Adoption of Virtual Learning in Instruction of English Language in Primary Schools in Kenya during Covid-19 Pandemic: A Paradigm Shift

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Abstract. This study looks at the teaching of English language to primary school pupils using virtual space during Covid-19 pandemic. Globally, corona virus disease led to institutions of learning being closed suddenly without prior planning thus learning institutions adopted an innovative teaching method. Virtual teaching method brought a shift from the traditional face to face method and it was used to ensure learning continued when pupils could not attend physical classrooms. In addition, virtual learning has many benefits for instance it encourages learner collaboration, increase pupil motivation, encourage independent learning, creative learners, development of community of learners and improve learners' proficiency in English language. However, there is little knowledge available in this area to inform policy on the effective implementation of virtual learning in Kenya. The study focused on four objectives; to determine arrangement of e-content by teachers of English language in online learning in primary schools, to find out teaching methods and strategies used in English language in online learning space in primary schools, evaluate resources adopted by teachers of English language in online space in primary schools and to assess tests used by teachers of English language in online space in Primary schools. The researchers adopted document analysis to review the existing literature. The findings were: teachers did not have knowledge and skills on how to arrange e- content in order to support online lessons, teachers used both general and specific methods of teaching English language: explanation, discussion, task based and communicative language teaching (CLT), teachers used individual work and collaborative strategies to teach, and online resources were mobile phones, videos, television, audio recording, radio, online platforms used to teach pupils online were zoom, google classroom and google meet and tests were given in terms of individual pupil assignments and quizzes which pupils did and submitted for marking. These findings are useful to the Ministry of Education, Kenya Institute of Curriculum Development, teachers of English language, parents and pupils. The study recommends that Ministry of Education could avail funds for infrastructure, computers and train teachers so that online learning becomes effective.

Keywords: virtual, pupils, English language, COVID- 19, instruction

1 Introduction

The COVID-19 disease became a pandemic on 12th March, 2020 after the declaration by World Health Organization (WHO) [1]. The declaration led to states world-wide putting in

place temporary measures for instance closing of institutions of learning to help curb the spread of the disease in the communities [2], [3]. In addition, other public health protocols that could help in preventing the spread of COVID-19 were wearing of mask in public spaces, social distancing and washing of hands with water and soap or sanitizer [2]. However, global peak for closure of schools was in April 2020 upon which 199 countries had schools closed [4]. In Kenya, the schools were closed earlier in March 13th 2020 following presidential declaration after the first patient was reported on 12th March 2020 by the Cabinet Secretary for Health. With the closures of learning institutions at all levels of education globally, immediate solution to the problem was to adopt online learning for continuation of education sector in all states. Learning virtually is an innovative teaching different with the traditional method (face to face) which was always used to teach English language to the pupils in physical classes. A researcher in Malaysia, [5] observed that e-learning was the only solution to the implementation of COVID-19 disease public health protocols of school closures and lockdowns worldwide. However, it is not known how virtual learning was adopted by teachers in Kenya to help teach young learners while at home. This has necessitated this study for policy measures to be put in place for the country to effectively keep education sector operational in future pandemics.

In addition, Kenyan government declared Corona virus infection a global pandemic and immediately stopped people from moving from one location to different locations so that the spread of the disease is prevented on March 13th, 2020. Afterwards, the state allowed people to work and pupils to study from home in the whole country. Consequently, learning institutions of basic, tertiary and higher education were temporarily closed from March 14th, 2020 for the whole of 2020 in Kenya. Hence, the teaching and learning activities moved from physical to virtual platform during the outbreak. To be specific, states worldwide encouraged online learning from home using the relevant information communication technology (ICT) resources for instance computers, smart phones, desk top computers among others. It meant that everything was done on online spaces for instance activities like group presentations, class work, and tests [6]–[8]. However, it is not known how teachers of English language prepared online content, methods and strategies, the teaching resources as well as evaluation of the online learning process.

Generally, all the schools got closed down for the whole of 2020 globally. According to research done in Canada by [9] show that both school closure procedures were different across provinces and the impromptu virtual learning protocols which were adopted as the COVID -19 disease progressed. Primary schools have pupils learning in the Early Years Education (EYE). In EYE children learn through play activities. Besides, here learning focuses on the social domain, emotional domain, and cognitive domains of the child. Due to the nature of EYE, there were concerns raised on virtual learning by the Policy makers, teachers, and parents because they were not sure as to whether virtual instruction in the early years education will be of benefit to the learners since it moved from face to face where teachers had contact with the learners. As a result of the complexity and multifaceted nature of EYE, the change to virtual learning became more complicated for the stakeholders (teachers, parents, and learners) [10], [11] thus embracing it required stakeholders to have positive attitude and also make effort to adjust to the new way of instruction. This is because a complete re-thinking on how to make teacher preparation documents for virtual learning for early years' programmes and the need to make the conditions for a remote learning favourable for young learners [12]. According to [13] the COVID-19 pandemic threw educational professionals into unknown territory because teachers had to struggle to embrace online teaching spaces and digital

environments which were just emerging issues in Kenyan context. However, it is not known how teachers organized their professional documents in readiness for online lessons.

Although educators and parents had expressed fear about virtual learning, it can be argued that every cloud has a silver lining this is because [14] observe that e-learning have several advantages including learner centred teaching, high motivation, any child can access materials at their own time, cooperative learning and reduce travelling to school expenses. Besides, a research done in Saudi Arabia by [15] showed that learners who were taught English language using virtual classes advanced significantly higher on language achievement test than learners taught using traditional methods of teaching. In addition, a study done in Iran found that elearning provides teachers and learners with creative and practical ideas. These are evidence that virtual learning has benefits for young learners. However, it is not known how primary school pupils benefited by learning English language online.

However, researchers observe that implementation of online learning during pandemic does not enable teachers to achieve the set learning outcomes due to ineffective technology use [16], [17]. Especially in primary schools where teachers lacked prior experience with online teaching and learning before the beginning of the pandemic. Research by [14] rightly identified some of the bottlenecks of online learning for instance learners lack knowledge and skills on use of internet and computer, social relation among learners also decreased, reduced face to face meetings, little experience by teachers and learners, problems of cultural differences and technical limitations. In addition, online teaching is more demanding because it requires specialized skills by both the teacher and the learner, technological expertise, online conversation transfer of teaching materials to online space, online resources for instance videos and evaluation quizzes [13]. Moreover, it becomes more difficult when teachers are not familiar with the new way of learning by using online applications. Research done on implementation of online learning during covid-19 outbreak by [18] showed that medical education students at Alfaisal University when taught online recorded a positive behaviour. Meanwhile several challenges were reported including communication, testing students, use of online gargets, experience on online learning, pandemic-related stress, management of time, and fear of using technology tools. Besides, a research done in Kenya by [19] showed that there was lack of e-learning infrastructure for supporting e-learning equipments. In another research done in Iran by [14] found that internet is time consuming and is problematic for both the teacher and the learners. Amidst all these challenges as observed by the researchers, it is not known the challenges that teachers of English language encountered when teaching their pupils online in Kenyan Primary schools.

Also, the delivery of virtual learning most often include tasks being done before more tasks are given by the teacher. Researchers observe that when all the tasks are done at the same time, some aspects of learning become difficult to acquire. Thus the need for presenting tasks bit by bit. Although, this depends on the ability of the teachers to teach using either synchronous or asynchronous programming [20]. In synchronous method of teaching, learners and their teachers have lessons as has been timetabled as opposed to Asynchronous learning where learners undertake tasks on their own time as the method is flexible so long as it is within the time given by the teacher. Thus, the methods used in asynchronous method of teaching and learning teachers come up with lesson plans/modules, pre-recorded videos, links to external videos and discussion boards or forums. These require teachers to set time for purposes of planning. Unsurprisingly, the change from classroom instruction to synchronous and asynchronous instruction brought about social and academic problems for EYE learners. Considering learning in this level focuses on developing literacy and language skills that are the beginning for a lasting academic success in school. Online learning reduced the number of

hours that teacher taught. However, it is not known how teachers navigated these online dynamics to enable them to teach online successfully.

Moreover, children acquire foundational language, literacy, and skills [21], [22] in the article "An overview of early childhood development (ECD)", In ECD children need to be natured to realize holistic development in terms of social, emotional, physical and cognitive abilities in life. This is because they still lack abilities and skills. Similarly, researchers [23], and [22] recognize that early childhood is a stage of rapid growth in life. All the young children progress through the stages of physical, cognitive and emotional growth. However, development of Language in children is the most important as a child cannot learn without language. In addition, they are able to communicate using basic language skills for instance listening, speaking, reading and writing. These skills develop gradually as children learn to communicate through verbal and non-verbal cues. In order to be sure that literacy interactions are making sense, teachers continuously do assessment for learning to make sure that teaching is done in a way supporting individualized learning objectives. Besides, teachers can help in developing literacy skills through involving children in pattern creation and sorting items among other things. However, it is not known the play activities that teachers of English language chose to engage the pupils online to enable them to learn English language with ease.

Further, deep learning takes place when there are purposeful interactions between teacher and pupils and the teachers are able to provide instruction which is taking care of an individual pupil's abilities and interests leading to consolidation of concepts learnt. However, researchers observe that online learning becomes challenging for the teacher especially on issues of how to attain deep learning and play-based strategies to help meet the design expectations of a programme. Besides, Learn at Home Initiative (LAHI) changed the role of the teacher to that of a facilitator. Although teacher's roles remain the same, class control is not easy and teachers depend on parents to help the children to do the class assignments because they lack the resources, knowledge, skills and experience. In addition, learning virtually require that families to help the children to access the learning materials provided remotely and understanding of instruction given and submission of assignments done [24]. Virtual learning overburdens parents because they are required to understand their children's subject learning outcomes for all the activities in English language. However, it is not known how the parents supported primary school pupils to enable them to learn English language online successfully.

Teachers were required to have knowledge, skills and positive attitudes in order to be able to teach online successfully. With these requirements in mind [19] identify rightly the specialized skills that the teacher should possess; communication skills, time management skills, organizational skills, computer skills as well as assessment skills. A part from these, the digital teacher of English language also needs to possess technical and non-technical abilities for instance communicate effectively, maximize language awareness and proficiency of students and anticipate problems and their solutions [13]. The teacher is also supposed to play many roles due to digital environment which is new to the teacher and the pupils. These roles include providing online motivation, platform promoter, and technologist, collaborating with pupils, specialists in computer, integration of skills, supervision of the learning process and become the manager of the classroom [13]. When teachers possess all the above discussed skills the online English language lesson will be successful. A part from these roles, online learning must be implemented by looking at pupils' readiness to learn online. According to research done in Pakistan by [27] found that teachers should look at the pupils' readiness for online class in terms of online gadgets like lap top, tablet or phone, internet connection,

facilitation to buy bundles among others [27]. Researchers however observe that online learning was implemented without putting into consideration of pupils' readiness to learn online. However, it is not known whether learning took place without such considerations being looked at. In the next section we discuss teacher preparation in readiness of online teaching and learning and actual implementation in the classroom.

2 Virtual Learning Organization and Implementation

For any learning to be a success, teachers need to adequately prepare the professional documents. Online learning puts a lot of demand on the part of the teacher because learners are not taught in physical classroom but remotely. This means that some of the resources will replace the teacher as learners learn on their own either individually or collaboratively. Therefore, the content has to be thoroughly thought off and divided into smaller bits that the learners can read and comprehend on their own depending on the stages of development. Teaching methods and strategies have to be well thought too as well as resources and evaluation procedures that lend themselves to online learning. Researchers recommend that for online learning to be effective, teachers must develop the content, methods and strategies, resources and evaluation procedures before starting to teach [14], [27].

2.1 Content in English Language in Virtual Learning

Teachers of English language have to make high quality content in order to support online learning. This has to be made in smaller topic that pupils can understand easily. Globally researchers report that coming up with high-quality e-content for language learning is a major challenge for many institutes that teach language. Although there are many specialists in the area of computer-assisted language acquisition, little knowledge is a available on about coming up with a fully online English courses and the modalities on how to teach the e-contents offline to learners who were not prepared for online learning. Even before the pandemic, designing virtual learning courses for English language learners has been an uphill task for the instructional designers. They have been trying to come up with the best online resources and look at the most valuable pedagogical principles in designing online teaching methods and the most efficient e-content in English language for primary school pupils [28].

A study done in Turkish university in Turkey explicitly examined English language e-contents taught to Turkish university students and found that lecturers realized problems teaching e-content in English language as it was difficult to manage, not flexible and the lectures were not interactive [29]. In addition, Teachers of English language lacked the skills that would have enabled them to come up with high quality e-content because they did not have formal training on these. This shows that teachers of English language in primary schools could also be lacking the prerequisite online knowledge and skills. Furthermore, it was observed that online resources for instance audio records and videos used in teaching were not authentic. Yet, teachers need to use authentic materials in order to help teach their pupils language as used in context as required by second language acquisition (SLA) theory. Accordingly, a study by [30] reported lack of learner interaction in English language in Vietnamese as they used the system's automated feedback which made learners to be dissatisfied with reading and speaking skills' course contents because the teacher did not give

explanations why their answers were not correct, unlike in the traditional way of teaching where response was immediate. In Kenya, public and private primary schools lacked the Learning Management Systems in which to upload the e-content, videos and audio recordings. The system could be developed and implemented for these schools so that online learning is made a reality in future.

Moreover, [31] studied effect of combined synchronous and asynchronous e-language learning in a university in Indonesia. The findings indicated that a blended model of education provide learners with interesting experience. The experiences included the uploaded content materials on the system and discussion boards or forums where learners could discuss the topics taught. English language learners in Kenyan primary schools did not have a chance to do blended learning but did purely online learning which was done by private schools while pupils in public schools did not learn online due to lack of smart phones and infrastructure. This resulted to partial learning in Kenya due to parental educational level and income. Another research, conducted by [32] in India looked at the development of e-contents in a Spanish course. There was a problem as students could not separate e-text and video content. Although they were to either watch the videos or read the e-texts. This shows that the text and the videos are to be separated and clearly developed to support learners as they learn on their own.

Moreover, boredom was reported when learners were given little time (thirty minutes) to watch video lectures which were prepared with a few communicative tasks. Also, using English language as a service language for basic level courses was problematic as most learners were not happy with it as they needed a regional language. Further, the content writers were not trained on online courses instructional design and only a few had technical pedagogical content in their lessons. Likewise, teachers could not come up with video content which were exciting, lacked online skills, lack of confidence and English language is also taught as a second language thus its complex nature in structure, vocabulary and sound system.

Mostly, studies reviewed looked at arrangement of English language e-content for learners and not how the e-content influence pupils' acquisition of fluency in English language. This is because learners lack proficiency and have low motivation in English language hence difficulty in learning English language which is a foreign language, new from learners' native languages' sounds, vocabulary and grammar [33]. A researcher [34] observe that organizing an e-content development team is important because they have knowledge of the subject matter as well as multimedia content. Besides, Teachers who had been exposed to online teaching and learning participated in activities for instance content creation for online teaching, designing courses and taught online lessons with ease. However, research report that language institutions throughout the world realize difficulty in creating English language e-content which has high-quality for pupils. Developing English courses for online teaching and the delivering English language e-contents offline for learners are both topics that have received considerable academic attention. However, little is known about these topics. No matter the issue, instructional designers are continually tasked with creating virtual language learning content, look for the most effective online resources, the ideas which are pedagogically sound and the user interface which is effective for building the ideal econtent activities [28]. In this regard, teachers in Kenya started making e-content as a response to the sudden closure of learning institutions country wide just to ensure learning continued. Therefore, teachers did not have prior experience in making e-content or any form of formal training in making e-content in English language.

According to research by [35] the use of media technology in the classroom to teach English language has produced positive effects. This is supported by research done by [36] arguing that virtual learning may alter pedagogical approaches and boost the effectiveness of teaching and learning by using computers and the internet. According to a research by [37] on the impact of virtual learning on students in Saudi Arabia, it is a flexible, interactive approach to learn the language and use of the ideal e-content activities in the lesson. Accordingly, research done in Indonesia by [27] study found that students considered online learning while at home as the best and contribute to development of learner autonomy. This is also true to the Kenyan situation that learners that got the chance to learn online truly were highly motivated. Also, it is argued that a team that is knowledgeable about the topic and multimedia resources should be formed so that they generate e-content, according to [34]. Those with past experience in activities on online teaching and learning, such as the development of online material, course design, delivery and familiar with students' demands. However, teachers lacked experience on e-content, online pedagogy and therefore did not have any expectations on how to solve problems associated with online learning in Kenya.

2.2 Methods and Strategies of Teaching English Language in Virtual Learning

Technological advancement in the world has led to technology becoming omnipresent. Due to this existence of ICT on daily life the pedagogy of teaching methodology has also shifted leaving behind the traditional instructional methods while embracing the more exciting online methods. The phrases "virtual learning" or "Technology in Education" are familiar in education sector in the country. Integration of technology in learning institutions helps in meeting needs of 21st century learners. The traditional methods of teaching which are mainly based on lecture method where learners learn by memorizing the concepts taught. Technology has brought about use of the internet in teaching learners. Examples include you tube music, Skype, tweeter, online blogs and forums. These have helped in enhancing stimulus variation, pupils' engagement and lessons become more interactive. The teachers can use the innovative way of teaching for instance songs, movies, drama, advertisements, sports commentaries [29]. According to research done by [13] teachers' roles within English lessons have changed because teachers have become facilitators, prompter, information provider, resource developer, class participant and discreet assessor making a shift from the traditional methods of teaching. However, it is not known the methods that teachers adopted as they taught online.

In addition, the online form refers to category of teaching, whereby English language teachers and pupils use online platforms and web sites to communicate and transfer knowledge. The offline form refers to virtual presence of the teacher, through the transfer of learning materials (video, documents, tests, and other content) without direct communication with learners, with or without occasional written communication. In the virtual learning, the factor of personal involvement of the instructor is present, while in the offline education, the factor of depersonalization is present and insists on the transfer of assigned forms, content and materials. In both cases of education an organized and planned approach is present and is insisted on predefined goals and programs [38]. According to a study done in Vietnam by [30] who studied students' interactions in English language classes, findings showed that Vietnamese learners were dissatisfied with the speaking and reading skills course materials because, in contrast to traditional contexts, they felt that feedback which were automated from the system lacked explanations for why their answers were incorrect. In contrast to the

traditional classroom model, [39] demonstrated that a virtual learning platform is a suitable and superior method for increasing vocabulary, listening and speaking skills, grammar, reading skills and writing skills. However, for these to be achieved, the teacher has to plan the content well by organizing information, methods and strategies, resources and manage the digital lessons by using suitable assessment procedures [13]. It is not known how virtual learning enhanced acquisition of skills in English language for primary school learners.

In a study done in Bangladesh by [40] showed that the participants reported that they were not proficient in English language thus they did not participate actively in the synchronous teaching. Asynchronous modalities, on the other hand, were preferred by English language learners because it is fun. However, the study is not saying that online teaching is popular but saying it is not time bound. In order for the learners to benefit in learning online, researchers recommend that they have to adopt strategies that have been found to be effective for instance manage their resources, use them well, look for help, manage time, control of learning environment and technical skills [41]. In another research done by [42] found that learner personality for instance agreeableness, consciousness and openness to new experience enhanced learning outcomes in English language. It is not known the perception and strategies that learners adopted to help navigate the online dynamics in order to harvest many benefits in English language lessons.

The old approaches of teaching English language are centered on lecturing leading to rote learning. Besides, they make learners to memorize language items taught thus mechanical and does not help learners to acquire proficiency in English language. ELT strategies when used in instruction may help teachers to encourage pupils to become proficient in the English language [29]. In this paper, researchers discuss some of the approaches used to teach English language online including grammar translation, direct method, audio-lingual, silent method, content based and task based methods.

First, the Grammar-Translation Method of teaching English language as it has been in existence for years. It was hoped that studying of English language grammar would encourage pupils to compare their native language grammar thus speak and write their native language better. Finally, help pupils to grow intellectually by undertaking the mental exercises [43]. Teachers when using this method, pupils are asked to translate literature passages, reading comprehension questions, synonyms, filling-in-the-blanks, use of words in sentences, and writing composition. Although this is a traditional method to teaching, it is still used by teachers to help young learners memorize new vocabulary and language structures. It is not known how teachers adopted this method in online lessons.

Secondly, Direct Method of teaching English does not allow learners to translate language from English to native language but learners are expected to use demonstration and visual aids meaningfully in English language without making any reference to the pupils' native languages [43]. Teachers use classroom activities for instance reading aloud event, questioning and answering activities, self-correction by pupils, practicing using conversation activities, filling-in-the-blank exercises, dictation and drawing of maps, writing paragraphs to help pupils learn English language [43]. It emphasizes reading skills and a lot of practice in speaking skills using available objects in the classroom environment to help pupils understand the meaning of the sentences in context. These encourage pupils to think in English language which is the target language of the lesson. Besides, learning vocabularies by constructing grammatically correct sentences is more natural way of learning in context than when learners learn vocabulary by simply memorizing lists of words. Thus lessons could contain some conversational activities to give chances to pupils to practice using language in context.

Thirdly, the Audio-Lingual Method use oral drills of grammatical sentence patterns. [43]. In this method memorization, repetition drills, chain drills, single-slot substitution drills, transformation drills, question-and-answer drills, use of minimal pairs, complete the dialogues, and grammar games are used to help pupils to acquire English language [43]. These drills help pupils in forming habits as it is believed that learners should not make errors as they use English language thus the need to repeat what has been taught for formation of habit. In addition, teachers are required correct the errors made by learners immediately. Here pupils learn structural patterns so that they are able to communicate while vocabularies are learnt later.

However, some researchers did not agree with the notion that language is acquired through habit formation in 1960s. Noam Chomsky a linguist in the area of language argued that children have Language Acquisition Device (LAD) which make it possible for them to learn underlying rules of any language hence able to understand meanings of sentences in those languages and also to be able to come up with novel sentences never used before in any communication. This led to silent way method of teaching English language being discovered.

Fourth, Silent way method of teaching English language allow learners to use cognitive processes to discover the underlying rules of a language. Therefore, this method uses cognitive approaches and techniques in teaching for instance sound-color chart, teacher becomes facilitator, being corrected by other learners, use of rods, learner correcting self, using words written in charts, and structured feedback. It is based on several principle for instance the teacher should teach from known to the unknown, language is not learnt by repetition but by pupils developing their own "inner criteria" for correctness, reading skills taught based on what pupils have learned to say, teacher's silence helps in fostering learner autonomy, the teacher only speaks when it is necessary, pupils need to learn to listen to themselves and the basic skills for instance listening, speaking, reading, and writing complement one another in lessons.

Fifth, Content-based Instruction tend to borrow content in other learning areas in academic subjects matter to help teach English language for instance a reading comprehension on poultry farming is content from field of Agriculture. The vocabularies will be from the field. Since language is used to convey information, learners' experiences are adopted and used to teach new information so that it is made authentic. Some of the strategies include reading aloud event, discussion and summary writing among others. According to (https://www.scirp.org/journal/paperinformation.aspx?paperid=102067),

Sixth, task-based method of teaching aims at providing learners with tasks which help learners to solve problems as they use language to negotiate learner's old knowledge and the new knowledge. The tasks are broken down into smaller bits to develop logical thinking. Research has shown that ESL pupils face challenges because of poor spelling and mothertongue dominance. Online learning can be used as a remedy for ESL pupils who are given the task of spelling words via e-learning enable pupils to learn to spell the words when they are free. Teachers were at liberty to choose the methods discussed to teach their learners online. However, many teachers of English adopted methods of teaching for instance question and answer, explanation, discussion, task based, communicative language teaching as well as oral drills.

Seventh, teachers also used varied strategies. A research done in Indonesia by [49] found that teachers of English language use four strategies for instance independent teaching, indirect instruction, empirical learning and collaborative teaching when teaching online. Another researcher [50] also identify six learning strategies for instance direct instruction, indirect instruction, empirical learning, interactive learning and independent teaching. As

observed teachers of English language adopted individual, collaborative and empirical strategies when teaching pupils online in the country.

2.3 Teaching and Learning Resources in Virtual Learning

Virtual learning has brought a new way of teaching thus attracting a growing attention globally leading to the recent development of virtual learning technologies. Virtual learning technologies are applications that use internet connection for example computer programmes and computer applications [44]. Researchers have identified some of the teaching resources in the digital space. [13] in her research identify rightly the resources including zoom, webroom, Edmodo, Microsoft teams, google hangouts, google classroom, google meet and skype which are being used by teachers of English language to teach online. An examples of virtual learning platform is Google classroom which provides online space that saves time and enhances learners' interpersonal communication skills [45]. In addition to these, a research done in Egypt by [46] (http://www.i-jet.org) showed that Moodle e-learning platform has been adopted and implemented in Egyptian universities and it is helping by increasing learner motivation. However, research done by [13] indicate that zoom is the most preferred resource method used to teach online due to its tools for instance video, chat box, interactive whiteboard, screen sharing feature, break out rooms, ability to record the lesson, unlimited time span for video conferencing and stable network that do not suffer from delays. These show that teachers have many learning resources options which they can adopt according to their teaching context and learner characteristics. Teachers of English language in Kenya adopted google classroom, google meet and zoom basically because they are easy to manipulate.

Also, there is game-based online learning resources that help teachers to track their learners' progress in a conducive online environment which make learning to be fun. In addition, game-based online learning resources help in improving and making pupils' learning process to be effective [47]. A part from these, Teachers also use social media platforms for instance twitter, face book, whatsApp, snap chat and instagram in instruction and provide learners with practice in English lessons [48]. These show that there are many social media platforms that can be used to teach depending on context of practice to make instruction fun and effective.

Before the sudden beginning of the Covid-19 pandemic, many developed countries had already developed reliable infrastructure which provided them with online resources for effective teaching process. These were possible because of industrialization and technological advancement. However, many developing countries went through the pandemic facing many problems with regard to online education for instance lack of online resources, lack of funds and lack of support and media. Technology provide teachers with practical and creative ideas which enable them to create their own methods of teaching online [14]. Also, parental support was important for the pupils to be able to learn online with ease. Accordingly, [51], research found that parents played an important role in online learning by observing study time and free time for the children so that they are mentally prepared for the lessons. Besides, children needed help with the online tools.

Furthermore, Kenya being developing country had not set up effective infrastructure before the pandemic, to enable it to carry out a swift transition to effective online learning for primary school [25]. Research indicates that at the start of the pandemic, about 22% pupils

accessed online learning. The pupils in public schools did not have much access to online learning while pupils in private schools were twice as likely to learn online due to access to internet, smart phones, computers and bundles. In addition, poverty, lack of funds and skills were reported as the main challenges which made it impossible for many children to access virtual learning. Besides, parents also realized problems of high family expectations and high anxiety which led to child development challenges [26]. This means that only pupils in private schools were able to get smart phones, lap tops or desk top computers and bundles from their parents to enable them to learn. Some semi private schools also had online classes. However, when the schools were reopened in 2021, teachers had to repeat what was already taught online as not all the pupils had learnt online. Besides, the Ministry of Education made sure that all learners were at par with syllabus coverage making online learning an emerging issue at the primary school level.

2.4 Evaluation Procedures used in Virtual Instruction

Assessment for learning is more important in online space because it helps the teacher to know whether the learning outcomes of the lesson have been achieved through the online tasks given to learners in the absence of the traditional face to face interaction. These online tests/quizzes have come up due to the technological advancements globally leading to a dramatic shift for the educational practice [52]. However, researchers argue that content materials uploaded on the system or website by teachers must be evaluated so that teachers understand how learners get, read, review and understand the materials. These enable teachers to give constructive feedback to their learners, learning process improvement and encouragement of learners' progress in English language. In a distant online learning space, facilitators lack both verbal [1] and nonverbal feedback from their pupils. Feedback from pupils usually help teachers in adjusting their pace of teaching, content, choice of methods, resources and tests administered [53]. With an evaluation system, pupils' experiences are continually improved because teachers are able to provide learners with criticism which encourage and improve learning outcomes. Although teachers who use distance learning may not always receive verbal and nonverbal feedback from their pupils. With the use of this feedback, a teacher in a traditional learning setting may utilize both verbal and nonverbal cues to immediately modify their lesson plans in order to better meet the requirements of their pupils.

In a distance learning environment, the teachers of English language frequently pause teaching and ask pupils whether they have understood the lesson topic being taught. However, in the absence of verbal and body language reports, the teacher may ask learners to summarize the lesson topic so that the She/he gets to know level of understanding so that decide to reteach the lesson or teach new topic [54]. Also, learners undertake lesson activities and submit their answers to the teacher for marking and grading. The teacher sends timely and constructive feedback to the learners so that they are able to do corrections. Additionally, learners' performances in tasks and activities may be used to update current activities or develop new ones. In support of these, a research done in Pakistan by [55] indicated that in virtual learning teachers were readily accessible to answer pupils' oral questions and text messages thus giving immediate feedback and increasing learner motivation in English language. However, in the study done by [56] findings showed that students with low

proficiency in English language lacked online learning skills, lacked experience in individual learning and were not ready to learn online.

3 Conclusion and Recommendations

Virtual learning enable learners to harvest many benefits including learner autonomy, motivation, collaborative learning, easy access, timeliness focus on improving linguistic, sensitivity, listening comprehension and ability of expressing oneself thus enable pupils to master English language faster. Language acquisition depends on a pupils' practicing using language in context. Virtual learning allows teachers to use both traditional and communicative language teaching methods and strategies thus it does not have its own developed basis of teaching. This research has demonstrated that properly planned content, methods and strategies, resources and evaluation procedures used in teaching English language result in effective online teaching and learning. It seems that virtual learning has become a lucrative option, since it does not require large investments and with considerably reduced travel, time, and costs, enables pupils to participate no matter their geographical position. Researchers argue that adoption of virtual learning in primary schools in the country was as a result of crisis management especially COVID-19 disease. This means that school administration, teachers, parents and pupils were all not ready and had no prior experiences in all the processes of this new pedagogical innovation in technology.

Additionally, schools also did not have the online resources to adequately prepare, plan and implement online instruction. The Covid-19 pandemic outbreak made physical learning in classrooms impossible thus education sector had to device ways of instruction a way from school and adjust by installing appropriate equipment, facilities, training teaching and support staff. This is in addition to reviewing curriculum and pedagogical approaches and techniques so as to be ready for any future pandemics.

The study recommends that since there was no systematic effective virtual learning which took place in primary schools during the pandemic in the country, there is need for the Ministry of Education to consider formulating a policy on online instruction, training of teachers, buying equipments and putting infrastructure in place for online teaching to be effective in future. Generally, there was little literature in the area of online instruction in Kenyan context; most literature reviewed was from western countries thus need for more research in the area.

Authors' Contributions

This research contributes to a dynamic area of English language teaching (ELT) research. This is a critical area which informs teachers of best practice in online teaching. In addition, the study makes contribution as it bonds English language teaching with other fields of study: computer science, information technology, information science, cyber security, media science and education. Education is intertwined with technology thus knowledge of how technology is infused in content, methods, resources and testing of English language is important. Also, most of the published work we came across during literature search was

mainly from the western countries with a few articles in Kenyan context. Therefore, this research adds value to the existing literature and new knowledge in the area of virtual learning in English language lessons at primary school level. Virtual method of teaching is a paradigm shift in teaching approaches in Kenyan context because the normal way of teaching is traditional method (face to face). This study comes in handy in providing ways in which online learning could be organized and implemented by teachers of English language in content, methods and strategies, resources and testing thus enhancing learner learning outcomes in any country in the world.

References

- [1] R. M. Viner *et al.*, "Reopening schools during the COVID-19 pandemic: government must balance the uncertainty and risks of reopening schools against the clear harms associated with prolonged closure," *Arch. Dis. Child.*, vol. 106, no. 2, pp. 111–113, 2020.
- [2] G. Wang, Y. Zhang, J. Zhao, J. Shang, and F. Jiang, "Mitigating the effects of home confinement on children during the COVID-19 outbreak," *Lancet*, pp. 945–947, 395AD.
- [3] A. Wilder-Smith and D. O. Freedmann, "Isolation, quarantine and Social distancing and community containment: Pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak," *J. Travel Med.*, vol. 27, no. 2, pp. 1–4, 2020.
- [4] World Food Programme, "Learning in times of lockdown: how Covid-19 is affecting education and food security in India," *Food Secur.*, vol. 12, no. 4, pp. 793–796, 2020.
- [5] H. Y. Yong, W. E. W. Siang, and M. Mohamad, "The challenges of learning English Skills and the Integration of Social Media and Video Conferencing Tools to Help ESL Learners Coping with the Challenges during COVID-19 Pandemic: A Literature," *Creat. Educ.*, vol. 12, no. 07, pp. 1503–1516, 2021.
- [6] A. Almanthari, S. Maulina, and S. Bruce, "Secondary school mathematics teachers' view on e-learning implementation barriers during covid-19 pandemic: the case of Indonesia," *Eurasia J. Math. Sci. Technol. Educ.*, vol. 16, no. 7, 2020.
- [7] M. V. Babayiğit, M. N. Cizrelioğullari, and Ö. Altun, "How does online learning facilitate teaching? Is it a new phenomenon or due to coronavirus? A collection of students' views," *ECLSS Online*, vol. 210, 2020.
- [8] A. Priyadarshini and Bhaumikm R, "E-readiness of Senior School Learners to Online Learning Transition amid COVID-19 Lockdown," *Asian J. Distance Educ.*, vol. 15, no. 1, pp. 244–256, 2020.
- [9] P. J. A. NIT, "COVID-19 at WNUT-2020 Task 2: Deep Learning Model RoBERTa for Identify Informative COVID-19 English Tweets," 2020.
- [10] K. Timmons, A. Cooper, H. Braund, and E. Bozek, "Examining the implementation and impact of the COVID-19 remote teaching initiative in Ontario early primary education contexts," 2020.
- [11] E. Yamamura and Y. Tsustsui, "The impact of closing schools on working from home during the COVID-19 pandemic: evidence using panel data from Japan.," *Rev. Econ. Househ.*, vol. 19, no. 2, pp. 1–20, 2021.
- [12] J. Trawick-Smith and T. Dziurgot, "Untangling teacher-child play interactions: Do teacher education and experience influence 'Good-Fit' responses to Children's play?," *J. Early Child. Teach. Educ.*, vol. 31, no. 2, pp. 106–128, 2010.
- [13] F. Codreanu, "Teaching English Online: From Course to Practice," *ATN Lang. Specif. Purp.*, vol. 20, no. 3, pp. 29–37, 2020.
- [14] N. Mohammadi, V. Ghorbani, and F. Hamidi, "Effects of e-Learning on Language Learning," Procedia Comput. Sci., vol. 3, no. 3, pp. 464–468, 2011.
- [15] M. Alhawiti, "The Effect of Virtual Classes on Student English Achievement at Tabuk Community College," Int. J. Learn. Teach. Educ. Res., vol. 16, no. 5, pp. 90–101, 2017.

- [16] C. Hodges, S. Moore, B. Lockee, T. Trust, and A. Bond, "The difference between emergency remote teaching and online learning," *Educ. Rev.*, vol. 27, 2020.
- [17] Z. Zaharah, G. I. Kirilova, and A. Windarti, "Impact of corona virus outbreak towards teaching and learning activities in Indonesia," *Salam J. Soc. Dan Budaya Syar-I*, vol. 7, no. 3, pp. 269–282, 2020.
- [18] M. Rajab, A. Gazal, and K. Alkattan, "Challenges to Online Medical Education during the COVID-19 Pandemic," *Cureus*, vol. 12, no. 7, 2020.
- [19] J. O. Maloba, E. Chelule, and J. N. Wesonga, "E-Learning in Primary Schools: A Comparative Study of Selected Primary Schools in Kisumu Municipality and Muhoroni Sub county, Kenya," J. Lit. Lang. Linguist., vol. 17, pp. 60–70, 2015.
- [20] L. Miruna, "Digital media: Friend or foe? Preschool teachers' experiences on learning and teaching online," *J. Pedagog.*, vol. 68, no. 2, pp. 203–221, 2020.
- [21] S. B. Piasta, "Current understandings of what works to support the development of emergent literacy in early childhood classrooms," *Child Dev. Perspect.* 10(4), 234-239., vol. 10, no. 4, pp. 234–239, 2016.
- [22] V. W. Muyoka, "The Challenges Facing the Implementation of Early Childhood Development and Education Policy in Bungoma County, Kenya," J. Educ. Pract., vol. 8, pp. 217–223, 2017.
- [23] World Bank, "Why aren't children learning," Dev. Outreach, vol. 13, no. 1, pp. 36–44, 2011.
- [24] I. Samuelsson, J. T. Wagner, and E. Eriksen Ødegaard, "The coronavirus pandemic and lessons learned in preschools in Norway, Sweden and the United States: OMEP Policy forum," *Int. J. early childhood*, 52(2), 129-144, vol. 52, no. 2, pp. 129–144, 2020.
- [25] UNESCO, "Teacher development and special needs: Special Needs in the Classroom," Spec. needs Educ., pp. 238–251, 2019.
- [26] UWEZO, "Online teaching practices during the COVID-19 pandemic. Educational Process," Int. J., vol. 9, no. 3, pp. 169–184, 2020.
- [27] Y. Melvina, S. L. Nenden, and D. A. Wirze, "EFL Learners views on Online Learning implementation during COVID -19 Outbreaks," Adv. Soc. Sci. Educ. Humanit. Res., vol. 513, pp. 351–357, 2020.
- [28] L. De Paepe, C. Zhu, and K. Depryck, "Online Language Teaching: Teacher Perceptions of Effective Communication Tools, Required Skills and Challenges of Online Doctrine," J. Interact. Learn. Res., vol. 29, no. 1, pp. 129–142, 2018.
- [29] E. Kizilet and K. S. Özmen, "Evaluation of a Nationwide ICT Reform Movement in Turkey: Insights from the FATIH Project," *Proj. J. Sch. Educ. Technol.*, vol. 13, no. 1, pp. 33–48, 2017.
- [30] P. Thach, "Online learning amid Covid-19 pandemic: students' experience and satisfaction," *J. e-Learning Knowl. Soc.*, vol. 17, no. 1, pp. 39–48, 2020.
- [31] R. R. Riwayatiningsih and S. Sulistyani, "The Implementation of Synchronous and Asynchronous E-Language Learning in Efl Setting: a Case Study," *J. Basis*, vol. 7, no. 2, pp. 309–318, 2020.
- [32] S. Sahay and R. Ranjan, "E-content creation of Spanish as a foreign language under NMEICT in India: a review," 2020.
- [33] E. Fandiño, L. D. Muñoz, and S. Velandia, "Motivation and Virtual learning English as a foreign language: A qualitative study," *Heliyon*, vol. 5, no. 9, 2019.
- [34] M. Mehrabi, "Setting up the structure and process for e-content development," *Interdiscip. J. Virtual Learn. Med. Sci. Indones.*, vol. 10, no. 4, pp. 78–80, 2019.
- [35] J. Ahmad, "English language teaching (ELT) and integration of media technology," *Procedia-Social Behav. Sci.*, vol. 47, pp. 924–929, 2012.
- [36] B. Cai and Su Cai, "Learning," vol. 28, no. 5, pp. 560–573, 2012.
- [37] I. Mutambik, "The Role of e-Learning in Studying English as a Foreign Language in Saudi Arabia: Students' and Teachers' Perspectives," English Lang. Teach., vol. 11, no. 5, pp. 74–83, 2018.
- [38] M. Kerla, "Methods and Techniques in Online English Language Teaching," 2015. .
- [39] L. Zakarch, "Interactions in virtual learning environments: new roles for digital technology.," Educ. Stud. Math., vol. 98, no. 3, pp. 269–286, 2018.

- [40] R. H. Parvin and Salamm S. F., "The Effectiveness of Using Technology in English Language Classrooms in Government Primary Schools in Bangladesh," *FIRE Forum Int. Res. Educ.*, vol. 2, no. 1, pp. 47–59, 2015.
- [41] J. S. Barrot, I. I. Llenares, and S. D. Leo, "Students' Online Learning Challenges during the Pandemic and how they cope with them: The Case of The Philippines," *Educ. Inf. Technol.*, vol. 26, pp. 7321–7338, 2021.
- [42] Z. Yu, "The Effects of Gender Educational Level and Personality on Online Learning Outcomes during the COVID-19 Pandemic," *Int. J. Educ. Technol. High. Educ.*, vol. 18, no. 14, pp. 1–17, 2021.
- [43] D. Larsen-Freeman, Techniques and principles in language teaching., 3rd ed. New York: Oxford University Press, 2000.
- [44] R. G. Saadé and J. A. Al-Sharhan, "Discovering the motivations of students when using an online learning tool," *J. Inf. Technol. Educ. Res.*, vol. 14, no. 1, pp. 283–296, 2015.
- [45] A. Omar, Mohamad. M., and Z. Amir, "Facilitating online learning: students' online discussion strategies for a project work at a technical university in Malaysia," 3L Southeast Asian J. English Lang. Stud., vol. 24, no. 4, pp. 102–114, 2018.
- [46] A. El Seed, "Architecting the future of Sana (Doctoral dissertation," Masachussets, 2016.
- [47] P. Tan and K. Tan, "In-game instructions: The extent of their usefulness in enhancing the vocabulary acquisition of ESL learners," *Int. J. Emerg. Technol. Learn.*, vol. 15, no. 4, pp. 73–89, 2020.
- [48] A. Hamat and H. A. Hassan, "Use of social media for informal language learning by Malaysian University Students," *3L Southeast Asian J. English Lang. Stud.*, vol. 25, no. 4, pp. 68–83, 2019.
- [49] P. Arjune, R. Husein, and Surmarsih, "Advances in Social Science Education and Humanities Research," *Adv. Soc. Sci. Educ. Humanit. Res.*, vol. 59, no. 1, pp. 113–120, 2021.
- [50] A. M. Hamruni, "3-D urban modelling using airborne oblique and vertical imagery," 2009.
- [51] M. Micks and H. Mellwaine, "COVID-19 pandemic and education," Reflections pandemic Futur. world, pp. 157–178, 2020.
- [52] K. C. Seal and Z. H. Przasnyksi, "Using the World Wide Web for teaching improvement," *Comput. Educ.*, vol. 36, pp. 33–40, 2001.
- [53] A. P. Rovai, "Online and traditional assessments: What is the difference?," *Internet High. Educ.*, vol. 3, pp. 141–151, 2000.
- [54] B. B. Offir, Y. Barth, A. Shteinbok, and Y. Levy, "Teacher-student interactions and learning outcomes in a distance learning environment," *Internet High. Educ.*, vol. 6, pp. 65–75, 2003.
- [55] S. K. Shahzad, J. Hussain, U. Ghani, R. Saleem, and Sarwat S, "Impact of Virtual Teaching on ESL Learners' Attitudes under COVID-19 Circumstances at Postgraduate Level in Pakistan," *English Lang. Teach.*, vol. 13, no. 9, pp. 1–9, 2020.
- [56] S. Kuama and U. Intharaksa, "Is Online Learning Suitable for all English Language Students?," PASAA, vol. 52, pp. 53–82, 2016.