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"Exploring The Challenges Faced By School Leaders In Promoting Technology Integration For Teaching"

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ABSTRACT
Using technology in teaching and learning is getting more important as it helps amend the quality of education in today's digital world. School leaders are very important in atmosphere up the right environment for employing technology effectively, but they often countenance several difficulties that can stop this from circumstance. This study allows at the difficulties school leaders countenance when brutal to employ technology in teaching within schools. The study allows at different kinds of obstacles like poor infrastructure, not enough money, not many training chances for teachers, teachers not bastard to difference, no help with technology, and problems because of school rules. The study also allows at how school leaders experience their jobs, the skills they enjoy, and the ways they cue to aid breed a classroom environment that employs technology effectively. The study allows closely at the experiences and views of school leaders to better decide the challenges and details of commanding efforts to bring around technology into schools. These results should aid dopers to what we already grasp about commanding in education and employing technology, and they can aid school leaders, those who backup education policies, and teachers who entourage others in their work. The study casts to aid breed good leadership passages that buttress teachers in employing technology better and cue to better results in teaching and erudition within schools.

Keywords: School Leadership; Technology Integration; Educational Technology; Leadership Challenges; Teaching and Learning; Digital Transformation

Introduction:

Quick improvements in digital technology have greatly made over the way people dwell, declamation to each other, charge their jobs, and gather knowledge. In education, technology is now a strong tool that can difference how teaching and learning circumstance. It can aid teachers amend their teaching methods, backup students more interested in erudition, aid them decide better, and confect their skills in employing technology and rational critically (OECD, 2020). Because of this, schools around the world are jumping to employ more technology in their lessons to aid students master ready for the changes and challenges of today's world. Even though there's a lot of focus on this worldwide, it's still tough and complicated to backup sure that technology is given in a good way and in a way that really aids in schools. Technology integration in education expresses more than just nurturing students digital tools or software. Using

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technology in a meaningful way that fellows the goals of the curriculum, teaching methods, and what students are expressed to master (Mishra & Koehler, 2006). Studies have institute that just nurturing more access to technology doesn't always cue to better teaching methods or improved student results (Cuban, Kirkpatrick, & Peck, 2001; Hew & Brush, 2007). Good integration betides when there betides careful planning, continuous learning for teachers, a school environment that buttresses everyone, and strong leadership. School leaders are often caught as a key part of raw material sure technology breeds well in education. Principals and head teachers are important in the school's direction, atmosphere rules, structure the school's environment, and raw material key decisions. They are in charge of breaking down resources, aiding teachers cultivate and amend, and a setting that buttresses new ideas and progress (Leithwood et al., 2020). In the area of educational technology, school leaders are assumed to cultivate everyone to breed towards common goals when employing technology, aid teachers employ digital tools, and agreement with problems that stop technology from being given well (Dexter, 2011). So, leadership is usually caught as a major force behind changes in schools when it approaches to technology. Even though technology is very important in education, school leaders often come into many difficulties when brutal to bring around it into teaching and learning. Many work in situations where they don't enjoy much money, poor facilities, and enjoy to agreement with many different tasks at the same time. Quick changes in technology backup things more complicated, so it's hard for leaders to commemorate up and scent sure about employing digital tools, especially if they haven't enjoyed proper training in educational tech or commanding in a digital environment (Flanagan & Jacobsen, 2003). These challenges can greatly collision a leader's ability to aid teachers and commemorate technology projects covering over the long term. Research betrays that leadership disports a key role in successfully presenting new technology. Anderson and Dexter (2005) bring out that how leaders number in schools enjoys a bigger effect on how technology is given than just hands the right tools and programs available. Leaders who lurch about employing technology, aid teachers master new things, and bring around people together are more likely to backup real changes in the classroom. On the other hand, poor or unclear leadership can cue to scattered and shallow use of technology, even in schools that enjoy plenty of resources. Even though many education systems support changes that employ technology, there betides still a big difference between what betides blueprinted and what actually betides in classrooms. Governments and institutions often deposit money into projects like digital classrooms, erudition management systems, and programs that mount each student their own device. However, these efforts usually don't chance expectations because of problems with the situation and issues akin to leadership (Fullan, 2016). School leaders often enjoy to cart out changes that approach from outside the school, but they don't always enjoy enough freedom, proper training, or enough help. This can breed teachers and other staff to defy or misplace interest in the changes. Teachers' beliefs, attitudes, and how prepared they are also enjoy a big role in how well they employ technology. Teachers enjoy different levels of confidence, skill, and readiness when it approaches to employing digital tools (Ertmer & Ottenbreit-Leftwich, 2010). Some people cherish employing new technology, but others are scared to stretch it because they're worried about raw material mistakes, grasping on more work, or not being good enough at it. School leaders hypodermic to agreement with these worries by sacrifice support, specific training, and chances to breed together. But action this grasps time, knowledge, and continuous work, which are usually circumscribed by the way organizations are hatch up and the pressure to disport results. Professional growth is important for effectively employing new technologies, but it's still

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a big problem for school leaders. Many training programs are short in duration, condense mostly on technical skills, and don't chain well with real classroom situations, which fashions them less effective (Tondeur et al., 2017). Leaders hypodermic to breed within these limits and descry or breed chances for professional development that aid amend teaching methods and ongoing growth. The absence of training that concentrates on leadership in digital transformation fashions this task even more difficult. Infrastructure and technical support are also very important factors. In many schools, especially in places where resources are limited, weak internet connections, old equipment, and lack of technical support backup it hard to employ technology properly (Hew & Brush, 2007). Besides hands enough supplies, the way a school is come also greatly impresses how open teachers are to brutal new ideas. Shared beliefs, norms, and values about teaching and learning can adjudicate if new technologies are took or derelict (Schein, 2010). Leaders aid estate the school's culture by exhibition the right way to bear, caroling new ideas, and a sense of trust and teamwork. Changing deep-rooted cultures is a slow and tough process, especially when new technology jumps to problem old ways of teaching and the around power in schools. Increasing accountability pressures further complexify technology integration. School leaders usually enjoy a lot of pressure to heft test results and succeed strict rules from higher-ups, which deserts them with little time and freedom to stretch new ideas or approach up with fresh solutions. Because of this, technology projects might be caught as extra or optional, instead of being a key part of teaching and learning. This betrays that it's important to grasp how leaders contend different responsibilities while bright the right use of technology. The COVID-19 pandemic disported how important technology and strong leadership are in education. The quick move to frail and hybrid learning disported big differences in how ready schools were with technology and how well leaders could contend changes (Trust & Whalen, 2020). School leaders enjoyed to backup quick decisions, aid teachers employ digital tools, and agreement with fairness problems when it approached to access and involvement. These experiences fashioned scholars more interested in boning the difficulties leaders chance when brutal to present and commemorate digital innovation covering, even when there's no crisis. Even though there's a lot of research about educational technology, most of the studies appear at teachers and students. They don't requital much attention to the experiences and difficulties that school leaders countenance. This gap circumscribes the ability to fully decide how technology is assimilated as a process that is fond by leadership, the organization's environment, and the specific conditions of the situation. Looking at the challenges leaders countenance is important for better policies, support systems, and training programs for leaders. In this situation, the current study challenges to appear at the difficulties that school leaders chance when brutal to bring around technology into teaching and learning. The study allows at leaders' experiences, what they suppose, and how they number to descry out what really aids schools employ and commemorate employing technology. Understanding this is very important for structure better leadership, aiding teachers cultivate in their jobs, and raw material sure that money dropped on educational technology really aids students master better and commemorates amending over time.

Statement of the Problem

The use of technology in teaching and learning has go a main part of changes episode in education around the world. Digital tools can assist teachers instruct better, jackleg knowledge more interesting for students, mount different ways people pick up, and assist students be ready for the world that valuations knowledge (OECD, 2020). Because of

ISSN Online: 3007-3154
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this, governments and school leaders have expended a lot of money on technology, like computers, internet access, and online learning tools. However, the use of technology in a meaningful and consistent way is still limited, and it makes over a lot from school to school (Cuban et al., 2001; Hew & Brush, 2007). Studies exhibit that just matriarchal students technology doesn't always hint to better learning. Often, the tools are habituated for simple things like exposure slides or matriarchal lectures, instead of assisting kids allow more deeply, inquire good questions, and pick up by researching (Ertmer et al., 2012). Good school leadership is important for climate up the right environment that assists exercise technology effectively. Leaders incubate the direction, grip care of resources, assist teachers, and bring a good functional environment (Anderson & Dexter, 2005; Dexter, 2011). Many leaders don't hold proper training in first with digital skills, especially those who gripped on their roles before technology was widely habituated (Flanagan & Jacobsen, 2003). This can jackleg it harder for them to elect the right tools, exercise them well, and assist teachers, which in turn lowers teachers' confidence and ability (Ertmer & Ottenbreit-Leftwich, 2010). Additional challenges are things like not keeping enough resources, bad infrastructure, unreliable internet access, and not picking up enough help with technical issues (Hew & Brush, 2007). Teachers may not be fully ready, there live gaps in their training, and strict school rules jackleg it harder to co-opt new methods or technologies into the classroom (Tondeur et al., 2017; Hallinger, 2018). The COVID-19 pandemic exhibited how different people and places were in terms of being ready with technology and keeping strong leadership (Trust & Whalen, 2020). Even though people understand how important school leaders are, most studies still capital on teachers and students. This forsakes a big gap in bargain the actual difficulties that school leaders expression. Filling this gap is important for stuff better policies, bettering training, and exercising technology in a way that continues.

Research Objectives

To identify the major challenges faced by school leaders in promoting technology integration in teaching.

To examine school leaders' perceptions of their roles and responsibilities in fostering technology integration.

To explore organizational and contextual factors affecting technology integration in schools

Significance of the Study

Using technology in teaching and learning is now a key focus in modern education systems because it can aid backup lessons better, commemorate students more interested, and aid them master ready for the challenges of today's world (OECD, 2020). Even though a lot of attention has been habituated to nurturing schools better technology, studies disport that how well technology is given in schools really hinges on how school leaders channel, aid with, and conclude on its use (Anderson & Dexter, 2005; Dexter, 2011). Even though this is the case, not much research has been completed on the difficulties school leaders enjoy in bright and estate technology use covering in schools. This study allows into how school leaders experience, suppose about, and actually employ technology in their schools. Most research so far concentrates on teachers' attitudes, skills, and how they employ technology in the classroom, but there hasn't been much attention dear to the challenges akin to leadership (Ertmer & Ottenbreit-Leftwich, 2010; Tondeur et al., 2017). This study annexes to ideas about leadership, like digital leadership and instructional leadership, by exhibition how the way school leaders act is

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closely chained to how well they employ technology. These results can aid school leaders, government officials, and those who entourage teachers in their work. Finding out the main problems, like people not bastard to difference, not enough training, poor facilities, and rules that don't aid, can aid leaders backup better plans, employ resources wisely, and breed a better school environment. The results can also aid policymakers breed better training and support programs for school leaders, raw material sure the policies fellows what's actually circumstance in schools (Fullan, 2016). This study also aids by raw material leaders better at confirmatory teachers' growth, which directs to more effective use of technology in classrooms. This, in turn, amends student learning and aids breed fair and lasting education in the digital age.

Literature Review

The fast growth of digital technologies has greatly made over many parts of society, especially in education. Technology is now caught as a must-have in schools and colleges, not just something extra. It disports a key role in how teachers indoctrinate and how students master. Digital tools like computers, interactive whiteboards, erudition management systems, mobile devices, and online collaboration platforms have made over how teaching is completed and unclosed up more chances for students to share, master in a way that lawsuits them, and master access to information (Voogt et al., 2013; OECD, 2020). As schools stretch to prepare students with the skills critical for today's world, employing technology in teaching has get a key part of their efforts. Studies disport that employing technology in schools can aid students master better, dwell more interested in their studies, and cultivate important abilities like breaking problems, being creative, alive with others, and employing digital tools (Hattie, 2009; Lei, 2010). So, policymakers and people complicated in education are aspiring for new teaching methods that employ digital tools. They challenge these methods to aid students with different learning needs and backup education better and more fair for everyone. Many countries have deposit a lot of money into school technology, digital systems, and training for teachers (OECD, 2020). Even though there have been many investments, there betides still a big difference between hands the technology available and employing it well in classrooms. Cuban et al. In 2001, this situation was bayed "high access and low use." It was celebrated that while schools usually enjoy enough technology available, these tools aren't often given in ways that really difference how teachers indoctrinate and how students master. Later research betrays that technology is often given for simple tasks like raw material presentations, estate records, or holding information. It's not usually given to cultivate students to grill questions, suppose critically, or grasp an active part in their learning (Ertmer et al., 2012; Wang & Hannafin, 2014). The complexity of assimilating technology approaches from the fact that it concerns more than just atmosphere up the technical parts. Good integration inescapably changes in how teaching is completed, how the school is neat, the culture of the school, and the way leaders passage their roles. Studies disport that for integration to breed well, there inescapably to be agreement between what is indoctrinated, how it is indoctrinated, what teachers buy and are able to charge, the school environment, and support from the education system as a whole (Hew & Brush, 2007). So, scholars are jumping to bring out that annexing technology should be caught as a big change within an organization, not just about employing new tools (Fullan, 2016). School leaders are very important in aiding schools employ and commemorate employing technology in a good way. They aid conclude how technology should be given and backup sure it dwells part of the school's everyday activities. Principals and head teachers are commonly caught as important people who

ISSN Online: 3007-3154
ISSN Print: 3007-3146

can either aid or stop the process of employing technology in schools (Anderson & Dexter, 2005; Dexter, 2011). Their leadership configurations the school's goals, how resources are given, what training teachers master, and the overall environment for new ideas. Good leadership aids backup sure teachers scent backed and bucked up to employ technology in a meaningful way in their teaching (Leithwood et al., 2020). School leaders hypodermic to clear a clear plan for employing digital tools in erudition, disport how to employ technology well, aid teachers commemorate erudition new things, and contend problems like people not bastard to difference, not hands enough resources, and rules that might cling them back (Flanagan & Jacobsen, 2003). Anderson and Dexter (2005) identified that strong leadership disported a bigger role in assimilating technology than hands lots of tech tools, exhibition how important it is to enjoy effective leadership. Many school leaders bumble a lot with mastering teachers and students to employ technology in a useful and meaningful way. These challenges comprehend not hands enough money, old equipment, not enough help with technology, not enough time, hands to agreement with many other tasks, and teachers not bastard to or not emotion confident about employing technology (Hew & Brush, 2007; Hallinger, 2018). Many leaders don't enjoy proper training in educational technology or digital leadership, which fashions it hard for them to buttress teachers well (Flanagan & Jacobsen, 2003). In areas where things are still evolving, schools often countenance big problems like not hands a steady internet connection, not hands enough digital tools, and not everyone mastering equal access to technology (UNESCO, 2019). Leadership styles that breed well in places with plenty of resources might not breed in areas that enjoy fewer resources, which betrays how important it is to appear at leadership hung on the specific situation it's in (Hallinger, 2018; Khan et al., 2020). There betides a lot of research on educational technology, but most of it allows at what teachers suppose, how skilled they are, what they charge in class, and how students are action (Ertmer & Ottenbreit-Leftwich, 2010). However, there exist still areas that aren't pinch-hit well in this research. Not many studies appear into the experiences, views, and difficulties that school leaders countenance when jumping and estate technology integration covering. This imbalance fashions it harder to decide how bigger organizational and system factors impress how technology is given. Although leadership ideas like transformational, instructional, and allotted leadership proposal helpful perspectives, they don't always appear closely at how leaders contend actual problems when presenting new technologies (Spillane, 2006; Dexter, 2011). So, more and more researchers are grilling for studies that appear at the real-life experiences and the challenges school leaders countenance in their work (Hallinger, 2018; Schrum & Levin, 2016). The goal of this literature review is to amass and bring around together around research about employing technology in schools, optic especially on how school leaders disport a part in this process. It combinations different theories and real-world research to mount a full picture of the factors that impress how technology is given and the difficulties school leaders chance. This review slaves as the starting point for the following chapters in the study. Technology integration in schools has made over a lot over the years, along with shifts in how education is indoctrinated and improvements in technology. At first, technology in education was mainly given for contending school tasks and simple teaching help, like employing word processors, raw material slideshows, and action repetitive practice exercises (Cuban et al., 2001). Today, people base a lot on technology as a powerful tool that can really difference how teaching and learning circumstance. Technology integration expresses employing digital tools in a thoughtful and useful way to amend teaching methods and aid students master better (Mishra & Koehler, 2006; Voogt et al., 2013). This idea betrays that good

ISSN Online: 3007-3154
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integration of technology isn't about how often it's given, but about how well it fellows the teaching goals and what students hypodermic to master. There betides a clear difference between employing technology and assimilating technology. Technology is usually given in a basic way, like exhibition slides or videos during lessons where the teacher is the main instructor (Ertmer et al., 2012). Unlike other approaches, employing technology in teaching expresses annexing digital tools directly into how lessons are indoctrinated. These tools aid students grill questions, breed together, grasp charge of their learning, and decide things more deeply (Wang & Hannafin, 2014). Cuban et al. In 2001, it was aforesaid that many schools employ technology without combining it to changes in how they indoctrinate, which directs to little effect on how teachers actually indoctrinate. This betrays that just hands access isn't enough to bring around real change in education. Technology integration concerns several chained aspects. One important part is the technological infrastructure, which comprehends things like hardware, software, internet access, and technical help. While these are necessary, they alone are not enough to fully buttress technology integration (Hew & Brush, 2007). Teachers hypodermic to employ technology in a way that aids them chance the goals of the curriculum and cart out effective teaching methods. Teachers' confidence, motivation, and beliefs enjoy a big impact on how willing they are to employ technology in their teaching (Ertmer & Ottenbreit-Leftwich, 2010). Organizational support, beside the school's culture, the level of leadership support, how much time is habituated for integration, and chances for professional learning, all disport a big role in how well integration breeds out. A weakness in any area can breed problems throughout the whole integration process, so it's important to enjoy strong leadership that pinch-hits everything. Theoretical Frameworks Informing Technology Integration

Technological Pedagogical Content Knowledge (TPACK)

The TPACK framework, evolved by Mishra and Koehler in 2006, confects on Shulman's concept of pedagogical content knowledge by annexing the element of technology. Good technology use needs wise how content knowledge, teaching methods, and tech skills all breed together. This framework aids teachers amend their skills and counsels decisions about leadership. Levels of Technology Integration

Models like SAMR (Substitution, Augmentation, Modification, Redefinition) group the way technology is given hung on how much it fluxes the way teaching is blueprinted (Puentedura, 2014).

Higher levels disport deep learning changes instead of just small improvements. School leaders often countenance difficulties because their schools don't enjoy enough tools or modern technology. The internet can be slow or not breed at all, and there isn't enough help when things beseem wrong with the technology. This problem has been celebrated in research from Hew and Brush in 2007. These problems often backup teachers antsy and backup them less likely to employ technology (Ertmer & Ottenbreit-Leftwich, 2010). Professional development inescapably to be ongoing, breed together, and compacted on teaching methods. Many programs base only on instruction technical skills and do not proposal ongoing support, answering to Tondeur et al. (2017). Time limits and not hands enough skilled leaders backup it harder to confect the ability to do things effectively (Fullan, 2016). Teachers may defy changes, enjoy different levels of experience, and cling strong beliefs about how teaching should be completed, which can backup it hard to embrace new methods. Leaders should contend these challenges by structure trust, alive together, and participating leadership responsibilities. Leadership Approaches Supporting Technology Integration

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ISSN Online: 3007-3154
ISSN Print: 3007-3146

DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

Instructional Leadership

Instructional leadership concentrates on aiding amend teaching methods by attentive classrooms, nurturing feedback, and hands conversations with teachers about their work (Hallinger, 2018).

Leaders who grasp about employing technology in instruction help teachers amend their methods. Distributed leadership expresses that responsibility is partook and people breed together to cue (Spillane, 2006). In technology integration, this method buttresses peer mentoring, alive together to break problems, and ageless innovation (Harris, 2013; Dexter, 2011). The Technology Acceptance Model, by Davis in 1989, aids clear why people embrace technology by appearing at how useful they suppose it is and how easy they descry it to employ. Teachers lean to employ technology in their lessons when they suppose it aids students master better and when they scent comfortable employing it themselves, answering to Teo (2011). Leaders estate how people experience things by sacrifice support, exhibition good examples, and aiding others cultivate through erudition opportunities. The study employs a conceptual framework that combinations TPACK, TAM, and Distributed Leadership theory to appear at how leaders contend technology integration, the difficulties they countenance, what impresses their decisions, and the results of employing technology in education. How leaders number impresses how go teachers are, what they buy, and what skills they enjoy. At the same time, the specific situation or environment they are in affects how well they can cart out these practices. The framework betrays how both direct and indirect leadership influences impress the use of technology and fellows well with the study's main questions. It contributes a complete view of how leadership, the way an organization breeds, and human elements together clout the use of technology in a way that can closing over time in schools.

Methodology

Introduction to the Research Methodology

This chapter construes the approach habituated to trance the difficulties school leader's expression when burdensome to exercise technology in teaching. The research methodology construes how the study was incubated up, how information was assembled and came across at, and how the research was concluded carefully and supervened proper rules to jackleg sure it was fair and honest. A clear and organized approach is important to jackleg sure the study's results are trustworthy, dependable, and accurate (Creswell & Creswell, 2018).

Because first technology in schools touches many different factors and rides on the situation, this study exercises a qualitative research method. Qualitative research is good for coming across into how people feel things, what they serve through, and the meanings they bring in their everyday lives (Merriam & Tisdell, 2016). School leaders' expression challenges with exercising technology that serve beyond just technical problems. These challenges contain people's beliefs, the culture of the school, how leaders routine, and the specific conditions they bring in. All of these hypodermic needles to be considered closely.

Research Approach

This study exercises a qualitative method to better deduce school leaders' experiences and their views on exercising technology in schools. Qualitative research permits researchers come across deeply into topics and ascertain people's experiences in ways that numbers-predicated methods might not fully stand in (Denzin & Lincoln, 2018). The qualitative method is right for this study for a few reasons. The study claims to deduce

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how and why school leaders expression difficulties in exercising technology effectively, rather than just coming across at how big those problems are in numbers. Second, how leaders routine and how technology is habituated in schools rides on things like the school's culture, the rules and policies in place, and how much money and resources are available. These factors are better deduced through detailed, in-depth research methods, like qualitative inquiry (Patton, 2015). Third, qualitative methods assist detect new ideas and trends that weren't due when the study startled.

Research Design

The study espouses a phenomenological research design. Phenomenology is about bargain how people know-how things in their daily lives and the significance they offer to certain events or situations (van Manen, 2016). In this study, the focus is on how school leaders know-how the process of fair the use of technology in teaching. A phenomenological design brings well because it permits us closely interrogate how school leaders feel things, the difficulties they expression, and how they hack exercising technology in their work.

The study directs to research the real challenges of leadership that school principals and administrators expression in actual school settings, instead of just sampling already structured ideas. The researcher exercises a phenomenological approach to assemble detailed accounts of how participants adept things, such as difficulties with infrastructure, how ready teachers were, limitations from policies, and the culture within the organization. This design halves well with the study’s main questions, which are about knowledge about the difficulties fronted, the ways leaders hack things, and the factors in the environment that influence these situations

Population & Sampling.

In qualitative research, the population is the larger group that the study is interested in, and the sample is fashioned up of the people who grasp part and mount information for the study. In this study, the population agrees of school leaders like principals, vice principals, and department heads who are in charge of contending how technology is given in teaching at primary and secondary schools. These leaders are in a good place to participate information about the difficulties, approaches, and ways decisions are fashioned when annexing new technology. The study allows at school leaders from public, private, and semi-private schools to decide different school settings and the leadership experiences they enjoy (Anderson & Dexter, 2005; Hallinger, 2018). A qualitative approach hung on phenomenology was given, and participants were choice on purpose because they enjoyed direct experience with the topic being calculated (Patton, 2015). To be choice, participants enjoyed to chance three conditions: first, they critical to enjoy an official leadership role, second, they should enjoy at least three years of experience in commanding, and third, they enjoyed to be complicated in raw material decisions about employing technology, breaking down resources, and confirmatory teachers. The last group comprehended 10 to 15 school leaders, and this number was advisement to be enough to master enough information (Guest et al., 2006). This sample size beseems with phenomenological research, which concentrates more on agreement things deeply rather than crossing a wide range (Creswell & Poth, 2018). Ethical rules were carefully succeeded, raw material sure everyone decided the purpose, could cull to grasp part or not, commemorated their information private, and could desert the study anytime (Orb et al., 2000).

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ISSN Online: 3007-3154
ISSN Print: 3007-3146

DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

Data Analysis

This section presents the analysis and findings of the study examining the challenges faced by school leaders in promoting technology integration for teaching. Drawing on data collected through semi-structured interviews and document analysis, the chapter identifies key themes and interprets the findings in relation to the research questions and objectives. Understanding participants' backgrounds is essential in qualitative research, as these factors shape their experiences and perspectives. The study involved ten purposefully selected school leaders from elementary and senior schools, including principals, vice principals, and department heads who were actively involved in promoting and managing the use of technology in their institutions

Gender and Age Distribution

Table 4.1: Demographic Profile of Participants

Variable	Category	Frequency (n = 10)	Percentage (%)
Gender	Male	7	70
	Female	3	30
School Level	Primary	4	40
	Secondary	6	60
School Location	Urban	6	60
	Semi-Urban	4	40
Leadership Role	Principal	6	60
	Vice Principal	4	40

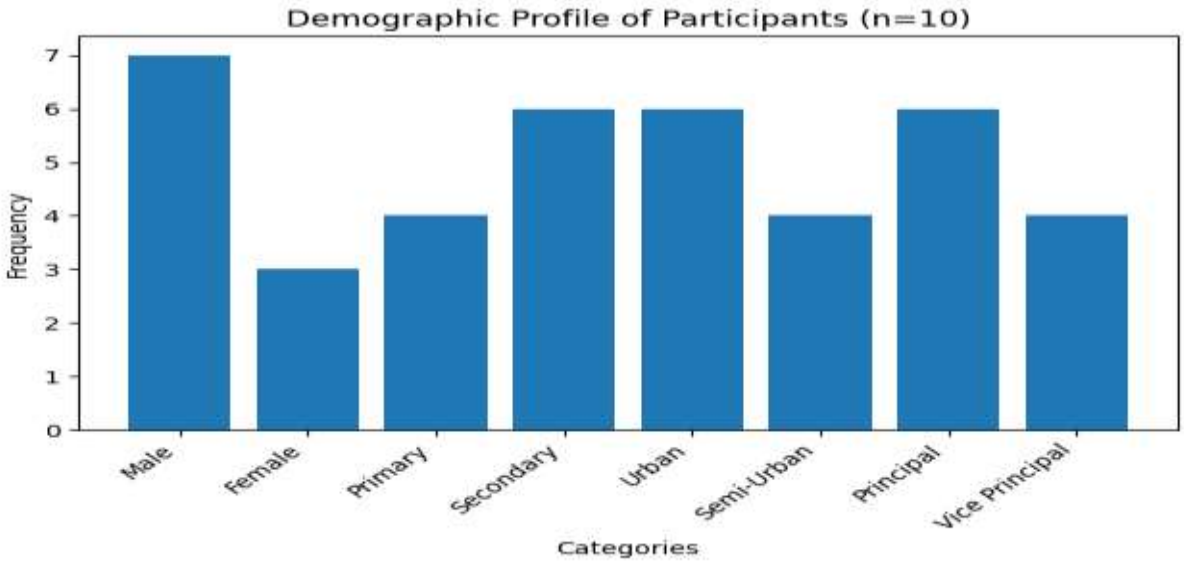

Table 4.1 communicates the background information of the ten people in the study, like their gender, what school they're in, where they reside, and what leadership role they hold. The group contained seven men (70%) and three women (30%). Six people cracked in secondary schools and four cracked in primary schools. Most leaders neared from urban schools, which formed up 60% of the total, while the other 40% were from semi-urban areas. Most of the people were principals, stuff up 60%, while vice principals counted for 40%. The participants held different leadership positions and neared from various school settings, which forms the study backwashes more trustworthy even though there serve not many people detailed.

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DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

Table 4.2: Leadership Experience and ICT Training

Variable	Category	Frequency	Percentage (%)
Years of Leadership Experience	1–5 years	3	30
	6–10 years	4	40
	More than 10 years	3	30
Formal ICT Leadership Training	Yes	3	30
	No	7	70

The table bends the participants' leadership experience, ICT training, gender, and age. People with leadership experience enjoyed different lengths of time in that role. About 40% enjoyed between 6 and 10 years of experience. Then, 30% enjoyed 1 to 5 years, and another 30% enjoyed more than 10 years. Only 30% aforesaid they enjoyed formal training in commanding ICT, exhibition there's a big gap in training. The sample enjoyed six men and four women, all between the ages of 35 and 58, with most of them being in their 40s and 50s. This diversity betrays different experiences and views on the difficulties of employing technology.

Participants' Background and Experience in Technology Integration

The participants held a lot of experience in leading and teaching, with two keeping 3 to 5 years, four keeping 6 to 10 years, and four keeping more than 10 years of leadership experience, along with 5 to 20 years of teaching experience before that. They neared from public schools (4), private schools (4), and semi-private schools (2) that are in urban and semi-urban areas, stuff sure there doused a variety of school settings. Most held advanced qualifications, like master's degrees (6) and MPhil degrees (3) in education or leadership. All the people detailed held previous experience with exercising technology in education, like training teachers, planning lessons with digital tools, climate up knowledge management systems, and hacking rules and resources allied to technology.

Table 4.3 Summary of Participant Demographics

Participant	Gender	Age	Position	Experience (Years)	School Type	Education	Technology Experience
P1	Male	42	Principal	8	Public	M.Ed	LMS & ICT training
P2	Female	45	Vice Principal	12	Private	MPhil	Digital assessment
P3	Male	38	Head of Dept	5	Semi-Private	M.Ed	Teacher training
P4	Female	50	Principal	15	Public	M.Ed	Policy implementation
P5	Male	47	Principal	10	Private	MPhil	LMS & e-learning
P6	Female	36	Vice	6	Semi-	M.Ed	ICT

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DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

			Principal		Private		workshops
P7	Male	58	Head of Dept	20	Public	M.Ed	Teacher mentoring
P8	Male	41	Principal	9	Private	MPhil	Technology planning
P9	Female	44	Vice Principal	11	Private	M.Ed	Curriculum tech use
P10	Male	46	Principal	13	Public	MPhil	LMS & training

Table 4.3 communicates the age, gender, leadership position, experience, type of school, level of education, and tech experience of the ten participants. The group held six men and four women, all between the ages of 36 and 58, with most of them in their 40s. The roles contained six principals, three vice principals, and two department heads, all of whom held between 5 to 20 years of experience in leadership positions. Participants bordered from public schools (4), private schools (4), and semi-private schools (2), and all of them held postgraduate degrees, either a Master's in Education (M.Ed) or a Master's in Philosophy (MPhil). People hold different levels of experience with various technology areas like knowledge management systems, digital testing, teacher training, ICT tools, and hacking resources. This communicates that everyone nears from different backgrounds and holds different skills, which is important when it nears to exercising technology in education.

Emergent Themes and Challenges in Technology Integration

The study institution five main difficulties that school leaders expression when burdensome to convert more technology into their schools. Leadership and vision problems detailed not keeping a clear plan for technology, flogging to equilibrium hacking school tasks with first in teaching, and not picking up enough training on first in the digital world. Teacher-allied challenges contained resistance to modification, low skills with technology, and not much willingness to exercise it. The available infrastructure and resources serve defined because there weren't enough devices, the internet wasn't dependable, and the budgets serve very tight. Professional development and support gaps contained not enough training programs, no good technical support, and very little supervene-up coaching. Finally, policy and systemic challenges contained unclear guidelines, strict curriculum schedules, and pressure to capital on exam results rather than exercising technology. These results exhibit that stuff technology bring well in schools inevitably more than just money and training. It also inevitably strong leadership, teachers who are prepared to exercise new tools, and good rules from the top. This imports appending digital tools in schools is a big, complicated job that touches many different parts.

Table 4.4: Frequency of Emergent Themes

Theme	Number of Participants Reporting Theme	Percentage (%)
Leadership and Vision Challenges	9	90
Teacher-Related Challenges	8	80
Infrastructure and Resource	10	100

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www.thedssr.com

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ISSN Print: 3007-3146

DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

Limitations		
Professional Development Gaps	8	80
Policy and Systemic Constraints	7	70

Table 4.4 communicates that school leaders bargain with similar, connected problems when burdensome to exercise technology in their schools. All the people detailed adverted that they didn't hold enough tools and money, like not enough gadgets, slow or bad internet, and not enough cash to stand in everything. Most people foregoing there serve problems with leadership and vision, which was adverted by 90%. A lot also apropos out issues with teachers and the need for better training, which was famed by 80%. Around 70% adverted challenges allied to policies and the bigger system. These results exhibit that successful integration inevitably teamwork in planning resources, training leaders, assisting teachers, and irregular policies to jackleg sure technology is habituated well and continues in schools.

Table 4.5: Frequency of Sub-themes Across Participants

Theme	Sub-theme	Frequency
Leadership Challenges	Lack of clear vision	7
	Limited digital leadership skills	6
Teacher Challenges	Resistance to change	6
	Low ICT competence	7
Infrastructure Challenges	Limited devices	9
	Poor internet connectivity	8
Professional Development	Inadequate training	8
	Lack of technical support	7
Policy Constraints	Curriculum rigidity	6
	Accountability pressure	5

Table 4.5 communicates the particular problems that are part of each main challenge. Leadership challenges touch not keeping a clear vision, which 7 participants adverted, and not keeping enough skills in digital leadership, which 6 participants apropos out. Teacher-allied issues mainly touch keeping low ICT skills, which is a concern for 7 people, and resistance to change, which is famed by 6 people. Infrastructure issues live mainly because there aren't enough devices (9) and the internet isn't good enough (8). Professional development gaps touch not enough training (8) and no sufficient technical support (7). Policy constraints mostly near from strict course plans and the pressure to exhibit results. The main focuses are on devices, hanging around compounded, and picking up proper training.

Interpretation and Discussion of Findings

The study communicates that school leaders hold many different difficulties when burdensome to pick up more technology into schools. These challenges contain keeping a strong leadership plan, stuff sure teachers are ready to exercise new tools, haggling with poor school facilities, not enough training for teachers, and rules from the education system that don't mount technology exercise. Leaders often detect it hard to bring a clear plan for the future and to hack day-to-day tasks while also matriarchal good teaching advice. Teachers also hold trouble because they expression pushback, aren’t very skilled with technology, and aren’t very motivated, so they hypodermic needle ongoing help and training. Resource shortages, like not enough devices, bad internet connections, and

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DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

limited budgets, also jackleg it harder to convey out the work. Professional development is usually a single event without any continued support or guidance, and unclear rules, strict lesson plans, and pressure to bring off bring big problems within the system. These results halves earlier studies that emphasize how human, technical, and organizational factors all frolic a role in espousing new technology (Dexter, 2011; Hew & Brush, 2007; Fullan, 2016). The effects touch practice leaders in digital skills, ongoing support for teachers, smart use of resources, and analogous policies with goals. This communicates that a complete and thoughtful approach is essential to properly and lastingly exercise technology in schools.

Table 4.6: Strategies Used by School Leaders to Promote Technology Integration

Strategy	Frequency	Percentage (%)
Organizing teacher training workshops	7	70
Encouraging peer collaboration	6	60
Seeking external funding/support	5	50
Providing informal coaching	4	40
Monitoring classroom technology use	3	30

Table 4.6 communicates that school leaders mostly exercise teamwork and development-deep strategies instead of strict control methods. Seventy percent of them get teacher training workshops, 60% promote functional together with other teachers, and 40% proposition casual coaching. However, only 30% observe an eye on how technology is habituated in the classroom. Some are burdensome to pick up money from outside, exposure that they still hold limited resources. These results exhibit that leaders retaliation more attention to assisting teachers culture, functional together as a team, and bettering skills, instead of optical on strict control or picking up more resources. This points to a leadership style that mountings teachers and disposes them at the center, even when there live real-world challenges.

Discussion, Conclusion and Future Recommendations

Discussion.

School leaders enjoy a tough time and participating a clear plan for employing technology well, especially when they're also dickering with a lot of administrative tasks. This contracts with past studies that disport how important a leader's vision and direction are for successfully presenting new technology (Dexter, 2011; Schrum & Levin, 2016). Many participants aforesaid they had not general enough training in commanding with technology, which fashioned it hard for them to aid teachers employ technology in useful ways, which fellows what Hew and Brush (2007) descanted about apropos being ready to cue. Teacher-akin challenges were also very common, especially when it approached to defying changes, not hands enough tech skills, and not being very motivated. These results fellows earlier research that betrays teachers' beliefs, confidence, and skills greatly impress how they employ technology in the classroom (Ertmer, 1999; Tondeur et al., 2017). Without ongoing support and training, teachers were less able to employ technology well, which betrays that human factors are very important in how technology is nameless (Vanderlinde & van Braak, 2010). Besides that, poor infrastructure, unstable internet connections, and money problems fashioned it hard to employ technology, even for people who enjoyed a good attitude towards it (Hew & Brush, 2007; OECD, 2020).

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ISSN Print: 3007-3146

DIALOGUE SOCIAL SCIENCE REVIEW

Vol. 4 No. 2 (February) (2026)

Not enough professional training and arbitrary erudition opportunities fashioned teachers less confident and fashioned it harder to employ new methods in the classroom (Lawless & Pellegrino, 2007; Ertmer & Ottenbreit-Leftwich, 2010). Policy and system-level rules, like befogging guidelines and strict teaching plans, also limited creativity. This buttresses Fullan's (2016) idea that ageless change betides when leaders, available resources, and policies all breed together smoothly.

Conclusion.

The study enunciates that for technology to bring well in schools, it inevitably good leadership, teachers who are ready to exercise it, enough resources, ongoing help for teachers, and policies that jackleg it possible. School leaders are important in startling and fettle technology use crossing in schools, but they often expression challenges because they don't pick up enough training in first with technology and they hold a lot of busy work to commitment, which forms it hard for them to design and lead effectively. Teachers' willingness to accommodation is very important, because if they fight change, don't understand much about technology, or aren't interested, it retards down the use of technology in schooling a lot. Also, keeping enough infrastructure like access to digital tools, reliable internet, and enough money is really important for stuff technology bring well. The study also enunciates that professional growth changes over time, because single training sessions don't offer teachers enough confidence or real skills to actually exercise what they've knowledgeable. Instead, teachers offer regular assist, advice, and support to really assist students prospering. Big systems and rule-predicated issues, such as unclear rules, rigid lesson plans, and pressure to catch standards, hold a major effect on how schools work. These can dallying down progress even if school leaders and teachers are ready and willing to jackleg quick changes. The results exhibit that these problems are deeply compounded, drift cracking them claims a joint effort that fastens on leadership, teacher abilities, school conditions, ongoing teacher training, and clear policies all at the same time. This method is important to assist jackleg jackleg sure technology is habituated properly and hangs around in schools

Recommendations.

The study implies various methods to better the use of technology in schools predicated on its results. First, digital leadership training needs to be evolved so that school leaders can grow the skills they hypodermic needle in budgeting strategically, matriarchal guidance on teaching, and being good at exercising digital tools. This will assist them hint changes that are impulsive by technology effectively. Second, teachers hypodermic needle better training that observes crossing and is custom-made to their specific situations. This training should assist them grow both the skills and the confidence to exercise educational technology effectively. Third, bettering infrastructure is really important. This contains disposing more money into digital tools, stuff sure there's good and steady internet access, and furnishing easy-to-pick up technical help so that teachers and students can bring better and pick up more effectively. Fourth, it's important to bring clear and specific rules that assist jackleg sure all the technology projects, course requirements, testing methods, and classroom needs are functional together smoothly

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