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BLENDED TEACHING METHODOLOGY AND STUDENTS' PERFORMANCE AT ORDINARY LEVEL IN RURAL SECONDARY SCHOOLS IN KIKANDWA SUB COUNTY, MITYANA DISTRICT, UGANDA

ABSTRACT

The study set out to investigate to investigate the relationship between blended teaching methodology and students' performance at Ordinary level in Kikandwa sub county, Mityana District. The objectives of the study were; to examine the relationship between face-to-face teaching methodology and students' performance at ordinary level in rural secondary schools in Kikandwa Sub County, Mityana district. The study involved 70 participants selected from 3 schools in Kikandwa sub county, Mityana District. These were selected using simple random and purposive sampling techniques. The study employed both qualitative and quantitative research methodology.

From the findings it was indicated that there was significant positive relationship between face-to-face teaching and student performance.

Results of regression indicated that face-to-face teaching had the following correlation coefficients 0.358. The study concluded that face-to-face teaching had a positive relationship with student performance. The study recommends increase in Face-to-Face teaching resources, professional development for teachers, improving student-teacher ratios, policy support and investment, Government and community support for Face-to-Face teaching and Encourage Small-Group teaching Sessions and Parental involvement

Introduction and Backgroud

The study examined the effect of blended teaching methodology on students' performance at ordinary level in rural secondary schools in Mityana District. This chapter consists of the background to the study, statement of the problem, general objective of the study, specific objectives of the study, research questions, scope of the study, significance of the study, measurement of variables and conceptual framework.

Historical perspective

The concept of blended teaching, which combines traditional face-to-face instruction with online or digital components, has evolved over several decades, with its roots tracing back to the rise of technology in education. Early studies in the 1990s, primarily in developed regions such as North America, explored how computers and technology could complement traditional teaching methods. In their work, Garrison and Kanuka (2020) emphasized how blended teaching was seen as a way to increase flexibility in teaching, especially in rural schools in the United States where geographic isolation made access to quality education more challenging. While technology access was limited in much of Africa during this period, the potential for its future integration into African rural education was recognized as technological infrastructure slowly began to expand across the continent.

In the early 2000s, as internet access and educational technology improved globally, blended teaching gained momentum, with researchers focusing on its impact on student performance in various educational contexts. Garrison and Vaughan (2018) highlighted the role of blended teaching in improving engagement and teaching outcomes, particularly in higher education across America. Although their research focused on urban areas, it laid the foundation for applying these principles to secondary education in rural areas, including Africa. In Uganda, for example, the idea of blending digital tools with traditional instruction started to gain interest as a potential solution to the long-standing challenges of teacher shortages and limited resources in rural secondary schools, though the digital divide remained significant.

By the 2010s, studies specifically addressing blended teaching in rural secondary schools began to emerge, particularly in under-resourced areas like Africa and rural America. Graham (2020)

highlighted the challenges of rural schools in both Africa and the United States, emphasizing that teacher shortages, infrastructure problems, and resource scarcity were common barriers to quality education. His research argued that blended teaching could mitigate these issues by incorporating online content and remote instruction, especially for schools in Uganda's rural areas, where access to textbooks and qualified teachers was limited. Graham observed that blended teaching methodologies could bring high-quality content to students who would otherwise lack access, thus improving their overall academic performance.

In Africa, blended teaching gained particular importance as technology began to make its way into more remote regions. According to Means et al. (2021), studies conducted in rural parts of Uganda and Kenya showed that blended teaching improved student outcomes significantly, particularly when it involved interactive teaching through digital platforms. Their research demonstrated that rural students using blended teaching methodologies often performed better in examinations than their peers in traditional, resource-limited settings. However, their work also emphasized that this improvement was contingent upon the availability of technology and the ability of teachers to effectively integrate digital tools into their teaching practices. In rural Uganda, for instance, lack of reliable internet and teacher training remained significant barriers, but when these challenges were addressed, student performance improved substantially.

More recent research by Tondeur et al. (2020) highlighted the unique challenges and opportunities for blended teaching in rural African schools, particularly in countries like Uganda. Their study found that while blended teaching had the potential to address educational disparities in rural areas, especially in sub-Saharan Africa, its success depended on factors such as government support for infrastructure development, teacher professional development, and access to technology. In Uganda, initiatives such as the introduction of digital teaching tools in rural schools have started to show promise, with pilot programs in regions like Masaka and Gulu demonstrating improved student engagement and performance. However, much of rural Africa continues to face challenges related to digital inclusion, with gaps in infrastructure and access to electricity posing significant hurdles.

Theoretical Perspective

This study draws on the constructivist teaching theory and Cognitive Load Theory as its theoretical framework.

The foundation of blended teaching methodology is grounded in constructivist teaching theory**,** which emphasizes that learners actively construct knowledge through interaction with their environment. Piaget (1972) and Vygotsky (1978) are key figures in this theory, arguing that teaching is most effective when students are engaged in active, meaningful experiences. In the context of rural secondary schools, where access to resources and teacher support may be limited, blended teaching allows students to interact with digital content at their own pace, thereby enhancing their understanding. Vygotsky's concept of the "zone of proximal development" is particularly relevant here, as blended methodologies can provide the scaffolding needed for

students to achieve higher teaching outcomes through a combination of face-to-face and online support.

Cognitive Load Theory**,** proposed by Sweller (1988), also supports the use of blended teaching methods. This theory suggests that teaching occurs most effectively when information is presented in a way that doesn't overwhelm the learner's cognitive processing capabilities. In rural secondary schools, where students might face difficulties due to inadequate teaching materials or overcrowded classrooms, blended teaching can help by breaking complex topics into manageable chunks through multimedia presentations, online tutorials, or self-paced exercises. By distributing cognitive load more effectively between face-to-face instruction and digital teaching, students can process information more efficiently, improving performance.

Conceptual Perspective

The independent variable in this study was blended teaching methodology. Blended teaching methodology refers to an educational approach that combines traditional face-to-face instruction with online teaching components. According to Graham (2020), this hybrid model leverages the strengths of both in-person and digital teaching methods, providing students with a more flexible and personalized teaching experience. Blended teaching typically involves integrating various instructional strategies, such as interactive online resources, multimedia presentations, and collaborative activities, alongside direct teacher-led instruction. The goal is to enhance student engagement, accommodate diverse teaching styles, and improve academic outcomes (Garrison & Vaughan, 2008). This methodology is particularly beneficial in settings where resources may be limited, as it can help bridge gaps in access to quality education.

The dependent variable in the study was student's performance. Students' Performance refers to the measurable outcomes of students' academic efforts, typically evaluated through assessments, grades, and overall achievement in educational settings. Performance can encompass various indicators, including test scores, participation in class, completion of assignments, and the ability to apply learned concepts in practical situations. Research has shown that several factors influence students' performance, including teaching methods, classroom environment, student motivation, and support systems (Hattie, 2019). For instance, effective teaching strategies, such as blended teaching methodologies, can significantly enhance student engagement and understanding, leading to improved academic results (Graham, 2020). Furthermore, performance can be influenced by individual characteristics, such as teaching styles, background knowledge, and socio-economic status, making it essential to adopt a comprehensive approach when assessing and supporting student achievement.

Contextual Perspective

The implementation of blended teaching methodology in Uganda, particularly in rural areas like Kikandwa sub county, Mityana District is influenced by the socio-economic and infrastructural challenges that characterize the region. According to the Uganda National Examinations Board

(UNEB, 2020), rural schools often face issues such as inadequate resources, limited access to trained teachers, and poor infrastructure, which can hinder student performance. Blended teaching offers a potential solution to these challenges by utilizing online resources to supplement traditional teaching methods, thereby providing students with access to a wider range of teaching materials and instructional support. This approach can help mitigate the disadvantages associated with rural schooling and improve overall academic outcomes.

In Kikandwa sub county, Mityana District, the integration of technology into the classroom is becoming increasingly important as a way to enhance educational quality. A study by Kigozi (2019) highlighted that while access to technology in rural schools is limited, initiatives aimed at providing digital resources, such as tablets and internet connectivity, have begun to show promise. By incorporating blended teaching methodologies, educators can utilize these digital tools to create more engaging teaching environments that cater to different teaching styles. This adaptability is crucial for rural students, who often need to engage with content in ways that resonate with their experiences and backgrounds.

Problem Statement

Education is a fundamental right for all individuals, as emphasized by Spring (2018), who argues that regardless of economic, location or social status, everyone should have access to education. Making face-to-face, digital and personalized teaching complement each other can be termed as blended teaching which creates a truly integrated classroom where the needs of all types of learners can be met. Keeping students engaged, stimulated, and motivated also helps teachers to be more effective and make greater gains with their students.

The government has been supporting blended teaching through various interventions aimed at improving educational outcomes, including teacher training programs, provision of teaching materials, and initiatives to enhance school infrastructure. These efforts are intended to attract qualified teachers to rural schools and create a more conducive teaching environment. In addition salary improvement has been done more especially to science teachers and staff development to most teachers.

Nonetheless, the persistent shortage of qualified teachers remains a critical obstacle. Rural areas often struggle to attract and retain full-time educators, as many teachers prefer urban settings that offer better amenities, including healthcare, banking services, and housing. However, this ideal remains elusive for many Ugandans, particularly in rural areas like that of Kikandwa Sub County. Despite significant efforts by the Ugandan government to combat illiteracy and improve educational access, the reality is that many students in these regions continue to face substantial barriers to quality education.

Despite all the government effort to combat academic performance among rural schools it's still low as compared to urban schools. The UNEB report (2023); The assessment, which surveyed

70,430 learners in senior 2 and senior 3 from 1,770 secondary schools including 30 refugee schools and 8 schools for special needs across 136 districts, focused on learners' achievement and proficiency in numeracy and literacy in English. However, a pronounced urban-rural divide is evident with learners in urban areas achieving a proficiency rate of 74.3%, compared to just 48.5% for their rural counterparts. Similarly, senior 2 students in private schools exhibit a much higher proficiency rate of 86.5% in numeracy, while only 51.5% of learners in public schools reach proficiency.

Despite the Government is interventions, many students still do not achieve optimal academic performance needed. Traditional teaching approaches often fail to meet the diverse teaching needs of students, particularly in resource-constrained environments. This situation creates a pressing need for innovative solutions, such as blended teaching methodologies, which can combine inperson instruction with digital resources to enhance student engagement and teaching outcomes.

This study investigated the effect of blended teaching methodology on students' performance at ordinary level in rural secondary schools in the selected school of Kikandwa sub county Mityana District. These was due to the fact that there was no study done in Kikandwa Sub County Mityana district focusing on these particular variables.

In light of this evidence, it was crucial to investigate the specific effects of blended teaching methodology on student performance in the rural secondary schools of Kikandwa Sub County. This study explored how blended teaching methodology can serve as a viable solution to the educational challenges faced by students in this region, ultimately contributing to improved academic outcomes and a more equitable educational landscape.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to investigate the effect of blended teaching methodology on students' performance at ordinary level in rural secondary schools in Kikandwa Sub County, Mityana District.

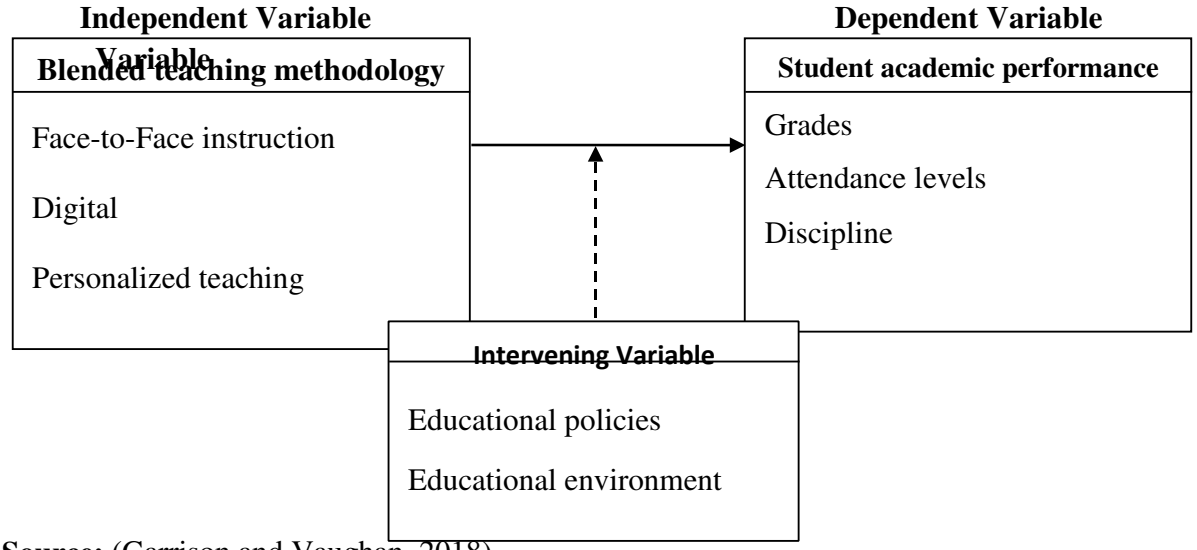
1.3.2 Specific Objectives

The study was guided by the following specific objectives

d) To examine the relationship between face to face teaching methodology and students' performance at Ordinary Level in rural secondary schools in Kikandwa sub county, Mityana District.
e) To establish the relationship between digital teaching methodology and students' performance at ordinary level in rural secondary schools in Kikandwa sub county, Mityana District.

f) To establish the relationship between personalized teaching methodology and students' performance at ordinary level in rural secondary schools in Kikandwa sub county, Mityana District.

Conceptual Framework



Source: (Garrison and Vaughan, 2018)

Figure 1: The conceptual framework was adapted from Garrison and Vaughan, 2018, but specifically for this study. It was adopted with some modifications.

Blended teaching methodology (independent variable) which is done using Face-to-Face instruction, Digital or online instruction, personalized teaching directly affects the students' academic performance (dependent variable) in form of High grades, attendance levels, discipline.

The figure 1 also shows that other factors (intervening variable) such as educational policies, educational environment also intervene in this relationship.

The also conceptual framework showing the relationship between Blended teaching methodology and Student academic performance. The conceptual framework depicts the relationship in the three objective of the study which are Face-to-Face instruction teaching, digital teaching and personalized teaching.

Face-to-face teaching method is expected to have better performance. This is due to the fact that students are observing the teachers directly. The study by Mentzer, G., Cryan, J., & Teclehaimanot, B. (2007) indicated that students who experienced face to face instruction exhibited better grades. Being in a classroom lets you receive more direct instruction, allows department to adapt their teaching styles to student's needs and helps student build stronger connections with teachers.

Face-to-face teaching method provide an effective traditional learning environment characterized by personal interactions, real-time feedback loops, hands-on experiences, and social engagement. Face-to-face teaching method may offer numerous advantages including structured environments and opportunities for peer collaboration. The study findings indicate that students who experienced Face-to-face teaching exhibited better grades. Face-to-face students are less distracted and can often stay more disciplined.

LITERATURE REVIEW

Theoretical Review

Theories form the basis for the expansion of knowledge. It is essential to develop models and theories because they help the knowledge creation process and give guidance into inquiry and practice (Graham, Henrie, & Gibbons, 2018). Cognitive teaching theory and Constructivist teaching theory are two well-known theories that relate to the blended teaching approach..

Cognitive Teaching Theory

The cognitive teaching theory was propounded by Jean Piaget (1896-1980). The theory states that knowledge is constructed from learners‟ existing cognitive structures. It emphasizes that teaching is based on what the learner knows rather than what he/she does (Arshad, Khawaja, & Saad, 2012). According to Bratton, Callinan, Forshaw, and Sawchuk (2007), the origin of the cognitive teaching theory can be traced to the works and researchers of some German gestalt theorists (Max Wertheimer, 1880-1943; Kurt Lewin, 1886-1941; and Wolfgang Kohler, 1887-1967).

These psychologists were of the view that human consciousness cannot be fully comprehended by unscrambling its component parts but by studying the entire whole. That is, studies of human nature should be taken as a whole and should not be discussed in separate bits. The concept of wholeness, as considered by these psychologists, suggest that the whole is greater than the sum of its parts (Khalid, 2015). While Wolfgang suggested that teaching occurs in a form of insight that does not need any training, stimuli or reinforcement, Kurt was of the idea that human behavior is affected by two factors (positive and negative) which act as forces and influences his direction. The cognitive teaching theory evolved as the suggestions of these psychologists were further studied. The contributions of child psychologist, Jean Piaget (1896-1980), also aided the development of the theory. Piaget, through his studies and write-ups, suggested that learners develop „schemas‟ as they are exposed to different levels of educational training. Schema here, means both the category of knowledge and the process of acquiring such knowledge.

The cognitive teaching theory lays the foundation for how concepts are analyzed and procedures organized especially as it has to do with curriculum design. For knowledge to be acquired there has to be proper structuring of the curriculum. According to Franks, kramer, Rankin, and Wooten (2018) knowledge is acquired as a result of the interaction of the experiences (old and new) that

the child is exposed to. As it applies to blended teaching, the teacher is supposed to arrange the curriculum in such a way that new exposure to knowledge is being „assimilated" or „accomodated" by the previous knowledge or „schema" of the student. The learners are then able to comprehend how new concepts and old information interact even when technology is applied in the teaching process. Also that new knowledge is acquired and understood as it is tied to a previous knowledge. The theory therefore, considers age difference and application in the knowledge acquisition process.

Constructivist Teaching Theory

The constructivist teaching theory is of the view that teaching occurs through an active process of creating knowledge based on previous knowledge. Contributors to this theory are Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934). Piaget propounded the cognitive constructivist teaching theory which premises that we build or construct new knowledge based on our existing knowledge and our understanding of the world around us. Vygotsky propounded the social constructivist teaching theory which emphasizes that teaching occurs based on the interactions of students with other students. Vygotsky opined that children are active learners and they have the ability to construct their own knowledge based on their level of experience (Khalid, 2015). The assumptions of Vygotsky theory include:

a) A child's stage of development has to be defined before his/her cognitive skills can be measured (Harry, 2008).

b) "Cognitive skills are mediated through psychological tools or mediators that facilitate transforming and assessing mental processes and functions such as language, words, counting systems, mnemonic techniques, algebraic symbols, artwork, writing patterns, maps…" (Khalid, 2015, p. 317).

c) Cognitive skills are developed in socio-cultural settings. According to Vygotsky, knowledge is collaborative and builds up as people interact in social settings.

What this implies is that, as social interaction is important for human existence, it is also very important for education (Chew & Wee, 2015). Students like to have their experiences evaluated or checked by others (especially their peers). They would like to know what other people think concerning what they are doing or have done. Social constructivism argues that individuals build their own teaching patterns as they interact with others. It views teaching as a process where learners actively construct their own representation of teaching based on their prior experience and knowledge (Franks, kramer, Rankin, & Wooten, 2018).

Social constructionists are of the view that knowledge is constructed rather than created (Andrews, 2012). Acccording to Koohang (2009), designing activities with a constructivist approach will include elements of cooperation, collaboration, real life examples, allowing various perspectives and representations of ideas etc. This approach makes the teacher a facilitator and not a dictator. It

makes the students active learners as they construct their own knowledge which is a critical point in blended teaching approach. The constructivist teaching theory did not cover the application of technology and internet in the teaching process hence the need to consider the connectivism teaching theory.

2.2 Empirical literature

2.2.1 Relationship between face to face teaching Methodology on students' performance at ordinary level in rural secondary

Face-to-face teaching methodology has long been considered the traditional and most effective form of instruction in many educational settings, particularly in rural secondary schools. According to Hrastinski (2018)**,** face-to-face instruction allows for direct interaction between teachers and students, enabling immediate feedback, personalized instruction, and a stronger teacher-student rapport. This interpersonal interaction fosters a conducive teaching environment, especially for students in rural areas who may face challenges such as limited access to technology and digital resources. In such settings, face-to-face teaching provides an essential support system for students to engage directly with the material and their teachers, positively impacting performance.

Smith and Hardman (2020) argue that the presence of a teacher in a physical classroom helps maintain discipline and structure, which is critical in rural schools where external distractions can hinder teaching. Face-to-face instruction provides a stable environment where students can focus on teaching, ask questions in real time, and receive immediate clarification on difficult concepts. This consistent interaction has been shown to enhance students' academic performance by creating a structured teaching process, which is particularly crucial at the ordinary level where foundational knowledge is being built.

In the context of rural education, Benson (2019) emphasizes that face-to-face teaching can help overcome some of the challenges unique to rural areas, such as the lack of access to educational resources and limited exposure to technology. Teachers can use traditional methods like blackboards, textbooks, and hands-on activities to ensure that students understand the material. Benson's study highlights that in rural secondary schools, where students may not have access to online teaching tools, face-to-face instruction ensures that they receive the necessary support to perform well academically.

Research by Muganda and Atibuni (2019) in Uganda demonstrates that face-to-face teaching is particularly effective in rural secondary schools due to the personal interaction and mentoring that teachers provide. Their study shows that many rural students rely on their teachers for guidance not only in academic matters but also in personal development, which contributes to better academic performance. Teachers in rural schools often go beyond their teaching duties, providing mentorship that helps students stay motivated and focused on their studies, leading to improved performance at the ordinary level.

Ngugi and Muthamia (2018) further discuss how face-to-face teaching in rural schools allows teachers to adapt their teaching strategies to the specific needs of their students. In rural settings, students often come from diverse backgrounds and may face educational inequalities. Face-to-face instruction enables teachers to identify individual student weaknesses and provide targeted assistance, which can lead to a significant improvement in academic outcomes. Ngugi and Muthamia highlight that the personalized nature of face-to-face instruction makes it particularly effective in raising student performance, especially for those who might struggle in less structured environments.

Overall, the literature strongly supports the notion that face-to-face teaching methodology positively influences student performance at the ordinary level in rural secondary schools. Studies by Hrastinski (2018), Smith and Hardman (2020), Benson (2022), Muganda and Atibuni (2016), and Ngugi and Muthamia (2018) consistently show that the direct interaction, personalized instruction, and structured environment provided by face-to-face teaching are crucial factors in improving student outcomes in rural educational contexts.

Face-to-face teaching also plays a critical role in addressing the socio-cultural barriers to education in rural areas. According to Buchmann and Hannum (2021), rural communities often experience educational disparities due to cultural norms, economic hardship, and a lack of resources. Face-toface teaching allows educators to build meaningful relationships with students and their families, thereby encouraging school attendance and engagement. This personalized approach helps students overcome obstacles that may negatively impact their academic performance, as teachers can provide not only academic support but also emotional and social guidance, which is especially crucial in rural settings where community involvement is often key to educational success.

In addition, Lunenburg (2021) highlights the importance of classroom management in face-to-face teaching, particularly in rural secondary schools where class sizes may vary and resources are limited. Effective classroom management through face-to-face interaction allows teachers to maintain discipline, ensure active participation, and address individual teaching needs more directly. Lunenburg points out that students in rural areas may be more susceptible to distractions, such as family obligations or work, which can hinder academic performance. In this context, the presence of a teacher in the classroom helps to create a structured environment conducive to teaching, leading to better educational outcomes.

Moreover, Mwesigye and Otieno (2019) conducted a study on rural schools in Uganda, specifically examining how face-to-face teaching influences students' performance at the ordinary level. They found that teachers in rural areas, particularly in Kikandwa Sub County, play a pivotal role in bridging the gap between limited educational resources and student success. In their research, Mwesigye and Otieno highlighted that while rural schools often lack access to modern technology and teaching aids, the commitment of teachers to face-to-face instruction has a positive impact on student performance. The study concluded that, in rural Uganda, face-to-face instruction remains

the most effective teaching method in ensuring students receive the guidance and support necessary for academic achievement.

Another critical factor is the sense of accountability fostered through face-to-face teaching. Rockoff (2020) emphasizes that the physical presence of a teacher in a classroom setting fosters accountability among students, as they are expected to actively participate and complete their tasks in real time. In rural secondary schools, where resources such as textbooks and digital devices are often scarce, face-to-face instruction allows teachers to hold students accountable for their teaching progress. This direct supervision helps ensure that students remain focused and engaged, ultimately improving their performance at the ordinary level.

Finally, Schweisfurth (2018) argues that face-to-face teaching is crucial in rural areas for fostering collaboration and peer teaching. In rural secondary schools, students may rely more heavily on their classmates for teaching support, particularly in settings where access to private tutoring or additional resources is limited. Face-to-face instruction facilitates group work, class discussions, and peer interaction, all of which contribute to improved understanding and retention of material. Schweisfurth's research underscores the importance of these interpersonal dynamics, which are more easily fostered in a traditional classroom setting, particularly in rural environments where collaborative teaching is essential for student success.

METHODOLOGY

Research Design

The study adopted a descriptive research design. According to Mugenda and Mugenda (1999), the aim of descriptive research design is to obtain information that describes existing phenomena by asking individuals about their perceptions, attitudes, behaviour or values. The design was selected because the researcher could describe the variables and the relationships that occur between blended teaching methodology and students' performance in rural ordinary level secondary schools. Both quantitative and qualitative research methods were applied. Bryman (1988) supports a `best of both worlds' approach and suggests that qualitative and quantitative approaches should be combined. Quantitative research consists of those studies in which the data concerned can be analysed in terms of numbers. Quantitative research is based more directly on its original plans and its results are more readily analysed and interpreted. Qualitative research is more open and responsive to its subject. Both types of research are valid and useful. They are not mutually exclusive. It is possible for a single investigation to use both methods (Best and Khan, 1989).

Results

Findings on the highest level of education of the respondents

The researcher was interested in finding out whether education levels of the respondents that participated in the study. From the study findings, majority of the respondents that participated in

the study; 40% had degrees, 35.7% were diploma holders, 18.6% had certificates, 5.7% had Masters degrees. This means that selected rural ordinary level secondary schools employ people of different education qualifications. It also shows that the study was not biased as views of people of different education levels were recorded.

4.1.4 Findings on tenure of service in the school

The researcher was interested in finding out whether the length of time the respondents had spent in selected rural ordinary level secondary schools.The study found out that majority of the respondents that participated in the study; 47.0% had worked with selected rural ordinary level secondary schools for a period of 1 to 3 years, 22.7% had spent a period of 3 to 5 years in selected rural ordinary level secondary schools, 16.7% had been in selected rural ordinary level secondary schools for less than a year and 13.6% had been in selected rural ordinary level secondary schools for more than 5 years. Majority of the respondents that participated in the research had spent 1 to 3 years in selected rural ordinary level secondary schools because of the working conditions.

4.2 Relationship between blended teaching methodologies on students' performance at ordinary level in rural secondary schools

The findings presented below are views of respondents from rural secondary schools in Kikandwa Sub County, Mityana district on blended teaching methodology (Independent variable) and student's performance (Dependent variable). Blended teaching methodology included; face to face teaching methodology, digital instruction teaching methodology and personalized teaching methodology. The findings are presented as follows;

4.2.1 Face to face teaching methodology

The aim was to determine the relationship between face to face teaching methodology on students' performance at ordinary level in rural secondary schools in Kikandwa Sub county. Respondents were given questionnaires with statements and asked to indicate to what extent they agreed with them and a standard deviation greater than 1 implies a significant variance meaning there was no consensus in the responses whereas a standard deviation less than 1 shows that there was no significance variance hence consensus in responses.

From the study findings on the statement, "Face-to-face teaching enhances students' understanding of complex concepts in rural secondary schools", 47.0% of the respondents agreed with the statement, 33.3% strongly agreed, 12.1% were not sure 4.5% disagreed and 3.0% strongly disagreed. A mean score of 4.03 implies that most of the respondents agreed with the statement, whereas a standard deviation of 0.960 implies that there was consensus in the responses.

> *One of the respondents revealed that Face-to-face teaching in rural secondary schools is crucial because it allows students to ask questions and get immediate feedback, which really helps in understanding complex concepts. Many of these*

students don't have access to the internet or extra teaching materials, so having a teacher explain difficult topics in person makes all the difference.

On the statement "Students perform better when they receive face-to-face instruction compared to other teaching methodologies", 42.4% of the respondents agreed, 31.8% strongly agreed, 6.1% were not sure, 15.2% disagreed and 4.5% strongly disagreed. A mean score of 3.82 implies that most of the respondents agreed with the statement, whereas a standard deviation of 1.176 implies that there was no consensus in the responses.

On the statement "Teachers' physical presence in the classroom positively impacts student engagement and teaching outcomes in rural secondary schools", majority of the respondents 50.0% agreed with the statement, 21.2% strongly agreed, 13.6% were not sure, 7.6% disagreed and 7.6% strongly disagreed. A mean score of 3.70 implies that most of the respondents agreed with the statement, whereas a standard deviation of 1.123implies that there was no consensus in the responses. Since 74.2% of the respondents in total supported this statement, it implies that teachers' physical presence in the classroom positively impacts student engagement and teaching outcomes in rural secondary schools.

On the statement "Face-to-face teaching allows for immediate feedback, which improves students' academic performance", 43.9% of the respondents agreed, 30.3% strongly agreed, 4.5% were not sure, 13.6% disagreed and 7.6% strongly disagreed. A mean score of 3.76 implies that most of the respondents agreed with the statement, whereas a standard deviation of 1.241 implies that there was no consensus in the responses. With majority agreeing, it means that face-to-face teaching allows for immediate feedback, which improves students' academic performance.

One of the respondents revealed that Face-to-face teaching allows for immediate feedback, which improves students' academic performance, especially in rural secondary schools where resources like the internet and supplementary materials are limited.

On the statement "In rural secondary schools, face-to-face instruction contributes to higher pass rates in final examinations", 43.9% of the respondents agreed, 27.3% strongly agreed, 6.1% were not sure, 18.2% disagreed and 4.5% strongly disagreed. A mean score of 3.71implies that most of the respondents agreed with the statement, whereas a standard deviation of 1.187 implies that there was no consensus in the responses.
On the statement "Classroom discussions during face-to-face teaching sessions help improve students' critical thinking skills", 47.0% of the respondents agreed, 31.8% strongly agreed, 15.2% were not sure, 3.0% disagreed and strongly disagreed respectively. A mean score of 4.02 implies that most of the respondents agreed with the statement, whereas a standard deviation of 0.936 implies that there was consensus in the responses.

One of the respondents revealed that classroom discussions during face-to-face teaching sessions help improve students' critical thinking skills by encouraging

them to engage with different perspectives and think more deeply about complex topics.

On the statement "Students in rural secondary schools are more likely to complete assignments on time with face-to-face teaching", 45.5% of the respondents agreed with the statement, 28.8% strongly agreed, 16.7% were not sure, 7.6% disagreed and 1.5% strongly disagreed. A mean score of 3.92implies that most of the respondents agreed whereas a standard deviation of 0.950 implies that there was consensus in the responses.

On the statement "Face-to-face instruction provides a structured teaching environment that enhances student performance in rural schools", 59.1% of the respondents agreed with the statement, 22.7% strongly agreed, 12.1% were uncertain and only 6.1% disagreed. A mean score of 3.98 implies that most of the respondents agreed with the statement, whereas a standard deviation of 0.774 implies that there was consensus in the responses. This implies that face-to-face instruction provides a structured teaching environment that enhances student performance in rural schools.

One of the respondents revealed that face-to-face instruction provides a structured teaching environment that enhances student performance in rural schools, where consistent guidance and direct teacher-student interaction are key to understanding difficult subjects

Generally, respondents agreed to a high degree on all statements concerning the relationship between face to face teaching methodologies on students' performance at ordinary level in rural secondary schools in Kikandwa Sub County, Mityana District with an overall mean score of **3.87**. An overall standard deviation of 1.043 indicates that, there was generally no consensus in the responses. This generally means that face to face teaching methodology affect students' performance at ordinary level in rural secondary schools in Kikandwa Sub County, Mityana District.

4.2.1.1 Correlation between face to face teaching methodology and students' performance at ordinary level in rural secondary schools

To establish the relationship between face to face teaching methodology and students' performance at ordinary level in rural secondary schools, the researcher carried out a correlation test. The results are presented in the table below;

Table 5: Correlation between face to face teaching methodology and students' performance at ordinary level in rural secondary schools

	Face to face teaching methodology	Students' performance
	1	.550**

Face to face teaching methodology	Pearson Correlation		.005
	Sig. (2-tailed)	70	70
	N		
Students' performance	Pearson Correlation	.550**	1
	Sig. (2-tailed)	.005	
	N	70	70

**. Correlation is significant at the 0.01 level (2-tailed).

The table above shows the relationship between face to face teaching methodology (independent variable) and students' performance at ordinary level in rural secondary schools (dependent variable). It shows that, the correlation between face teaching methodology and students' performance at ordinary level in rural secondary schools is r= 0.550. This implies that there is a positive relationship between the two variables since the significant value is 0.005 which is less than 0.05 ($p < 0.05$). In this case, 55% of students' performance at ordinary level in rural secondary schools is influenced by face to face teaching methodology in Kikandwa Sub County.

4.2.1.2 Regression analysis

To establish relationship between face to face teaching methodology on students' performance at ordinary level in rural secondary schools, the researcher carried out a linear regression test. The results are presented in the tables below;

Table 6: Model summary for face to face teaching methodology and students' performance at ordinary level in rural secondary schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358[a]	.128	.114	.32702

a. Predictors: (Constant), Face to face teaching methodology

The table above shows R, R Square and Adjusted *R*Square values. The *R* value represents Pearson's correlation coefficient which is 0.358, indicating a weak degree of correlation. *R*Square is the coefficient of determination which shows the proportion of the variance in the dependent variable that is predictable from the independent variable. Adjusted *R*Square is the modified version of R-square that measures how much of the variation in students' performance at ordinary level in rural secondary schools is explained by the variations in face to face teaching methodology. In this case, 11.4% of students' performance at ordinary level in rural secondary schools is influenced by face teaching methodology. The remaining 24.4% is influenced by other factors not considered in this study.

Table 7: ANOVA values for face to face teaching methodology and students' performance at ordinary level in rural secondary schools

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.005	1	1.005	9.399	.003[b]
	Residual	6.844	69	.107		
	Total	7.849	70			

a. Dependent Variable: Students' performance at ordinary level in rural secondary schools

b. Predictors: (Constant), Face to face teaching methodology

The ANOVA table above is used to test the null hypothesis. The value of the calculated F is 9.399 for the variance generated by the regression. By comparing the values of F, it results that it is compulsory to accept the alternative hypothesis (Face to face teaching methodology has a significant effect on students' performance at ordinary level in rural secondary schools), meaning that not all regression coefficients are equal to zero. This means that a significant influence of the regression model occurs over the dependent variable.

Table 8: Regression coefficients of face to face teaching methodology and students' performance at ordinary level in rural secondary schools

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.295	.263		12.517	.000
	Face to face teaching methodology	.206	.067	.358	3.066	.003

a. Dependent Variable: Students' performance at ordinary level in rural secondary schools

In linear regression, coefficients are the values that multiply the predictor values. The regression output above shows that face to face teaching methodology and students' performance at ordinary level in rural secondary schools variables are statistically significant because their p – value is equal to 0.003. The p-value for the variable is less than the significance level of 0.05 which provides enough evidence to reject the null hypothesis for the entire population. The data therefore favours the hypothesis that there is a non-zero correlation. Following the linear regression equation $Y = \beta X+C$ where (Y) is the dependent variable, (X) is the independent variable (predictor), Beta (β) is the slope of the regression line (coefficient) and (C) is the intercept point of the regression line and the y axis. Therefore,

Students' performance at ordinary level in rural secondary schools =

$0.358\ x$ Face to face teaching methodology $+ C$

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This section presents the summary, conclusions and recommendations from the study. The findings are discussed in relation to the study objectives and reviewed literature. The summary gives an overview of the research from which discussion, conclusions and recommendations are drawn. Areas for further research are also suggested for those willing to carry out further research.

5.1.1 SUMMERY OF THE FINDINGS

The aim the study was to determine the relationship between teaching methodology and students' performance at ordinary level in rural secondary schools in Kikandwa Sub County, Mityana
District.

5.1.1.1 Face to face teaching methodology

The study indicated that, the correlation between face to face teaching methodology and students' performance at ordinary level in rural secondary schools is r= 0.550. This implies that there is a positive relationship between the two variables since the significant value is 0.005 which is less than 0.05 ($p < 0.05$). In this case, 0.55 of students' performance at ordinary level in rural secondary schools is influenced by face to face teaching methodology in Kikandwa Sub County.

Face to face teaching methodology was similarly indicated by regression analysis as R value represents Pearson's correlation coefficient which is 0.358, indicating a weak degree of correlation. RSquare is the coefficient of determination which shows the proportion of the variance in the dependent variable that is predictable from the independent variable. Adjusted RSquare is the modified version of R-square that measures how much of the variation in students' performance at ordinary level in rural secondary schools is explained by the variations in face to face teaching methodology. In this case, 11.4% of students' performance at ordinary level in rural secondary schools is influenced by face teaching methodology. The remaining 24.4% is influenced by other factors not considered in this study.

5.1.2 DISCUSSION

The discussion is made basing on the study objectives which were; to examine the relationship between face to face teaching methodology on students' performance at ordinary level in rural secondary schools of Kikandwa sub county, to establish the relationship between digital instruction teaching methodology on students' performance at ordinary level in rural secondary schools in Kikandwa sub county, to establish the relationship between personalized teaching methodology on students' performance at ordinary level in rural secondary schools in Kikandwa sub county.

5.1.2.1 The relationship between Face to face teaching methodology on students' performance at ordinary level in rural secondary schools

The relationship between face to face teaching Methodology on students' performance at ordinary level in rural secondary schools. The researcher obtained an overall mean of 3.87 and a standard deviation of 1.036 (Table 5). The overall mean of 3.87 implies that respondents agreed to a high degree that face to face teaching methodology influences students' performance at ordinary level in rural secondary schools. Whereas an overall standard deviation of 1.036 means that, there was no consensus in the responses. This means that face to face teaching methodology influences students' performance at ordinary level in rural secondary schools.

Pearson's correlation between face to face teaching methodology and students' performance at ordinary level in rural secondary schools (Table 6) reveals that there is positive relationship between the two variables with $r = 0.550$ and $p = 0.003$. In this case, 55% of students' performance at ordinary level in rural secondary schools is influence by face to face teaching methodology.

By looking at the adjusted R square value (Table 7), face to face teaching methodology contributes only 11.4% to students' performance at ordinary level in rural secondary schools. The remaining 24.4% of students' performance at ordinary level in rural secondary schools is influenced by other factors not considered in this study.

The regression model predicts the dependent variable significantly well. There is a statistical significance of the regression model indicated by F=9.399and P=0.003. Therefore, H_0 which was stated as, "face to face teaching methodology doesn't have a significant effect on students' performance at ordinary level in rural secondary schools", was rejected and H_1 which was stated as, "face to face teaching methodology has a significant effect on students' performance at ordinary level in rural secondary schools", was accepted. This is line with Hrastinski (2018)**,** who observed that face to face allows direct interaction teachers and students which enable good performance. In addition it is similar to Smith and Hardman (2020) argue that the presence of a teacher in a physical classroom helps maintain discipline and structure, which is critical in rural schools where external distractions can hinder teaching. Face-to-face instruction provides a stable environment where students can focus on teaching, ask questions in real time, and receive immediate clarification on difficult concepts.

Unstandardized coefficients, B is equal to 0.206 (Table 9) implying that for each 1 effect by face to face teaching methodology, there is 0.206 effects on students' performance at ordinary level in rural secondary schools. The coefficients are statistically different to 0 (zero) which favours the hypothesis that there is a non-zero correlation.

5.3 CONCLUSIONS

Basing on the objectives of the study and findings, the researcher concludes that;

5.3.1 Face to face teaching methodology

The study concludes that; face to face teaching methodology affects students' performance at ordinary level in rural secondary schools by percentage of only 55%, considering Pearson Correlation Coefficient r = 0.55. The positive value of (r) implies that increase in provision of face to face teaching methodology increases students' performance at ordinary level in rural secondary schools and vice-versa.

5.4 RECOMMENDATIONS

Basing on the specific objectives and study findings, the researcher recommends that;

5.4.1 The relationship between face to face teaching methodology on students' performance at ordinary level in rural secondary schools

Increase the Availability of Face-to-Face Teaching Resources: Given the moderate positive correlation between face-to-face teaching and student performance (r = 0.55), rural secondary schools should invest in increasing the availability of resources such as qualified teachers, physical teaching materials, and classroom infrastructure to enhance the effectiveness of face-to-face instruction.

Professional Development for Teachers: To maximize the impact of face-to-face teaching, teachers should receive continuous professional development in effective instructional strategies, classroom management, and engagement techniques. This will ensure they can deliver highquality, interactive lessons that improve student performance.

Improve Student-Teacher Ratios: Reducing the student-teacher ratio would allow for more personalized instruction and greater student engagement during face-to-face interactions, which could further enhance academic outcomes in rural secondary schools.
Policy Support and Investment: Education policymakers should consider allocating more resources and support towards improving the provision of face-to-face teaching in rural secondary schools. Investments in infrastructure, teacher training, and educational materials are critical to optimizing student performance.

Since face to face teaching methods has got moderate positive correlation between face-to-face teaching and student performance. I have learnt that most learners and teachers prefer this method of teaching if environment favours.

Encourage Small-Group Teaching Sessions: To further enhance the benefits of personalized teaching, schools should create opportunities for small-group teaching sessions where students can receive more focused attention. This approach helps address individual challenges and provides a supportive teaching environment for all students.

5.5 AREAS OF FURTHER RESEARCH

The study makes the following recommendation for further research:

xvii. A study on the challenges faced by rural schools in using blended teaching, also similar study can be done in urban setting to have a comparison between rural and urban schools at ordinary level.

xviii. A research needs to be conducted to investigate the challenges and Barriers to Implementing Rural secondary school Advanced level.

xix. The Role of Teacher-Student Relationships in Personalized Teaching

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University managers as Curriculum Leaders: A literature review

A Case of Universities in East Africa.

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Abstract.
This research aims to review the curriculum leadership indicators and the role of university managers as curriculum leaders in the implementation of curriculum leadership processes, experiences of curriculum leaders in utilization of curriculum leadership processes, Challenges facing Curriculum Leaders in the utilization of curriculum leadership processes. This stands as the main research objective through documentary analysis and reviewing all curriculum leadership dimensions for HEIs.

Keywords: *Curriculum leadership processes, Utilization, curriculum leader, University managers, East Africa.*

Research Purposes

1. Explaining the experiences of curriculum leaders in the utilization of curriculum leadership processes.

2. Understanding the roles played by Curriculum leaders in the implementation of curriculum leadership processes.

3. Understanding Challenges facing Curriculum Leaders in the utilization of curriculum leadership processes.

According to the research purposes above, below are relative questions to be answered as follows:

1. What experiences Curriculum Leaders have in the utilization of curriculum leadership processes?

2. What roles are played by Curriculum Leaders in the implementation of curriculum leadership processes?

3. What are the Challenges facing Curriculum Leaders in the implementation of curriculum leadership processes?