4x5, 8x3, 6x4, and 2x9. An independent sample t-test was completed to compare multiplication test scores between LEAP and non-LEAP schools. The results of this analysis between LEAP (M = 2.34, sd = 1.55) and non-LEAP (M = 2.20, sd = 1.46) show there was a statistically significant difference ($t_{2906} = 2.67$, p < .05) (see Table 28). The analysis suggests that this result is statistically significant and LEAP schools performed higher than non-LEAP schools. Further, as the level of difficulty in the types of mathematical problems increases, there is a decrease in the mean scores related to correct answers. This finding is important as it underscores the need to place greater attention on the foundational aspects of numeracy so that greater levels of success can be seen on these types of numeracy problems.

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	LE	LEAP Non-LEAP						
	М	SD	М	SD	df	t	р	Cohen's d
Multiplication	2.34	1.55	2.20	1.46	2906	2.67	.008	.099

The ability to accurately complete division problems is another essential component of numeracy. As part of the three-year LEAP pilot, the assessment on student learning included questions related to division. These questions included: $3\div3$, $4\div2$, $9\div3$, $8\div1$, and $12\div3$. For this research, the study identified five questions related to division that could be confirmed through the codebook and the variable view in SPSS. As such, an independent sample t-test was performed to ascertain whether a statistically significant difference existed on student performance in this area based on school type. Further, the research attempted to assess if a difference exists and to what extent the difference exists between LEAP ('M = 3.45, sd = 1.40) and non-LEAP ('M = 3.15, sd = 1.48) schools. The results indicate a statistically significant difference ($t_{1575} = 4.05$, p < .001) (see Table 29). LEAP students had higher scores within the category of division as compared to non-LEAP students. The findings also suggest that division mean scores are higher than subtraction and multiplication mean scores for both LEAP and non-LEAP schools, and only slightly lower than the mean scores for addition.

	LEAP		Non-LEAP					
	Μ	SD	М	SD	df	t	р	Cohen's d
Division	3.45	1.40	3.15	1.48	1575	4.05	<.001	.204

Students were also asked to complete word problems. There were six word problems; however, word problem number six included an "a" and "b" component. Similar to the other reported analyses, an independent sample t-test was conducted to compare mean scores in this numeracy category between LEAP and non-LEAP schools. The findings indicate a statistically significant difference between LEAP (M = 2.90, sd = 1.41) and non-LEAP (M = 2.70, sd = 1.44) schools (see Table 30). Further, word problems represent one of the areas with the lowest mean scores regardless of school type. Although the results were statistically significant, ($t_{3396} = 3.99$, *p* <.001) the content and concepts included within word problems illustrates another area of additional focus for students.

	LEAP		Non-LEAP					
	М	SD	М	SD	df	t	р	Cohen's d
Subtraction	2.90	1.41	2.70	1.44	3396	3.99	<.001	.137
Qualitative Analysis								

The qualitative results represent the second phase of the research methodology and the findings reflect the richness of information gained as part of the semi-structured interviews. The qualitative findings not only build upon the quantitative analysis reported, but also addresses critical areas not answered or fully addressed by the quantitative data. As such, the qualitative data leverages the experiences and expertise of individuals directly connected to and influenced by this education policy to illustrate more comprehensively how education reform and policy transfer occurs in Liberia. Table 31 provides a summary of the participants and interview logistics, including dates, modality, and duration.

Participant and Interview Logistics, Including Dates, Modality, and Duration

Code	Affiliation	Gender	Modality	Date	Duration
P1	LEAP Partner	Male	Zoom	09/21/2022	42:21:00
P2	External Agency	Male	Zoom	9/28/2022	42:41:00
Р3	LEAP Partner	Male	Zoom	10/07/2022	39:41:00
P4	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P5	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P6	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P7	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P8	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P9	LEAP Partner	Male	WhatsApp	10/08/2022	44:29:00
P10	Community	Male	WhatsApp	10/08/2022	44:29:00
P11	Community	Female	WhatsApp	10/09/2022	30:05:00
P12	School Staff	Female	Email	10/11/2022	n/a
P13	Community	Male	WhatsApp	10/19/2022	32:14:00
P14	LEAP Partner	Male	Zoom	10/24/2022	49:35:00
P15	LEAP Partner	Male	WhatsApp	10/26/2022	37:39:00
P16	School Staff	Male	WhatsApp	10/28/2022	26:54:00
P17	LEAP Partner	Female	Zoom	11/01/2022	42:46:00

P18	External Agency	Male	Zoom	11/05/2022	40:04:00
P19	Community	Male	Zoom	1/15/2022	48.24.00
Policy Outcomes					

(R1) To what extent is there a difference between LEAP and non-LEAP schools on a) education access, b) the availability of ICTs, and c) education quality?

One aim of the research seeks to explore the outcomes of policy transfer and education borrowing within the global south. To accomplish this objective, the research explores the education borrowing practices within Liberia and whether this policy influenced key areas of primary education with a focus on access, the availability of ICTs, and quality. Independently, each of these areas represents a foundational aspect of education garnering both research and global attention within many dimensions and contexts. Collectively, these areas serve as pillars of education systems and countries with success across these areas generally experience better academic infrastructures when compared to countries that do not. Not only do the outcomes portion of the research reflect a robust endeavor with a focus on three different outcomes, but also this section of research is unique in that both quantitative and qualitative data was leveraged to more fully address these topic areas.

Access. Access to primary education continues to represent an essential area of focus for both global north and global south countries. Within emerging economies, access to education remains a critical challenge. Multiple efforts have been developed with varied degrees of success. In some cases, these initiatives have drastically increased enrollment. However, such strategies have failed to sustain enrollment increases or reach the most marginalized populations, such as girls living in rural areas, and those from the lowest socioeconomic sectors. Three primary themes related to stakeholder involvement emerged: (a) policy expands access, (b) reduced school fees create new access opportunities, and (c) policy creates new challenges and some historical obstacles remain. Table 32 provides a summary of the core themes related to stakeholder involvement as well as the total number of participants referencing the theme and the frequency in which the theme was mentioned throughout the interviews.

Table 32

Theme	# Participants	# References
Policy expands access for certain groups	14	404
Reduced school fees create new access opportunities	16	1311
Policy creates new challenges and some historical obstacles remain	16	320

Core Themes Related to Education Access

Policy Expands Access for Certain Groups. Overall, research participants indicated that LEAP had a positive influence on access to primary education. Regardless of participant affiliation, there was a shared belief that LEAP improved access to education. The sentiment of LEAP having a positive impact on access is supported through the following quote:

So, on student access to classrooms, so you've seen in the data, so you know, a bit more about kind of what happened from school to school. Generally, this was a program to transform primary schools in lots of locations across Liberia. And so I think, like, at a fundamental level, what happened was the schools had children who were coming to them who continued to come to them.

The perception that LEAP improved access to education was also highlighted by another

participant who shared:

Across the program, a lot of kids were brought into the proper education system, and out of the pre education, and therefore getting a chance to get properly educated. Absolutely. So I think the average overall access was probably improved.

Another participant noted the critical role of LEAP in improving access to education by stating:

Access to education, I would say that's had a really positive effect. We see huge, yeah, good retention rates. So I think, over the last year, or few years, we're seeing greater and greater retention to our schools, an average of about 92%, which is a lot higher than the Liberian average, just because of that.

The findings related to LEAP and access are important. The findings demonstrate a consistent sentiment that LEAP has improved Liberia's education system, particularly within the critical area of access. With the exception of participants whose role with LEAP was related to data, most participants did not cite any data to support their assertion that LEAP has positively influenced access. Rather, the perceptions of access improvement were primarily based on the expansion of the policy over time which added more schools to LEAP. The limitations in available data related to education outcomes in Liberia are demonstrated through this finding and illustrate that in some cases, the effectiveness of a policy may be based on perceptions and not actual data.

It should also be noted that the collective qualitative perspectives of improved access conflict with the quantitative data related to access which show a decline in enrollment. Providing potential context for some of this disparity, one participant noted that in some situations there were classrooms with no assigned teacher. As such, a fundamental aim of LEAP was to ensure that all classrooms had the consistent presence of a teacher which meant the elimination of practices in which students were assigned to a class with no teacher. This is described through the following dialogue:

I think that what came out in the [enrollment] data was somewhat close to similar from the previous years. And I think there were places where it looked like there was a net decrease in students. And I think that had to do with those use cases of a school that had an extra room where there was no teacher aside. So we were broadly sort of trying to do right by this premise of keeping schools manageable, but also creating increased access, especially where there have been sort of dropouts from kids.

Despite the limited reference to data by participants to support the qualitative findings of improved access, and the conflicts with the quantitative data, several participants referenced expanded access to historically marginalized populations such as girls and those living in rural locations. Highlighting the both the efforts to reach girls and improve access for this population, one participant noted:

There was hope and a lot of work that we did to try to do a lot of outreach towards particularly older, older girls, who the data has shown have a somewhat consistent rate of leaving school once they hit something like their sixth grade. And this is true for boys as well. But I think particularly pronounced for girls. So a lot of efforts that we made around trying to make sure that girls were able to stay in school.

Providing additional support for the role that LEAP played in potentially expanded access

for girls, another participant suggested:

So in terms of making education accessible for girls, I think one of the things that they're able to do is child protection and safeguarding. They do a lot of training to make sure that teachers are aware of this zero tolerance about any form of abuse concerning children and ensuring that no form of sexual exploitation occur in their schools.

An additional example of the opportunities created for girls is shared through the statement:

We just started good. The policy of LEAP encourages, you know, equal rights to education and you see this impact in almost all the programs schools, you see that girls have been given the opportunity both in school and non-school environment only program. So as a result, we look at statistics. You have more than 60% girls participate in as compared to boys between maybe 30 to 40%. So yes, the program really encourages girls' education.

The findings related to improved access to primary education are important as they illustrate another positive outcome of LEAP. Countries such as Liberia have historically struggled to achieve greater levels of access for girls. Although the research revealed several positive statements related to the improvement of access for this population, participants also noted the continued challenges related to girls with a consistent reference to pregnancy. Further, the research also showed that populations residing in rural areas still face challenges related to access. As such, the findings demonstrate the complexities involved in addressing these types of challenges within the global south. While policies such as LEAP have the potential to positively influence these historical challenges, the obstacles related to access are deeply entrenched into the country and require continued and targeted efforts. Further, the findings demonstrate that policies such as LEAP should be viewed as iterative in the ability to address education reform. Rather than expecting one particular policy to "fix" or "eliminate" challenges, a more appropriate assessment would be used to determine to what extent do these types of policies create positive momentum and incremental gains in the targeted direction.

Reduced School Fees Create New Access Opportunities. A substantial finding within the research release to school fees charged by schools. The literature related to barriers to primary education identify the cost of attending school as a significant obstacle, particularly for Sub-Saharan countries such as Liberia. As such, a key premise of LEAP was the elimination of fees for targeted schools. The promise of quality education at no cost to parents created tremendous interest in having children attend these schools. 189

Describing how the removal of school fees created new access opportunities, one participant observed:

Well, LEAP has been able to make education accessible by first of all, implementing this government policy of free primary education. You know, having a policy on the book and implementing are two different concepts. So before we had a government, having this policy of free primary education, quote, unquote, free, but you have people in the communities still collecting money from parents to have students attend those schools. So in most cases where parents cannot afford, a student will not be able to enroll, which was a major reason for students.

Offering additional detail regarding LEAP and school fees, another participant asserted, "And I know the main aim of the LEAP schools is to provide free and affordable and also quality education for schoolchildren in Liberia." One participant described not only the process of eliminating fees in LEAP schools, but also the positive effects this change had related to education access. More specifically, the interviewee noted:

But LEAP has been able to kind of implement this, this zero tolerance for any form of fees collection in schools. So you have students now go into schools, where they are provided a free textbook, where they are provided free access to technological devices. And what that term is, you don't have to pay money. For me, I think it's a great, it's a great impact in making education accessible.

One of the most cited and successful aspects of LEAP relates to school fees. At the onset of LEAP, the policy was created to demonstrate the potential in providing low cost quality education. Further, the costs of the education were not to be assumed by the parents. It should be noted that the quantitative findings show some schools still charging school fees, but this is at a much lower percentage when compared to non-LEAP schools. As such, it appears that a gap remains between the theory of LEAP and the actual practices occurring within some areas. Despite this challenge, the overall reduction in fees is promising. The ultimate impact of this change related to eliminating school fees is that parents, who because of the lack of resources, cannot afford private school education, are

now being provided with an opportunity offering their children private school education in the public school. This finding was a significant selling point for the government as it relates to support for LEAP. This strategy also has the potential of being sustainable regardless of who is elected as government administration due to the importance among the parents and other stakeholders.

Policy Creates New Challenges and Some Historical Obstacles Remain. Education borrowing can be a complex process with multiple facets to navigate. Interviews with participants provided insights into some of these complexities and noted in some instances new challenges related to access. For example, the onset of LEAP created tremendous interest among certain groups including parents. LEAP was marketed as Liberia's effort to improve the current education systems by enhancing quality in targeted schools. As such, a substantial number of parents wanted to enroll their children in LEAP designated schools. This heightened "buzz" related to LEAP schools created more demand that individual schools were able to support. As such, some students were unable to attend these schools. Describing this situation, one LEAP provider observed:

One of them was that there were situations where, well, we knew that it was we brought this highly publicized program to a number of different schools, particularly in Monrovia, which is very populated center, but where we were only managing a few schools, there was going to be a tremendous amount of interest from parents in the community whose kids have not historically gone to that school. So there was a challenge of like, okay, we want to create access, but if the school only has, you know, 100 spaces for children, therefore 100 spaces for children, we can't have the school have 800 children, it's just not feasible. And on top of that, that school may have been dramatically overcrowded to begin with, right?

Expanding upon the complexities of new access challenges, the participant also stated:

We were given a set of schools, and in some instances, we found that those schools were just physically a little bit bigger than other schools around them. So it's not like they have more teachers, but they have this extra room. And so there was a group of kids who sort of ended up in that room, maybe with no teacher, right? So it's like, I don't know, I'm hard pressed to call that really school, but like kids would go into a room. And so there was a sort of interesting tension about, like, how do we make sure to maintain the numbers of students that the schools can physically support, and that are creating quality outcomes in those classrooms. And still create access, but also not suddenly invite the doubling or tripling of our schools, particularly in these urban places.

Interviews with participants also reveal access challenges related to contract specification related to student-teacher ratios. According to some participants, a core component of LEAP included class size limitations of approximately 40 students. In theory, lower class sizes have been identified as instrumental in supporting quality learning within the classroom. However, Liberia has a historical challenge of oversized classrooms. As such, this new policy provision resulted in the potential displacement of some students and it is not known whether these students were able to attend another school. As such, a policy designed to positively improve access may have inadvertently created new access challenges and expanded the already existing challenges related to access

The research also noted access challenges related to physical structures. More specifically, the research identified that in some situations, the physical structures of existing classrooms were unable to accommodate expanded access for students.

We were entering situations in Liberia, where we were seeing between 80 and 100 kids in the classroom. And so there was also this challenge of like, we don't think that's viable. We were also physically looking at the space and do not think it's possible. Like there are 80 children enrolled in the school, there have never been 80 children in this class. They can't fit. This is a 20 by 20. Like there's no way that number of children could fit. So like what do these enrollments mean? Like who's actually here?

The challenges related to limited physical structures are also illustrated by a participant who asserted:

And they [Bridge] said no, we cannot implement our model in a classroom with 75 students. That wouldn't work for the students and we must go to 45 students. And the government didn't have the resources to provide additional infrastructure, or hire additional teachers to create additional structure. So some of those students had to be moved to the regular traditional schools. So then there was a concern about equity. So you are going to implement a better model, but at the cost of displacing other students. So that was a whole political crisis.

The finding related to the potential displacement of students is both interesting and important. This finding demonstrates the unintended outcomes of education borrowing. More importantly, it showcases how policy designed to reduce inequities in education access can further perpetuate these inequities in new ways.

The collective findings related to access show promise. LEAP has demonstrated a targeted effort by Liberia to improve primary education. This education borrowing policy is perceived by many stakeholders as having a positive impact on access to education overall. Further, interviews demonstrate improvements in access related for historically marginalized populations such as girls. However, despite these improvements, the interviews also underscore the deep challenges that remain. More specifically, the policy has not demonstrated substantial positive impact within rural communities. As such, the findings support a recurring theme within the research, which demonstrates how education borrowing can have positive, negative, and unintended outcomes. As such, additional work is required within education reform with a target approach towards access. More specifically, target strategies such as the removal of school fees should be identified and adopted as these types of approaches appear to demonstrate tremendous promise.

Information and Communications Technology. Information and communications technology represents a fundamental resource, impacting all sectors of society. Within education, ICTs hold tremendous promise, and countries that are able to 193

leverage this resource have enhanced education landscapes that better prepare students for the diverse requirements of successfully navigating the 21st century. As a result of the qualitative interviews, three primary themes emerged related to ICTs as part of LEAP: (a) integration of ICTs creates optimism, (b) expanded teacher access & use, and (c) infrastructure remains a key challenge. Table 33 provides a summary of the themes, the number of participants referencing each theme, and the frequency in which the theme was mentioned during the interviews.

Table 33

Core Themes Related to ICTs

Theme	# Participants	# References
Integration of ICTs creates optimism	14	185
Expanded teacher access and use	16	232
Infrastructure remains a key challenge	15	195

Integration of ICTs Creates Optimism. One of the unique aspects of LEAP was that several providers leveraged ICTs as part of the education model. This was particularly important as the country of Liberia continues to face considerable obstacles related to the integration of ICTs across all sectors, especially within education. As such, the provider's decision to leverage technology created a tremendous narrative, fueled by hope and promise regarding what the future of education in Liberia could be. Discussing the integration of ICTs as part of LEAP, a participant observed:

I would say that the digital part, the technological part of the program is what really impresses me more, and especially in the wake of the pandemic. So the LEAP

program will allow access to teaching and learning materials beyond boundaries. We know no matter what the case is, so it means that a world class pedagogy can be delivered for Monrovia can be delivered from Washington DC to the remotest village.

Another participant highlighted the enthusiasm regarding the integration of ICTs within

education and underscores the pivotal influence of education borrowing by stating:

So I think one of the things that got the ministry excited about implementing this program was that they saw how Bridge was able to use technology. Kenya, a country in which there are also infrastructural challenges that may not be quite as severe as Liberia, but certainly infrastructural challenges. And they, which was able to use technology to create better outcomes for kids, and use technology in support of monitoring and evaluating teachers, and also just creating better standardization in classrooms, a better kind of baseline that teachers could build on.

The integration of ICTs into schools created optimism not only for participants in

LEAP schools, but also created demand among non-LEAP schools to be selected as a

provider due to the potential that ICTs have in transforming education. In support of this

outcome, a participant asserted:

The thing about technology that makes sense, like technology can be upgraded to improve education Yeah, so the idea about improving learning became very important. And like many of the public schools that don't have the LEAP program, like you actually have public schools that try to have the LEAP program come to their schools because it kind of was different to what the normal traditional schools look like.

Not only were individuals excited by the prospect of introducing new technologies in the

Liberia primary education system, but participants also discussed in great detail the ways

in which this technology was used. In addition to this important context, the interviews

reveal optimism regarding how ICTs improve key operational aspects of existing systems.

Describing this in greater detail, one participant observed:

So, I think one of the important aspects is bringing this new set of technology, where all of the schools have mapped up our GIS system, where they are able to submit reports from their local area. And those reports are then analyzed. And then

it addresses particularly what happened in the school, and parish. And we can capture all of the information about schools, concrete that people can work with. So just in summary, I think LEAP was referred to kind of like, a new sense of approach to education.

The findings related to ICTs demonstrate a substantial number of positive outcomes. From a broad perspective, participants indicated a level of excitement and optimism about the integration of ICTs into historical technologically void landscapes. Further, the ways in which ICTs were used created additional positive outcomes. Primarily, analysis of interviews suggested that ICTs such as tablets and mobile phones were used as a primary mechanism to deliver curriculum. A somewhat smaller number of participants suggested that ICTs were used to improve the oversight and monitoring aspects of primary education, allowing schools to establish better quality metrics related to what is occurring within the school. The uniqueness in original providers associated with LEAP also means that these entities were not required to deliver services in a similar way. As such, some providers such as Bridge Leveraged Technology, whereas providers like Street Child did not. Building upon the theme of unintended consequences, this model of selective ICT adoption has the potential of creating new digital divides between schools that leverage ICTs and those that do not. While the integration of ICTs overall appears to be a very promising approach to Liberia's strained education system, LEAP as an education borrowing policy may be creating new challenges or exacerbating existing obstacles.

Expanded Teacher Access and Use. One of the most notable findings related to LEAP and the qualitative interviews was the access and use of ICTs. As previously stated, certain providers leveraged technology as an essential platform in the delivery of education.

As such, and by design, some teachers within Liberia's public primary education system

were afforded unique opportunities to use technology in ways previously not occurring.

Providing extensive detail regarding this access and use, one participant observed:

And the smartphone acts as basically the trend middle point, from the network to each teacher's computer, so that the teacher computers can receive the guides for that day and can discard the old ones. Every day, the teachers would receive the guides for three days in advance. So basically, if there's a network outage, they're actually good for a few days, like tomorrow's guides they already have. And so they were there basically, every day, the teachers would go near the principals and synchronize their tablets. And the teachers are also using those guides to take attendance to report students' scores on various tests that they are getting over the course of time. So, this is a pretty robust technology system that is both equipped to create games and classroom regular, allowing teachers to have these really robust training materials for how to teach students.

In alignment with the expanded access and use of ICTs for teachers, another interviewee

suggested:

I mean, for teachers it certainly did. So as I mentioned, like, definitely Omega and Bridge the kind of whole model depends on like, they have the script lessons that get uploaded to like tablets, like cheap tablets. And this lesson kind of goes, you know, like, say hi to the kids, then like, do this problem, call someone to the board to do it, and whatnot. So for some providers, it definitely improved for teachers.

This sentiment was also noted through an interview in with the participant stating:

And the emphasis on technology, which is quote unquote, at the heart of it to making sure that teachers have access to learning computers, where teachers don't have to write lesson plans that are a big part of the lesson you need to teach are embedded into a smart tablet, that kind of teaches you how to present the lesson to the students.

Not only did LEAP establish opportunities to use ICTs in new and innovative ways

within the classrooms, but also participants expressed positive sentiments regarding this

approach based on how the implementation was able to address key challenges related to

ICTs. More specifically, the process established by providers created systems that

addressed current electricity challenges as well as limited network availability. Describing this process, one participant stated:

It's focused on people may not have electricity in their homes. And so they've got to go somewhere to charge their device, it's focused on the network sometimes goes out. And it's also focused on we can't be like downloading gigabytes of material and it's not like an iPhone, it's gonna work, we got to be downloading like a very small package of materials, it's gotta be like, we gotta go back to like the internet, you and I are accustomed to back in like 1999 or something like that. Basically we use the smartphone, to ensure that we were using proprietary technology to basically shrink everything that's going out so that what's actually getting sent to the network is like a tiny little bit of material. And it's sort of no larger than a couple of text messages essentially, even though we are sending all of these materials to every school.

Another positive aspect of the enhanced use of ICTs among teachers is the process overall

created standardization in lessons. This is particularly important when considering the

different levels of quality that occur in Monrovia and rural areas. In support of this, a

participant stated:

So I think from a Liberian standpoint, I'll just throw it out there. I think there's this constant, understandable tension about like, what does education look like in the capitol where people have resources? What does it look like in the countryside where people may not have as many resources, and do schools look the same? Like, the teacher guides that were being taught in Monrovia were the same as the teacher guides being taught in the most rural parts of the county. And the textbooks are the same, right? And so we were able to create this sort of standardization where people could really be confident I'm getting like a high quality education, just like I would have the capital, but I don't live in the capital, and the ministry would know we're really doing right by the kids who are here in our neighborhood, and by the kids who are hundreds of miles away.

As conversations regarding equity in primary education continue to permeate the global development discourse, this finding is particularly noteworthy. More specifically, the findings demonstrate how LEAP addresses one important dimension of learning inequities by bridging existing gaps that often occur between urban and rural locations.

Collectively, the findings related to expanded teacher access and use of ICTs demonstrate how this important resource can be integrated into classrooms in Liberia. According to the participants, the use of technology not only represented a cornerstone of the education borrowing policy, but also a primary reason for the selection of this approach to education reform within the country. The uniqueness of this approach illustrates a way in which ICTs can be used despite major infrastructure challenges; certain providers within LEAP have seemingly identified ways to mitigate these challenges. This finding in itself is promising as it offers new insights into how countries such as Liberia can continue to gain momentum in critical areas where substantial gaps exist.

Continued Infrastructural Challenges. The final theme related to ICTs relates to infrastructural challenges. Although this finding is not particularly surprising as substantial literature exists describing the infrastructural challenges within Liberia, this research adds to the current body of knowledge by contextualizing this phenomenon within the primary education landscape. Within the theme of infrastructural challenges, participants noted many challenges. Highlighting the holistic challenges of integrating ICTs into education, one participant asserted:

But it [ICTs] hasn't really scale up because there are issues to address infrastructure issues. The issue of you know, whether Liberia is even ready to go full digital, and what could be the possibility, what are the risks? And so there are several different issues that would need to be analyzed by stakeholders, before moving forward with the full scale program.

Explaining the infrastructure challenges within the context of education, another participant stated:

But we do not have the infrastructure, for example, electricity, so many remote areas, like in every city. So if you teach us, we will want to depend on these electronic gadgets to teach. In an event where electricity is not present in that particular locale it will be, it becomes almost impossible for that teacher to be able to use the tablet, the electronic gadgets, you know, that they have to teach.

The challenges related to classroom are further highlighted by the statement:

But on the whole, the technology know how is really poor. Kids do not have, you know, the modern 21st century classroom smart boards, computers, internet in class. You don't see that kind of classroom in Liberia. Okay, so in the elite, international schools, but in normal public schools, you don't see all these modern facilities in their classrooms. Some kids do not even know what a computer is, have not even seen a laptop before, let alone to go and touch it and operate it. So this is how bad it is still backwards when it comes to technology. And a lot needs to be done about it.

The challenges related to infrastructure are highlighted through the qualitative research findings. The interviews indicate both holistic and specific areas of concern. At the core of these issues is the readiness of Liberia to integrate ICTs in general and more specifically into classroom spaces. Despite the infrastructural challenges, LEAP has demonstrated some ways in which these obstacles can be successfully navigated. Further, the findings underscore the different types of challenges that must be addressed. As such, key questions remain regarding how these types of policy can address different challenges that are interconnected.

Education Quality. Education quality is another fundamental component of education and is widely discussed with global development narratives. Within this discourse, the literature notes continued challenges within emerging economies. Further, countries such as Liberia face a series of challenges which impact the overall institutional capacity of these countries to effectively respond to these obstacles. The findings related to education quality underscore the important role that this factor plays within Liberia. More specifically, two themes were identified related to education quality: (a) positive gains in literacy and numeracy and (b) improved teacher quality. Table 34

summarizes these key themes; the number of participants mentioning each theme and the number of times each theme was referenced.

Table 34

Core Themes Related to Education Quality

Theme	# Participants	# References
Positive gains in literacy and numeracy	16	329
Improved teacher quality	16	488

Positive Gains in Literacy and Numeracy. At the core of the qualitative findings is the idea that LEAP had a positive impact on both literacy and numeracy. Throughout the interviews, multiple participants cited education quality as a foundational aspect of the policy. Throughout the research, several areas of exploration have identified the need to improve current education systems as one of the most significant, if not the most substantial, rationale for implementing LEAP. For prior research questions, the study noted that many of the responses were not quantified by specific data sources. However, questions related to literacy and numeracy frequently referred to the findings of the RCT study (LEAP 3-year pilot) as the justification for improved learning. Illustrating this idea, one participant suggested:

So, at least when I was with Bridge, we did a couple of studies. In fact, a randomized control trial was done by the Center for Global Development. So, in the RCT, the results at the time said that LEAP providers had done very well in terms of improving learning outcomes compared to comparable schools. So, and several other research works have been done also according to feedback, we've gathered from LEAP providers.

Another example of the improved learning gains that also leverage the RCT data is documented through the following:

So, some of the recent reports presented data on how learning gains are significantly improved in LEAP supported schools versus traditional public or government owned community schools. I would encourage you to read the public document, to read the RCT report on the PSL program so that you can get a better sense of what has happened so far.

Moving beyond the RCT findings, participants also discussed how important the

improvements were to Liberia as a whole. For some participants, learning improvements

were not only about what was documented through studies, but also about how successful

Liberia had been in addressing core challenges related to education. One participant noted

a time where Liberia had some of the best education systems in Africa and how these

positive systems had been dismantled through a series of challenges. Therefore, for some

individuals, LEAP represented the opportunity to begin moving towards what used to be

in terms of quality education.

The summary of the program, I think, has gone down as like, well, this was fairly effective, and there's some good stuff in there some bad stuff. And what I think that ignores, usually is these really huge gains of literacy and numeracy that kids experience in LEAP schools.

Providing greater context into the education quality, the participant noted:

All that is the lead up to answer what happened to literacy and numeracy? The answer is students learn dramatically. We saw students learning and I'm trying to remember exactly what the findings were, but it was on the order of like a half a standard deviation for the schools we were operating. What that functionally means is, it was almost as if students had been in school, for an extra half a year. This accelerates students dramatically. The only way you get to a high school level is if you start to catch up, if you're in a system where you're behind, the way we catch up is by learning more in a year than you were before. Right? We're accelerating like the very basic map, we're accelerating the rate. And so we were just getting these colossal gains across our network.

The findings related to literacy and numeracy reflect some of the most noteworthy information obtained throughout the study. Collectively, the findings showcase that participants believe that learning improvements are occurring. The extent to which these learning gains exist was difficult to determine. However, a collective sentiment regarding improved learning quality exists among all participants. Considering the challenges facing Liberia's education system, gains of any measure are promising as they reflect a key pivot in a different direction.

Improved Teacher Quality. The findings also provide insights into possible reasons why learning gains were achieved in both literacy and numeracy. At the core of these findings is a theme related to improvements in teacher quality. Supporting this idea, one participant observed:

I mean, so Liberia also had a bunch of like, these teachers that had been trained by USAID recently, like a separate project. And they were going to be placed somewhere and LEAP kind of had the first pick of those teachers. So like, that helped, because, you know, they're getting like newly trained, motivated teachers.

The focus on teacher quality is further supported by another participant who noted, "So LEAP was successful because they have been able to put an emphasis on teacher professional development." These findings showcase the important role that LEAP placed on quality teachers. The component of LEAP is yet another example of a target strategy embedded within the policy aimed at bringing improvements to the current state of primary education within the country.

Participants also provided context to the ongoing training that was provided to teachers as part of LEAP. A discussion of these professional growth opportunities revealed:

You call it like assessing teacher quality. Okay, so, we've got I mean, we do a couple of times a year, a teacher training, where we cover things such as lesson planning, basic pedagogy, and safeguarding etc. We have developed a tool that picks out key aspects of these trainings. And then our team will sit with teachers and maybe a couple of times a semester, watch every single teacher and use this tool to sort of say, assess against things like for example, icebreakers, lesson plans, etc. They mark them as poor, medium or good. And that gives us a simple way of feeding back to the teacher saying, a sort of guide to saying this is something that we can improve gives us a chance to sort of track progress over time.

Stakeholder Involvement in LEAP

(R2) What stakeholders are included in the education policy borrowing process that created LEAP?

A fundamental component of the current research seeks to explore both the origins and outcomes of education policy borrowing. Within the original component of the research, the identification of the stakeholders involved in the development, implementation, and assessment processes is a critical aspect to understanding education borrowing, particularly within emerging economies. The semi-structured interviews reveal several stakeholders connected to different aspects of LEAP. Within the qualitative research process and in alignment with research question two (R2), three primary themes emerged related to stakeholder involvement: (a) internal representation present but minimizes certain stakeholders, (b) reliance on external expertise, and (c) resistance by key stakeholders. Table 35 provides a summary of the core themes related to stakeholder involvement as well as the total number of participants referencing the theme and the frequency in which the theme was mentioned throughout the interviews.

Table 35

Theme	# Participants	# References
Internal representation present but minimizes certain stakeholder groups	16	1936
Reliance on external stakeholders	15	525
Resistance by key stakeholders	14	489

Core Themes Related to Stakeholder Involvement

Internal Representation Present But Minimizes Certain Stakeholder Groups.

Conversations with participants reveal several commonalities related to the involvement of internal stakeholders. Sixteen participants identified various internal stakeholders and this sentiment was referenced 1936 times throughout the interviews. From an internal perspective, the most cited internal stakeholder (369 references) was the Ministry of Education (MOE), with 16 of the participants identifying this entity as a key stakeholder. While some participants referred to this entity as the "government," additional dialogues and requests for further clarification revealed that this reference was specifically targeted towards the MOE. In addition to the MOE, several participants referenced former Liberian President Madam Ellen Johnson Sirleaf (seven participants) and MOE leader George Werner (three participants) as instrumental stakeholders supporting the adoption of LEAP. This is not particularly surprising as both individuals were in leadership roles during the onset of LEAP. The identification of internal stakeholders is illustrated by one participant who stated, "There have been many organizations or institutions that have worked towards what LEAP is today, including the government of Liberia." Additional information supporting the Liberian government's role in the development of LEAP is

demonstrated by another participant who suggested, "So the whole conversation around LEAP was really before 2016. It was given birth to in 2016, but before 2016 there were already different conversations, starting with the former President Ellen Johnson Sirleaf and former Education Minister, George Werner." Another example highlighting the role of the Liberian government, and more specifically the MOE, in the establishment of LEAP is demonstrated by a provider who observed, "There have been many organizations or institutions that have worked towards what LEAP is today, including the government of Liberia. So from the side of the government of Liberia, we have the Ministry of Education headed by the minister."

Although LEAP is a public private partnership, the statements by participants indicate an understanding and awareness of the government's participation in the process. Further, the references to key internal agencies such as the MOE and Liberian leaders demonstrates, at least to some degree, the involvement of local stakeholders in the policy development and implementation process. Underscoring the critical role of the Ministry of Education in bringing LEAP to Liberia, another participant noted, "Okay, so my take on this question is we experienced learning gaps in the private and public schools. So in order to fill in those gaps, that was how the Ministry invited partners to help in that direction."

The frequency in which internal stakeholders were referenced is noteworthy as is the consistency of the MOE and education leaders such as Ellen Johnson Sirleaf and George Werner. However, the research noted that other internal stakeholders connected to or impacted by education such as community leaders, parents, children, and teachers were not identified as often by participants. One interview which referenced additional internal stakeholders suggested:

And I think the key stakeholders that I have a little more trouble identifying, but are clearly there in the background are the parents and children of the Liberian public school system. And I think that the important stakeholder in the background that was present throughout everything we did was parents who knew that schools could be better, and children who needed school to be better in a country that I think when I first arrived, reported that not a single student had passed the secondary school exam.

Although not as frequently cited, this participant's quote highlights the important and fundamental role that parents and children play in education policy initiatives such as LEAP. It also showcases that potential opportunities exist to expand the participation of these types of stakeholders so that the target populations of education policy serve in more pronounced roles within all phases of policy transfer and education borrowing processes. It should be noted that this finding does not imply that parents and children were not considered or consulted during the various phases of LEAP. Rather, this group was not referenced as extensively throughout the interviews as a prominent stakeholder. As such, key questions remain regarding the extent to which parents and children were involved in the establishment of LEAP.

The limited reference of parents and students as part of the semi-structured interviews suggests a potential gap in the development of LEAP in which individuals and organizations in the education policy impacted were not included in the process at a level where those interviewed as part of the research identified these groups as key stakeholders. The limited reference to important internal stakeholders was also illustrated with teachers. One of the few participants who noted teachers as a stakeholder stated: So part of the goal of the program was to work through the people and the systems of controls that currently exist. So a critical stakeholder here is also the teachers and the kind of ministry hierarchy that existed, which was not supplanted by but rather was accentuated by the work that the providers were doing.

Another participant noted the critical role of teachers as well as the potential negative implications of excluding key groups by saying:

So the key stakeholders starting with the President, the Education Minister then. Okay, a key stakeholder at a time was the National Teacher Union. But it is my understanding is that from the onset, there was not adequate consultation with the National Teacher Union. So that brought some level of disagreement, I will say.

Ultimately, the comments by the participants indicate the inclusion of some internal stakeholders as part of the LEAP process. This finding is important as it demonstrates a level of ownership in education borrowing by Global South stakeholders. However, the interviews also demonstrate that certain groups such as parents, children, and teachers may not have been provided adequate consultation. This omission is confirmed through the research by the limited references of these groups as stakeholders, as well as specific interviews that note the exclusion of certain entities. The findings of this research align with current literature within the global south highlighting the practice of excluding or minimizing participation by local stakeholders as it relates to key processes within global development. Further, the limited reference of key internal stakeholders provides a vivid illustration of how miss opportunities for inclusive development occur within the primary education sector. Collectively, this finding demonstrates potential uneven levels of participation and the negative impacts of excluding key stakeholders, which raises essential questions regarding how these factors may influence the overall success of LEAP.

Reliance on External Stakeholders. At the core of LEAP is the public private partnership, which by design includes external entities. Therefore, the participation of

external partners is assumed as part of the process. Sixteen participants referenced external stakeholders as part of the process with the most common reference being the LEAP education partners. Illustrating the role of external partners in general, one participant stated, "So from the side of the government of Liberia, we have the Ministry of Education headed by the minister. And then we have several partners including Bridge." Another provider provided additional contextual support related to LEAP providers as an external stakeholder by stating, "Other than the government, non-governmental organizations (NGOs) were a key part of LEAP." The identification of LEAP providers as an important external stakeholder was further highlighted by the statement:

So like, I guess in the implementation, it was obviously all the providers, which there's eight of them: More Than Me, Rising Academies, Omega Schools, Bridge International Academies, BRAC, Stella Maris, the Youth Movement for Collective Action (YMCA), which is not related to the YMCA in the US, and Street Child.

Collectively, the interviews indicate a consistent trend related to the identification of LEAP providers as a key external stakeholder within the education borrowing process for Liberia. However, one provider, Bridge International Academies, represented the most referenced LEAP provider. Twelve participants identified Bridge International Academies and this organization was referenced 74 times throughout the interviews. A contextual exploration of the frequency in which Bridge is referenced in comparison to other providers aligns with existing research regarding LEAP. More specifically, existing research and the current study confirm a more prevalent role for Bridge as a LEAP provider, which can be attributed to the original plan for the education borrowing policy which was designed as a sole-source model inclusive of only Bridge. This is explained by one participant who stated: There were a bunch of conversations. Bridge had some really powerful donors. Powerful in terms of like influence, but also like just sheer amount of money. And eventually, this led to him signing an MOU that is somewhere online where essentially was going to be in the long term, every public school in Liberia to be run by Bridge International Academies. When this became public, you know, everyone kind of like, you know, kind of like was like, Whoa, what's going on here?

The concern regarding a single provider prompted a key pivot in the process which expanded the opportunities to additional providers. Describing this process, another interview participant noted:

After that event [announcement of Bridge as only provider], they invited partners be it from the west, be it from the east, from whatever part of the world to come and help in a process, and then they did some applications. And those applications were evaluated. And there was a committee set up under the Ministry of Education to assess all the applications and see which partner best fit to implement. So in that process, partners were selected and given trial schools.

In addition, interviews with certain participants revealed the involvement of external stakeholders beyond the management and daily oversight of schools that were supported by LEAP providers. More specifically, participants identified Social Finance, Ark Schools, a UK education charity organization and Center for Global Development as additional external stakeholders of LEAP. In addition to helping to establish the blueprint for the creation of LEAP, external stakeholders were also identified to manage core aspects of the education borrowing policy, and assess the three-year pilot. While this approach has the perspective of incorporating stakeholders with diverse skill sets and expertise, it also illustrates the prevalent role that external stakeholders play within LEAP.

One participant provided meaningful context related to the external involvement of certain groups by noting that some stakeholders were included in the process as a way to navigate challenges that occurred as part of the original proposal. For example, the original framework for LEAP included only one provider, Bridge International. The single-provider

approach caused considerable pushback from various constituents who perceived this model as monopolistic and not in the best interest of the primary education sector. Describing this situation, the participant observed:

So that's when at the time Ark which is a UK Foundation and the Center for Global Development became involved. And then they said, if you are going to do this you certainly don't want to make it a monopoly.

This illustrates a fundamental role external stakeholder contributed to the process which extends beyond providing particular services or skills, but rather a consultation role. This consultation role is important as it highlights the potential that external agencies have to influence at a minimum and decide at maximum essential aspects of education policy. The level of influence by external agencies combined with the seemingly limited participation of internal stakeholders raises fundamental questions regarding the extent to which Liberia has the institutional capacity to act as the primary driver of substantial change within the education sector.

Describing the different skill sets and expertise contributed by external partners,

another participant noted:

There was Ark, which was kind of like managing a pool of money. Also, the partners were in charge of selecting the providers, and kind of making sure that they did what the contract said that they were supposed to do. At some point, the Ministry of Education and some of the funders kind of got annoyed with Ark for multiple reasons, and then that was replaced by Social Finance. So Social Finance was also in charge of implementation.

Providing additional context regarding the presence and role of external stakeholders,

another participant stated:

They were the big donors. A lot of money came from ESRC. And some of it came from Ark, and IPA, which was kind of like the organization running the RCT on the ground. Then the World Bank and UNICEF which were kind of like these big

international organizations that always wanted to know information about what's going on, but they were never formal or anything. Then there was also the research who got funded to evaluate the RCT.

Throughout global development, international organizations continue to play a pivotal role in development efforts. These entities have been instrumental in defining agendas, determining strategies, and allocating resources across many sectors including education. Additional examples of the continued presence of international stakeholders is noted by one participant who said:

We have a local education group. These are key donors, major stakeholders in the education sector here, especially when it comes to making high level policy decisions in the sector. So in the local education group, you will see the World Bank, UNICEF, USAID, UNESCO, and the European Union.

Statements by various interview participants confirm a strong presence of external stakeholders. The findings from this research not only identify what stakeholders were involved in the education borrowing process for LEAP, but the different roles that were attributed to these different entities. As a result, greater insights have been provided into how countries such as Liberia leverage external agencies to navigate complex education policies. The findings also showcase potential areas in which greater levels of internal skills and expertise can be cultivated to reduce the reliance on external agencies. The references related to external stakeholders affirm the continued prevalence of these global stakeholders within different sectors including the primary education landscape. Due to Liberia's challenges in education, the presence of many external stakeholders showcases the current conditions of the country, which relies heavily on the financial and human resources to address key capacity limitations within the country. Ultimately, the semi-structured interviews support the existing global development frameworks, which show a

substantial external presence in education initiatives, particularly within the policy development sphere of emerging economies.

Resistance by Stakeholders. A key theme that emerged from the interviews related to stakeholders involved in the education borrowing process of Liberia was resistance. Examining this theme is important as it highlights another dimension and dynamic of stakeholder involvement in education policy transfer. Further, a discussion of resistance by stakeholders identifies critical challenges to implementing education borrowing and potential opportunities to improve such processes for both Liberia and other emerging economies. One of the most cited stakeholders that resisted LEAP was the National Teachers Union. More specifically, this stakeholder was referenced by 14 participants and cited approximately 489 times within the collective interviews. Supporting the theme of resistance, a provider revealed that "they [teachers] were very much against the whole thing. I mean, the randomized control trial (RCT), everything. They are just very much against it. So there was a lot of pushback from kinda like the teacher unions in Liberia."

Further exploration of the resistance by the National Teachers Union revealed a myriad of reasons. First, several interviews highlighted that the resistance to LEAP was grounded in the idea that it was the government's responsibility to educate its citizens and outsourcing this fundamental role represented a fundamental failure of the government's responsibilities. This is supported by a participant who noted:

At the time I joined, I did not realize already that there was already a very huge pushback from the public school teachers. They rejected what they called the abdication of the government's responsibility to educate its own people and handing that over to for-profit company, Bridge International Academies. Additional reasons cited for this conflict were grounded in the fact that LEAP organizations would provide greater levels of management and oversight at the schools, which would place greater levels of accountability on teachers to be present at schools and deliver on expected education outcomes. Providing greater clarity to this rationale for teacher resistance, a participant explained:

Now, the district education officer, they are in theory supposed to oversee the delivery of education to schools in the districts, but they do not have the logistical resources to do this because of low salary or the lack of oversight by the government. So these teachers or even principals, they accept teaching positions in private schools. So they double dip, you know why they are on government payroll, because the government lacks in oversight. So bringing in these private providers to whom these teachers were going to be accountable was a means to deal with the accountability and oversight issue.

Another set of challenges related to this resistance included teacher pay and

compensation. More specifically, LEAP expanded the hours of teaching without additional

compensation to the teachers. Describing these conditions, one participant noted:

Another role of the government is to provide the salaries to teachers to be able to work adequately. And then the time for teacher was extended from the one o'clock or twelve o'clock to three thirty. So the government wasn't able to live up to that promise up to that standard. Another thing was the teachers too, because they weren't being paid adequately they resisted many of the class going to 3:30.

Further, LEAP providers such as Bridge Leveraged Technology to deliver curriculum.

Within the Bridge model, scripted lessons were loaded to electronic tablets. As such, many

teachers resisted this practice for two key reasons: (a) the process removed the autonomy

of teachers to educate based on individual experiences and expertise and (b) the model

created the potential to leverage individuals beyond teachers to instruct classrooms. This

resistance is supported by the comments of one participant who stated:

Bridge also uses a lot of like these script lessons. A lot of the pushback had to do with Bridge being 100% honest. So Bridge also had like this group lessons, which

Omega and Rising have to some degree as well. And a lot of teacher unions think this is the worst because it like removes, you know, freedom from the teacher to do stuff and whatnot.

This was also supported by another participant who observed:

And one of their [Bridge] key bits of disruption was, you don't have to have an educated individual in front of the class, you can support them with technology. And therefore, you do not need to have educated teachers, which from a teaching union point of view is a relatively threatening conceptual framework.

Stakeholder resistance to LEAP also included resistance to LEAP providers. Several participants highlighted that key entities resisted some or all LEAP providers, with Bridge being the most referenced entity. Showcasing and contextualizing this resistance, one participant observed, "In the launch, Bridge itself has received or maybe still continues to receive a very stiff pushback around the world." Building upon this narrative, another participant stated:

My impression is that a lot of these organizations hate Bridge in other countries for multiple reasons that, you know, I don't know, they're, you know, they're probably right. So when Bridge came here, they decided, it's like a red flag, you know, like, you're inviting these organizations, but it's like, violating, you know, kind of like, labor laws in Kenya and just doesn't make sense, what is going to happen to our teachers?

More recently, resistance has been targeted towards Bridge, recently renamed New

Globe, as controversy has emerged alleging that the organization has frauded the Liberian

government out of millions of dollars. Describing this situation, a participant stated:

The bad labor practices and defrauding the government must stop. What is happening is not in the best interest of our children who still must learn in poor conditions without desks or textbooks. Bridge must also stop paying staff poorly while requiring us to do work that is more than was in the contract. It has to stop.

Another source of resistance relates to financial fees embedded within some

primary schools. More specifically, participants noted that some of the fees collected by

schools are not allocated to the government revenue. The onset of LEAP directly impacted the collection of fees as a core component of the policy included the elimination of most school fees. A participant described this challenge by observing:

Usually fees are being paid, in Liberia's time past, doesn't end up going to the government revenue, it doesn't go into the revenue. Some of them are used outside of the revenue. So people who are profiting are of course opposed to the LEAP program. Yes. They opposed to the LEAP program.

The findings related to school fees is noteworthy as it highlights another complexity within education policy. More specifically, the research highlights how school fees are used within Liberia, as well as how new policy can disrupt historical and deeply entrenched practices that do not support the betterment of education systems, but serve as informal financial resources for personal gain.

Regardless of the rationale, much of the resistance can be traced back to financial reasons. This is illustrated by limited financial resources of the government to provide effective monitoring. It is also supported by the low teacher salaries, which encourages, in some cases, seeking additional job opportunities while remaining on the government payroll. Financially embedded resistance is also illustrated through the collection of fees, which were used for purposes outside of the government payroll that were eliminated as part of the onset of LEAP. These findings are noteworthy as they identify a potential factor that must be considered when implementing such education policies. More specifically, the findings identify the multifaceted and multidimensional aspects of financial resources as well as the cascading effects that this critical resource plays in limiting the institutional capacity of Liberia within the primary education sector. It is also important to highlight that resistance to LEAP did not only occur by internal stakeholders. The qualitative

analysis and text search reveal that the term resistance and related contexts represented one of the most mentioned factors throughout all interviews with 11 participants mentioning the concept.

Factors Influencing the Selection of LEAP

(R3) What factors influence the selection of policy borrowing as a mechanism to address education reform within Liberia?

Moving beyond stakeholder involvement in the establishment of LEAP, the research also seeks to identify the factors that contribute to the establishment of this particular education policy reform. Exploring the contributing factors to LEAP is particularly important as it establishes the conditions and drivers directly connected to the implementation of LEAP. The semi-structured interviews reveal three primary themes: (a) dissatisfaction with education conditions, (b) limited government resources and financial influences, and (c) lack of government oversight and accountability. Table 36 summarizes both the number of participants who referenced each theme as well as the frequency in which the theme was referenced.

Table 36

Theme	#Participants	#References
Dissatisfaction with education conditions	16	3984
Limited government resources and external financial influences	16	239
Lack of government oversight and accountability	16	197

Core Themes Related to Factors Influencing Selection of LEAP

Dissatisfaction with Education Conditions. The challenging education conditions within Liberia represent one of the most cited themes within the research and for the creation of LEAP. Participants discussed the state of education and the corresponding challenges both holistically and specifically. From a holistic perspective, participants noted the overall state of primary education, linking the challenges stemming from the civil war, Ebola, and COVID-19 pandemic as instrumental contributing factors. General statements and references regarding the overall education system challenges in Liberia were noted by many participants with three references from different individuals included below:

- The education system here is like, in shambles in like, it's fairly dramatically we just don't have money.
- 2. In terms of quality, the public schools are the least rated.
- 3. That was the challenge that the Minister of Education sought to address. Why with all the resources that government continues to provide to public schools, why are they still underperforming.

Many of the participants moved beyond general statements regarding the education system in Liberia to provide more specific examples of the challenges currently experienced and the conditions in which LEAP aimed to address. A sub-theme within the dissatisfaction with education themes relates to poor learning outcomes. From this more specific perspective, participants noted the limitations of infrastructure and poor performance on education outcomes such as literacy and numeracy. Illustrating the growing concerns regarding primary education, one participant noted, "Oh, yeah, sure. Also, if you've really been interested in Liberian education, you will definitely understand that the problems with education is huge, a continuous presence of very poor learning outcomes, particularly in public schools."

The perspective regarding dissatisfaction of the education conditions was observed regardless of participant status. More specifically, external partners, LEAP providers, and community members demonstrated a similar understanding of the Liberian education system and highlighted similar challenges. This is supported by another participant who stated:

Yeah, so the question was, what influence, the factors that influence the LEAP program in Liberia, right? Okay, so my take on this question is we experienced learning gaps in the private and public schools. So in order to fill in those gaps, that was how the Ministry invited partners to help in that direction.

Describing the specific education challenges and providing additional context to the dissatisfaction with current education conditions, another participant observed:

The whole issue of learning outcomes, in terms of improvement, has been a challenge. So in fact, before 2016 we have very low enrollment. We have many school going children who are not in school. So the Minister and stakeholders do some very good work especially in rural communities, even in urban setting. So there was a serious campaign to get children back to school. So by 2016, we had like about 1.4 million children in school. That was a huge rise from normal 700,000 or 800,000, to 1.4 million in 2016. But the available data at the time showed that the kids were in school in their numbers, but they were not learning at all.

Not only were the education conditions cited as a rationale for LEAP, many participants suggested that the current situation within primary education represented a call to action. The sentiment of many interviews conveyed a level of universal frustration regarding the primary education system. Liberia had reached a point where not just something needed to be done, but something different from the country's current trajectory. In support of this clarion call, one participant observed: So for him [Ministry of Education Leader, George Werner], he was referring to several reports and he said that if we do not move drastically to transform learning outcomes, it's going to take up to 12 years for us to get somewhere. He was referencing a report.

This sentiment is illustrated by another participant who stated:

Obviously, Liberia has, as I'm sure you know, it has some of the lowest education outcomes. Globally. I think, around the time it started was obviously the Ebola crisis. It was maybe like a decade removed from a civil war. There was a recognition that the government's education wasn't working, and they wanted to try different approaches.

The semi-structured interviews confirmed the current education challenges within Liberia. Regardless of participant affiliation, poor education conditions represented one of the most cited conditions and most frequently referenced within the interviews. The education conditions clearly seem to be an important factor influencing and driving the decision to implement LEAP. At the core of the discussions related to education conditions was the sentiment of change. Not only was there a consistent sentiment of change, but also the interviews collectively indicated an awareness that current strategies, regardless of reason, were not working. Therefore, participants indicated that LEAP represented an opportunity to potentially change the current systemic challenges in a meaningful and innovative way.

While a substantial portion of interviews focused on the poor education conditions within Liberia's primary education system, the research noted that few individuals discussed the long term implications of poor education systems. More specifically, the research noted that no participants referenced the impact to economic mobility for the country or any of the other benefits of education such as improved quality of life. The absence of these references raise questions related to how individuals working in Liberia's primary education sector view the challenges and whether the magnitude of these challenges influence the consideration of potentially connected factors.

Limited Government Resources and Financial Influences. Interviews with participants also reveal limited government resources as a key theme influencing the decision to adopt LEAP. Describing the current resources in general and the government spending allocated to education more specifically, one participant stated:

I think it's something like 80% of the education budget is coming from donors. It is not coming from internal revenue. So like we do not have enough money. Most of the money that comes in is coming from donors, and donors have pet projects. So you know, they put money into whatever they want, and there's no cohesive plan to address how we're going to build things.

This reference is particularly important as it underscores the pivotal role that donors play within the global south. The reference also highlights how agendas for emerging economies are often dictated by those who have resources, and in many cases, these agendas are not comprehensive nor in the best interest of the recipient countries. These financial influences of donors is also supported by another participant who observed:

But I think there was also like, a little bit of like, incentives where he [former Minister of Education, George Werner] was like, if we do this [LEAP], there'll be a lot of money that is going to Liberia schools, and like, you know, that's probably good kind of thing.

Providing additional support related to the influence of donors in general and the influence

that external financial resources had on the selection of LEAP, another participant

referencing George Werner stated:

And like, this [LEAP] seems like it could work. And there's a bunch of people that are willing to put a lot of money into this, into the Liberia education system. So like, he saw it, as, you know, we need to do something revolutionary, and this is revolutionary, and maybe work because like, everything else is failing. But I think there was also like, a little bit of like, incentives where he was like, if we do this, there'll be a lot of money that is going to Liberia schools, and like, you know, that's probably a good kind of thing.

Limitations in government resources were also discussed through the lens of institutional capacity. Comments within this scope identified areas in which the government was unable to perform essential functions of managing and operating an effective primary school system. Conversations within this dialogue were particularly important as it not only illustrated critical needs by the Liberian primary education system, but also illustrated that participants held a shared belief regarding the roles and responsibilities of the government. The limitations in government resources is illustrated by one staff provider who states:

What's happened through the year is that the government is meant to be paying for all the teachers who are in government schools, but due to a lack of resourcing we've ended up paying a small stipend to some of the teachers whilst they get onto the payroll. I think this started off as sort of like a temporary gap to cover teachers for a couple of months, but has kind of over the years become sort of embedded in the system design. So we're paying for something around like maybe half of our teachers are not on the government payroll. And whilst the government has committed to sort of paying for everyone, in reality that hasn't happened.

The issue of teacher pay within LEAP schools specifically and primary education schools in general appears to be contributing to existing challenges related to the availability and quality of teachers. Liberia continues to experience a shortage of qualified teachers, especially in rural areas where infrastructure and road access challenges are more prevalent. Noting the challenges occurring as a result of teacher pay, one participant stated:

I say the government spending is limited, so as to speak, instead of increasing as you go, instead of increasing the benefit of the teachers and increasing the infrastructure, the government is still reducing the salary of the staff. So the government paid teachers is reducing drastically on a monthly basis, which is not encouraging teachers to go to the school. You will see that government is spending

less because they don't want to spend I don't know if they don't have money to spend, so honestly government spending is limited.

The challenges related to limited resources are profound for countries such as Liberia. However, the research shows that emerging economies not only have to address issues of limited resources, but also the unique conditions that are cultivated as a result of constrained financial resources. More specifically, Liberia's limited financial resources has resulted in the inability to adequately pay teachers and other core costs necessary for effective primary education systems. In some cases, these costs are being offset by LEAP providers and other external stakeholders. The dependency on external stakeholders, as the research shows, creates conditions in which countries such as Liberia may experience confounding pressures to adopt "global initiatives" that fail to fully consider the interests or needs of Liberia. While dissatisfaction with the current education systems in Liberia as well as the desire to improve these conditions, the research raises questions as to whether LEAP was selected because it was the optimal option for the country or it was this policy selected due to stakeholder pressures and the financial resources to support LEAP.

Lack of Government Oversight and Accountability. Another key theme that emerged through discussions regarding the factors that influenced the creation of leap was related to a lack of government oversight and accountability within the schools. Describing these overall education conditions before the implementation of LEAP, one participant observed, "The monitoring and evaluations in schools was poor and caused the system to be weak." Adding additional detail related to the education system challenges related to the limited government oversight and accountability, an interview participant indicated that the Liberian education system operates under a centralized model reporting to the Ministry of Education. However, despite this centralized approach, much of the education system and infrastructures operate in a decentralized way creating obstacles for the MOE to effectively oversee the daily operations of the multitude of schools throughout the country. This is supported by the sentiment:

The broken link in this chain as oversight. The system is centralized, but because of decentralization there is a disconnect with the field and its center. We do not know who is in the between. Now, the district education officer, they are in theory supposed to oversee the delivery of education to schools in the districts, but they do not have the logistical resources to be or to do this.

Another example of the overall lack of accountability and oversight by the government is

demonstrated by the statement:

So I think that's great, that's a very great aspect when it comes to monitoring, being able to ensure that people have been monitoring the schools. I tell you, I went to public schools where like, I didn't see people come to monitor. And if you are receiving money from the government, I think it can be a form of accountability. And this is why others who have not been able to be happy with the education in Liberia.

Interview participants also provided specific examples of the lack of government

oversight and accountability. One prominent sub-theme within this category relates to

teachers. Within primary education, teachers represent an important component of a

successful system. As such, the ability to effectively manage and oversee the activity of

teachers is paramount. Describing this situation, a LEAP provider stated:

We don't hire supervisors to live in the community to ensure that they go to the schools for a daily basis. Like they in schools didn't know, if there's an issue regarding technology, there's an issue regarding teacher absenteeism, and they kind of become an expert about the school on a day to day basis.

Providing further evidence related to the challenges of monitoring teachers, another participant expressed:

As it turns out, at the time we were starting PSL the Ministry was in the middle of multiple rounds of trying to cleanse their own payrolls and figure out who are the teachers who are actually in the classrooms? And who are the teachers who are no longer in classrooms? Like who are the people who need to be on our payrolls? And who are the people who shouldn't be on our payrolls, because they haven't been here.

Another area identified through research related to limited government oversight relates to data. More specifically, participants identified the inability to appropriately track key metrics within the primary education system as a consistent challenge. The narratives within this theme are important because they illustrate that while several intersecting challenges exist with Liberia's education system, the extent of these challenges may not be fully quantifiable due to the inability to effectively and accurately collect data. In support of this, a participant observed:

But the school's data was really poor. So they'd find, for example, I think there were examples of where they found that there were two schools in one because one school in the morning and one in school in the afternoon.

The absence of essential tracking mechanisms was also mentioned through another interviewee who observed, "It is difficult to find out in public schools about how many students are coming to school, how many students are actually not coming to school." Underscoring the pivotal role of data collection and the pervasive challenge within Liberia, participants with roles related to data collection noted:

If you look back at the history of Liberia, particularly in the educational context, there is little or no report on school data in Liberia, like you cannot get an accurate data of schools in Liberia. I had a chance to work on it. I have worked with the public schools, like visiting schools and like doing data collection for those schools and you cannot tell for a fact there are schools or the government don't even know any of this.

Similar to other areas within the education system of Liberia, a challenge in one area often creates a challenge in another. In this case, the lack of government oversight and

accountability within the schools created a series of confounding issues. The lack of government oversight and accountability provides meaningful context into the "why" LEAP was selected. In addition to education challenges related to infrastructure and outcomes, the government also experienced difficulties in oversight of the public primary schools. As previously stated, the LEAP providers were the most referenced external partner throughout the interviews. Within these discussions, many participants discussed the role of the LEAP providers. Although the providers were noted as providing many services, "management" and "oversight" represented the most cited role with 10 participants cited this function and 101 references. The frequency of reference as well as the number of participants illustrate a fundamental type of partnership that calls for external providers to address essential "gaps" in operational components of the education sector that cannot be overseen effectively by existing institutional capacities of Global South countries.

Policy Development Process

(R4) How was the education borrowing process implemented to establish the Liberian Education Advancement Program?

The current research seeks to comprehensively explore LEAP, which includes an examination of the process of implementation. Throughout the semi-structured interviews, two themes emerged related to the process: (a) leverage education borrowing and (b) gradual phased and approach faces challenges. Table 37 provides a summary of the number of participants referencing each theme as well as the frequency in which the codes related to the theme occurred.

Table 37

Core Themes Related to Policy Development Process

Theme	# Participants	# References
Leverage education borrowing	15	255
Gradual phased approach faces challenges	12	32

Leveraging Education Borrowing. A core component of the current research including the theoretical and conceptual frameworks is based on education borrowing. The idea of emerging economies being influenced by the policy and practices of other areas represented assertion of the study. Interviews with various stakeholders reveal not only that the process of education borrowing occurred as part of the LEAP process, but also the identification of which countries and the context in which this "borrowing" occurred was shared. Based on the interviews, the establishment of LEAP in Liberia was largely influenced by the education policy and practices occurring in Kenya and Uganda. Explaining this situation, one participant noted:

So the President had gone to Kenya. I believe the President did a historic visit to Kenya, where she saw what Bridge International Academy was doing with kids in primary schools in Kenya. And she was impressed after that, at least according to the story we've gathered. She returned to Liberia and had the opportunity to discuss this idea.

Although the participants did not refer to this practice as education borrowing, there was a clear understanding of one of the most influential factors that prompted LEAP. Discussing this isomorphic practice, another participant stated:

In 2015, Minister Werner I think did a follow up visit there also in Kenya and Uganda which operates in those countries. So he was also impressed by the idea and when he became Minister by then the negotiation started and the idea was, at least to bring that idea to Liberia. It was meant to be just a pilot to see what the innovation is and how could such an innovation contribute to the education system of Liberia.

The references to Kenya and Uganda not only highlights the practice of education borrowing, it also illustrates the factors that influence education borrowing. For many interview participants, the references to other countries represented a level of hope and optimism based on seemingly successful practices in other areas that influenced this process. As such, many of the references regarding Kenya and Uganda not only included the logistics of the visit, but there were also references to the perceived successes that these countries were experiencing. This is supported by a participant who said:

So we saw how learning outcomes were being achieved in other countries, including Kenya and Uganda, especially the Bridge model. The President and former education Minister then went and also saw for himself. So I think the government thought that it was time to innovate, and or to see if we can bring some different experiences in the sector to see how we can accelerate our efforts to achieving learning outcomes.

It is important to note that a cornerstone of the current research is education borrowing and this factor served as an important influencer in this process of examining what other countries were doing related to primary education. Evidence of the education borrowing influences was documented through an interview, which asserted:

There were other donors who were willing to support education reform in Liberia. But they would say they were not committed or financing the old model in which they have invested over the years, but still public school education, learning outcomes were not improving. So they were committed to funding a new model.

Based on this perspective, it appears that there may have been increased pressure or incentive to search for additional models. Following the frameworks of policy transfer and

education borrowing, it is a common practice for the borrowing institution to "search" institutions with similar conditions and therefore may help to explain why countries within Africa were leveraged as potential models for education reform.

While a core part of the qualitative research focuses on what is said throughout the interview process, the researcher is also mindful of references not stated. With regard to education borrowing, no participant referenced an examination of the local Liberian context in which such policies would be implemented to determine areas of congruence and divergence. This oversight is frequently cited within the education borrowing framework and a core reason why replicated policy experiences challenges and limited success. More specifically, participants were clear on the notion that LEAP was the result of viewing what Kenya, Uganda, and other countries were doing within the primary education system. However, no participant discussed any processes related to how well this policy would align with the conditions of education in Liberia. This finding is particularly important as the failure to consider local context represents one of the most substantial mishaps when within the practice of policy transfer and education borrowing.

Gradual Phased Approach Faces Challenges. The implementation process for LEAP leveraged a gradual phased approach. At the onset of LEAP, the policy was referred to as a "pilot" operating within a context of seeking to determine if such a policy used by other African countries had the potential to be successful in Liberia. The participants describing the phased approach had a similar understanding, which included the idea that the original plan included a single provider, Bridge International. After controversy related to outsourcing education to the private sector in general and using Bridge International in

particular, a new process was established which included an application process to identify more potential providers. Evidence of this approach is provided by a participant who said, "And eventually, an MOU that is somewhere online was signed online where it essentially was going to be the long term, in every public school in Liberia to be run by Bridge International Academies." Describing the gradual process from a provider perspective, a participant noted:

So the implementation is being informed by that research. The government then decided to come up the number of schools to see if they can come and expand that concept to more public schools. So it started out gradually. From nine schools, we went out to 21 schools, we're going for 37. We went up to 40. So like, for every year, we come in, like, after every year, we kind of like do a report. It's been on the progress we have made. And the Minister of Education uses that report to kind of like give us more schools. So from 2018 to 2021, the Rising Academy went from nine schools to 95 schools, and Bridge went to like a little over 350 schools, and are currently expanding to 500 schools for the next academic year. So it fell out on a gradual basis, it was not a one day thing. It started very small and the partnership grew over time.

As part of the gradual phased approach, which includes assessment and monitoring, participants noted that the current structure only includes four providers: Bridge International Academies, Rising Academy, Street Child, and Youth Movement. The references to the scaled down providers noted that providers were omitted from the policy due to the inability to meet one or more of the criteria outlined in the MOU. This finding is particularly interesting as it suggests a process exists of evaluating not only the outcomes of the program, but the alignment of the providers with the aim of the overall objectives of LEAP.

Although the implementation of LEAP leveraged a gradual phased approach, participants noted several challenges related to the education borrowing practice within Liberia. This is supported by the statement: Yeah, well, the ministry got excited about this. I mean, it was like the speediest implementation of any project in the history of time. There was just amazing energy behind doing this. There was funding to do it. There was the president on board. I mean, that was so critical. It was like having these stakeholders at the top who said this is our vision, this is what we're doing.

Noting the speed in which LEAP was implemented, another participant said:

So the ministry got interested in a single source procurement of this process starting in January of I want to say end of 2015, beginning of 2016. And by March or April, Bridge was already on the ground starting to evaluate what it would look like to implement this program in a wide number of schools. At that time, the plan had been to take on a smaller number and try this out for a few years, the eventual goal was to scale.

The findings related to quick implementation are important for several reasons. First, the research provides meaningful insight into how some policy development in general and education borrowing more specifically occurs within Liberia. In addition, quickly implemented these types of policies are complex and become more challenging within countries with diminished institutional capacity. As such, key questions arise, including how did the pace of implementation influence critical aspects of LEAP as well as the overall success of the education policy?

There were also challenges related to funding. More specifically, the interviews indicated challenges with securing sufficient funding to support LEAP. This is illustrated through the comments of one participant who stated, "But we couldn't get the primary development agency funders on board. So again, we're doing a single year of funding." Discussing the challenges related to funding and funders also referenced obstacles with getting these stakeholders to agree to common terms related to LEAP. This finding is important as it highlights the competing interests that may exist among different funders and the challenges that countries such as Liberia must navigate when attempting to bring

funders together on one accord. Within this context, and participant noted, "And to get all the funders behind the idea that everyone would be able to work with was a real challenge."

Leveraging a gradual phased approach, according to participants, had many advantages for Liberia. This approach allowed the country to introduce a radically different approach to the primary education system on a small scale which provided the government with a certain level of flexibility to navigate many of the complexities related to education borrowing. Although several challenges were noted and these obstacles should not be minimized, Liberia was able to successfully implement a policy with the potential to substantially alter the trajectory of the current primary education system. Participants also highlighted that changes in the policy were based on data with the three-year pilot representing an essential source of information guiding the decisions of the policy. More specifically, this data was used to eliminate certain providers who failed to meet expected outcomes and expanded the schools for some providers for whom outcomes demonstrated promise. For a country such as Liberia that has historical limitations in the availability of data to assess initiatives, the use of data represents another important component of LEAP.

DISCUSSION, RECOMMENDATIONS & CONCLUSION

Discussion

The results from the study highlight the complexities of policy development within the Global South. Although policy development represents a fundamental aspect of a country's overall success, this research reveals multiple factors influencing why countries select a particular policy approach and how this process is ultimately executed. Within the sphere of policy development, policy transfer, and more specifically, education borrowing, continues to represent a real option for some countries. The practice of education borrowing is likely to occur in emerging economies for several reasons, including diminished institutional capacity, external pressures from stakeholders, and limitations in financial resources, internal knowledge, and skills. As such, research that explores education borrowing has the potential to enhance the understanding related to the intricacies of education policy development practices, highlighting both the success and challenges of the approach. The current study aligns with the research domain seeking to understand better the challenges and successes of education borrowing with a targeted focus on Liberia, which provides a contextual example of how this process occurs within emerging economies.

The current research examined education borrowing within Liberia. Recognizing the broad scope of policy transfer, the research targeted several key pillars: (1) outcomes; (2) stakeholders; (3) factors influencing adoption; and (4) process. Independently, each pillar represented an important area of study. Collectively, these pillars demonstrated how key areas of policy transfer are interconnected and how each pillar influences other aspects of the process. Within this framework, a mixed methods approach was selected to utilize the methodological strengths of both quantitative and qualitative research. The research developed four questions as the mechanism to analyze education borrowing within Liberia.

The four questions were as follows:

(R1) To what extent is there a difference between LEAP and non-LEAP schools on a) education access, b) the availability of ICTs, and c) education quality?

(R2) What stakeholders are included in the education policy borrowing process that created the LEAP?

(R3) What factors influenced the selection of policy borrowing as a mechanism to address education reform within Liberia?

(R4) How was the education borrowing process implemented to establish LEAP?

This chapter represents the final component of the research and will include a discussion, recommendations, and a conclusion section. The discussion section will provide greater detail regarding the findings and will leverage the conceptual framework developed as part of the study to integrate core aspects of the research, including the theoretical framework, conceptual model, quantitative findings, and qualitative results. Building upon the discussion, the recommendations will identify and discuss opportunities to improve education borrowing policies in Liberia and establish a platform of consideration for other countries when deciding to engage in policy transfer within education sectors. The conclusion section will summarize key ideas within the research, bridging all essential factors together in a systemic and meaningful way to engage future research.

Stakeholder Involvement in LEAP

Research related to the role of stakeholders in policy transfer within emerging economies showcases who is involved in these practices, the roles different entities play within education borrowing, and how countries navigate this process with multiple and often competing interests. Through the findings, the research reveals that LEAP was inclusive of multiple stakeholders. More specifically, the research documents the presence of both internal and external stakeholders within different aspects of the policy process. Research participants consistently identified the Ministry of Education, former President Ellen Johnson Sirleaf, and Ministry of Education Leader George Werner as key stakeholders. Not only did the research identify key internal stakeholders, but the semistructured interviews revealed key roles for these internal agents. More specifically, the study observed that internal stakeholders were instrumental in the origins of LEAP and the ultimate decisions that resulted in adopting LEAP in Liberia. In addition, internal stakeholders serve as key entities within the planning phases of the process. The research also notes that the internal stakeholders served as primary agents for ongoing policy monitoring, which included frequent interactions with LEAP providers and other stakeholders to oversee both success and challenges related to the process.

The presence of internal stakeholders is an important finding. It demonstrates that key individuals and organizations were involved in the education borrowing process. The findings also enhance the current literature by providing contextual examples of the involvement of internal stakeholders. With much of the literature focusing on the extent to which internal stakeholder representation is excluded from global development efforts, these findings are promising as it indicates that historical development practices are changing to be more inclusive. Further, the findings demonstrate the presence of relevant stakeholders within the process. At the core of LEAP is a focus on education; as such, the inclusion of the Ministry of Education illustrates that the institution responsible for coordinating all academic endeavors for Liberia plays a vital role in the adoption and implementation of LEAP.

Although the research confirms several key internal stakeholders, the study also notes relevant entities that were potentially omitted from LEAP entirely or were minimally consulted during the adoption of the education borrowing policy. This finding supports existing global development research and highlights which groups experience marginalized participation in such processes. The research suggests that parents, children, and teachers may be among the excluded populations. The research also recognizes that limitations in understanding the totality of the Liberia education system create the potential to exclude other parties unknown to the researcher.

One of the more noteworthy findings relates to the resistance of stakeholders. The research shows resistance by different stakeholders for several reasons. First, teachers resisted the process due to being minimally consulted. Another reason for resistance is the impact that core aspects of LEAP had on existing stakeholders or education practices. For example, several providers, such as Bridge International Academies, introduced scripted lessons as part of their service delivery platform. The scripted lessons were designed to streamline core teaching processes and create consistency across schools. However, this practice encountered strong pushback from teachers as many believed that this limited the authority of educators to provide instruction within the landscape of academic freedom.

In addition, this research illustrated a core challenge within Liberia's primary education system related to limited oversight of critical management and operational aspects within schools. As such, it was reported that some teachers were "double-dipping" by teaching at both public and private schools. Further, it was noted that the collection of some school fees was being allocated to school officials for personal use. The structure of LEAP, which included greater oversight at the school level, eliminated fees for most schools and minimized the opportunity to leverage these financial resources for personal gains.

Resistance by stakeholders was also associated in dissatisfaction with some of the LEAP providers. Reasons for this satisfaction included labor practices by some providers in other countries. In addition, interview participants also demonstrated substantial frustration with Bridge International, recently renamed New Globe, which recently made headlines for allegations of defrauding the government of millions of dollars. These types of allegations reinforce the perspectives that oppose external agencies delivering education instead of the government, and reinforce the historical exploitation of emerging economies that has often occurred as part of development work. Ultimately, the resistance by stakeholders elucidates critical areas that should be considered when initiating education borrowing within emerging economies such as Liberia. By focusing on potential areas of resistance, education policy transfer has a greater likelihood of success by anticipating challenges and developing adequate responses to those challenges so that longstanding and recurring resistance is not an obstacle.

The present study also demonstrates that numerous external stakeholders were involved with LEAP and were responsible for critical roles within the education borrowing process. External partners assumed the management and oversight of schools through the LEAP providers. Entities beyond Liberia were also instrumental in providing financial support for LEAP. The research also demonstrates that external partners were leaders in determining the decision to adopt LEAP as well as the evaluation of the three-year pilot. The findings show a substantial role of external stakeholders. At the core of the strong presence of external stakeholders are questions related to the extent to which Liberia has authority and control of key processes related to LEAP. The research finds that external stakeholders were instrumental in compelling Liberia to seek education options beyond what was currently being done. More specifically, some financial supporters indicated that funding would no longer be willing to support current education practices in Liberia, compelling the country to seek alternate options for delivering educational services. The influence of external stakeholders is also demonstrated by the shift from one LEAP provider to a multiple-agency model.

The influence of external providers is important as it underscores and highlights the interplay between emerging economies such as Liberia and other entities such as the external providers included in the PPP. In some cases, this influence appears to champion the interests of the external providers. It raises questions regarding how conflicting interests are addressed, particularly when countries like Liberia do not have the financial resources or technical skills necessary to navigate complex and historical education challenges. The findings from this research demonstrate the dependency of Liberia on external

stakeholders. Although this partnership has demonstrated many favorable outcomes, Libera remains dependent on external resources to provide essential services. As such, fundamental questions remain regarding what happens to Liberia should the current partnerships be terminated. Expanding upon this notion, the research provides substantial evidence to suggest that the successes experienced are the result of the partnerships and are not the result of expanded institutional capacity for Liberia. Simply stated, the research suggests that the current state of education that has been enhanced through LEAP will likely not be sustained if the current policy is terminated or substantially modified.

Examining the findings within the context of the conceptual framework also reveals several key findings. First, the findings from the research support the conceptual framework. More specifically, the findings demonstrate that institutions, in this case, Liberia, have fragmented systems. The challenges outlined in the literature review related to the current state of education were documented through the interviews highlighting access, quality, and ICT challenges. Further, the research demonstrates homogeneous stakeholders, representing another key conceptual framework element. In the current case study, homogeneity is reflected through the substantial number of external stakeholders, creating a "sameness" among the stakeholders within the process.

Theoretical support of new institutionalism is also presented with rational choice demonstrating that self-interests guided some actors within LEAP. Institutional structures, the interests of members, and the information available at the time, which are all key components of new institutionalism, were also demonstrated throughout the research (Schneider & Ershova, 2018). It should also be noted that the research did not demonstrate

societal institutionalism, as the participants did not highlight culture as a strong contributing factor influencing any aspect of LEAP. However, the research shows a strong relationship between LEAP and historical institutionalism with prior context and the history of the country, including previous policy decisions playing an extremely important role in the establishment of LEAP. In summary, the research supports two of the three areas of new institutionalism (rational and historical) and reinforces a core component embedded within the conceptual model.

Determinants Influencing the Selection of LEAP

One of the most significant aspects of the research relates to policy transfer and education borrowing. Prior to any investigation of LEAP, a conceptual model was developed that suggested institutions with characteristics of new institutionalism were more likely to engage in institutional isomorphism. The research strongly confirms this aspect of the conceptual framework. Multiple interviews note that the origins of LEAP were based on a similar model occurring in Kenya and Uganda. Participants noted that former President Ellen Johnson Sirleaf and Education Minister George Werner were involved in conversations with stakeholders leading the efforts in other African countries. The research reveals that both Sirleaf and Werner were excited about the successes experienced in these countries and considered this the optimal strategy for Liberia. The policy mimicry was so prevalent that the original design for LEAP appears to be a carbon copy of what was occurring in Kenya and Uganda, which included leveraging Bridge International Academies as the sole provider of education services. The research did not show evidence to support normative isomorphism, which is how professional standards such as education attainment guide and influence decisions. However, the study does demonstrate evidence of coercive isomorphism, which occurs when internal or external pressure is applied, resulting in undue influence to make certain decisions. In the case of Liberia, the research reveals both internal and external pressure to adopt a different approach to delivering education. After visiting Kenya and Uganda, Liberian leaders were extremely motivated to bring this cost-effective, quality education to the country. This motivation could be construed as a type of internal pressure. Donors and other key stakeholders also exerted pressure to pursue LEAP. The external pressures were leveraged through financial resources, knowledge, and technical expertise, all of which were needed for Liberia to pursue this particular education policy.

In addition, the findings also highlight the presence of mimetic isomorphism. The literature on this type of isomorphism suggests that institutions change in response to unknown conditions. Liberia has encountered a series of challenges that have created unpredictable education structures. Further, evidence of mimetic isomorphism is provided through the interview discussions, which indicate that the country was operating in a continuous state of unknowns as it relates to determining the most effective ways to address the ever-growing challenges within primary education. The presence of multiple types of institutional isomorphism within Liberia aligns with the conceptual models. It helps to explain potential reasons why the country engaged in education borrowing to establish LEAP. The conceptual model posits, and the research confirms that certain conditions related to new institutionalism and institutional isomorphism influence the likelihood that

countries will leverage policy borrowing in place of policy invention. At the core of these conditions is a systemic diminished capacity of the country to engage diverse stakeholders with the necessary skill sets coupled with internal uncertainties and pressure to adopt a particular strategy.

The conceptual model also identifies five key determinants that are present when countries leverage policy isomorphism: (1) dissatisfaction with current conditions and existing policies; (2) internal and external pressures; (3) financial dependency; (4) limited internal expertise & skill; and (5) status and legitimacy. The research on LEAP confirms that all five determinants were present and instrumental in influencing the decision to adopt LEAP. One of the most prevalent determinants was dissatisfaction with current conditions and existing policies. Interview participants frequently described the poor conditions of education and dismay with the learning outcomes occurring in primary education. Participants did not discuss policy specifically. Instead, conversations largely centered around the continually diminishing state of education in Liberia.

The influences of policy isomorphism were also demonstrated in the research through internal and external pressures. Interview responses indicated that internal and external drivers pressure Liberian leaders to adopt LEAP at multiple phases. The internal pressure is related to strong dissatisfaction with current conditions and a desire to radically alter the trajectory of Liberia's primary education system. One of the largest external determinants was demonstrated through financial pressures. More specifically, Liberia's spending on education is very limited, and donors leveraged this situation as a mechanism to influence the direction of primary education within the country. According to interview participants, some donors indicated that spending on current strategies would no longer continue, forcing Liberia to consider other options. The stakeholders who resisted LEAP also demonstrated the complexities of internal pressures. This resistance created unique pressures forcing Liberia to respond to teacher, parent, and school staff concerns. In addition, the research reveals external pressures in transitioning LEAP from a single source to a multiple-provider model. There also appears to have been some external pressure related to conducting a three-year evaluation at the onset of LEAP despite some resistance that evaluating a policy of this magnitude beginning in the first year was premature. Finally, the research suggests external pressure related to the use of Bridge International Academies. Several participants indicated that the organization had tremendous global influence, and this global clout proved instrumental in adopting LEAP.

Currently, Liberia's spending on primary education is limited. Recent data suggest that the primary education budget is approximately 2-3% of the total GDP, which equates to about 40 million (USD) (Romero et al., 2020). Further, the primary education budget is supplemented by nearly 30 million (USD) in external funding (Romero et al., 2020). The percentage of financial resources allocated to primary education in Liberia is substantially lower than in other countries. Spending on education is even more strained when considering the multitude of challenges facing Liberia's primary education system. The context related to the current state of resources available for primary education, combined with interview responses documenting the limited educational resources, provides support for the third influence, financial dependency, identified through the conceptual model. The financial dependency on stakeholders also served as a key contributing factor in Liberia's decision to implement LEAP.

The fourth factor identified in the conceptual research framework as influential in policy isomorphism is limited internal knowledge and skills. The factor is also strongly demonstrated in the existing literature as well as the findings of the current research. Historically, the civil wars, Ebola outbreak, and COVID-19 pandemic have created a series of challenges impacting the infrastructure of Liberia's education system. The research observed knowledge and skill limitations in critical areas of the education system, including school oversight, teacher quality, and data management. Each of these areas represents critical aspects of successful school systems. The documented shortfalls identified through the research were also a key reason that prompted policy isomorphism and the implementation of LEAP. The final variable identified as an influential factor related to whether countries engage in policy isomorphism is status and legitimacy. Of the five determinants, this area represented the least cited area, with only one participant citing this as a factor influencing the adoption of LEAP. Although status and legitimacy were only minimally mentioned, the reference by the one participant in the current research does suggest that this may have been a substantial factor, but more research is required.

Through the research examining LEAP, all five determinants identified were observed through the qualitative aspect of the research. The current conceptual framework puts forth all five determinants with no delineation of priority. In other words, the conceptual model assumes that all determinants are equally weighted in the influences related to policy isomorphism. However, the research demonstrates that some determinants may act as larger drivers towards policy isomorphism than others. In the case of Liberia, dissatisfaction with current conditions is the most substantial driver influencing education borrowing. However, there are also strong occurrences of internal and external pressure, financial dependency, and limited internal knowledge and skills.

Moreover, the current conceptual model must consider how the current determinants may be interconnected. For example, the research reveals that internal and external pressure occurred through the financial dependencies that Liberia currently has with external stakeholders to support and sustain primary education. This area of the conceptual model shows promise as the platform has potentially identified several areas that influence policy isomorphism, additional research is required to understand the nuances of these determinants better, both independently and collectively.

Education Borrowing Process

The conceptual model proposes that countries engaging in policy isomorphism undergo a different policy development process in comparison to institutions engaging in policy invention. The core differences between the two policy cycles are the origination point and the reduced number of phases within the education borrowing cycle. The research on LEAP affirms several key elements within the *Policy Isomorphism Education Cycle* (Phillips & Ochs, 2003). First, the findings exploring how LEAP was implemented confirm that cross-national attraction heavily influenced the process. This is documented through the interviews with the multiple references of Liberia exploring what other counties were doing regarding low cost and quality education, with specific references to Kenya and Uganda. The condensed policy cycle is also illustrated by the rapid pace at which LEAP was implemented. Multiple interviews cited that LEAP was implemented very quickly. Reasons for this rapid implementation included the need to respond to growing concerns regarding the current state of education and the desire to capitalize on external donor interests in developing a new model for education within the country. The conceptual model argues that challenges may arise within this policy cycle due to the limited phases. More specifically, the conceptual framework suggests that education borrowing processes are likely to be expedited, which is the case for Liberia and thereby misses critical elements in the policy development process. The research demonstrates several missteps in the process, including strong resistance by stakeholders, which may have been mitigated in a policy development process that included more phases.

The education borrowing cycle concludes with indigenization which is the process of making the policy a part of the education system. In contrast, the conceptual model identifies the policy development cycle by Brewer and DeLeon (1983) within the invention sphere, which includes evaluation. This difference is another fundamental finding of the research. The onset of LEAP included a comprehensive, three-year evaluation by an external agency. This evaluation concluded in 2018; since then, there has yet to be another comprehensive evaluation of LEAP. While several researchers have explored different aspects of LEAP, comprehensive data has yet to be established in nearly four years. Participants also suggested that LEAP has become so political that findings from subsequent evaluations may not be able to influence substantial changes in the policy's current stakeholder composition or trajectory. The findings related to the education borrowing cycle are significant and illuminate potential areas in which policy development in emerging economies may go awry. Originating a policy development cycle with cross-national attraction fails to fully consider the complex issues driving the need for the policy. Further, as discussed in the literature review, policy transfer is multifaceted and must consider local contexts, influences, and impacts, when attempting to borrow education practices from other countries. Simply stated, emerging economies cannot assume that because a policy is successful in one area, it will automatically be successful in another. In addition, although the education conditions in many Global South countries require immediate attention, these responses must also be strategic and intentionally balance the desire to improve current conditions with the appropriate time necessary to implement effective policy. Finally, while integrating policies into the education system, the policy cycle must also include a continuous evaluation. This is a core part of the policy development cycle and will help to identify areas of strength and challenge within education policy.

Agency Selection

Within the current conceptual framework, three options have been identified: (1) Government; (2) Government and External; and (3) External. The conceptual framework also includes agency selection, which determines the entity or entities responsible for operationalizing the education policy. The research confirms that LEAP was a partnership with the government and external partners. At the onset of the research, it was known that LEAP was a public private partnership, so the finding is not surprising but does confirm existing literature related to LEAP in this regard. Of note and importance, the research provides meaningful context into some factors influencing agency selection. In the case of Liberia, a compelling case is demonstrated through the interviews that the country was not equipped to respond effectively to the current primary education challenges. The historical and political situation in Liberia has cultivated a continuously diminished capacity of several core areas needed for a successful education, including sufficient financial resources, quality education personnel, and appropriate infrastructures (physical and digital). As such, the research makes it clear why the Government of Liberia was not selected as the independent agency to implement LEAP.

The research also demonstrates the rationale for endorsing a public private partnership. In the case of Liberia, the government had in existence some infrastructure and education processes for which external partners could build upon and enhance. More specifically, the government had existing schools, teachers, education staff, and a national curriculum. The research also indicates that education costs, particularly finding low-cost solutions, were paramount in the search for education policy options. The research also aligns with existing literature related to support for public private partnerships. For example, LEAP represented an opportunity to leverage the existing strengths of the government and external providers. In addition, LEAP represented an opportunity to upgrade core aspects of the primary education infrastructure through the utilization of a public private partnership.

In many ways, achieving a low-cost option necessitated government involvement, as complete external control would have likely increased the costs significantly. Although not specifically stated, the interviews revealed a consistent sentiment that the people of Liberia wanted to be included in this process. The interviews highlighted an awareness of the limitations within current systems and structures but a strong desire to be a part of the solution. As such, the selection of only external agencies to operational education reform within Liberia did not align with the holistic scope of what the country hoped to achieve and, more importantly, how Liberia wanted to proceed with efforts to improve primary education.

A final discussion point related to agency selection and public private partnerships, particularly, relates to the growing body of research regarding whether these arrangements are effective. The findings from this research suggest that greater research regarding the effectiveness of such approaches is needed. Much of the research on PPPs suggests that the results are inclusive, with some literature showing tremendous success, others demonstrating monumental failures, and many examples illustrating results somewhere in between. With regard to LEAP, the findings align with the body or research that notes the inconclusive nature of PPPs. While some of the findings in the current research demonstrate success and optimism, there are also aspects of the study that did not yield positive outcomes. This finding is particularly paramount for emerging economies that do not have the capacity to invest in outcomes that will not yield optimal outcomes.

Education Outcomes

The education outcomes portion of the research represents the most robust area of the study with both quantitative and qualitative data. Although Liberia faces many challenges within primary education, the qualitative research reveals that the core of these challenges relates to a desire to effectively address learning outcomes with access, quality, and ICTs representing key areas of focus. Overall, the research highlights improvements, the perpetuation of existing challenges, and the creation of new challenges due to the education borrowing policy, which resulted in the creation of LEAP. The results also show that addressing education outcomes of this nature is complex, and global development ideals advocating for one size fits all models will not work. The results from LEAP may share some commonalities with other countries and can serve as a cautionary guide for other countries wishing to adopt similar policies. However, it is important to note that all strategies must be uniquely examined with the context in which such practices must operate.

Access

While LEAP originally demonstrated enrollment increases, these gains were not sustained over time. In year three of the three-year evaluation, both LEAP and non-LEAP schools experienced declining enrollment. The enrollment trend experienced by LEAP of initial increases followed by subsequent declines is familiar within the education policy sphere of emerging economies. Similar trends were observed as it relates to universal primary education. While Global South countries make tremendous strides in initial efforts to attract more students to primary education, challenges remain with sustaining these efforts. Such policies of this nature must consider the original and long-term impacts on existing infrastructures to ensure that enrollment increases are sustained and can support more enrollments to address the millions of students who remain out of school. When examining student attendance, the study's results also highlight important findings. First, the findings indicate that schools may be positively influencing student attendance on a daily and weekly basis. However, the findings indicated tremendous challenges when students were asked whether they had missed school within the last month or three months. The data suggest potential barriers to keeping students in school beyond the month threshold in Liberia. However, the sample size for many of these research questions was considerably small, suggesting that greater exploration is needed in these areas to fully understand additional intricacies of access in emerging economies.

The data indicates that key reasons for not remaining in school include costs, needing to work, and pregnancy. By design, LEAP was implemented to remove fees in selected schools. Although the research demonstrates contradictions in this design, with some LEAP schools still charging fees, the general sentiment of removing fees is an instrumental variable in improving education access. The quantitative data demonstrate statistically significant differences between LEAP and non-LEAP schools, suggesting that emerging economies can adopt education policy that removes a core variable to education access. The qualitative findings complement the quantitative results, reinforcing the critical role that the removal of school fees plays in creating greater interest in attending school and greater access for many families who would otherwise not be able to afford education for their children.

The findings related to access also underscore the complexities encountered when countries such as Liberia attempt to make education improvements in this area. For example, the research reveals that while LEAP was designed to improve education access, in some situations, the policy had the unintended consequence of negatively impacting access. More specifically, the lack of oversight among schools created several conditions, such as overcrowded classrooms with no teachers, which required attention under the LEAP platform. Some classrooms had nearly 80 students per teacher, which were reduced to establish a more manageable student-teacher ratio and adhere to LEAP contract guidelines the government and providers agreed upon. The outcome was the displacement of some students with no way of determining if these students enrolled in other schools.

Further, the notion of access appears to be based on perspective. While the quantitative data demonstrate enrollment declines which are supported by research from the three-year pilot, the qualitative data reveals contradictory findings. Many participants indicated that LEAP positively impacted access, citing both the removal of school fees and the increase in schools participating in the policy over the years. For the participants, access moved beyond enrollment to consider the opportunities in which students had to attend schools. As such, the removal of financial barriers creates more opportunities. Similarly, the increase in the number of LEAP schools also afforded new opportunities to attend schools that did not previously exist.

Quality

The findings related to quality demonstrate some of the most promising results of the study. The quantitative data overwhelmingly show statistically significant differences between LEAP and non-LEAP schools for literacy and numeracy. Further, the qualitative data reveals a consistent sentiment among participants that learning gains were improved due to LEAP. It is important to note that the present study leveraged a different methodology (independent sample t-test) than the three-year evaluation but had similar findings.

Although the data related to education quality highlights tremendous potential, it is still being determined if these learning gains have been sustained over time. The absence of comprehensive assessment data beyond the three-year pilot raises critical questions regarding the sustainability of LEAP in one of the most important areas of the policy. In addition, the LEAP platform allowed providers to approach curriculum delivery in different ways. While many have advocated for this approach as innovative, others have called attention to potential learning divides that may be cultivated. An example of this is the providers who leverage technology and those providers who do not.

A final discussion point related to education quality as a result of LEAP relates to whether the learning gains are significant enough to change the trajectory of primary education. While it is clear that learning improvements have occurred, does LEAP have the institutional longevity to continue to deliver on these learning improvements that will eventually bridge key gaps in learning currently occurring within the country? More specifically, while the learning gains from LEAP are noteworthy, are these improvements sufficient to prepare current students within the education pipeline to successfully complete learning exams? Further, how are the learning gains experienced by LEAP positioning students to be key contributors to social, economic, and political spheres within Liberia?

ICTs

The findings related to ICTs represent an area of continued challenge. Throughout the quantitative and qualitative data, the findings demonstrate significant areas in which improvements are needed. At the core of these challenges are infrastructural obstacles. Within Liberia, approximately 20% of the population has access to reliable electricity. At the core of ICT, infrastructure needs are electricity. Therefore, the current state of Liberia includes systemic areas that must be addressed if a meaningful and sustainable change in this area is to be achieved. Participants also identified infrastructure challenges as it relates to the physical school structures. The lack of essential teaching resources such as desks, textbooks, and other learning materials further highlights the physical limitations of schools. Independently, these areas reflect severe limitations in essential primary education resources. Collectively, the deficits in these areas pose challenges that make the integration of ICTs into primary education a major obstacle.

Despite the current challenges related to ICTs, Liberia has made considerable strides in using ICTs in education due to LEAP. Several participants highlighted that providers such as Bridge International Academies had integrated ICTs into the classroom. Through the use of tablets, teachers can now access the standardized curriculum. In addition, using ICTs in some schools has created greater accountability standards by streamlining the process of reporting information such as student enrolment, student performance, and teacher attendance. Although these ICT practices are not being used in all LEAP schools, a compelling case is being created regarding what is possible and how such strategies can be effectively navigated within Liberia.

Despite the progress in integrating ICTs into some learning spaces, concerns still exist about whether this progress is unintentionally widening the digital divide for students in Liberia. While some students benefit from teachers having access to technology and their perceived benefits of such strategies, a substantially larger number of students are not learning this way or receiving the benefits of this type of pedagogy. Although Liberia needs to continue seeking options to enhance ICTs within the classroom, caution is required not to cultivate new challenges due to these perceived technological advances.

Although ICT resources such as tablets, computers, and laptops are not yet prevalent in Liberia's primary education schools, the research does show high levels of ICT penetration for radios. This finding is noteworthy as it showcases a potential platform that can be leveraged if in-person learning cannot occur, such as in the conditions that resulted from COVID-19. Further, access to education in some rural areas remains a challenge. The use of radios could be considered a vehicle to deliver education, creating greater access opportunities for some of the most marginalized populations.

Recommendations

Several recommendations have been identified through the findings and discussion of this research. The recommendations reflect the totality of the research and leverage both the theoretical and practical applications of the findings. The recommendations are intended to serve as a guiding platform for future research and represent key areas of consideration for policy transfer in general and education borrowing more specifically. While the creation of LEAP is a unique case based on the myriad of dimensions unique to Liberia, certain elements of the research have the potential to be applied or, at a minimum, examined when engaging in these types of policy development approaches.

Ensure Diverse and Local Representation

Education borrowing requires a diverse representation of stakeholders when engaging in education borrowing. Local stakeholders who are connected to the policy should be at the core of this representation. As such, a fundamental component of education borrowing is the identification and consultation with these groups. Conversations with these groups have the potential to unveil key aspects of existing processes that can be more thoughtfully addressed prior to implementing new policies. In addition, including local stakeholders can balance the current state of education borrowing, which often consists of more external representation, creating a larger voice for internal stakeholders.

Expand the Research on Policy Isomorphism and Determinants

The research related to policy isomorphism reflects an important area of study within policy development and has tremendous application among emerging economies. Greater research is required in this area to understand how this policy development process occurs and what lessons can be learned to harness the strengths of such approaches while minimizing the potential challenges. Further, the present study has developed a new conceptual framework that combines existing theoretical concepts and adds new components. In addition, research is warranted, focusing on the five determinants of policy isomorphism. Although the current study confirmed the presence of each of the five determinants, studying LEAP also raised key questions regarding whether a hierarchy exists for these determinants and how interconnections between the determinants may influence core aspects of education borrowing.

Create Comprehensive Policy Development Cycles

Although education borrowing cycles may begin with cross-national attraction, the practice of implementing these types of policies must be inclusive of other key areas in order to maximize effectiveness. The condensed model of policy implementation that occurs with education borrowing has the potential to omit key phases of the process. In the case of Liberia, the research showed a rushed process, likely contributing to some of the challenges. Further, the education borrowing process established by Phillips and Ochs (2003) does not have a clearly identified phase for evaluation. Although LEAP included an initial evaluation, the policy has yet to replicate such a large-scale assessment, which raises key questions of effectiveness and sustainability.

Continue to Research Public-Private Partnerships

The research on PPPs remains inconclusive. As such, additional data on PPPs is required, especially as this approach continues to be a preferred choice for both Global North and Global South countries in various sectors, including education. The inability to determine what aspects of PPPs work and which components do not is particularly challenging for emerging economies that often rely on external agencies for support in critical areas. PPPs require greater attention and research, and the agencies providing services should be critically examined to determine if the desired outcomes can be achieved through a partnership. The research on LEAP demonstrated that some of the providers originally selected were ultimately dismissed due to failure to deliver the desired outcomes. As such, a key consideration of PPPs should be how will the success of these partnerships be measured and what options exist for counties such as Liberia to terminate or modify relationships that are not in the country's best interest. Further, the research noted the current controversy regarding Bridge International Academies, newly renamed New Globe, regarding defrauding the government of millions of dollars. This suggests that precautions are necessary to ensure that countries with already limited resources are not exploited through these types of partnerships.

Develop Additional Strategies Aimed at Education Reform

The outcomes of LEAP demonstrate tremendous improvements in access, quality, and ICTs. However, the progress made is insufficient to substantially alter the country's current trajectory. As such, additional strategies are needed in these areas to continue the momentum achieved through LEAP. Access challenges remain, especially as it relates to girls and rural populations. While students are learning more in LEAP schools, this policy still has yet to reach all schools, suggesting that many students are continuing to learn on historical models that do not work. In addition, there were no requirements outlined through LEAP to address the infrastructure challenges in Liberia's primary education system. As such, considerable effort is needed to improve school buildings and provide adequate resources such as textbooks and desks. Further, student-teacher ratios remain a challenge, as well as the establishment of quality teacher pipelines. The research also indicates that additional efforts are required to integrate ICTs to ensure that existing digital divides are not continually perpetuated, making it even more challenging to bridge this knowledge and resource gap.

Increase Availability and Enhance Quality of Data

One final recommendation not directly connected to the conceptual framework includes increasing the availability and enhancing data quality. A core challenge facing Liberia is the limited availability of data. This limitation creates various challenges in thoroughly assessing the extent of challenges and developing appropriate responses to key obstacles within the country. For many countries, the ease at which data can be assessed creates various opportunities to research and explore education from different dimensions. This is not the case in Liberia. In order to better respond to the education conditions in Liberia, more data is needed.

In addition, the research noted major challenges with obtaining essential data related to the operations of primary schools within the county. This requires enhanced tracking and reporting mechanisms so that the government can better ascertain the number of students attending school, how children perform on assessments, and whether teachers are present in the schools. Increasing the availability of this type of information expands the research opportunities internally and externally. As additional studies are conducted, greater opportunities will be cultivated to develop research-based strategies.

Finally, the data collected must create platforms for additional analysis and replication of existing studies. The research leveraged a secondary analysis and noted some data analysis challenges. As such, when applicable, datasets should be comprehensive and include all data in a structure that is easy to replicate. This simplifies the analysis process and allows the research to analyze variables potentially not explored within the present research. In addition, codebooks should be clear, concise, and easy to follow. The data codebooks should only be inclusive of actual data collected. Differences in data collection should be noted when collecting data at different points in time. Improving the amount of

data collected and how it is collected has tremendous potential for future research in Liberia.

Conclusion

At the onset of the research, the approach examined whether or not LEAP should be viewed as a success. Throughout this research, a shift occurred, recognizing that examining success is a simplistic approach to far more complex issues. The real and arguably more important question is if and to what extent LEAP has positively influenced the institutional capacity of Liberia's education system. Through LEAP, the research has illustrated a country that has faced a series of challenges that may seem impossible to address. However, with perseverance and innovation, Liberia has developed a policy that has demonstrated many positive impacts on the country.

Access to education in some regards is being improved. Key obstacles, such as eliminating school fees, are being achieved, and more students have the opportunity to attend LEAP schools as the policy continues to expand its reach to more locations. LEAP is also demonstrating tremendous promise in education quality, with learning gains in both literacy and numeracy. The country is also making strides in ICTs, with more teachers leveraging this critical resource to deliver education in previously unimaginable ways. At the core of these positive outcomes is a new philosophical framework where education is concerned. Liberia is demonstrating, at least to some degree, that low-cost, quality education can be achieved. LEAP also demonstrates that PPPs can benefit emerging economies and be instrumental in filling current gaps in countries such as Liberia, which struggle with financial, personnel, and infrastructure issues. Despite key improvements, policies such as LEAP also raise key concerns. For example, does the model established by LEAP perpetuate existing global development narratives in which Global South countries rely on external support to address key challenges? As such, how sustainable are these dependency models, and what happens to Liberia should the current partnerships be terminated? Further, how do these types of partnerships create the institutional capacity to rely less on external relationships?

The positive and potential negative outcomes reflect the complexities and intricacies of education borrowing within emerging economies such as Liberia. When examining the research holistically, the sentiment of LEAP demonstrates innovation, hope, and resilience. More specifically, LEAP illustrates how countries such as Liberia continue to develop strategies to address some of the country's most fundamental challenges. All interview participants indicated that the policy should be considered successful, at least to some degree. The perspective is grounded in the idea that improvements have been made. More importantly, the sentiment is that LEAP has caused a critical pivot in the primary education sector, and this platform has the potential to drastically alter the landscape of primary education and propel the country into the future it seeks to create where quality learning is a reality.

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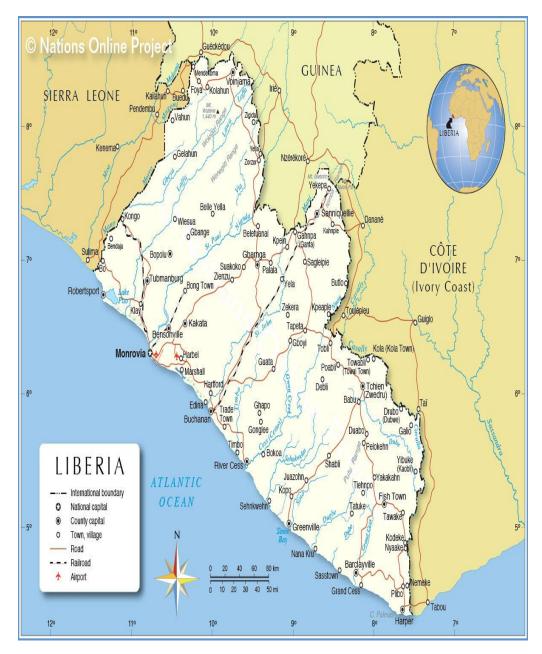
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APPENDIX A

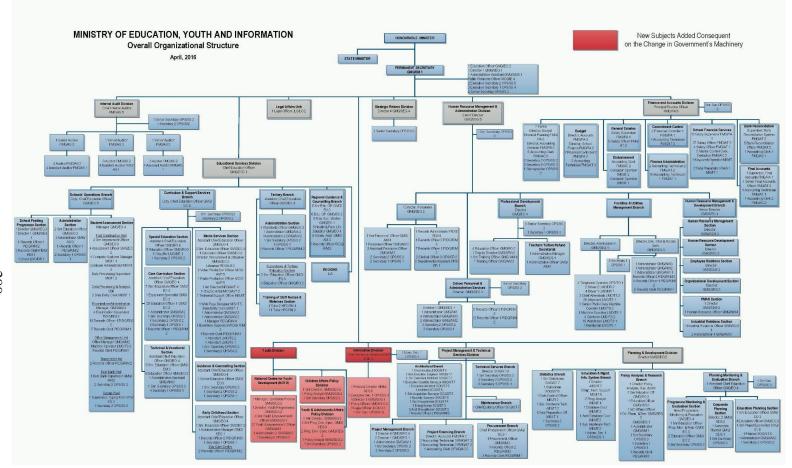
MAP OF LIBERIA



Source: UNESCO 2014

APPENDIX B

MINISTRY OF EDUCATION ORGANIZATION CHART



APPENDIX C

SEMI-STRUCTURED INTERVIEW QUESTIONS

(New Institutionalism)

- 1. What stakeholders were involved in the development, implementation, and evaluation of LEAP?
 - Individuals
 - Government Officials
 - Organizations
 - Non-Governmental Organizations
 - Local Stakeholders
 - Other

Institutional Isomorphism

- 2. What factors influenced the establishment of LEAP?
 - Dissatisfaction with current conditions
 - Dissatisfaction with current policies
 - Internal Pressures
 - External Pressures
 - Financial Incentives
 - Limited Internal Expertise & Skill
 - Global Recognition
- 3. What existing education models influenced the implementation of LEAP?

(Education Borrowing Process & Agency Selection)

- 4. How was LEAP implemented?
- 5. What factors supported the implementation of LEAP?
- 6. What factors caused resistance to the implementation of LEAP? How were these barriers addressed?
- 7. Why was a public private partnership selected?

(Outcomes)

- 8. How has LEAP influenced primary education access?
 - To what extent has LEAP influenced government funding for primary education?
 - To what extent has LEAP influenced costs to parents for primary education?

- To what extent has LEAP influenced male/female enrollment disparities?
- To what extent has LEAP influenced urban/rural enrollment disparities?
- 9. How has LEAP influenced the quality of primary education?
 - How has LEAP influenced primary education quality in literacy?
 - How has LEAP influenced primary education quality in mathematics?
 - To what extent has LEAP influenced overcrowding in schools?
 - To what extent has LEAP influenced limited resources in school?
 - To what extent has LEAP influenced teacher quality in schools?
- 10. What influence has LEAP had on the availability of ICTs (technology) for teachers and students?
- 11. Would you consider LEAP a success?
 - If yes, why?
 - If not, why?

(Future Considerations)

- 12. What should countries consider when implementing education policies (e.g., LEAP) that have been adopted by other countries?
- 13. What lessons can be learned from LEAP to support future policy development in primary education?

APPENDIX D

IRB HUMAN SUBJECTS APPROVAL



EXEMPTION GRANTED

Nalini Chhetri CGF: Future of Innovation in Society, School for the (SFIS) 480/727-0745 Nalini.Chhetri@asu.edu

Dear Nalini Chhetri:

On 9/21/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	A Policy Transfer Response to Education Outcomes & Information and Communication Technology Challenges in Liberia
Investigator:	Nalini Chhetri
IRB ID:	STUDY00016297
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Interview Questions Revised, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 9/21/2022. In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

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

REMINDER - - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Up-

to-date information regarding ASU's COVID-19 Management Strategy can be found <u>here</u>. IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.

Sincerely,

IRB Administrator