INFLUENCE OF SCHOOL CALENDAR DISRUPTION ON ADOPTION OF DIGITAL LEARNING OF ENGLISH LANGUAGE IN KAPSERET SUBCOUNTY, KENYA

BY

TUWEI EDNAH JESANG

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DECLARATION

Declaration by the Candidate

This thesis is my original work and has not been presented for a degree in any other University. No part of this thesis may be reproduced without the prior written permission of the author and/or University of Eldoret.

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Tuwei Ednah Jesang **Date**

SEDU/CIM/M/009/19

Declaration by the Supervisors

This thesis has been submitted for examination with our approval as University Supervisors.

_____ **_____**

Dr. Florence Mokeira Okari **Date**

University of Eldoret, Eldoret, Kenya

_____ **_____**

Dr. Emoit Omuse **Date**

University of Eldoret, Eldoret, Kenya

DEDICATION

This thesis is dedicated my departed father Paul kiplimo Tuwei, my mother Hellen Jepkoech Tuwei for laying the foundation to my education, my husband Japheth, my children Brenda, Brian and Bradley for the moral and financial support and my siblings who have been my unwavering source of support and inspiration throughout my academic journey.

ABSTRACT

From time to time, school calendars suffer disruption due to a myriad of crises. The recent global closure of schools due to the COVID-19 pandemic has created significant disruptions in school calendars, leading to the need for alternative approaches to education. Governments and schools are faced with the challenge of either embracing digital learning or enduring an indefinite wait for schools to reopen physically. This situation necessitates the identification and implementation of effective solutions to ensure the continuity of education and minimize the adverse impact on students' academic progress. The overall objective of this study was to determine the influence of school calendar disruption on the adoption of Digital Learning of English Language (DLEL) in Kapseret Subcounty, Kenya. The specific objectives were to establish whether indefinite school closure influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya, to assess the influence of educational technologies on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya and finally to determine how digital literacy influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya. The study was based on Social Cognitive Theory by Albert Bandura (2009) which provides insights into how students' learning experience. The study adopted descriptive research design. The study targeted a total of 2,173 respondents from secondary schools including; 2,092 form three students, 49 Teachers of English and 32 head teachers from the 32 high schools in Kapseret Sub County, 49 Teachers of English and 32 head teachers from the 32 high schools in Kapseret Sub County. The sample size of 327 was determined using Nassiuma's (2000) formula, which included 11 headteachers, 309 form three students, and 7 English teachers. The data was collected through the administration of questionnaire and interview schedules. Construct validity was employed and high reliabililty coeffient of 0.74 was obtained during the pilot study. The data was analyzed using descriptive statistics, including means, percentages, and standard deviations, and the results were then presented in form of tables. The study established that all schools were closed indefinitely in Kapseret subcounty and majority of the student respondents 225 (80.1%) lived with their parents during the school closure. The study further revealed that 32(11.4%) student respondents interacted remotely with their teachers via social media. All the teachers had access to internet whereas 196 (72.3%) of the student respondents had access to internet while 85 (30.2%) did not have access to internet. Also, 26(13.3%) of the student respondents used internet daily for academic work. Majority of the student respondents considered their digital skills as fair, good and very good at 93(33.1%), 76(27%) and 28(10%) respectively. Majority of the teachers 3(42.9%) were not competent in using digital devices to prepare, teach and evaluate students. In addition, only 66(23.5%) of the student respondents had undergone training for digital learning whereas 215(76.5%) had not. The study concluded that it was possible for learning to continue in Kapseret subcounty during school closure, with deliberate efforts and appropriate investment in digital learning. There was need to deliberately equip the teachers and students with the right digital devices, platforms and skills for effective engagement in case of disrupted school calendar. The schools, teachers, parents and the Ministry of Education will find this study useful in making appropriate adjustments towards leveraging technology for uninterrupted learning of English language.

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LIST OF ABBREVIATIONS

ADEA: Association for the Development of Education in Africa

APA: American Psychological Association

DLEL: Digital Learning of English Language

ELL: English Language Learners

ESL: English as a Second Language

GOK: Government of Kenya

ICTs: Information and Communication technologies

KCSE: Kenya Certificate of Secondary Education

KICD: Kenya Institute of Curriculum Development

L2: Second Language

LOI: Language of Instruction

MOE: Ministry of Education

SPSS: Statistical Package for the Social Sciences

TESOL: Teachers of English to Speakers of Other Languages

TOEs: Teachers of English

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations International Children's Emergency Fund

USA: Unites States of America

WHO: World Health Organization

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background of the concluded study and states the problem and purpose of the study. It gives the objectives of the study and the research questions and highlights the justification and significance of the study. This is followed by the assumptions upon which the study was premised, scope and limitation, theoretical framework, conceptual framework and concludes with the definition of operational terms.

1.2 Background of the Study

English language occupies a pivotal position in global communication activities. Ghosh (2020) ranks English as number one global language with over 1.1 billion speakers, or roughly 15% of the global population followed by Mandarin Chinese, Hindi, Spanish, and French. Consequently, proper acquisition of the language is as important as its effective use both as an instructional tool and for business transactions. English was introduced to Africa during the era of European colonization. Many African countries were colonized by British powers, such as Nigeria, Ghana, Kenya, South Africa, and Zimbabwe. As a result, English became an official language in these countries and was widely adopted for governance, education, law, and administration. The colonial legacy has had a lasting impact on the prominence of English in Africa (Adedeji, 2015; Sarfo, 2011). English is one of the official languages of Kenya, alongside Swahili. It is the language of instruction in schools from primary to tertiary levels. Proficiency in English is highly valued and considered essential for academic success and future employment

opportunities. Education in English is seen as a means to access higher education and to compete in the job market (Timammy & Oduor, 2016; Gudu, 2015).

Non-English natives mostly acquire English as a second language in a school setting (McCaul, 2016). However, beyond the formal context of classrooms, digital learning has enabled lots of people round the globe to acquire English language in a self-directed fashion with a chance to learn and practice. Digital learning has a great potential to address limitations of classroom instruction while helping with vocabulary development, English proficiency, affective and cognitive domains of language learning including willingness to communicate with confidence and competence (Lee, 2020).

A study by Nugroho and Atmojo (2020) reported that students positively perceive the use of digital technology as a means of language learning amidst the global pandemic and reveals that digital learning of English beyond classroom could potentially be conducted by means of available social networking sites such as YouTube, WhatsApp, Instagram, Google classroom, and Facebook, beside other dedicated English language learning websites. The versatile technology has made it possible for English Language Teachers and learners to effectively engage beyond a formal classroom by means of accessible digital devices and internet resources.

Research has linked higher English proficiency, vocabulary outcomes and cross cultural communication to digital learning (Kim & Bae, 2020). WhatsApp, for instance, has transformed from a predominantly smartphone application to WhatsApp Web, accessible via computers and laptops as a confirmation of the rapid development of technology and allied resources. Notably, while learning by mobile phone was labeled as slow and

undesirable due to screen size and interface issues, today's phones and computing devices have emerged with higher storage, memory capacity, higher resolution, 4G network offering better experience for the learner, encouraging learning efficacy, but could also enhance language productivity (Rasheed, Rasheed & Naz, 2019).

Digital resources also enable teachers to enhance their English language knowledge so that they are better positioned to deliver the content (Rasheed, Rasheed & Naz, 2019) . Beside social media, Web based tools like goggle docs, e-mail, google classrooms, Teams, BigBlueButton and zoom are available to teachers to develop content, organize and execute classes and richly interact with the learners. According to Taffani (2009), broadcast media including educational television channels, radio and e-newspapers continue to support learning through increased learning content targeting specific audiences and subjects. In addition, dedicated Apps like *Grammarly, TinyCards, lounge, Write and Improve*, *ted Ed, Lyrics Training,* Alson®, *Think and Learn, Alibaba Cloud, Road to Grammar* and google expedition all exist to support English language learning (Mohamed, 2021)

According to Save the Children (2015), each year disasters of different magnitudes emerge with serious impacts on the learners and education systems. As a result, educational institutions close, resulting in students missing school days, teacher absenteeism, and interruption of education cycles owing to damage and destruction of school infrastructure or the use of schools as emergency shelters. In the event of a disease outbreak, closure is frequently required to prevent the spread of the infectious disease. Covid-19, Spanish Flu (1918-1919), The Spanish Flu, H1N1 Influenza pandemic (2009-

2010), and SARS outbreak (2002-2004) are examples of disease outbreaks that have disrupted learning (Taylor, 2022).

Disruption in school operations occasioned by any disaster or calamity, foreseeable or otherwise, impairs the learners' efforts to acquire knowledge and the instructors' ability to impart the knowledge. This disruption has been particularly challenging for students in low-income countries, who may not have access to technology and internet connectivity required for remote learning. Garcia, Franchino and Muñiz (2020) posit that the challenges may be exacerbated for English learners especially in addressing all the four domains of language development: reading, writing, speaking, and listening. More often, students learn English then use the same language to learn other subjects (Grabe & Stoller, 2002).

The outbreak of corona virus occasioned indefinite closure of schools in most parts of the world disrupting learning in an unprecedented manner (Orville, 2020). Presumably both the learners and teachers would continue to engage remotely during the indefinite school closure to ensure academic activities were not halted; that there would be a transition from the traditional brick-and-mortar classrooms to the virtual space. COVID-19 impact report on education in African countries by ADEA (2020) indicates that the pandemic brought a new reality that necessitates a rethink of how quality education can be effectively delivered in an inclusive and equitable manner using technology as an enabler.

The novel corona virus pandemic surpassed all other socio-economic and environmental disasters in disrupting school programs (Aborode *et al*, 2020). While the developed nations may have experienced a smoother transition to virtual learning due to the existing supporting infrastructure, widespread digital devices, better internet connectivity and power supply, the struggle to keep students occupied and learning from home was real nightmare due to constraints related to access, knowhow, support and general preparedness to fully embrace digital learning Bhamani *et al* (2020) and Bozkurt (2020).

By mid-April 2020, Reddy et al (2020) put the number of students affected globally at 1.725 billion, including higher education institutions, accounting for 192 countries that were implementing nationwide closures affecting 99% world's student population. Statista (2020) estimates that 17,202,489 schools or school districts were closed in the USA by mid-March 2020 and more were scheduled to close. The National Centre for Education Statistics (2020) indicates that the USA student enrolment stood at 56.3million, 50.6 million in public schools and another 5.7 million in private schools while the number of teachers was 3.6 million. According to Collen (2020), all schools in England closed due to COVID-19 while Italy had 9 million learners out of school, China 233 million and in Japan, 16.5 million students were forced out of school due to COVID-19.

Save the Children (2020) shows that 120 million children were out of school by early April 2020 in West and Central Africa due to COVID-19 response measures. UNICEF (2020) indicated that by May 2020 more than 127 million children were locked out of

schools in Eastern and Southern Africa. South Africa had also closed all her schools by early March (Reddy et al, 2020).

In the year 2000 Kenya had nearly 3000 secondary schools with a total enrolment of 620,000 students. Currently, Kenya has about 10,000 secondary schools with some 7,506,670 students enrolled in high schools in Kenya (UNICEF, 2020). According to Wanzala (2015), Kenya had about 242,071 teachers employed by Teachers Service Commission and 40,449 by school boards of management. A total of 118,800 teachers were in secondary schools, 90.8% of whom were in public schools. It is logical to believe that the number of learners and teachers who were affected by the indefinite closure of schools due to COVID-19 is much higher.

Uasin Gishu County has 1,796 schools comprising 246 high schools of which 193 are public schools while 53 are private schools. Kapseret Sub County has 32 high schools of which 19 are public schools with student enrolment of 7208 and 13 private schools with 1873 students totaling to a population of 9081 students (MoE, 2020)

From the foregoing, it is clear that the number of schools, teachers and learners affected by COVID-19 school closures was enormous. While some schools began to reopen in June 2020, some remained closed for a longer period of time due to new cases of upsurge in COVID numbers, inadequate facilities to observe containment protocols, politicization of the pandemic and the need to protect the learners. Aborode et al (2020) posit that COVID-19 pandemic affected every sphere of life, including educational sector and point out that with the pandemic came the irresistible wind of change forcing schooling

institutions to restructure their operations, become more digitally forward and change to online platforms.

The sentiments by Sweney (2020) that learning should never be the same again after COVID-19 should be resounded in Kenya where over 52.06 million mobile connections were confirmed in January 2020, equivalent to 98% of the total population (Kemp, 2020). Earlier, Namunywa (2018) confirmed that Kenya was leading the African continent in smart phone penetration and internet usage due to the social media storm, affordable smart phones and data plans, network coverage with many internet service providers competing to woo the market. It is clear that the digital market in Kenya is on an upward trajectory and very capable of supporting learning in and away from schools.

1.3 Statement of the Problem

Disruption of school calendar has largely been synonymous with disrupted learning (Aborode, 2020). Extended closure of educational institutions due to eruption of the novel COVID-19 pandemic saw schools suspend physical learning and all other school activities and operations forcing learners and their teachers out of schools, presumably to continue to engage remotely (Sweney, 2020). But issues of access to the alternative mode of operation in terms of educational technologies and the ability of teachers and students to utilize them in an inclusive and equitable manner to mitigate the negative impact of the pandemic may not be wished away. While the pandemic has exposed the digital divide across nations, institutions and households, it has also made urgent the need to fully embrace digital technologies to facilitate learning beyond the traditional classroom (Bhamani, 2020).

Key to successful learning, is constant access to relevant digital devices, appropriate content, possession of digital skills and access to technical support coupled with an enabling environment that supports interaction between instructors and learners, and between learners and their peers (British Council, 2020). Despite the availability of creative, and innovative technologies, meaningful learning stops with school closure for most students. Specifically, language learning calls for spontaneity, consistency, persistence and practice for proper mastery, fluency and accuracy; something that may not be available to majority of learners shut out of school. Garcia, Franchino and Muñiz (2020) think the challenges may be exacerbated for English learners especially in addressing all the four domains of language development: reading, writing, speaking, and listening.

Whereas digital learning, exalted as fun, more captivating and less time consuming, has been available for long, the adoption is yet to be optimized globally despite the tremendous developments in educational technologies and allied software solutions for learners and teachers. A survey by KNBS (2020) shows that in one out of every six households no learning took place at all during COVID-19 induced school closure, yet in March 2020 the Kenya government directed that learners undertake online learning or technology mediated learning on TV, radio, ed-apps and mobile phones.

Lumumba (2007) points out lack of adequate facilities, unpreparedness among implementers and institutions as the greatest hinderance to adoption to digital learning. Tonder (2019) has observed that Kenya is encountering difficulties in incorporating technology into its secondary schools. The challenges identified include inadequate

access to electricity, insufficient infrastructure, poor connectivity, and a lack of skills required to comprehend the interplay between technology, its application in teaching, and content development. With nearly all schools currently connected to the national electricity grid (Ministry of Education, 2020) and many having invested in computer labs and other digital equipment, it is expected that efforts should be geared to equip both teachers and learners with appropriate skills to enable digital learning.

This study sought to establish how adoption of Digital Learning of English Language (DLEL) is influenced by indefinite closure of schools due to coronavirus pandemic. The study was conducted in Kapseret Sub-County, Kenya. The researcher sought to bridge the knowledge gap by establishing the extent to which governments, educational institutions, teachers and learners have embraced use of digital media to ensure continuity when school system is disrupted. Particularly, the study sought to establish whether any learning of English took place in Kapseret Sub County during the indefinite school closure, from where and how effectively, what were the experiences of both learners and teachers in terms of their preparedness for digital learning, suitability of the home for learning, access to digital devices and allied support as well as their digital literacy levels.

1.4 Main objective of the study

The main objective of this study was to assess the influence of school calendar disruption on adoption of Digital Learning of English Language in Kapseret Sub County, Kenya.

1.5 Specific Objectives of the Study

The study was guided by the following specific objectives:

i. To establish whether indefinite school closure influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya.
ii. To assess the influence of educational technologies on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya
iii. To determine how digital literacy influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya.

1.6 Research Questions

The main research question of the study was: What is the influence of school calendar disruption on adoption of Digital Learning of English Language? The study was guided by the following specific questions:

i. How does school closure influence adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya?
ii. What is the influence of educational technologies on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya?
iii. How does digital literacy influence adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya?

1.7 Justification of the study

Effective learning of English language is essential in pursuit of education and communication for official and business purposes. Successful acquisition of the language requires structured, uninterrupted and sustained effort between the learner and teacher.

Consequently, there is need to ensure that disruption in school calendar does not imply disrupted learning through adoption of relevant technologies. Most previous studies have focused on factors influencing students' choice of elective subjects like geography, business studies and sciences . Particularly, studies that have delved into integration of technology in teaching have been conducted in institutions of higher learning Amiri and Branch (2012); Ahmadi (2018) and Rasheed et al (2019).

This study sought to establish the situation and portray the teaching and learning reality in Kapseret Sub County during the indefinite closure of schools. Consequently, the study expands those of Ahmadi, Amiri & Branch with a strong focus on the learning of English language in a seamless uninterrupted manner even during forced closure of schools.

The study yielded proposals to aid in future academic decision-making aimed at ensuring the uninterrupted acquisition of English language skills in the face of any obstacles. It is expected that the Ministry of Education will utilize the results as a foundation for evaluating pedagogical methodologies, and any identified areas for improvement will be addressed to augment English language acquisition, both within and outside of the classroom. This study will be advantageous for researchers and scholars as it will contribute to the expanding pool of knowledge on the influence of technology on the acquisition of English language skills.

1.8 Significance of the study

This study provides a comprehensive analysis of the state of education in Kapseret subcounty during the period of school closures, with a particular focus on the adoption of digital learning as a means of ensuring continued English language instruction in the

context of a pandemic. The present study aims to provide valuable insights to policymakers and decision-makers regarding the prioritization and optimization of the integration and complete adoption of digital technologies in augmenting the teaching and learning of English language both within and outside the school environment. This research investigates the nature of academic engagement between teachers and learners in a remote setting, the degree to which digital resources are utilized to improve virtual teaching and learning, and the obstacles that arise as a result. This study clearly demonstrates how the technological dynamics play out for learners in public and private schools, with regard to where they stay while away from school, their gender, access to digital devices that support study, access to internet connectivity and availability of requisite technical skills and support. The study addresses issues of equitable access to digital resources for widespread teaching and learning.

1.9 Assumptions of the Study

The study was premised on the following assumptions: First, that schools in Kapseret sub county had sufficiently invested in institutional educational technologies to enable digital learning within the schools and beyond. Secondly, that students and teachers had access to digital devices, content and the relevant skills to enable teaching and learning during school closure. Thirdly, that teachers of English were literate on the use of educational technologies available for teaching and learning. Finally, that the sampled respondents would willingly participate in the study objectively and accurately.

1.10 Scope and limitations of the Study

The study was to assess the influence of school calendar disruption on adoption of Digital Learning of English Language in Kapseret Sub County, Kenya. The study was based on Social Cognitive Theory by Albert Bandura (2009) which provides insights into students' learning experience yet there are other theories which can guide the study. The study was conducted in Kapseret Sub County, Uasin Gishu County. The population for the study was a total of 2,173 respondents, that is secondary school head teachers, teachers of English and students where 327 of them were selected to answer the questionnaire and interview schedule. The main focus was school closure, educational technologies and digital literacy as factors determining adoption of digital learning of English language in selected secondary schools in Kapseret Sub County, Uasin Gishu County**.**

The research study was conducted in Kapseret Sub County, Kenya hence the generalization of the findings to schools in Uasin Gishu County would not hold. This study generally analyzed the influence of school calendar disruption on adoption of Digital Learning of English Language as perceived by students and teachers. This study also used descriptive research design as compared to other studies that used explanatory research design. Focusing on the indefinite disruption of school calendar during COVID-19 pandemic, the study targeted only form three students, teachers of English and the head teachers of the selected schools.

1.11 Conceptual Framework

A conceptual framework is a theoretical structure or model that helps to organize and explain concepts, ideas, or relationships within a particular field of study (Antonenko,

2015). It is often used as a tool for developing and testing hypotheses, designing research studies, and analyzing data (Eldridge et al., 2016). By providing a clear and organized structure for understanding a complex phenomenon or problem, a conceptual framework can help researchers to identify key factors that influence outcomes, and to develop effective strategies for addressing them study (Antonenko, 2015).

The conceptual framework in figure 1 shows the independent variables as school closure, educational technology and digital literacy as having a relationship with adoption of digital learning of english Language. The conceptual framework suggests that school closure creates a need for alternative educational approaches, leading to the exploration and adoption of digital learning methods for English language acquisition. The study assessed the influence of suspension of physical teaching and learning amidst the need to minimize learning loss through remote teaching and learning; availability and utilization of educational technologies including digital devices, content, apps and learning management systems; digital literacy including skills, training and technical support on adoption of digital learning of english language. In the study, disruption of school calendar was the independent variable with adoption of Digital Learning of English Language as the dependent variable.

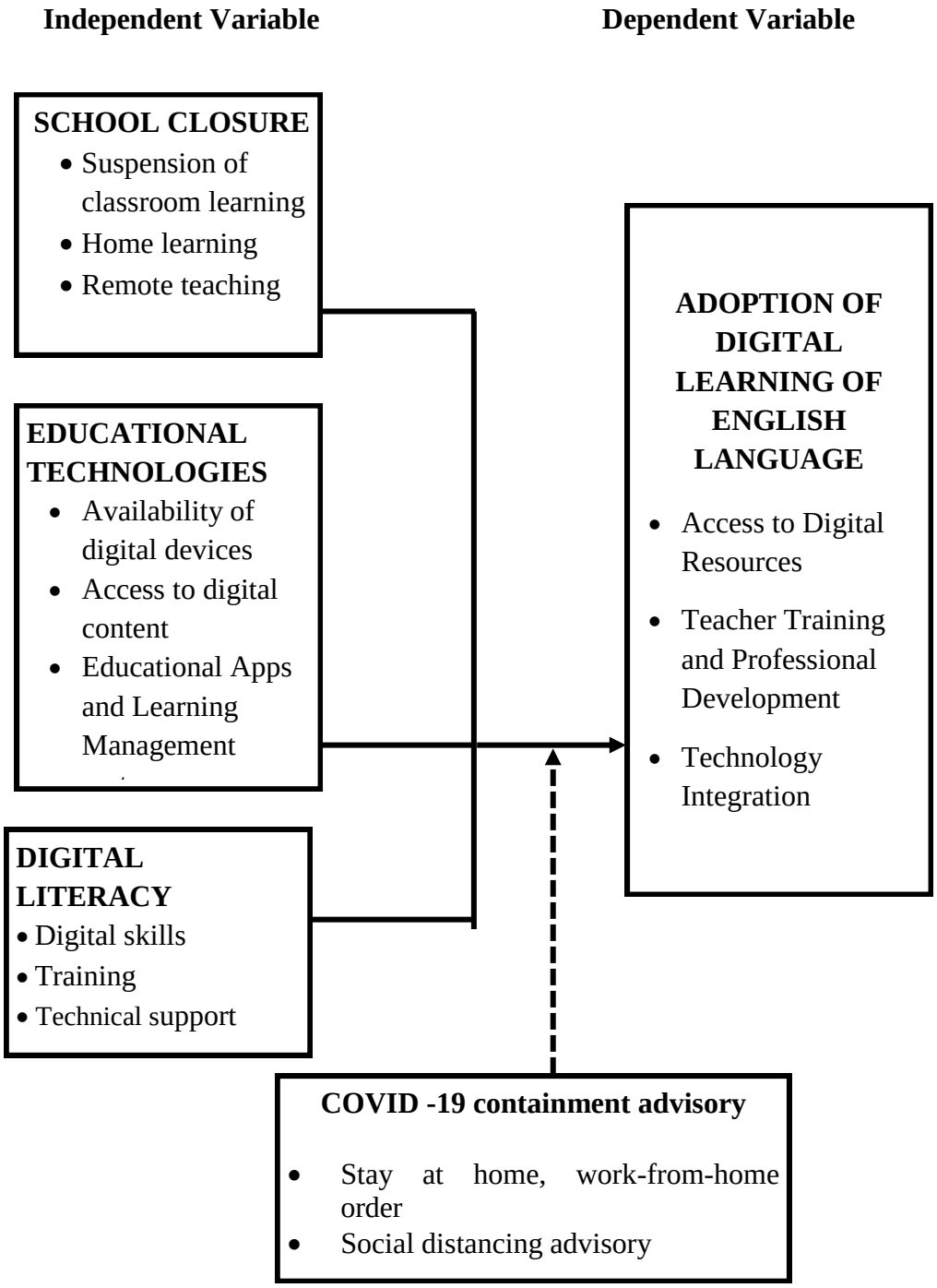

Figure 1.1: School closure and adoption of digital learning of english language

The study considered 'stay-home-work-from-home'and social distancing advisories by the government as intervening variables. The directive restricting movements made it

impossible for timely data collection since both the students and their teachers were largely domiciled in their homes. The researcher opted to conduct preliminary study using teachers who were accessible through phone calls while putting on hold the actual administration of questionnaire until schools reopened.

1.12 Theoretical Framework

The study was based on social cognitive theory by Albert Bandura (2009). The theory proposes that learning continually occurs through social interactions and influences from the community, media and the Internet. Numerous opportunities exist for people to enhance their learning through social interactions online. They include global networking, educational games, innovative apps and ebooks. Continual technological advancements enhance social learning in exciting and motivating ways. Experiments have proven that social influences including the media and internet have adverse effects on people because learning and meaning construction occur continually through one's lifetime.

The social cognitive theory was deemed relevant to this study due to the fact that it drew on both cognitive and behavior influences and benefits from technology. Indeed, the theory thrives on the advancement of new technologies because of their ability to provide new and innovative methods to create social learning environments whether immediate or distant. The rapid pace of informational, social, and technological change is placing a premium on personal efficacy for self-development and self-renewal throughout the life course (Bandura, 2001; 2009)

The researcher took note that the social cognitive theory had been widely applied in studies involving interdisciplinary areas including social, information sciences, health, education among others. Schunk& Mullen (2008) used the theory in their study on self-efficacy and student engagement while Zhang *et al* (2012) applied the theory on e-learning in education. Sattar (2017) elaborated the relationship between cognitive learning and modern techniques of education, denoting that web-based learning environments are not that different from a classroom environment and that students learn a lot from social interaction especially in instructor-led learning.

Bandura's widespread theory highlights the significance of ongoing education and learning, even in the face of an indefinite closure of schools during a pandemic scenario. The utilization and exploitation of technology can facilitate the process of remote teaching and learning, thereby enabling social interactions among educators and students, as well as among peers. The use of technology as a facilitator can enable various learning activities, such as quizzes and exams. The theory acknowledges the presence and ongoing advancement of various technological tools, commonly known as educational technologies, such as digital devices and related applications, which have an impact on distance learning activities. The dynamic nature of the educational, technological, and social environment necessitates the acquisition of appropriate competencies and expertise, reinforced by ongoing training, to ensure that users remain current and competitive. The COVID-19 pandemic has resulted in the development of various technological products aimed at facilitating the continuation of academic activities for both educators and students. Therefore, possessing adequate skills is of utmost importance in facilitating optimal resource utilization and mitigating any negative

attitudes that may impede the effective implementation of digital English language learning.

1.13 Definition of operational terms

Adoption of digital learning: Embrace and utilization of digital media to facilitate learning

Closure of schools: Suspension of school operations or activities requiring teachers and learners to stay at home

Disruption of school calendar: Temporary or permanent situation that renders conduct of classes and other school activities to cease or to be postponed

Digital devices: Computers, laptops, tablets, smartphones, television and radio

Digital Learning: Virtual learning via web based digital platforms, radio and TV broadcast

Digital Literacy: Knowledge, skills, proficiency or competence necessary for proper utilization of digital resources for effective teaching and learning

Educational Technologies: Equipment**,** Devices, Apps, Learning Management Systems, Portals and websites that enable acquisition of education

English Language Learning: Acquisition of knowledge, skills and expertise in speaking, writing, listening and reading of English language

Home learning: Distance, digital, online or e-learning facilitated by use of digital devices and internet. Also refers to digital learning, self-learning or home study as opposed to in-classroom learning

Home schooling: Learning that occurs exclusively at home without the learner having to attend formal school at any given moment

Remote teaching: Delivery of content (lessons, instructions and assessments) by means of digital devices and internet through audio, video, multimedia and broadcast media.

School calendar: Structured program of school events indicating opening and closing of terms or academic year with all planned activities.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents an analysis and review of existing literature on the topic of study. It examines concluded relevant studies and their findings, authoritative surveys and reports. The literature review was organized based on themes and variables of the study to establish the influence of school calendar disruption on adoption of digital learning of English language in Kapseret Sub County,Uasin Gishu County, Kenya.

2.2 Disruption of school calendar

2.2.1 Indefinite school closure

In the past, many school systems have been disrupted due to several factors including student unrest (Nchogu, 2020) industrial action by teachers pushing for better terms of service (Musinga & Hadoto, 2015), armed conflicts and natural calamities like landslides, floods, and hurricanes. All these eventualities have impacted negatively on school systems often leaving the affected schools inaccessible or destroyed partially or fully (UNESCO, 2020).

The outbreak of the novel corona virus pandemic disrupted school programs in an unprecedented manner (Orville, 2020) way beyond the experience of other infectious diseases like Ebola and Sars. The global pandemic indeed surpassed all other socio-economic and environmental disasters in disrupting school programs leaving schools closed for extended periods, with teachers and learners observing the ‘stay-home-stay-safe’ advisory by several governments (WHO, 2020). According to (Garcia, Franchino

and Muñiz, 2020), the abrupt and indefinite closure of schools left many unknowns about how to ensure continuity of learning for students. It is notable that most schools had rolled out their annual calendar of events for the academic year and were already implementing the same when the sudden disruption emerged.

COVID-19 pandemic did not disrupt only learning in the school systems, but it left many students facing postponed or cancelled exams, sporting events and graduation to higher levels. The disruption of classroom learning led to lengthy home stay for both learners and teachers, and reduced physical interaction with colleagues (Orville, 2020; Mitsuru & Okutsu, 2020; Razzaque, 2020; UNESCO 2020).The school closure also affected activities like school debates, symposia, drama festivals, career fairs and other non-classroom activities believed to boost learning and facilitate talent acquisition and development.

According to (UNESCO, 2020), the COVID-19 pandemic had impacted almost 70% of the world's student population, estimated at 1,190,287,189 learners from preparatory to secondary schools by early March 2020. Millions of additional learners were affected by localized closures in several countries. A month later the figure had risen to over 1.5 billion (more than 87% of learners) in 165 countries globally. By end of April 2020, Reddy et al (2020) indicates that the number of students affected globally stood at 1.725 billion, including higher education institutions in 192 countries implementing nationwide closures.

By May 2020, 49 states in the US had closed schools or school districts for the academic year, forcing over 17 million schools to close. The United States sent home some 56.3 million learners; 50.6 million in public schools and another 5.7 million in private schools and about 3.6 million teachers (UNESCO, 2020). Over 9 million learners were out of school in Japan; China 233 million and India 16.5 million students due to COVID-19 (Statista, 2020). Save the Children (2020) shows that 120 million children were out of school by early April 2020 in West and Central Africa and more than 127 million in Eastern and Southern Africa. By early March 2020, more than 14 million learners were locked out of schools in South Africa where COVID-19 cases had grown past 400,000, the highest in Africa (Reddy et al, 2020; Powell, 2020). Attempts to reopen the schools in July were futile due to upsurge in cases causing the schools to close again.

In the year 2000 Kenya had nearly 3000 secondary schools with a total enrolment of 620,000 students. Currently, Kenya has about 10,000 secondary schools (KSSHA, 2019) with some 7,506,670 students enrolled in high schools in Kenya (UNICEF, 2020). Kenya had 242,071 teachers employed by Teachers Service Commission and 40,449 by school boards of management. A total of 118,800 teachers were in secondary schools, 90.8% of whom were in public schools (Wanzala, 2015). Uasin Gishu County has 1,796 schools comprising 246 high schools of which 193 are public and 53 are private schools, (MoE, 2020).

Learning institutions had to content with the new dynamics and demand for paradigm shift. Numerous media reports in Kenya indicated that the abrupt closure left boarding schools staring at wastage, stranded with stockpiles of perishable consumables that were meant to serve the schools for the term and beyond (Odhiambo, Chepkwony & Gikandi,

2020); Luvega et al (2020). This situation impacted on the schools' ability to deliver quality teaching even when they reopened.

The extended and indefinite closure of schools has resulted in significant financial challenges for many educational institutions, particularly with regards to the payment of bills and staff salaries. According to Muchungu and Nyamai(2020), some cash trapped private schools were unable to pay rent for their premises, service loans or pay salaries to their staff. While some private schools out rightly fired the staff or sent them on unpaid leave, others put their staff on minimal pay (sustainer allowance). Yet some schools asked parents to transfer their children to other schools as they would not reopen. There is evidence that some school facilities were converted to business premises, residential places and even poultry farms. Gitau and Kavisu (2020) in their article entitled '*Pain as schools turn classes into rental property'* decried the fate of thousands of learners in informal settlements whose schools were turned into rental houses, including Whistling Thorn School in Kawangware- Nairobi, Friends School Kongowea in Coast. Due to COVID-19, 136 schools with a total student population of approximately 45,000 were completely closed.

School equipment lay idle as learners stayed indefinitely at home. Where they existed, computer labs and computers continued to gather dust as rodents caused havoc. The reality of use and disuse theory, borrowed from Charles Darwin's theory of evolution (1859) came true as learners trouped back to school to find some of their devices, already in short supply, were no longer functional and the schools had to incur expenses

resuscitating the devices. If COVID-19 pandemic persisted for longer, some old equipment would be declared redundant (Splashtop, 2020).

2.2.2 Suspension of Classroom Learning

Globally, in-class instruction is still highly regarded and touted more capable of delivering better academic results than full time virtual learning. That explains why such staggering numbers of learners were at a loss when schools closed indefinitely. Even in developed countries like the US where some schools went fully virtual and majority had embraced digital learning there was little preparedness for massive closure of schools. Powell (2020) points out that the country was not prepared for prolonged closure as evidenced by the fact that many children could not access distance learning due to lack of computers and internet access. Adding that the world had never seen a school lockdown of this scale since World War II. Kamenetz (2020) estimates that 9 out of every 10 school children were forced out of school by the ravaging corona virus pandemic.

The shutting down of schools widened learning inequalities and hurt vulnerable children and youth disproportionately (UNESCO, 2020). The inequalities were further broadened by the diversity of locations where learners lived during the indefinite school closure:-in the cities, suburbs, towns, informal settlements or rural villages. That some disadvantaged students depended totally on the schools for health and nutrition (Orville, 2020).

Lack of reading materials and computing devices, only complicated matters further. Many countries run national school feeding programs including South Africa with over 9 million learners enrolled in the program (Powell, 2020) and Kenya’s 15,000 poor and

vulnerable learners who mainly rely on school meals to survive (MoE, 2020). According to Human Rights Watch many learners received no education after schools closed across Africa (HRW, 2000; UN, 1948). The closures have intensified pre-existing disparities, disproportionately affecting children who were already vulnerable to being excluded from receiving a high-quality education. Anxiously, many students stopped attempting to learn from home and were only waiting for the reopening of schools so as to continue learning.

Many governments made interim measures to keep pupils learning, attempting to reach as many students as possible (UNICEF, 2020). Some schools also distributed revision papers via WhatsApp to parents, along with grading methods for parents to aid with marking. Prior to the pandemic, schools that had already integrated digital teaching into their programs and those that had previously deployed the required devices were using them to instruct students. Despite the fact that remote learning is poised to become the new normal in education (Raveendram, 2020), many students still regard studying on their own to be regular learning.

At present, Kenya is in the midst of executing a novel curriculum, while educational institutions are concluding their initial academic session, with students preparing to take their end-of-term assessments. The closure resulted in significant disruptions to educational activities, unprecedented in their scale and scope. According to Ouma (2020), more than 350 educational institutions were designated as centers for quarantine and isolation in order to contain the spread of COVID-19. The government mandated a gradual reopening of schools on October 12, 2020, following a complete six-month

shutdown. This reopening allowed learners in Grade 4, Class 8, and Form 4 to return to school, while an estimated 12 million other learners remained at home until January 2021, as reported by Muchunguh and Nyamai (2020).

UNESCO (2020) expressed their concern regarding the possibility that certain students may not resume their education, even in the event of a return to normalcy, due to factors such as dropout rates, child labor, early pregnancies, and COVID-19 related fatalities within their families. The existing educational crisis, characterized by a significant number of primary and secondary school-aged children and youth, approximately 258 million, not attending school, has been further compounded by the global pandemic. Moreover, even those who have access to schooling are grappling with low-quality education, leading to limited learning outcomes (World Bank, 2018).

2.2.3 Home Learning

Even prior to COVID-19 many developed countries had adopted distance learning as a viable option and students continued to engage with educators in formal schooling taking advantage of digital learning portals. Indeed, distance learning has been part of American culture for over 100 years and in the last two years over 6 million enrolments were recorded (Cohen, 2020). Following suit, distance learning awareness had been initiated by governments for parents, teachers, administrators and students.

Many countries were trying to keep their children learning by transitioning from physical to virtual classrooms (Nyariki, 2020). Some schools in Seychelles, Egypt, Morocco, Rwanda and Kenya offered online classes attended by some learners amidst difficulties of clarity, connectivity. However, many schools in Africa did not offer online classes due to

challenges of access to radios, television, computers, internet, data and electricity leaving many students unable to engage in remote learning. (William, 2020).

Otieno (2020) argues that even when children have technology at home, they may not learn due to competing factors. She concludes that home learning can't pay for lost school days. And as Johnson (2019) found out, many students who were using the digital devices were also doing so to disengage rather than engage in learning. Huang *et al* (2020) also warns about learners getting addicted to using electronic devices and the allure of entertainment and digital computer games during learning hours.

Home learning required a great deal of responsibility on the part of learners (Frey, 2011) to become masters of their own learning processes and self-regulate (Zimmerman, 2015). The learners had to transform their mental abilities into task-related skills, take control of and evaluate their own learning and behavior while directing action towards information acquisition and self-improvement (UNESCO, March 2020). Kotirde (2015); Apolot (2018); Jonyo (2019) point that many leaners may not have had the self-drive and the discipline to engage effectively and keep focus on academic matters during self-study at home.

Keeping connections with teachers and colleagues and getting needed support was key to the success of remote learning. According to Hagan (2018) content could have been digitized but learning was about connections and keeping learners connected to the school. And since learning a language is a highly social endeavor the learners needed to engage in conversations with peers and teachers throughout the day (Garcia, Franchino and Muñiz, 2020). Studies have shown that learners found self-study to be stressful,

isolating and that staying at home for extended periods was generally hard and depressing (Sweeny, 2020).

As homes became the hub of learning, Finnegan *et al* (2020) emphasize that families were essential partners in terms of support and supervision, but they also point out that some families might have found it particularly challenging to support their student with activities or work that was presented only in English when that was not the language spoken in the home. Even at its best, family support could not replace direct teacher-student communication as pointed out by (Frey, 2011) that students need supervision to make online learning work.

A formally structured routine followed in schools has been found to help learners understand the importance of time and scheduling and that the elements of systematic routine help students shape their future work habits. Bhamani et al (2020) found that the sudden closure of the schools was extremely disturbing to parents who were concerned about their children's routine. Indeed, a number of children considered the COVID-19 period a vacation from school hence they wanted nothing to do with a normal school-like routine. They instead wanted to sleep and wake up according to their own wish and just wait for school reopening (Kimega, 2020).

Other factors that may have hampered leaners efforts to engage remotely included child labor. Human Rights Watch confirmed that learners were performing house chores when lessons were being relayed on television in their homes (HRW, 2000; UN, 1948). Poor environment for learning and poor living conditions made remote learning more challenging. Learners living in abject poverty did not even have lamps for study.

Sweeney (2020) points out that learners living in cities, suburbs, towns, informal settlements and villages adapted differently to remote learning and the dynamics of staying with parents, relatives, caregivers, guardian or elsewhere in camps or children homes played out differently for learners. Children living with disability, or in extreme poverty or in countries already affected by insecurity and armed conflict Garissa, North Congo, Cameroon, Sudan, and Mali (HRW, 2020).

Aborode *et al*. (2020) opine that COVID-19 pandemic affected every sphere of life, including educational sector forever. However, with it came the irresistible wind of change forcing schooling institutions to restructure their operations, become more digitally forward and change to digital platforms that could enable learning to take place effectively even in homes.

2.2.4 Remote Teaching

Three distinct modes of teaching have been in existence for decades: 100% virtual, blended teaching and 100% physical but coronavirus pandemic diminished the possibility of blended and physical (in-classroom) teaching (Golden, 2020). Digital teaching makes use of video conferencing, broadcast media, discussion boards or learning management systems to deliver instruction and content to learners. On the other hand, learners watch instructors deliver the lessons live or they watch lessons recordings later. Two-way communication technologies enable teachers to interact with their students as they provide ongoing feedback, clarify instructions (Cupis, 2020).

Mohamed et al (2020) refer to what was going on as Emergency Remote Teaching since the urgency of the need coupled with time constraint did not allow for sufficient preparation for the anticipated rapid curriculum transformation. They assert that while online teaching involves courses which are initially planned and designed to be delivered virtually, emergency teaching is a sudden interim shift of instructional delivery to an online delivery mode as result of an immense catastrophe. Ultimate exploitation of the available remote teaching tools for delivering the curriculum or educational materials was inevitable.

According to Cohen's (2020) report, within the past two years, a significant proportion of professional skills teachers (48%) and foreign language teachers (38%) have transitioned to the online education sector. The COVID-19 pandemic has compelled a significant number of educators to adjust to the novel reality of remote work in order to instruct and engage with their students. The utilization of advanced video communication tools has made online teaching an appealing, advantageous, and convenient option for educators. As a result, there has been a notable rise in the number of teachers who have transitioned to remote teaching. This trend has been further accelerated by the COVID-19 pandemic and is expected to continue to expand in the future.

Bozkurt, Ramesh & Sharma (2020) opine that the education system is generally unprepared and vulnerable to external threats. As remote teaching is being put into practice the participants are left stumbling into defining what they are desperately trying to accomplish. Remote teaching involves more than simply uploading educational

content but is a process that provides learners agency, responsibility, flexibility and choice and one that requires careful planning, designing and determination of aims.

Remote teaching separates instructors from their learners in time and distance (Tophat, 2020) giving the teacher a feeling of loss of control. Unlike in the classroom or school setting where the teacher has full control of what should be done when and where, remote learning lets the learner decide time, location and pace of learning. But for any fruitful learning to occur, monitoring and guidance of the learner is still indispensable. In fact, Gallardo (2020) emphasizes that teachers' guidance and monitoring are just as important in the virtual world as they are in the classroom.

Teacher's attitudes, perceptions, preparedness and competence are crucial in facilitating remote learning (Ogoti 2018). The degree to which educators believe in distance education plays a significant role in the prosperity of distance education. Cherono (2019) points out that there may be bad attitude among some teachers on ICT matters. Other fears surround changes in the teacher's role to a student-centered situation, having to make adjustments in delivery of content based on their online environment, loss of control and possibility of job loss (Kebritchi, Lipschuetz & Santiague, 2017).

The indefinite closure of schools forced teachers out of their schools forcing them to work from home (WHO, 2020). Johnsons and Weiner (2020) note that operating under increasingly uncertain environments with limited resources exerted insurmountable pressure on school principals who had to reinvent ways and change roles to continue delivering and contend with higher levels of dissatisfaction, burnout and diminished sense of authority and autonomy. The teachers who lost their pay due to prolonged

closure may have moved on to other gainful engagements in order to earn a living or simply lost interest in teaching; while those who experienced deep pay cuts were likely to have undergone psychological stress and demotivation. Still, keeping teachers away from class for prolonged periods was likely to impair their ability to effectively execute their mandate as they were likely to focus on other non-academic endeavors with long term effects even beyond the school closure periods (Tate, 2020). A 2020 survey by EdSurge confirmed that nearly half of teachers considered a job change as COVID-19 dragged on. The survey revealed that even before the pandemic, teachers were feeling burnt out and demoralized. That the national exams were pushed to March 2021 from November 2019 to allow room for syllabus coverage; made it possible to expect a crash program with shorter breaks during the traditional school holidays, extended teaching hours and speeded marking of the exams.

2.3 Educational Technologies for English Language Learning

2.3.1 Importance of English Language

Several studies have confirmed the importance of English language and its pivotal role in the global space. Many international business meetings are conducted in English. According to the British Council (2020), one in every four can speak or at least understand English whose speakers are estimated to be over 1.1 billion. English is the official language of over 53 countries and is ranked as number one language globally by Ghosh (2020). Grabe & Stoller (2002) posit that majority of scientific papers are written in English, which is also the main language of the media and the internet. Knowledge of English enables one to travel and study all over the world and access multiple cultures as well as job opportunities with multinational companies.

Lyons (2017) indicates that English is by far the most spoken language and about 20% of the world population (approximately 1.5 of 7.5 billion) speaks it. Lyons further explains that about 360 million people speak English as their first language. This is confirmed by McCaul (2016) by the acquisition of English language by non-English natives as a second language. Several countries have majority native English speakers including the United States of America, United Kingdom, Canada, Australia, Ireland, Jamaica and New Zealand among others. Several others use English as an official language including Kenya, Uganda, Ghana, South Africa, and Mauritius.

About 350 million people speak English in North, Central and South Americas while 13% of European Union citizens speak English natively and another 38% know English functionally. In Asia, a large, unspecified numbers of people speak English with most speakers in India (125 million), Pakistan (24 million) and Phillipines (90 million). Majority of Australians, approximately 70% of the population, are native English speakers. About 700 million out of approximately 1.2 billion people in Africa speak English including some 6.5 million who speak it as their native language.

English is the most commonly studied foreign language in the world, followed only distantly by French, Spanish, Italian, Japanese, German and Chinese (Noack and Gamio, 2015). According to Gosh (2020), 15% of the global population is Studying English. English learners in the U.S represent a growing share of the student population and the federal law mandates that they receive specialized instruction. Students who enter school in the U.S. from countries that do not speak English, learn English language while they

learn the school curriculum in English, then they are classified as beginner, intermediate or advanced in terms of their proficiency in listening, speaking, reading, and writing. (Chamot, 2009).

In Kenya English is the official language, beside Kiswahili (Thuku, 2010), and the medium of instruction in our schools, colleges and universities. English as a subject enjoys the highest time allocation in school timetables; 6 lessons for forms I and 2 and 8 lessons for forms 3 and 4 every week. The use of the integrated approach has helped to maximize the utilization of this time and ensure effective coverage of the syllabus (Elimu Network, 2020).

That many Kenyans rarely use English outside of school and young people communicate with each other in their mother tongue, Kiswahili, or *Sheng* which includes words from English and Kiswahili, mixed with the mother tongues and utilizing Kiswahili morph syntactic structure (Kioko & Muthwii, 2001) posed a huge challenge to the proper acquisition of English language especially during the lengthy and unplanned closure of schools (Mbaabu & Nzuga, 2003). It is therefore important that there is continuity in the acquisition of the language.

2.3.2 Digital devices for adoption of digital learning

Even though there was already high growth and adoption of educational technologies before COVID-19 the pandemic caused a significant necessity for the school system to embrace educational technologies. In fact, the pandemic left schools with only one option of distance learning. In response, France, Italy, United Arab Emirates (UAE) leveraged online platforms for continuous education, and so were China, Korea, Mexico, Iran, Peru

and Thailand which turned to digital apps, television or other media to deliver lessons to learners and also give teachers access to training (Chang & Yano, 2020).

A study by Johnson *et al.* (2016) recognizes technology as the strongest factor shaping the educational landscape today and notes that tremendous development in technology has made it possible to explore the new learning models using digital technologies like computers, laptops, tablets, internet, smart phones, TV and radio to remit learning content (ICT Authority, 2016).

Effective and equitable adoption of educational technologies calls for their widespread availability both in school and away from school coupled with reliable electricity supply and internet connectivity. It would not be right to assume that all teachers and learners own or have access to the ICTs, dependable internet and electricity while away from school. Whereas many countries and education systems around the world are engaged in large-scale efforts to introduce computing devices into schools and into the hands of teachers and students, Trucano (2013) ponders over who owns the computers and laptops distributed to teachers and students. Trucano asserts that even if the school policy allows it, some teachers may opt not to take the devices home for fear of loss, breakages and having to pay for them. He concludes that ownership determines usage and demonstrates three device ownership models around the world including 'Government buys, government owns', 'Government buys, user owns' and 'User buys, user owns'.

Addressing potential access constraints is important in ensuring educational technologies are constantly available to learners in and away from school in a convenient, reliable and secure manner. According to Chang & Yano (2020) and Giannini & Lewis (2020)

governments of countries like China and South Korea are providing devices and printed assignments to those who do not have access to technology. Many other governments and educational institutions are making similar efforts but widespread access may still be a pipe dream from countries, schools and households that are still struggling with basic needs. Access could result in students missing out on learning. A survey on socioeconomic impact of COVID-19 on households indicates that only one out of eight homes used digital platforms for remote learning during COVID-19 school closure (KNBS, 2020). Even though Kenya national census of 2019 revealed that half of Kenyan households had radios and 41% had a TV, only 9% had a computer and 18% had access to internet (Kimega, 2020).

2.3.3 Digital Content for of English Language Learning

Several apps, software and digital portals are available to serve educational purposes and can be harnessed to assist learners not only to keep them busy at home, but also to make up for lost time as they stay safe at home and interact with their colleagues (Obura, 2020). If carefully planned and integrated in teaching and learning, educational technologies are capable of significantly improving instruction, content delivery as well as evaluation of learner progress.

Cabal (2019) emphasizes that language proficiency is a process that requires patience and practice outside the classroom and highlights web based tools like goggle docs, e-mail, social media like WhatsApp, goggle classrooms, Teams, BigBlueButton and zoom as content rich resources available to aid digital learning. Indeed schools that are keen to adopt digital teaching and learning have made great strides in incorporating the same in

content preparation and sharing. Besides, broadcast media including educational television channels, radio and e-newspapers continue to increase their coverage to feature learning content targeted at specific audiences and subjects.

This study has explored several, fun and effective resources available to assist learners practice language autonomously. They include *TinyCards*, a free app that helps learners with information retrieval and spaced repetition. The former strengthens memory and boosts learning while space repletion helps to permanently commit acquired information, vocabulary into memory. *Grammarly* is another one stop application that has been creatively designed to help learners analyze sentences, fix grammar, spelling and punctuation errors just the way a teacher would correct written work.

Road to Grammar is another useful website with enormous content for learners. It helps learners to practice grammar and vocabulary with quizzes while *Lyrics Training* allows learners to learn at home with music and lyrics through classic fill-in-the blanks exercises; the learner listens to the music and attempts to type the lyrics while progressing from beginner to expert levels. Any incorrect word typed stops the music from playing, giving the learner a chance to listen again, see displayed answer and proceed (Amiri& Branch, 2012; Ahmadi, 2018; Li &Lalani, 2020). Other resources available for English Language Learners include Alson®, a free app that allows anyone one to study anything anywhere at any time; *EL lounge*, *Write and Improve*, and *ted Ed*, which is complete with record function, voice-to-text conversion functionality.

Many online learning platforms are offering free access to their services unique partnerships to offer learners with a range of digital options and local educational broadcasts. In the UK Media the BBC is powering virtual learning through platforms as *Bitesize Daily*. In Bangalore, BYJU's *Think and Learn App* has recorded a 200% in the number of users since announcing free live classes. In China, *Tencent classroom* is being used extensively since mid-February by nearly a billion full-time students who were instructed to resume their studies through online platforms. Other companies are working to provide a one-stop shop for teachers and students. Singapore's ByteDancecompany has expanded *Lark,* a collaboration tool for teachers and students unlimited video conferencing among other functionalities. Alibaba's*DingTalk* has been upscaled to *Alibaba Cloud* to support large scale remote work globally (Hang, 2019).

In a study entitled '*New Trends in 21st Century English Learning'*, Sarica and Cavus (2009) reviewed web based resources for learning and discovered that many resources were available to help learners learn in a faster and enjoyable manner. They point out that e-mail, blogs, instant messaging, skype, online tests enable learners to attempt quizzes and get feedback from teachers without having to print the tests. Appreciating the unlimited capability of technology to support learning, Sarica and Cavus conclude that language learning does not only occur in the class room and should not stop after the learners leave the class room. It appears that the government of China borrowed so much from the study in her education emergency management initiative dubbed 'suspending classes without stopping learning' in the COVID-19 outbreak.

While also confirming that a number of educational options have become available for learners and teachers, Abilasha & Ilankumaran (2014) note that newer and more exciting ones continue to emerge offering access to learning flexibility and mobility. Indeed, globalization has made English language inseparable from advancement in ICTs forcing the main players to embrace internet as an alternative media to teach and learn language. To that end computer mediated English and Computer Assisted Language Learning have been widely adopted.

According to Association for the Development of Education in Africa (2020) a number of African publishers and digital content providers have offered their materials for free in an effort to ensure that children continue to learn and to read during the COVID-19 school closure. Worldreader's *BookSmart* for home solution, *African Storybook* offers open access to picture storybooks in selected national languages. Kenya's Institute of Curriculum Development (KICD) has led the digital content team to avail digital content through www.kicdinteractivecontent.ac.ke in collaboration with Tusome Programme, Kenya Publishers' Association (KPA) and Open Education Resources (OER) installed in the learner digital devices and teacher digital devices. Distance learning is also facilitated through EDU-channel or Elimu channel, KBC, Radio Taifa as well as Kenya Education Cloud (Nyariki, 2020).

Bull & Ma (2001), Helmer (2007) and Genclter (2015) note how technology offers unlimited resources to learners in an interesting and motivating way enabling them to access rapid information and learn according to their preferred learning styles- visual, auditory and kinesthetic. Auditory learners learn best by listening- radio lessons, recorded

books or information and people talking; visual learners learn best by seeing- watching videos, TV, looking at posters, text books with pictures; and kinesthetic learners prefer learning by doing- drawing pictures and diagrams, making things with their hands then describing what they have done.

Education technology analysts project that the market for online learning is expected to grow by 18% each year following the emergence of COVID-19. More and more learners are expected to enroll for digital classes and take advantage of Augmented Reality (AR) and Virtual Reality (VR) increasing tremendously the use of apps like Google's Expedition AR that already has over 900 virtual reality expeditions.

Overall, digital learning offers a wide range of resources, interactive and engaging experiences, flexibility, personalized instruction, exposure to multimedia and authentic language use, collaboration opportunities, and immediate feedback for English language learners. By leveraging digital tools and platforms, learners can enhance their language skills, increase their confidence, and achieve proficiency in the English language in a dynamic and learner-centered environment.

2.4 Digital Literacy and adoption of digital learning

2.4.1 Digital Knowledge and Skills

Digital literacy refers to the skills and capabilities needed to live, learn and work with technologies like computers, tablets, smart phones and associated internet platforms, social media, portals and learning management systems. Digital literacy enables an individual to find, evaluate digital resources and make proper use of them. According to Sutter and Kihara (2019), digital literacy is key for both instructors and learners for any

meaningful digital engagement. Simply put, both the learners and the instructors must be digitally literate.

According to Yu, Lin and Liao (2017) knowledge and skills influence adoption of technology and that ICT adoption behavior is pegged on and also moderated by information literacy and digital skills. They conclude that knowledge and skills are necessary for proper access to and embrace of technology. In an interesting study that explored the 'digital nativeness' of students, Wan (2014) found out that the younger, 'dot.com' generation was capable of learning and making use of unfamiliar technologies. Despite students' ability to easily use new technology and the familiarity with which they approach the same, the study indicates that the digital natives needed to be equipped with skills and knowledge of what constitutes educational technologies so as to be able to meaningfully utilize them for educational purposes and to make them more concerned about legitimacy of the information sources.

In their study entitled *Factors affecting teachers' adoption of mobile learning*, McCallum and Jeffrey (2014) established that digital knowledge and skills were a necessary prerequisite for teachers' adoption of digital learning. Agreeably, teachers who perceive themselves as having some technical know-how and know-what are more likely to adapt to technology demands and even seek more knowledge as compared to those who lack the same.

The preceding argument is supported by Nuemeyer and Santos (2020) who opine that proper skills, knowledge and experience help to overcome barriers to technology. They point out that where users lack requisite knowledge and skills, they shy away from and

are reluctant to adopt new technology. Consequently good devices that may have cost a fortune may remain unused or seriously underutilized. On the other hand, knowledgeable people make devices and associated applications useful and can exploit them optimally. Many studies agree that knowledge makes technology easy to use and increases the degree to which a person believes that technology is free from effort. Digital literacy also helps to overcome tech-anxiety and improves self-efficacy.

Digital literacy plays a crucial role in learning the English language in today's digital era. It provides learners with access to resources, authentic language use, multimodal learning experiences, collaborative opportunities, communication skills, digital assessment readiness, and the ability to pursue lifelong learning. Developing digital literacy skills empowers learners to navigate the digital landscape and leverage digital tools and resources for improved language proficiency and communicative competence.

2.4.2 Technical Training

Training is key in helping tech users acquire new knowledge, skills and experience. Through training, people become more competent to deliver what is expected of them and are able to unlearn what is no longer applicable especially in the fast changing technological landscape. Training enables people to develop new attitudes that can go along way in helping them adjust to new realities. Neumeyer and Santos (2020) believe that training can help resolve the issue of digital divide which they strongly argue is contributed to by lack of knowledge as skills, beside other factors. Noting that technology has the capacity to challenge educators' legitimacy, expertise and preferred style, many

researchers believe that constant training is the panacea for the same as well as the tendency to resist change.

While conceding that it is impossible to meet all training needs of tech users, studies recommend that training should be continuous to match the fast changing demands for new knowledge and skills in the tech world in order to necessitate proper, safe and secure usage of educational technologies to promote learning. The good news is that most web based educational platforms have inbuilt training modules in form of short videos, Do-It-Yourself (DIY) manuals and demos. The developers are attempting to avail training that fits the current tech environment by availing sho rt videos, pop ups, and gamification to engage the users more, help them learn and leave them happy (Neumeyer and Santos, 2020).

Terras and Ramsey (2016) take their argument for proper embrace of technology to the door steps of parents. They highlight the importance of home environment in promoting and supporting safe and secure use of tech resources and online behavior. This study concurs that even parents and family members need some skills in order to be of help to the learners at home. Knowledgeable parents may find it easier to invest in educational technologies for home use due to the value they attach on the same. Children who grow in a tech-friendly environment are more likely to embrace new technology, explore better ways of working with them and use the same to come up with ‘creative artifacts’.

As Ertmer et al. (2012) point out, inadequate professional development and training is a major reason for lack of technology implementation in teaching. Thus, training helps to build teacher and students confidence in using classroom technology, operating software,

and searching the internet. As such, training should never be overlooked. Indeed, training should precede introduction of any new technology to enhance its adoption. The COVID-19 period has witnessed increased efforts by universities and other service providers to train teachers with skills for online teaching. For instance, Strathmore University organized and facilitated a two-week training workshop for school teachers. The virtual workshop themed '*The foundations of teaching with technology'*was organized in October 2020 and attracted over 300 school teachers who were keen to learn how to teach with technology (strathmore.edu).

Technical training in digital literacy is essential for English language learners as it enhances access to digital resources, facilitates digital communication, promotes the utilization of language learning apps and multimedia materials, enables online collaboration and feedback, prepares learners for digital language assessment, and supports lifelong learning and continuous improvement. Developing technical skills empowers learners to effectively navigate the digital landscape and maximize their language learning potential.

2.4.3 Technical Support

High level of technical support may encourage users to adopt a new technology they perceive as useful. Existence of technical infrastructure, knowledge and skills must be accompanied by proper technical support. Nawaz and Khan (2012) indicate that lack of proper support and maintenance severely compromises the ability of teachers and students to access and use even the most current and sophisticated hardware and software.

Zheng et al (2018) highlight the impact of technical support and self-efficacy on faculty perceived benefits of using learning management systems. They note that technical support such as assistance from technicians can enhance use of technology. The new educational reality stresses the importance of availing technical assistance to educational technology users when and where they need it. It is critical that learning institutions restructure their support systems to better serve their staff and students

Alshammari, Bilal and Rosni (2016) rightly point out that technical support is a factor that may facilitate, prevent or decrease the utilization of learning management systems due to its influence on the usage and acceptance of educational technologies. Indeed, from time to time educational technology users need support with the digital devices, the software and navigation between different platforms. The users should be assured of innovative on-site and remote technical services including but not limited; to device troubleshooting and maintenance, device connectivity and quality changes, and problems joining virtual classes, uploading, and downloading content.

2.5 Summary of the Literature Review

The foregoing arguments clearly emphasize the need to embrace Digital Learning of English Language due to its central role in education acquisition to ensure that learning continues even in the wake of disruptive pandemics like COVID-19. The literature review exposes the deliberate efforts made by governments and learning institutions to mitigate the indefinite learning disruptions. However, it is clear that such efforts appeared to be more elaborate in developed countries and in some isolated cases in Africa and Kenya. Previous studies prior to COVID-19 also focused on online, distance and e-

learning in Universities and other Higher Learning Institutions in Kenya. Even so, not much has covered Digital Learning of English Language in particular (Bolbol, Marwa and Zalat).

Indeed, as many studies have indicated the COVID-19 pandemic should be a wakeup call to governments, educational institutions, teachers, learners and parents to invest in educational technologies, learning friendly homes and also customize and utilize the numerous already existing resources to ensure constructive learning goes on within and outside the classrooms.

This study represents an extension of prior research, with a particular emphasis on the importance of residential situations during prolonged school closures and the benefits of studying from home. An optimal home environment is essential for facilitating academic engagement among learners. The research also offers insight into the influence of parental or familial presence on the daily routines and academic practices of students in contrast to those observed in educational institutions.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter contains a discussion of various components of the research methodology as was applied in the study. These include; research design, target population, sample procedures, methods of data collection,validity, reliability and ethical considerations.

3.2 Research design

The study employed descriptive research design to collect data from form three students, teachers of English and head teachers in selected high schools in Kapseret Sub County. The researcher found descriptive research appropriate since the researcher sought to determine and establish the state of affairs as it were in Kapseret Sub County and establish the how, where and when digital learning happened in the sub county, complete with the characteristics, frequencies, trends, and categories associated with digital learning of English language. The design would aid in gaining concrete, contextual and in-depth knowledge about the thematic and current real world educational situation while keeping the study focused and manageable within timelines and budgetary provisions.

3.3 Study Area

The study was conducted in Kapseret Sub County, Kenya. The Sub County is one of the six sub counties of Uasin Gishu County and is located Southwest of Eldoret Town with its headquarters at Kapseret along Eldoret-Kisumu road. It covers an area measuring 451$KM^2$with a population of 121,178 people. The Sub County has a rich mix of 19 public

and 13 private secondary schools spread across urban, suburbs, rural and informal settings. The schools comprise 15 mixed day, 4 girls boarding, 1 boys boarding, 8 mixed day and boarding, 4 Mixed boarding. Kapseret Sub County has good road network, extensive coverage of mobile telephone network, electricity supply and fibre optic network along major roads (Uasin Gishu County, 2019). All these factors worked towards enabling successful data collection and timely completion of the study. The study was conducted in Kapseret Sub County due to limited resources to conduct research and limited amount of existing research specifically focused on Kapsaret Sub County in relation to the adoption of digital learning during school calendar disruptions. Conducting a study in this specific context would contribute to filling the research gap and providing localized insights.

3.4 Target Population

The study targeted a total of 2,173 respondents including 2,092 form three students, 49 Teachers of English and 32 head teachers from the 32 high schools in Kapseret Sub County. The schools included 13 private and 19 public with a student population of 458 and 1,634 form three students respectively.

Table 3.1: Target Population

Category	Population
Form Three Students	2,092
Teachers of English	49
Head teachers	32
TOTAL	**2,173**

Source: Ministry of Education data (UasinGishu County, Kenya)

3.5 Study Sample

3.5.1 Sample for Schools

Using the formula provided by Nassiuma (2000), 11/32 schools were sampled for the study. The formula is hereunder:

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where n = Sample, N = Population, C = Covariance (20%)
and e = margin error (0.05)

$$n = \frac{32\ (0.2)^2}{0.2^2 + (32-1)0.05^2}$$

$$n = \frac{1.28}{0.1175}$$

The computation returned 10.98 which was rounded up to 11 schools and distributed as shown in table 3.2

3.5.2 Sample for Respondents

This study utilized a sample of 327 respondents as recommended by Krejcie and Morgan (1970)who provided that a sample of 327 should be drawn from a population of 2000-2200. The respondents were distributed as shown in table 3.3

3.6 Sampling strategies

Stratified random sampling procedure was employed to select appropriate samples for study.

3.6.1 Sampling procedure for schools

Table 3.2: Sample distribution for schools

CATEGORY	No. of Schools	Percentage	Sample
Public	19	59	7
Private	13	41	4
Total	32	100	11

Table 3.2 indicates that the 32 schools in Kapseret were stratified as public (19) and Private (13) from which a sample of 11 schools, comprising 7 public and 4 private, were derived proportionately. The schools were picked using simple random sampling.

3.6.2 Sampling procedure for respondents

Table 3.3: Sample distribution for Respondents

Category	Population	Sample
Form Three Students	2092	309
Teachers of English	49	7
Head Teachers	32	11
TOTAL	**2173**	**327**

All the 11 head teachers of the schools included in the study automatically became respondents in line with purposive sampling. From the 327 sample respondents, the remaining 316 were then distributed proportionately between form three students (309) and Teachers of English (7). The sample size of teachers was small because the study focused on English teachers only which were very few in the selected schools. The teachers or English and the student respondents were selected using simple random sampling for the purposes of administering research questionnaire while the head teachers were identified purposively.

3.7 Study variables

The independent variable of the study was ‘Disruption of School Calendar’ while the dependent variable is ‘adoption of Digital Learning of English Language’. The independent variable was further broken into closure of schools comprising suspension of classroom learning, home learning and remote teaching; Educational technologies including digital devices, digital content, Apps and Learning Management Systems;

Digital Literacy comprising skills, training and technical support as jointly influencing adoption of Digital Learning of English Language. The intervening variable was the COVID -19 containment advisory by the government.

3.8 Data collection instruments

The study employed questionnaire and interview schedules to collect data from the respondents who were head teachers, teachers of English and form three students from the selected schools in Kapseret Sub County.

3.8.1 Questionnaire for students

Questionnaire was used to collect specific information from teachers of English and form three students. This helped save the time of the researcher and gave the respondents sufficient time to think through and fill the questionnaire at their free time. The researcher made follow-ups to ensure the questionnaire were returned. Sections A, B, C, and D of the questionnaire for students contained closed-ended questions that gathered data on the students' backgrounds, school closures, educational technologies, and digital literacy, respectively (See Appendix III).

3.8.2 Questionnaire for teachers

The close-ended, structured questionnaire for teachers was also divided into sections A, B, and C, which elicited data on teachers' background information, school closures, access to education technologies, and remote instruction, respectively (See Appendix IV).

3.8.3 Interview schedule for head teachers

The study employed a semi-structured interview schedule to gather data from the head teachers of the chosen schools. The interview schedule was partitioned into three distinct

sections, namely: the contextual background of the head teachers, the availability of educational technologies in schools, and the digital proficiency of teachers (See Appendix V). The researcher recruited and trained two research assistants to assist in data collection and data entry. The research assistants were thoroughly trained to clearly understand the purpose of the research and inculcate proper research ethics.

3.9 Validity and Reliability of Data Instruments

The study put into consideration the validity and reliability of the research instruments and the results.

3.9.1 Validity of the study

Validity aims at ascertaining the extent to which the research instruments collect the necessary information which they are required to measure. The research instruments were developed in consultation with supervisors to ensure content validity of the instruments. Ideas were also borrowed from other instruments already developed and used by other researchers. The researcher also standardized data collection procedures by training research assistants jointly to ensure they later own capture responses accurately. Lastly, triangulation was used to collect data by use of questionnaire and interview schedule as research instruments. In this study, construct validity was employed since interview for head teachers was used to corroborate the responses given by students and teachers of English..

3.9.2 Reliability of the study

Reliability aims to measure the degree to which a research instrument yields consistent results or data the same way each time it is used under the same condition with the same

subjects. The clarity and comprehensiveness of the instruments were improved through a pilot test. The researcher utilized the Pearson Product Moment Correlation Coefficient method in order to assess the degree of consistency in the responses elicited by the content instruments. The correlation coeffient of 0.74 was obtained which indicated that the instrument is reliable and possesses a sufficiently high level of reliability to evaluate the instruments employed. Mugenda and Mugenda (2003) suggested that any value above 0.7 is considered an appropriate threshold.

3.9.3 Pilot study

A pilot study was undertaken in Kesses, a neighbouring subcounty to Kapseret where actual research was to be carried out. Test-retest technique was used to assess reliability of the research instrument. Questionnaire was administered twice within a span of two weeks to the same respondents in selected schools. The correlation coefficient was then obtained using Pearson Product Moment Correlation Coefficient method. This yielded an r value of 0.74; this showed that there was a strong relationship between the first and the second scores obtained after the instruments were administered. It was therefore assumed that the data collection instruments were reliable.

3.10 Data analysis and presentation

Quantitative methods were used in the analysis of questionnaire data. The data was analyzed using the Statistical Package for Social Science (SPSS) Version 20. Descriptive analysis was used for categorical variables, then described in terms of frequencies and percentages. Analyzed data was then presented in tables and discussed accordingly. Qualitative data from the interview schedule and open ended questions in the

questionnaire was analyzed deductively whereby the researcher built categories in advance by coding individual responses and mapping them to the categories based on their connections in the data. Once this was accomplished, similar responses were grouped together then discussed.

3.11 Ethical considerations

The researcher engaged in data collection only after seeking permission of relevant authorities to conduct the research including University of Eldoret, NACOSTI and the school management of the targeted schools. Secondly, the researcher sought consent of the respondents by explaining the purpose of the study and its importance in determining the extent to which digital learning of English language had been adopted in Kapseret Sub County. The researcher then explained the procedure of filling in the instrument. Thirdly, the researcher ensured anonymity of the respondents. The respondents were advised not to indicate their names or schools. Codes were used on questionnaire for purposes of follow up. Finally, the researcher ensured confidentiality of information given by the respondents.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents and discusses results on the background information of the respondents, school calendar disruption, educational technologies and digital literacy and their influence on adoption of Digital Learning of English Language (DLEL). These were the variables of the study; the data findings and analysis were presented in form of percentages and tables.

4.2 Response rate

This study targeted high schools in Kapseret Sub County, Uasin Gishu County; their head teachers, form three students and teachers of English. A sample of 327 respondents was used whereby students were issued with 309 copies of the questionnaire, with teachers of English getting 7. A total of 288 questionnaires were returned out of the 316 dispatched.

Table 4.1: Response Rate

Respondents	Dispatched	Returned	Percentage
Students	309	288	97.6
Teachers	7	7	2.4
Total	**316**	**295**	**100.0**

Table 4.1 shows that 97.6% of the total dispatched questionnaire were returned. The response rate was considered sufficiently satisfactory. The study primarily focused on the students, thus the higher percentage of questionnaire from the students. However 7

questionnaire completed by the students were excluded from the analysis because they were only partially filled. The high return rate of the questionnaire can be attributed to the willingness of the class teachers to distribute and collect the survey.

4.3 Background Information of the respondents

The researcher sought to establish the age, gender and the category of school of the respondents who took part in the study. Their responses are summarized in table 4.2 below.

Table 4.2: Demographic features of the respondents

Items	Respondents		Frequency	Percentage
Gender	Students N=281	Male	134	47.7
		Female	147	52.3
	Staff N=18	Male	3	42.9
		Female	4	57.1
Age	Students N=281	13-15 years	7	2.5
		16-18 years	272	96.8
		19-21 years	2	0.7
	Staff N=18	21-30 years	2	11.1
		31-40 years	4	22.2
		41-50 years	9	50.0
		51-60 years	3	16.7
Category of School	Students N=281	Public	189	67.2
		Private	92	32.8

Table 4.2 shows that majority of the student respondents (96.8%) were aged between 16-18 years. A paltry 2(0.7%) of the respondents were over 19 years while 7(2.5%) were aged between 13 and15 years. The age bracket of the respondents in this study predisposed them to be more adaptable to ICTs due to their eagerness, motivation,

curiosity, readiness, better attitudes and ability to grasp new technologies faster (Morin, Fard & Saade, 2019).

Both the head teachers and teachers of English were asked how old they were at the time of data collection and the responses were as shown in table 4.2. Results shows that majority of the teachers were aged between 41-50 years comprising 50% followed by those aged 31-40 years at 22.2 %. Minority of the respondents (11.1%) were aged 21-30 years. It was noted that all the principals were above 40 years of age. The study did not find any significant discrepancies between the age of teacher respondents and their adoption of DLEL but underscored the fact that increasing age impacted on attitudes and willingness to engage digitally academically (Heponiemi, 2022).

Table 4.2 further indicated that majority of the student respondents, 147 (52.3%), were female while the male student respondents comprised 134 (47.7 %). According to Ministry of Education, Uasin Gishu County (2021) there was a higher proportion of female students compared to their male counterparts who enrolled in form 3 in Kapseret Sub County. According to Ahmadi's (2018) findings, male students exhibited a greater propensity to embrace technology, which was attributed to their proclivity for seeking out and experimenting with novel technological advancements. Including the gender variable allows for an examination of whether there are differences in access to digital learning platforms, devices, internet connectivity, or other technological resources. This helps identify potential barriers that may disproportionately affect certain genders and informs strategies to address those disparities.

Also most of the sampled teachers of English were female at 57.1% compared to the male counterparts who comprised 42.9% as indicated in table 4.2 above. Again, the data was consistent with the fact that English Subject tended to attract more female teachers than male. About the head teachers who were interviewed, 6 were male while 5 were female.

The study further sought to establish whether the student respondents were in private or public secondary schools. As shown in table 4.2, 189 respondents (67.2%) were in public schools compared to 92 (32.8%) who were in private schools. Generally, data was collected from 4 private schools and 7 public schools. There were generally more public schools in Kapseret sub county as compared to the private ones (Ministry of Education, Uasin Gishu County, 2021).

4.4 Closure of Schools and adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya

The first objective of the research aimed to establish whether indefinite school closure influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya. The research assessed various factors pertaining to teachers and their students, including residence during school closure, presence of adult figure, student wake up time during school closure, student bed time, study environment convenience, convenience of residence for facilitating learning, time spent on home study daily, english language learning, study supervision and study opportunities. The findings are presented in Table 4.3.

Table 4.3: Closure of Schools effect on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya

Questions	Respodents	Items	Frequency	Percentage
Residence during school closure	**Students N=281**	Rural	103	36.6
		Town	141	50.2
		City	37	13.2
	Teachers N=7	School staff House	2	28.6
		Rural	1	14.3
		Town	4	57.1
Presence of adult figure	**Students N=281**	Parent (s)	225	80.1
		Relative	39	13.9
		Guardian	17	6.0
Student wake up time during school closure	**Students N=281**	5-6 am	43	15.3
		7-8 am	132	47.0
		9-10 am	87	31.0
		From 11am	19	6.7
Student bed time	**Students N=281**	7-8 pm	9	3.2
		9-10 pm	141	50.2
		11 pm-midnight	84	29.9
		Past midnight	47	16.7
Study environment convenience	**Students N=281**	Very Convenient	7	2.5
		Convenient	58	20.6
		Slightly Convenient	132	47.0
		Not Convenient	84	29.9
Convenience of residence for facilitating learning	**Teachers N=7**	Very Convenient	0	0.0
		Convenient	1	14.3

		Slightly Convenient	2	28.6
		Not Convenient	4	57.1
Time Spent on home study daily	**Students N=281**	0 hours	37	13.2
		1-2 hours	79	28.1
		2-3 hours	128	45.6
		3-4 hours	28	10.0
		5 hours and above	9	3.2
English language learning	**Students N=281**	Daily	27	9.6
		Once a week	121	43.1
		Twice a week	24	8.5
		Once every 2 weeks	72	25.6
		Never	37	13.2
Study supervision	**Students N=281**	Parent/Guardian	44	33.5
		Teacher	18	6.4
		None	169	60.2
Study Opportunities	**Students N=281**	Very many	49	17.4
		Many	84	29.9
		Few	49	17.4
		Very Few	37	13.2
		None	62	22.1

The study sought to establish the actual residence of the student and teacher respondents during the indefinite school closure. The diversity of locations where learners lived during the indefinite school closure was believed to have an impact on adoption of digital learning due to its significance to access to infrastructure, electricity, internet

connectivity among others. Table 4.3 shows that 141 (50.2%) student respondents lived in town, followed closely by 103 (36.7%) who lived in rural settings while 37 (13.2%) indicated city as their residence during the school closure. The findings concurred with the study done by UNESCO (2020) on how the shutting down of schools widened learning inequalities and hurt vulnerable children and youth disproportionately. That the inequalities were further broadened by the diversity of locations where learners lived during the indefinite school closure:-in the cities, suburbs, towns, informal settlements or rural villages.

Table 4.3 also shows that the teachers were scattered during the school closure, just as much as the students. 28.6% retained their school houses while majority of the teachers got domiciled in their town homes. Interviews with the head teachers confirmed that the teachers who usually lived in the school staff houses largely relocated to their homes when the school closure got prolonged leaving just a few teachers in school. However, all the head teachers maintained their presence in the school throughout the closure, regardless of where they lived.

The study futher sought to know whether the students lived with their parents, relatives or guardians during the school closure. This would determine whether the learners had access to some control, guidance and supervision from an adult figure. Table 4.3 indicates that 225 (80.1%) of the student respondents lived with their parents while 39 (13.9%) and 17 (6%) lived with their relatives and guardians respectively. The extent to which the learners would access digital gadgets, internet bundles and printing facilitation would depend largely on whom the learner lived with at the time of the school closure. It

was interesting to note that most students who indicated that their home environment was convenient also predominantly stayed with their parents and they also comprised those that spent more time studying at home and had more access to digital devices.

Majority of the student respondents woke up between 7am and 8am, they comprised 132 (47%) followed by 87 (31%) that woke up between 9am and 10am. It is clear that though the long school closure was indeed school time, most students didn't consider it as such. Unsurprisingly, 19 (6.7%) left bed only after 11 am while 43 (15.3%) woke up between 5am and 6 am, believably to engage in academic pursuits as indicated in table 4.3 above. There was no direct correlation between who the student lived with and what time they woke up. The results point out to a possibility that most parents gave their children leeway to decide on their routines irrespective of whether they were day scholars or boarders. The findings were largely in contrast with school time realities whereby boarders were required to be up between 4am-5am while the day scholars were generally expected in school between 6.30 am and 7am as confirmed by 6/11 heads who were interviewed.

Table 4.3 further indicated that more than half of the student respondents retired to bed between 9-10pm while 84 (29.9%) went to bed between 11pm and midnight. A reasonable number of respondents, 47 (16.7%) went to bed past midnight whereas 9 (3.2%) retired to bed between 7 and 8 pm. Interestingly, some respondents who went to bed as early as 7 pm also indicated they woke up late in the morning, just like most of those who retired to be bed from 11pm and way past midnight. The results indicate that the learners adopted a completely different routine from school time perhaps due to other

home chores that they had to attend to and the fact that some parents/guardians might not have been keen to regulate the learners.

In addition, the study sought the respondents' views regarding how convenient their home environment was for study. Table 4.3 indicated that majority of the student respondents, 132 (47.0%) considered their home environment as slightly convenient for study while 84(29.9%) considered their home as not convenient at all. Only 7 (2.5%) felt that their home environment was very convenient for study while 58 (20.6%) considered their environment convenient for study. The findings indicate that a lot of adjustments are required in many homes to make them conducive for study perhaps by including dedicated study rooms where serious academic work can take place without interruptions from other on goings in the home.

Furthermore, table 4.3 revealed that majority of the teacher respondents, 57.1%, did not consider their residences as convenient at all for facilitating learning. There were as many distractions for the teachers as much as for the students. Again issues like access to dedicated devices for teaching, bandwidth and time amidst competing priorities would play out differently for teachers while away from school. The responses only further evidence the fact that the country was not prepared for prolonged closure of schools (Powell, 2020). Terras and Ramsey (2016) also underscore the importance of home environment in promoting and supporting safe and secure use of tech resources and online behavior

Moreover, the study sought to establish the amount of time the respondents spent engaging in study during the indefinite closure of schools. Table 4.3 shows that 37

(13.2%) of the student respondents did not engage in study at all during the disruption of school calendar. The researcher found this quite appalling. 79 (28.1%) of the student respondents spent only 1-2 hours studying while 28 (10%) spent between 3-4 hours on study. Majority of the respondents, 128 (45.6%) spent between 2-3 hours a day on their academics while a negligible 3.2% spent 5 hours or more studying. The latter also largely comprised those who routinely started their day earliest. While the results show evidence of some efforts at home study, it is crystal clear that many learners are yet to consider studying on their own as normal learning (Raveendram, 2020).

The study futher sought to establish how often the students attempted to engage in English Language Learning while at home. Table 4.3 shows that 37 respondents, (13.2%) did not engage in English Language Learning at all while 121 (43.1%) engaged once a week compared to 72(25.6%) who engaged once every two weeks. 24(8.5%) respondents indicated that they engaged in English Language Learning twice a week. Clearly the amount of engagement in ELL was not sufficient considering that English language is taught daily at school (Thuku. 2010).

The study considered the importance of learner supervision for focus, support, dedication and discipline to academic endeavor. As such the study sought to establish whether the respondents had any guidance from parents, guardians or teachers during school closure. Table 4.3 shows that 44 (33.5) respondents received guidance from their parents/guardians, 18 (6.4%) from the teachers while 169 (60.2%) received no guidance whatsoever, implying that the latter were self guided. The responses also confirmed that the presence of a parent did not necessarily result in academic guidance for the learner.

The findings confirm those of Kotirde (2015); Apolot (2018) and Jonyo (2019) who point that many learners may not have the self-drive and the discipline to engage effectively and keep focus on academic matters during home study.

Considering that the government, schools and other education stakeholders had come up with strategies to avail learning content through television, radio, school portals among others, the study sought to establish what the respondents thought of the opportunities available to them for home study. Table 4.3 shows that majority of the respondents 133 (47.3%) acknowledged that there were many study opportunities available to them at home. 49 (17.4%) indicated they had few opportunities for study, 37 (13.2%) very few opportunities while 62 (22.1%) had no opportunity for study at home. The results confirmed the efforts by the government and schools to avail remote learning options like educational television, radio programs and email/social media disseminated content. The study also noted that all the 62 learners who indicated ’none’ for study opportunities also resided in the rural areas confirming that some students solely relied on school’ for digital equipment (Artal et al, 2020).

4.5 Educational Technologies and adoption of DLEL in Kapseret Subcounty, Kenya

The second objective of the research aimed to assess the influence of educational technologies on the adoption of Digital Learning of English Language in Kapseret Subcounty, located in Kenya. The research assessed various factors pertaining to teachers and their students, including remote interaction between students and teachers, mode of student/teacher interaction, access to digital devices at home, access to internet, strength of internet connectivity, internet use for academic work , digital skills, digital skills

acquisition, teacher competence in working with digital devices, training for remote learning, technical support for remote learning and digital training sponsorship. The findings are presented in Table 4.4.

Table 4.4: Educational Technologies and adoption of DLEL by students and teachers in Kapseret Subcounty, Kenya

Questions	Respondents	Response	Frequency	Percentage
Student/Teacher remote interaction	**Students**	Yes	32	11.4
		No	249	88.6
		Total	**281**	**100.0**
	Teachers	Yes	2	22.2
		No	5	77.8
		Total	**7**	**100.0**
Mode of Student/Teacher interaction	**Students**	Phone calls/ Messaging	7	21.9
		Email	0	0.0
		School portal	10	31.3
		Social Media	15	46.9
		Total	**32**	**100.0**
	Teachers	Phone calls/ Messaging	1	14.3
		Email	0	0.0
		School portal	2	28.6
		Social Media	4	57.1
		Total	**7**	**100.0**
Access to digital devices at home	**Students**	Desktop computer	9	0.03%
		Laptop/tablet	26	0.1%
		Smartphone	43	0.2%
		Television	211	75.1%
		More than one device	240	85.4%
		None of the	14	0.05%

		devices		
	Teachers	Desktop computer	0	0.0
		Laptop/tablet	3	0.0
		Smartphone	7	100.0
		Television	7	100.0
		More than one device	7	100.0
		None of the devices	0	0.0
Access to Internet	**Students**	Yes	196	69.8
		No	85	30.2
		Total	**281**	**100.0**
	Teachers	7	100.0	
		0	0	
		7	**100.0**	
Strength of internet connectivity	**Students**	Very good	21	10.7
		Good	92	46.9
		Poor	59	30.1
		Very Poor	24	12.2
		Total	**196**	**100.0**
Internet use for academic work	**Students**	Daily	26	13.3
		A few times a week	52	26.5
		Rarely	81	41.3
		Never	37	18.9
		Total	**196**	**100.0**

	Teachers	Daily	1	14.3
		A few times a week	2	28.6
		Rarely	0	0.0
		Never	4	57.2
		Total	**7**	**100.0**

In Both the students and teacher respondents were asked whether they had any interaction that facilitated remote teaching/learning. Table 4.4 below reveals that 32 (11.4%) student respondents interacted remotely with their teachers while the majority, 249 (88.6%) did not engage in any interaction throughout the school closure. The responses resonated well those from the teachers 77.8% of whom did not interact with their students during the school closure. The results confirmed that the school closure curtailed any meaningful interaction between the teachers and their students, an invaluable prerequisite for effective teaching/learning. The findings reflected Artal, Humburg and Blanchy (2021) who opined that despite efforts, 40% of students globally lost all contact with ther teachers.

The respondents who answered affirmatively to the remote interaction question were then asked to indicate the mode they used for the interaction. Table 4.4 indicates that majority of the students 15 (46.9%) interacted with their teachers via social media, specifically WhatsApp while 10 (31.3%) used the school portal. The rest interacted through phone calls and short message services. Interviews of the head teachers revealed two schools had subscribed to Learning Management Systems and used the same to upload school assignments, usually on a daily basis. The students or their parents/guardians would then

sign in to the system using the provided password to download the assignments which they would print, attempt and upload back to the system or simply file for submission to the school at a later date. Class teachers were assigned the task to follow up with the parents on whether the learners could access the assignments through occasional phone calls and bulk messages.

The respondents were further asked to indicate what digital devices they had access to that could facilitate learning away from school. Table 4.4 above indicates that majority of the students had access to television, followed by smartphones and laptop/tablet, still most students could access more than one digital device at home. On the other hand, all teachers of English had access to television and smartphones and a combination of gadgets. The findings agree with a study done by Johnson *et al*(2016) that recognized technology as the strongest factor shaping the educational landscape today and noted that tremendous development in technology made it possible to explore the new learning models using digital technologies like computers, laptops, tablets, internet, smart phones, TV and radio to remit learning content (ICT Authority, 2016).

In addition, the student respondents were asked whether they had access to internet connectivity while at home. Table 4.4 above shows that all the teachers had access to internet whereas 196 (72.3%) of the student respondents had access to internet while 85 (30.2%) did not have access to internet. The implication of this is that both learners and teachers would easily harness the power of internet which was evidently widespread in Kapseret subcounty to facilitate learning away from school. Interestingly, some students who had indicated that they didn’t have access to digital devices responded affirmatively

when asked about internet access. The researcher concluded that such students most likely interacted with friends who had such gadgets and could access internet.

The respondents were asked to indicate the strength of internet activity they had access to. Table 4.4 above shows that most of the 196 respondents who had internet access 21(10.7%) enjoyed very good internet connectivity while 92(46.9%) had good connectivity. However, 59 (30.1%) and 24 (12.2%) had poor and very poor connectivity respectively. As for the teachers of English, all the seven respondents indicated that the connectivity was either good or very good. The results indicated acceptable spread of internet coverage in the subcounty and that the connectivity strength depended on the gadgets used.

The study also sought to establish how often the respondents used the accessible internet for academic reasons. Table 4.4 shows that 26 (13.3%) of the student respondents used internet daily for academic work while 52 (26.5%) did so only a few times a week, yet 81 (41.3%) rarely used the internet for study and another 37 (18.9%) never used the internet for study. Further, responses from the Teachers of English indicated that majority, though having access to internet, never used the same for academic reasons to facilitate remote teaching. The responses clearly confirm that access to internet does not always guarantee its use for academic purposes, echoing Otieno (2020) that even when learners have technology at home, they may not learn due to competing factors. Johnson (2019) also found out that many students may use the digital devices and internet to disengage rather than engage in learning.

4.6 Digital Skills and adoption of DLEL

The third objective of the research aimed to determine how digital literacy influences adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya. The research assessed various factors pertaining to teachers and their students, including digital skills, digital skills acquisition, teacher competence in working with digital devices, training for remote learning, technical support for remote learning and digital training sponsorship. The findings are presented in Table 4.5.

Table 4.5: Digital Skills and adoption of DLEL in Kapseret Subcounty, Kenya

Questions	Respondents	Response	Frequency	Percentage
Digital Skills	**Students**	Very good	28	10.0
		Good	76	27.0
		Fair	93	33.1
		Poor	56	19.9
		Very Poor	28	10.0
		Total	**281**	**100.0**
Digital Skills acquisition	**Students**	Trial and Error	22	7.8
		Interaction with friends	141	50.2
		School lessons	15	5.3
		Personal Effort	103	36.7
		Total	**281**	**100.0**
Teacher Competence in working with digital devices	**Teacher**	Strongly Agree	1	14.3
		Agree	1	14.3
		Disagree	2	28.6
		Strongly Disagree	3	42.9
		Total	**7**	**100.0**
Training for remote learning	**Students**	Yes	66	23.5
		No	215	76.5
		Total	**281**	**100.0**
Technical Support	**Students**	Yes	12	4.3

for remote learning		No	269	95.7
		Total	**281**	**100.0**
	Teachers	Yes	1	14.3
		No	6	85.7
		Total	**7**	**100.0**
Digital Training	**Teachers**	School	0	0.0
Sponsorship		Government	0	0.0
		Self	1	14.3
		None	6	85.7
		Total	**7**	**100.0**

The study sought to establish the level of skills the respondents had for effective use to facilitate learning. Table 4.5 above shows that majority of the student respondents considered their digital skills as fair, good and very good at 93 (33.1%), 76 (27%) and 28 (10%) respectively while another 56 (19.9%) and 28 (10%) indicated that their digital skills were poor and very poor respectively. the results were in agreement with the general knowledge that today's youth are in deed 'digital natives' who can easily work with any devices and apps with little or no prior experience. The researcher believed that though the respondents had the skills, such were only very basic and needed to be sharpened and made relevant by proper training. According to Yu, Lin and Liao (2017) knowledge and skills influence adoption of technology and that ICT adoption behavior is

pegged on and also moderated by information literacy and digital skills. They posit that knowledge and skills are necessary for proper access to and embrace of technology.

The student respondents were furher asked to indicate how they acquired the digital skills. Table 4.5 above shows that majority of the respondents acquired digital skills through interaction with friends, 141 (50.2%) and personal effort 103 (36.7%). The rest, 22 (7.8%) acquired the skills through trial and error and only a marginal 15 (5.3%) did so through lessons offered in schools. The study concurred with Wan (2014) who found out that the younger, 'dot.com' generation was capable of learning and making use of unfamiliar technologies.

The teachers were asked to indicate the extent to which they agreed with the statement that they were competent to use digital devices to prepare, teach and evaluate students. Table 4.5 above shows that majority of the teachers 3(42.9%) were not competent in using digital devices to prepare, teach and evaluate students. The responses indicate the need for a concerted effort to ensure teachers and students and competent to make the best of the digital devices to facilitate learning. The findings agree with McCallum and Jeffrey (2014) that digital knowledge and skills were a necessary prerequisite for teachers' adoption of digital learning.

The respondents were further asked whether they had undergone any training to formally prepare them for remote learning. Table 4.5 above shows that only 66 (23.5%) of the student respondents had undergone training for digital learning whereas 215 (76.5%) had not. This implies that though some students had good digital skills, such would not be very useful in remote learning unless made contextually relevant.

The student respondents were again asked whether they had access to any technical support while learning from home. Table 4.5 above indicates that only 4.3% (12) of the students had access to technical support facilitating remote learning while 95.7% (269) had no access to any technical support. It was noted that only those students whose schools had subscribed to Learning Management systems accessed technical support. The responses resonated well with those of teachers of English of whom only one indicated that they had access to technical support.

The teacher respondents were asked whether they had undergone training on digital teaching of English Language and the findings in 4.5 above indicted that an overwhelming 85.7% of the teachers had not undergone any training on digital teaching of English Language thereby raising concerns on their ability to facilitate digital learning of the English Language efficiently and effectively. The results exposed the urgent need to train the teachers use technology and incorporate digital tools in their learning plans.

Further, the study sought to know who had sponsored the teachers who responded as having undergone training on digital teaching of English Language. Table 4.5 above shows that neither the school nor the government had provided sponsorship and that the single respondent had undergone the training through self sponsorship. The responses were in agreement with Nuemeyer and Santos (2020) who opine that proper skills, knowledge and experience help to overcome barriers to technology. They point out that where users lack requisite knowledge and skills, they shy away from and are reluctant to adopt new technology.

4.7 Analysis of the Interview data

During interview of the head teachers, one of the headteachers responded that

> *My schools had computers for use by teachers and students. However, the computers were only accessible to students who pursued computer studies*

Another head teacher was asked how the schools ensured learning progressed during indefinite school closure, one of them responded that;

> *I made no attempt*

Another headteacher responded that;

> *I used the learning management systems or school portals to which we subscribed as the school*

Another headteacher responded that;

> *I instructed the teachers send assignments via whatsApp or email.*

The researcher further asked the head teachers if they made any follow up on students and one of them responded that;

> *I made no attempt*

Another headteacher responded that;

> *I occasional made phone calls or sometimes used short message service.*

Regarding preparedness of the schools and teacher of English for digital learning of English away from the classrooms one of the headteachers responded that;

> *We were not prepared at all*

Another headteacher responded that;

> *I am not sure about the competence of their the teachers of English in using digital devices to prepare, teach and evaluate students*

The head teachers were asked to highlight the main challenges the schools encountered during indefinite school closure and one of them responded that;

We were not prepared for the school calendar disruption,

The other headteachers responded that anxiety and uncertainty about school reopening; inability to reach most students using parent's contacts available at school; some students lacked smartphones and could not access email, or communication through social media platforms; lack of skills to execute virtual classes and lack of proper structures to get teachers to teach from home were some of the challenges.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings of the study and presents conclusions as well as recommendations. The purpose of this study was to examine the influence of school calendar disruption on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya.

The following were the objectives of this study:

i. To establish whether indefinite school closure has influence on adoption of Digital Learning of English Language Kapseret Subcounty, Kenya
ii. To assess the influence of educational technologies on adoption of Digital Learning of English Language Kapseret Subcounty, Kenya
iii. To determine how digital literacy influences adoption of Digital Learning of English Language Kapseret Subcounty, Kenya

5.2 Summary of the Findings

5.2.1 Demographics of the respondents

The majority of responders 281(94.0%) were form three pupils, compared to 7(2.3%) English teachers and 11(3.7) head teachers, some of whom were also English instructors. In terms of gender, male students outnumbered females by 134(47.7%), but male teachers surpassed females by 3(43.9%) to 4(57.1%). The head teachers were made up of 6

(54.5%) males and 5 (45.5%) females. In general, there were more female students and female English teachers in Kapseret Sub County than male counterparts. In the Sub County, however, there were more male head teachers than females. The majority of the students in the study, 272 (96.8%), were between the ages of 16 and 18, with 7 (2.5%) between the ages of 13 and 15. The teachers' ages ranged from 21 to 60, with the majority, 9 (50%) being between 41 and 50.

5.2.2 Closure of Schools and adoption of DLEL

The study discovered that all schools in the Kapseret subcounty were closed indefinitely, and that the majority of the student respondents, 141 (50.2%), lived in urban houses or dwellings, followed by 103 (36.6%) who lived in rural locations. In terms of teachers, 28.6% resided in their school residences in the teachers' quarters, 51.7% in town, and 14.3% in remote areas. Throughout the closure, all of the principals stayed on duty. The fact that students and teachers were dispersed across the school during the closure raises questions about fair access to educational opportunities and technologies capable of maintaining appropriate academic engagement during lengthy school closure. There was a need to equip schools with enabling technology while also ensuring students had access to it as well as learning content while away from school.

During the school closure, 225 (80.1%) of the student respondents lived with their parents, while 39 (13.9%) and 17 (6%) lived with relatives and guardians, respectively. In regards to sleeping patterns, the majority of student respondents 132 (47%) woke up between 7 and 8 a.m., 87 (31%) between 9 and 10 a.m., 19 (6.7%) only left bed after 11 a.m., and 43 (15.3%) woke up between 5 and 6 a.m. In regards to bedtime, the survey

found that 50.2% of student respondents went to bed between 9 and 10 p.m., while 84 (29.9%) went to bed between 11 p.m. and midnight. Nonetheless, 47 (16.7%) went to bed after midnight, with 9 (3.2%) going to sleep between 7 and 8 p.m. There was no relationship between who the student lived with and their sleeping habits at home.

In regards to the study environment at home, the majority of students did not believe their houses to be study-friendly. 132 (47.0%) said their homes were only little handy, while 84 (29.9%) thought they were very inconvenient. Only 7 (2.5%) thought their home environment was very convenient for studying, while 58 (20.6%) thought it was convenient. The responses were reaffirmed by English teachers, who rated their houses as slightly or not at all convenient for remote teaching (85.7%). The comments clearly demonstrate a lack of preparedness for long-term learning away from school during such extended school closures. The survey also found that schools were similarly unprepared for the continuation of instruction during school shutdown.

In terms of the amount of time spent on home study, it was determined that the majority of respondents, 128 (45.6%), spent between 2-3 hours a day on academics and only 3.8% spent more than 5 hours on academics. Some 37 (13.2%) did not study at all, while the rest made only occasional attempts. This pattern was matched in the study of English language, with 121(43.1%) respondents participating only once a week and 37(13.2%) not participating at all. The poor study habits were attributed in part to the respondents' lack of supervision. The fact that only 44 (33.5%) respondents received guidance from their parents, 18 (6.4%) from their teachers, and the majority, 169 (60.2%), received no guidance at all is a strong confirmation of the importance of learner supervision for

desired outcomes, especially given that 219 (77.9%) of respondents acknowledged the availability of opportunities for home study.

5.2.3 Educational Technologies and adoption of DLEL

The survey found that 249(88.6%) students did not connect with anyone during the school closure, and those who did used phone calls, the school portal, or social media in a limited and unidirectional manner. Almost all respondents had access to at least one digital device or a mix of electronic devices. Television was the most accessible device, followed by smart phones and laptop/tablet computers. However, other pupils did not have access to any of the devices, leaving them with only the text books. The same was true for internet access, which 196(72.3%) students and all teachers possessed. Nonetheless, 75(27.7%) students did not have internet access. Again, internet connectivity ranged from extremely poor 12.2% to poor 30.1%, acceptable 46.9%, and very good 10.7%. Despite this, the study found that 118 (60.2%) students rarely or never used the internet for academic purposes, while 78 (39.8%) did so regularly or only sometimes.

5.2.4 Digital Skills and adoption of DLEL

The study revealed that most students, 197(70.1%) acknowledged having fair to very good skills compared to 84(29.9%) who rated their skills as poor or very poor skills. It was further revealed that the student respondents largely acquired the skills through interaction with friends and personal effort as indicated by 244 (86.9%) of the students. 22(7.8%) acquired skills through trial and error while 15(5.3%) through computer lessons offered in school. The later were mostly students pursuing computer studies. On the part

of the teachers of English, 71.5% indicated that they were not competent in using digital devices and apps to plan, execute and monitor teaching since 85.7% had not undergone any formal training to prepare them for the same. The need for training was also elucidated by 215(76.5%) student respondents who also confirmed that they had not undergone any training to facilitate remote learning.

Concerning school closure and adoption of DLEL, the study established that there was a huge unexploited potential to harness existing technologies in order to keep students learning even in the midst of unexpected and indefinite closure of schools. That majority of the respondents had access to digital devices including television, radio, computers/laptops and smart phones at their homes means that with some deliberate planning and strategy, learning can be moved from the classroom to a virtual space to mitigate the negative impacts of disrupted school calendar.

Effective digital learning from a remote location calls for sensitization of parents, guardians and care givers to play an active role in guiding and supervising the learners while also instilling academic discipline. This must be buttressed by regular and well structured interactions between students and their teachers to keep learning on the right track. Serious consideration should be on how to keep the learners connected to the school, with continued relevant learning content for their level and timed appropriately for all, with sufficient monitoring, prompt feedback and evaluation as may be necessary.

This study has exposed the digital skills gap and the need for proper training for appropriate skills on how to utilize, manipulate and leverage existing and emerging

technologies to enhance teaching and learning in schools and away from school. There should be a concerted effort to equip the learners and the teachers to competently work with the digital devices and apps to achieve desired learning outcomes. Whereas most student respondents, 197(70.1%), acknowledged having fair to very good skills compared to 84(29.9%) who rated their skills as poor or very poor skills, the same should be interrogated to confirm the relevance and appropriateness to remote learning.

5.3 Conclusion

The study concluded that school closure had little effect on DLEL adoption and that successful adoption was heavily dependent on school preparedness and prior deliberate efforts to go digital and keep learners connected to their teachers even during normal school holidays. Access to digital devices, on the other hand, had a big influence on DLEL adoption because any endeavor without equitable access to the same would be worthless. Finally, relevant digital skills are crucial enablers of technology adoption because they drive learners and teachers to apply the abilities in the digital space venture. The main challenges of digital learning adoption were that schools were not prepared for the school calendar disruption, that there was anxiety and uncertainty about school reopening; an inability to reach most students using parent contacts available at school; some students lacked smartphones and could not access email or communication through social media platforms; a lack of skills to execute virtual classes and a lack of proper structures to get teachers to teach from home were all present.

5.4 Recommendations

Based on the findings of the study, the researcher wishes to recommend as following:

All schools should anticipate and prepare for disruptive eventualities that occasion indefinite closure to ensure learning is possible remotely. Thus, there is need to establish and equip functional digital skills labs for English learning to equip learners with relevant skills usable within the school and away.

The government should consider availing incentives to enable students, teachers and parents to acquire digital devices that support learning so as to bridge the digital divide.

There is need for ongoing digital skills training to equip both teachers and students with remote learning/teaching skills for effective content delivery, evaluation and interaction

5.5 Suggestion for further research

i. This study was carried out in Kapseret Sub- county; the same study needs to be done in other parts of the country for comparison purposes.
ii. Further study should be considered on the role of parents and guardians with regard to home learning.
iii. A study on the influence of parents/guardians on the second language learning is recommended.

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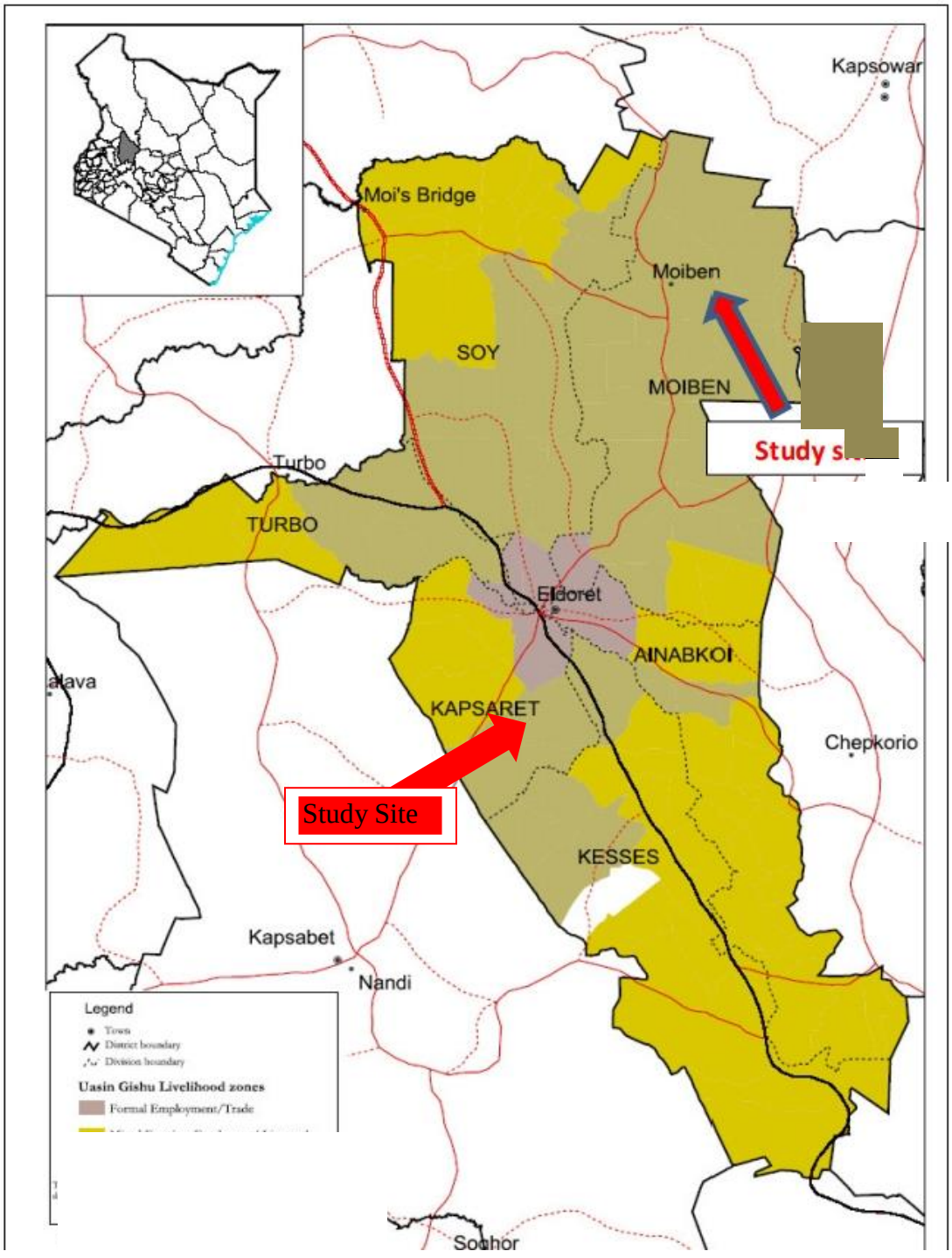
APPENDICES

Appendix I: Map of Study area



Appendix II: **Letter of Introduction**

Ednah Jesang Tuwei
P. O. Box 5674-30100
Eldoret

Dear Respondent,

My name is EdnahJesangTuwei, a Master of Education Student at University of Eldoret. I am currently conducting a research on the '*Influence of School Calendar Disruption on Adoption of Digital Learning of English Language'.* For this study to be successful, I kindly request you to respond to the attached questionnaire objectively and honestly. Your responses will be handled with absolute confidentiality and used only for the purposes of this study.

Thanking you in advance,

Ednah Jesang Tuwei
Researcher

Appendix III: Questionnaire for Students

The purpose of this questionnaire is to establish the influence of school calendar disruption on adoption of digital learning of English Language. Your sincere contribution to the study by giving accurate and honest responses will be highly appreciated.

A. Background Information

1. Age: 13-14 ☐ 15-16 ☐ 17-18 ☐ 19-20 ☐
2. Gender: Male ☐ Female ☐
3. Category of school: Public ☐ Private ☐
4. Level of study: Form 1 ☐ Form 2 ☐ Form 3 ☐ Form 4 ☐

B: Closure of Schools

5. Residence during COVID-19 holiday:

   Rural ☐ Town ☐ City ☐ Suburbs ☐ Informal Settlements ☐ Camp ☐

6. During the holiday, I lived with my

   Parent(s) ☐ Relative ☐ Guardian ☐ Caregiver ☐

   Other_____(specify)

7. During school closure I mostly woke up at:

   5am-6am ☐ 7-8am ☐ 9-10am ☐ From 11am ☐

8. On average what time did you retire to bed daily?

   7pm-8pm ☐ 9pm-10pm ☐ 11pm-Mid night ☐ Past midnight ☐

9. How do you consider your home environment for effective study?

   Very conducive ☐ Conducive ☐ Slightly conducive ☐ Not conducive ☐

11. How much time did you spend daily on your academics while away from school?

    None ☐ 1-2hours☐ 2-3hours☐ 3-4hours☐ 4-5hours☐ more than 5 ☐ hours

12. (a) How often did you engage in learning English language?

    Daily☐ Once a week ☐ Twice a week ☐ Once in 2 weeks☐ Not ☐ sure

14. Which of the following phrases best describe how you studied during COVID-19 school closure?

    Purely self directed ☐ Teacher guided ☐

    Parent guided ☐ Teacher and Parent guided ☐

C: Educational Technologies

15. How would you rate the educational opportunities that were available to you during covid holiday?

    Very many☐ Many☐ Few ☐ Very few ☐ None ☐

16. (a) Was there any interaction with the teacher(s) of English?: Yes☐ No☐

    (b) If 'Yes' what was the mode of interaction?(Tick (√) all that apply.)

    Phone calls/Messaging☐ E-mail ☐ School Portal ☐

    Social Media ☐ other _____ (specify)

17. Which of the following devices do you have access to while at home? *(Tick (√) all that apply.)*

    Desktop computer☐ Laptop ☐ Smartphone ☐ Tablet device (e.g. iPad)☐

    Television☐ More than one device ☐

18. (a) Did you have internet access for your studies? Yes ☐ No☐

    (b) If Yes, comment on the strength of the internet connectivity?

    Very good ☐ Good ☐ Poor ☐ Very poor ☐

19. How often did you use the internet to study?

    Daily☐ A few time a week☐ Once a week☐ Rarely☐ Never ☐

D: Digital Literacy

20. Please rate your skills in using digital devices to study:

    Excellent ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐

21. I acquired the digital skills through

    Trial and error☐ Interaction with friends ☐ Digital lessons in school ☐

    Personal effort ☐

22. I have undergone training on remote learning and use of Learning Management Systems?

    Strongly Agree☐ Agree ☐ Slightly Agree☐ Disagree ☐ Strongly Disagree ☐

23. I had access to technical support when using educational technologies away from school?

    Strongly Agree ☐ Agree ☐ Slightly Agree ☐ Disagree ☐ Strongly Disagree ☐

Appendix IV: Questionnaire for Teachers of English

The purpose of this questionnaire is to establish the influence of school calendar disruption on adoption of digital learning of English Language. Your sincere contribution to the study by giving accurate and honest responses will be highly appreciated.

Background Information

1. Age: 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ Above 60 ☐
2. I have taught for : 1-10years ☐ 11-20years ☐ 21-30years ☐ 31-40years ☐
3. Category of School: Public school ☐ Private school ☐
4. Residence during COVID-19 holiday:

   School Staff House ☐ Rural ☐ Town ☐ City ☐

   Nature of employment? TSC ☐ BoM ☐ Trainee ☐ Volunteer ☐

Access to Educational Technologies

5. At school, I use the following devices to teach. (*Tick(√) as applicable*)

   Desktop Computer ☐ Laptop/tablet ☐ Smart Phone ☐

   Internet ☐ Projector ☐ None ☐

6. During COVID-19 holiday I had access to the internet: Yes ☐ No ☐
7. The internet connectivity was:

   Very good ☐ Good ☐ Poor ☐ Very poor ☐

8. What was the frequency of the internet use for academic purposes?

   Daily ☐ A few times a week ☐ Once a week ☐ Rarely ☐

9. I am competent to use digital devices to prepare, teach and evaluate my students

   Totally agree ☐ Agree ☐ Slightly agree ☐ Disagree ☐ Totally Disagree ☐

Remote Teaching

10. I have undergone training on digital teaching of English

    Totally agree ☐ Agree ☐ Slightly agree ☐ Disagree ☐ Totally Disagree ☐

11. The training was sponsored by:

    My school ☐ the Government ☐ Self ☐

    Other_____ (specify)

12. I was engaged in remote teaching of my students during COVID-19 holiday:

    Fully ☐ Moderately ☐ Minimally ☐ Not at all ☐

13. I used the following to accomplish the teaching

    Learning Management System i.e JBS, Moodle ☐ WhatsApp ☐

    E-mail ☐ Google classroom ☐ ZOOM ☐ Microsoft Teams ☐

    Other (Specify) _____

14. I am familiar with and comfortable using available English language apps to facilitate learning

    Totally agree ☐ Agree ☐ Slightly agree ☐ Disagree ☐ Totally Disagree ☐

15. I received support from my school for home teaching in terms of:

    Acquisition of laptop/computer ☐ Training ☐ Internet ☐

    Bundles Airtime ☐

16. My home environment was conducive for remote teaching

    Totally agree ☐ Agree ☐ Slightly agree ☐ Disagree ☐

    Totally Disagree ☐

17. Please highlight the main challenge(s) encountered as a teacher of English during COVID-19 holiday_____

    _____

    _____

Appendix V: Interview schedule for head teachers

The purpose of this interview is to establish the influence of School calendar disruption on adoption of Digital Learning of English Language in Kapseret Sub County. Your sincere contribution to the study by giving accurate and honest responses will be highly appreciated.

Background Information

1. Gender(Interviewer to note)
2. How old are you?
3. Is your school categorized as public or private?
4. What time do your students go to bed? When do they wake up (*For schools with oarding facilities only)*

Access to Educational Technologies

5. Does the school have computers for use by teachers and students?
6. How and where do the users access and use the digital devices?
7. How did the school ensure learning progressed during indefinite school closure?
8. How prepared was the school of learning away from classrooms?
9. Does the school subscribe to any Learning Management System i.e JBS, Moodle, (Specify)

Digital literacy

10. How prepared are the teachers to deliver remote teaching?
11. How competent are the ToE in your school to use digital devices to prepare, teach and evaluate students_____

12. Who sponsors teacher to acquire digital skills? The school, the Government, Self, etc

13. Please highlight the main challenge(s) the school encountered during the indefinite closure?

Appendix VI: Secondary Schools in Uasin Gishu and Students Enrolment

Table 3: Secondary Schools in Uasin Gishu County

SUB COUNTY T	TURBO O	SO Y	MOIBE N	AINABKOI K	KESSE S	KAPSERE T	TOTA L
Public	33	44	32	24	41	19	193
Private	15	9	5	5	6	13	53
Total	48	53	37	29	47	32	246

Source: Ministry of Education, County Director of Education- UasinGishu County

Appendix VII: Student Enrolment in Secondary Schools in Kapseret Sub County

Table 4: Student Enrolment in Secondary Schools in Kapseret Sub County

CATEGORY	BOYS	GIRLS	TOTAL
Public schools	3575	3633	7208
Private schools	831	1042	1873
Total	**4406**	**4675**	**9081**

Source: Ministry of Education, County Director of Education- UasinGishu County

Appendix VIII: Krejcie and Morgan Table for determining sample size

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Appendix IX: University of Eldoret letter of introduction

University of Eldoret
flame of knowledge and innovation

UNIVERSTY OF ELDORET
SCHOOL OF EDUCATION
DEPARTMENT OF CURRICULUM AND INSTRUCTION

DATE: 18th NOVEMBER 2021

The Executive Secretary,
National Council for Science Technology & Innovation
P.O.BOX 30623-00100,
NAIROBI.

Dear Sir/Madam,

RE: RESEARCH PERMIT FOR TUWEI EDNAH JESANG– REG.NO: SEDU/CIM/M/009/19

This is to confirm that the above-named Post Graduate Student has completed her Masters Course work in Educational Technology (English Education)
She is currently preparing for field work to collect data on the thesis title: *"Influence of school calendar disruption on adoption of Digital Learning of English Language in Kapseret Subcounty, Kenya"*
The study site will be Kapseret Subcounty in Uashin-Gishu County, Kenya . The proposal was examined and approved by an academic board of examiners from the school of education on 22nd October, 2021.
Any assistance accorded her to facilitate acquiring research permit for data collection will be highly appreciated.

Head of Department
Curriculum & Instruction
UNIVERSITY OF ELDORET

Thank you

DR. FELICITY MURUNGA
HEAD OF DEPARTMENTS OF CURRICULUM & INSTRUCTION
Cc. DVC(ASA)
Dean, School of Education

University of Eldoret is ISO 9001-2015 Certified

Appendix X: Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **593448**

Date of Issue: **06/January/2022**

RESEARCH LICENSE

This is to Certify that Miss.. Ednah Jesang Tuwei of University of Eldoret, has been licensed to conduct research in Uasin-Gishu on the topic: INFLUENCE OF SCHOOL CALENDAR DISRUPTION ON ADOPTION OF DIGITAL LEARNING OF ENGLISH LANGUAGE IN KAPSERET SUBCOUNTY,KENYA for the period ending : 06/January/2023.

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593448

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Appendix XI: Similarity Report

DrillBit

The Report is Generated by DrillBit Plagiarism Detection Software

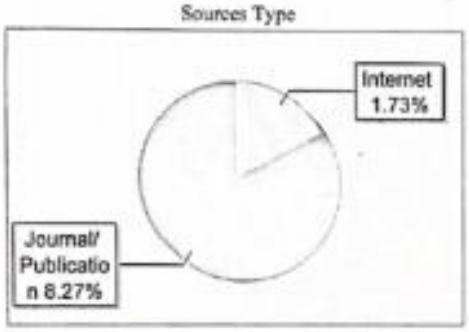
Submission Information

Author Name	Tuwei Edrah Jesang
Title	INFLUENCE OF SCHOOL CALENDAR DISRUPTION ON SCOP..
Paper/Submission ID	949741
Submission Date	2023-09-04 15:25:48
Total Pages	136
Document type	Thesis

Result Information

Similarity **10 %**

Sources Type



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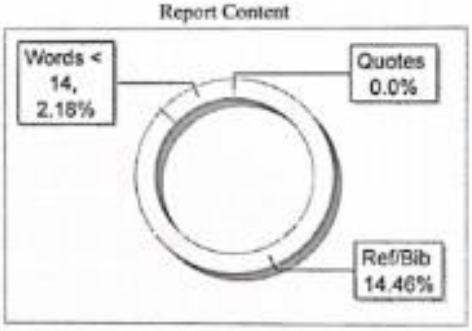

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