Proposal for a Qualitative Study

The Role of Educational Technology Leaders in Promoting a Culture of Innovation within K-12 and Higher Education in the Sub-Saharan Africa

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Chapter I: Introduction

Overview

In this era of rapid technological advancement, effective and versatile educational technology leaders play an important role in fostering technology integration and driving positive change in teaching and learning practices. Following Haleem et al. (2022), "the world is sweeping by the digital revolution and digital technologies play an important role in education because digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling" (p. 276). This study aims to understand the role of educational technology leaders in promoting a culture of innovation within schools, colleges, and universities.

Statement of the Problem

Educational institutions face an ongoing challenge of integrating technology effectively to support teaching and learning. Furthermore, it constantly evolves with emerging technologies. Educational technology leaders need to strategically implement educational technologies in schools and support educators in the effective utilization of these educational technologies. Research shows that successful technology integration requires a culture of innovation within schools, where educators feel empowered to explore new technologies and experiment with different approaches. However, limited research exists on how educational technology leaders cultivate this innovative environment.

Purpose of the Study

The purpose of this study is to explore the role of educational technology leaders in promoting a culture of innovation within K-12 and higher education. Additionally, this research seeks to contribute to the advancement of educational technology leadership practices and

promote more effective use of technology to support teaching and learning in educational settings in the age of higher technology.

Theoretical Framework

The topic of our investigation is connected to the body of knowledge in culture of innovation in education, educational technology leadership, and qualitative research methods. “The education system in the 21st century has focused on innovation as a tool that revamps the traditional educational system. The need for quality improvement in the curriculum and the desire to produce students with 21st-century competency skills have made innovation the core emphasis in the educational context. Hence, school cultures that support innovation should be developed and encouraged extensively. However, studies on innovation cultures within the educational context are still scarce. Researchers have also yet to concur on universally agreed features of innovation cultures within education settings.” (Fuad et al., 2022). “The effectiveness of e-learning depends on technological support, institutional culture, staff development and students' receptivity and learning behaviors” (Liu et al., 2010).

Research Questions

Our study seeks to answer the following questions:

- What strategies do educational technology leaders employ to promote a culture of innovation in schools?
- How do educational technology leaders support educators in embracing new technologies and integrating them into their teaching practices?
- What challenges do educational technology leaders face in fostering a culture of innovation, and how do they overcome them?

Significance of the Study

Our study is important because it provides valuable insights into the critical role of educational technology leaders in driving educational change. By understanding their strategies and the challenges they face, educational institutions can develop programs and support systems to strengthen educational technology leadership practices, ultimately promoting a more innovative and technology-driven learning environment. According to Fuad et al., "The education system in the 21st century has focused on innovation as a tool that revamps the traditional educational system. The need for quality improvement in the curriculum and the desire to produce students with 21st-century competency skills have made innovation the core emphasis in the educational context. Hence, school cultures that support innovation should be developed and encouraged extensively. However, studies on innovation cultures within the educational context are still scarce." (Fuad et al., 2022). Following Fuad et al, our topic is important in the world beyond our academic interest because it is addressing the role of educational technology leaders in promoting a culture of innovation within K-12 and higher education. As a result, our study holds significant implications for educational technology leadership, policy development, and practice.

Research Design

Our study employs a qualitative research design, utilizing semi-structured interviews and focus group discussions as the primary methods of data collection. We will be using sampling to recruit educational technology leaders (school administrators or staff specifically responsible for overseeing and guiding educational technology implementation. Technology coordinators, instructional technologists, and school administrators, for instance) and educators (teachers with experience using technology in their classrooms) from diverse educational settings. We will

employ thematic analysis to analyze the interview transcripts and focus group discussions by focusing on identifying recurring themes, patterns and narratives in the data regarding educational technology leadership strategies and their impact on promoting a culture of innovation. Our analysis will involve multiple stages of coding and interpretation to ensure rigor and depth.

Definition of Terms Section

Educational Technology Leaders: Are individuals who champion the effective integration of technology into educational settings to improve student learning. Their primary goal is to leverage technology to enhance the learning experience for students, regardless of the learning environment (traditional classroom, online or blended). They advocate for and guide the thoughtful incorporation of technology into various aspects of education and ensure that it aligns with educational goals and curriculum. Educational technology leaders ensure that technology serves as a powerful tool to empower educators and personalize learning experiences for students. In other words, they bridge the gap between technology and pedagogy (teaching methods). They usually possess a strong vision for how technology can transform education and have a deep understanding of current and emerging educational technologies. Additionally, they effectively navigate the ever-changing technological landscape and promote a culture of innovation within the educational system. Furthermore, they provide professional development and ongoing support to educators by helping them to feel comfortable and confident when they are using technology in their classrooms. Educational technology leaders have a strong understanding of various educational technologies and their potential applications. They leverage (capitalize on) data to assess the impact of technology on learning outcomes and make informed decisions about future implementations.

Innovation: According to Oxford Advanced Learner's Dictionary, innovation is the introduction of new things, ideas or ways of doing something.

Focus Group: "Is a direct observation technique whereby individuals are often paid to discuss their attitudes toward products or services in a group setting controlled by a moderator. For example, Fisher Price heavily relies on focus groups of both adults and children to obtain valuable feedback on new toy ideas. The participants are aware they are being observed (Donnelly, JR, 2019, p.6).

Qualitative Study (qualitative research): According to Creswell and Creswell, qualitative research is "a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, collecting data in the participants' setting, analyzing the data inductively to build from particulars to general themes, and making interpretations of the meaning of the data. The final written report has a flexible writing structure" (Creswell et. al., 2022, p.267). It is a method of investigation that digs into the "why" and "how" of a situation rather than focusing on the "what" through numerical data. Qualitative research gathers non-numerical data such as text, images, or videos to understand experiences and perceptions. In other words, Qualitative research uses methods such as interviews, focus groups, and observations to collect rich descriptive data. It analyses data thematically by searching for patterns and meanings within the information collected. It aims to understand social phenomena and the lived experiences of individuals. Qualitative Study (qualitative research) is used in social sciences and humanities fields to study education, psychology, anthropology, and history.

Qualitative data: Qualitative data rely on descriptive terms to describe something of interest. Marital status, political party, and eye color are some examples of qualitative data. Qualitative data can be nominal (arbitrary labels for data. No ranking allowed. Example Zip Codes (19808, 76137) or ordinal (ranking allowed. No measurable meaning to the number differences. Example Education level (master's degree, doctorate degree).

Primary data: According to Donnelly, JR, primary data are data that you have collected for your own use (Donnelly, JR, 2019, p.6). Following Donnelly, JR, they are data collected by the person or organization that eventually uses the data. This type of data can be expensive to acquire, but the main advantage of primary data is that the data are yours, and you have nobody else to blame but yourself if you make a mess of it. You can obtain primary data in many ways, such as by direct observation, via experiments, or through surveys (Donnelly, JR, 2019, p.6).

Interview: a fact of asking somebody questions about their opinions, their life, etc. Also, an interview is a structured conversation where one person (the interviewer) asks questions and another (the interviewee) provides answers. Researchers use research interview to collect data for a study or project. The interviewer (the researcher) asks questions to gain insights on a particular topic. An interview can be formal or informal. It can take place in person, over the phone or online through video conferencing.

Limitations

We will need a budget to cover recruitment incentives for participants, transcription costs, and data analysis software. So far, we are financially limited.

Delimitations

Focus

Our study will focus on the on the role of educational technology leaders in K-12 and higher education institutions within Sub-Saharan Africa.

The type of leaders our study could either focus on are leaders within schools or universities with a demonstrated focus on promoting educational technology and innovation regardless of their specific title, then specific leadership roles within educational technology such as directors of instructional technology or educational technology specialists.

Scope

Our study will be delimited to Sub-Saharan Africa. We may specify a sub-region or specific countries within the Sub-Saharan Africa if our resources are limited. The aspects of the culture of innovation that our study will explore could include adoption of new educational technologies, integration of technology into the curriculum, development of innovative teaching practices using technology, and encouragement of student creativity and problem-solving skills with technology.

Methodology

The research method that we will use in our study is interview.

Data Analysis

Thematic analysis could be used to analyze the data we will collect.

Additional Considerations

The types of educational technology we will explore in our study are mobile technologies and learning management systems. Additionally, the level of educational technological integration our study will focus on is basic use and possibly we might add moderate use or highly integrated.

These delimitations will guide our research to be more focused and manageable. They will also help to ensure that our findings are relevant and applicable to the specific context of educational technology leadership in Sub-Saharan Africa.

Assumptions

General Assumptions

- Our study assumes that educational technology has the potential to enhance student learning outcomes in Sub-Saharan Africa.
- Our study assumes that educational technology leaders play a significant role in shaping the way technology is used in schools and universities.
- Our study assumes that promoting a culture of innovation in educational technology use is beneficial for Sub-Saharan African institutions.

Assumptions about Sub-Saharan African Context:

- Our study likely acknowledges that access to technology and infrastructure varies greatly across Sub-Saharan Africa. Unequal access to technology.

- Our study might assume that educational technology leadership approaches in Sub-Saharan Africa may need to be adapted to address the region's unique challenges and opportunities. Hence, need for specific considerations.
- Our study might assume that Sub-Saharan African institutions are motivated to embrace innovation in educational technology to improve educational quality and prepare students for the future.
- Our study might assume a certain level of teacher receptiveness towards incorporating technology into their teaching practices.

Our research may reveal additional assumptions that are important to consider. These assumptions will be examined and validate or challenged during our research process.

Chapter Summary

This proposal for a qualitative study highlights the importance of educational technology leaders in promoting a culture of innovation in K-12 and higher education. Traditionally, research has focused on the benefits of technology integration in education. This proposal argues that successful technology use depends on a school environment that encourages educators to embrace new tools and experiment with them in their teaching. This study aims to understand how educational technology leaders cultivate innovative culture. Through interviews with both educational technology leaders and educators, research will explore the strategies leaders use to support teachers in integrating technology and the challenges they face in promoting innovation within K-12 and higher education. By understanding these aspects, our study hopes to provide valuable insights for educational institutions. This knowledge can be used to develop programs that strengthen educational technology leadership practices, ultimately fostering a more innovative and technology-driven learning environment for students in the age of technological innovation.

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