The Use of Blended Teaching and Learning in the Post-Covid-19 Pandemic in a Selected High School in Eswatini

Elmon Jabulane Shongwe
Southern Africa Nazarene University
Mbabane, Kingdom of Eswatini
Email: elmonshongwe@yahoo.com

Abstract: The study's main focus was on how blended learning was implemented in a selected Eswatini high school following the COVID-19 epidemic. Before the COVID-19 epidemic, face-to-face instruction was the only method used in the majority of Eswatini schools. Schools were forced to adopt a combination of in-person instruction and virtual learning during the COVID-19 pandemic due to lockdowns and unpredictable closings. Teachers started using blended learning even after the COVID-19 pandemic as they realised how beneficial it was. The study used a qualitative approach employing a case study design of a selected high school in the Manzini region, Eswatini. Twelve blended learning teachers were among the study's interview subjects. The findings of the study were used to develop a blended teaching model to improve practice in the selected high school. The study's findings showed that blended learning raises student performance and the calibre of educational opportunities. The results also portrayed that when students are given new material to study independently, they are better able to understand it. Through blended learning, learners may engage with, see, and feel the content. Personalised learning is made possible by teachers' ability to communicate with students both in-person and virtually. It was also suggested that students be given a course overview, given the resources they need for online learning, and given the tools necessary to prepare materials that correspond to the material being taught. It was suggested, a mixed-method study is needed that would involve several schools from all regions of Eswatini.

Keywords: Post-COVID-19 pandemic, Blended teaching, platform, face-to-face, individualised learning

1. Introduction

The COVID-19 pandemic affected many activities in the whole world, including education in schools (Raouna, 2022). The schools were frequently closing and opening since people were not allowed to meet during periods when the disease was on the rise. Amid everything, the teachers were still to ensure that learners were receiving quality education from schools. Most schools in the whole world decided to use a blended teaching approach for the continuity of learners' education during the COVID-19 pandemic. Stanley (2022) highlighted that a blended approach in teaching and learning is a 21st-century approach. Some schools decided to employ the blended teaching and learning approach even post-COVID-19 pandemic period because they felt this teaching approach was useful.

Blended teaching and learning approaches may be defined as a combination of online and face-to-face approaches (Raouna, 2022). The face-to-face (physical) approach is referred to as a traditional approach to teaching because it is what teachers have been using ever since in schools. On the other note, the online teaching and learning approach including using the digital approach, which was introduced during the COVID-19 pandemic period as another approach to support face-to-face that had only been used by very few schools before the period. Some countries started using blended teaching and learning even before the

COVID-19 pandemic period though (Mutya & Masuhay, 2022). During the COVID-19 pandemic era, blended learning became more prominent because of the lockdown that took place.

Schools in Eswatini were also affected during the COVID-19 pandemic because teaching and learning did not operate normally due to the irregular opening and closing of schools (Daries & Valenzuela, 2020). Global Partnership for Education decided to provide a grant for Eswatini to minimise the disruption of learners' education caused by the COVID-19 pandemic; hence, the learners started to learn through radio, television and newspapers (Daries & Valenzuela, 2020), which was the beginning of blended learning. The Eswatini schools were therefore compelled to use a blended teaching and learning approach to ensure that the education of learners continued. Some high schools in Eswatini decided to adopt blended teaching and learning even during the post-COVID-19 period. It was therefore necessary to conduct the study focusing on the use of blended teaching in the post-COVID-19 pandemic in a selected high school. Hence the research question was, "What is the usefulness of the blended teaching and learning approach during the post-COVID-19 pandemic in a selected high school in Eswatini?" In answering the main research question of the study, the researcher responded to the following sub-research questions:

1. What are the experiences of teachers of using the blended teaching and learning approach during the post-COVID-19 pandemic in the classroom?
2. What are the reasons for continuing with a blended approach during the post-COVID-19 pandemic in the classroom?
3. What model is recommended for blended teaching and learning in the selected school?

The researcher used the findings from the study to develop a model that can be used to improve the usefulness of blended learning in the selected school. The developed model can also be used in schools that have similar contexts both in Eswatini and outside during the post-COVID-19 era. **Conceptual framework**

The conceptual framework by Tucker (2022) was employed in this study, which included five types of blended learning models. These models are;

1. Flipped model

The model inverts the traditional model by sharing the information with the learners to read more about before discussion in the face-to-face classroom. This model allows the learners who are fast in comprehending concepts to achieve more and allows the teacher to support other learners one-on-one.

2. Station rotation model

In this model, a series of learning activities where learners rotate through and have three stations, which are teacher-led, online and offline. The model allows the teacher to deal with small groups differentiating instruction, models and support.

3. Whole group rotational model

The model rotates the class between online and offline, which allows the teacher to work with individual pairs, and small groups during online learning.

4. Modern classroom model

The model focuses on making learners master a concept rather than just completing the lesson. The model uses teacher-created videos to facilitate self-paced individual learning within individual units. This model is applicable in fast learners to allow the teacher to focus on other individual learners or small groups of learners.

5. Individual rotation model

The model consists of a sequence of learning activities that are structured to direct the learners to desired outcomes or objectives, and the learners are in control of the speed of their progress through the individual rotation model. The teacher focuses on supporting individual, small groups of learners through teacher check or conferencing sessions.

2. Literature Review

The literature was reviewed under the headings to be discussed.

2.1 The benefits of blended learning

The literature highlights the benefits of employing a blended teaching and learning approach of which some will be discussed here. A blended teaching and learning approach improves the learners' performance (Ziqiri, Jusuf, Veronika, Alija & Sadri, 2020). This implies that learners tend to comprehend better in blended learning because the lessons accommodate the different styles of learners since they are taught both face-to-face and online.

1. Blended learning provides a safer learning environment

Since in blended teaching and learning the learners may not come to school at the same time, the environment becomes safe health-wise because there would be less overcrowding causing less transmission of diseases like COVID-19 (Totten, 2021). The environment in the school becomes clean as fewer people dirt the premises.

In the case where there is unrest or disease like COVID-19 where learners would have to remain at home, blended teaching and learning rescues the situation because the

online platform may be used until the circumstances are safe for learners to attend school in person. In doing so, the learners would not lag with their syllabus as they would be continuing with online learning.

2. The learners' engagement is high

In studies, some indications are that blended teaching and learning have high engagement by providing opportunities for learners as they use digital gadgets (Spiro, 2023). This is true because even those learners who do not contribute during face-to-face learning involve themselves online because they may not be shy (Totten, 2021). The teacher can keep the learners involved because they are engaged both at home and in person due to the variety of material used for teaching.

2.2 Reasons for implementation of blended learning

The blended teaching and learning approach has an impact on teachers' teaching and learners' learning (Attard & Holmes, 2020). The teacher can interact with individual learners during online learning and the teacher manages to adjust the lessons to be relevant to the individual learner. If the teacher is used to a traditional face-to-face classroom, the teacher has to adjust the lesson done online and think about how to engage the learners both online and face-to-face (Snelling, 2022). Adjusting lessons for online learning was a challenge for some teachers in the COVID-19 pandemic era because they were used to face-to-face only. The blended teaching and learning approach allows the teacher to structure the lessons to accommodate all learning styles because some would benefit more if it were face-to-face, while others require online (Wilson, 2023). Teachers should allow for flexibility, individualised learning, and properly prepared lessons in a blended teaching and learning approach.

Technology skills play an important role in blended teaching and learning for both teachers and learners because, for online learning, they have to use digital gadgets (Alnesafi, 2018). It means the school should provide proper guidelines on how to use the technological gadgets to perform the teaching of the part of the teacher and access the information on the side of the learners (Stahl, 2021).

When using blended teaching and learning, the teacher should determine how much content of the syllabus should be done face-to-face in the classroom and the one to be done online (Wilson, 2023). This helps the teacher structure the lesson well so that the learners are also aware of the amount of time in the classroom and online.

In improving blended teaching and learning, the teachers should have a flipped classroom. Having a flipped classroom helps to have the learners engage more with the study material during their own time (Robinson, 2022). Sharing the study material online to learners for them to interact with it encourages the active participation of the learners during face-to-face classroom time because they would have read about the concept prior (Wilson, 2023).

Using video, teaching and learning aids enriches blended teaching and learning, which may include pre-recorded lectures. A video is a good tool for teaching and learning, and can further be used in face-to-face classrooms (Snelling, 2022). A demonstration video is a better way of explaining difficult concepts because the learners are more likely to engage with the video and learn faster than giving them bulky documents (Wilson, 2023). When using the video for teaching, it is recommended that it starts with a big question to keep the video engaging (Snelling, 2022).

In assessing online, the way learners are assessed should not be similar to face-to-face classrooms, instead, it should be more engaging (Snelling, 2022). This should shape our teaching methods because the situations in a school may not be the same as it was before COVID-19.

In a way to improve blended teaching and learning, the teacher should be aware that the interaction with learners and collaboration of learners among themselves online is different from in-person classrooms. The teacher should ensure that the learners are collaborating even online and teacher interacts with learners. To achieve learner collaboration online, the teacher should have multiple media tools and software (Wilson, 2023).

3. Methodology

It is crucial to discuss the different components of the methodology of a study because it assists the readers in understanding how the researcher arrived at the findings.

3.1 Approach and design

The study used a qualitative approach to investigate the problem because it involved the perception of individual teachers who were part of the study. The researcher used a qualitative approach engaging a case study design of one high school in Eswatini to investigate the use of a blended teaching and learning approach in the post-COVID-19 period. The idea behind qualitative research is to purposefully select participants or sites that best assist them in understanding the problem (Creswell, 2014).

3.2 Sampling

One high school was selected and with 21 teachers, the school was situated in the Manzini region of Eswatini. Twelve of the school's twenty-one teachers were selected as study participants. The researcher used purposive

sampling whereby the participants taking part in the study were information-rich on the problems that were under study. The teachers involved in the study were those who used a blended teaching and learning approach during the post-COVID-19 pandemic. Purposive sampling was preferred because the teachers who used blended teaching and learning approaches during the post-COVID-19 pandemic were information-rich for the study.

3.3 Data collection

The data collection steps include collecting information through unstructured or semi-structured interviews (Maxwell & Chmiel, 2014). The researcher employed semi-structured interviews to collect the data from the 12 teachers who used a blended teaching and learning approach. In-depth interviews aimed to engage the participants one-on-one to yield the maximum information from the participants (Burrow, Steber, Kreiling & Coleman, 2018).

The interviews were recorded and transcribed because the interviewer did not want to miss some of the information during the interview sessions. An interview guide was prepared before the interview sessions to ensure that all participants were asked questions that covered similar concepts.

3.4 Data analysis

The data collected through recorded interviews were transcribed for analysis. The data was analysed using themes, which means the researcher narrated what was stated by the participants thematically in line with the research sub-questions. The information from the participants covering the same category was put under the same theme.

3.5 Ethical consideration and trustworthiness

Before the data was collected from the school permission was sought from the director of education in the Ministry of Education and Training who further got the consent of the principal of the high school to collect the data. The participant teachers were requested to sign a consent form showing their willingness to be part of the study and that they were free to withdraw their participation at any stage of the data collection process. The signing of the consent forms was done in line with the literature as it advocates that the rights of participants should be taken care of by the researcher (British Educational Research Association, 2018). To ensure the trustworthiness of the data collected, the researcher would always rephrase the responses by the participants to ensure that it was what the participants said.

4. Results and Discussion

The data was collected from 12 teachers who used a blended teaching and learning approach at a high school in Eswatini. The presentation of the data was in themes that aligned with the sub-research questions. The main research question was, *"What is the usefulness of the blended teaching and learning approach during post-COVID-19 in a selected high school in Eswatini?"* The sub-research questions were:

1. What are the experiences of teachers of using the blended teaching and learning approach during the post-COVID-19 pandemic in the classroom?
2. What are the reasons for continuing with a blended approach during the post-COVID-19 pandemic in the classroom?

4.1 Teachers' experiences in using blended teaching and learning

The participants portrayed that they understood the meaning of blended teaching and learning because they believed that it was the combination of face-to-face and online teaching and learning, which is how the literature defines it (Kennedy, 2021). This complied with the models of blended teaching and learning where all the participants showed that in blended teaching and learning, the teacher makes use of both face-to-face and online (Tucker, 2022). When asked about their knowledge of blended teaching and learning, Teacher 1 said, *"...blended learning involves the use of technology for teaching and learning together with face-to-face in a normal classroom."* Similarly, Teacher 2 stated, *"…I would say blended learning is when the learners use electronic media by themselves or moderated by a teacher to learn and further come to the classroom in person."* Teacher 3 highlighted, *"Blended teaching and learning is about using electronics like radio, television and sometimes learners attend class physically."*

The teachers believe that they must direct the learning during blended learning until the learners are comfortable with how to use it; the teachers should then allow learners to work independently and assist where necessary. This aligns with the conceptual framework of the study because the modern classroom model also suggests that learners should be given autonomy in their study through self-paced individual learning activities (Tucker, 2022). Teacher 7 said:

> In blended teaching and learning, teachers are always instructors because the teacher is the one who structures the lessons. Teachers guide the learners as they are involved throughout the blended lessons. It is important that after the learners are well acquainted with the basics of

blended learning, the teacher allows them to use this blended teaching and learning autonomously and only helps to moderate the lessons and provide assistance where necessary.

The participants indicated that they started using blended teaching and learning in their school from the time the COVID-19 pandemic hit Eswatini because they were forced by circumstances, but they decided to continue with it even during the post-COVID-19 pandemic. Some of the teachers stated that they mostly used online teaching and learning when the information in textbooks was shallow. They also highlighted that they used online through technology and the face-to-face traditional classroom but they mostly used the latter. The teachers also indicated that for online learning, they used mostly laptops and cell phones. When the participants responded to how they used blended teaching and learning, teacher 4 said, *"I used a laptop and internet when preparing online lessons, but I use face-to-face most of the time, I only use online when there is a need."*

The participants would go for the traditional face-to-face teaching and learning because they believed it was costly to use the online; however, studies have shown that blended learning is cost-effective (Lothridge, Fox & Fynan, 2013). This was the major challenge for most of the teachers in the school because they indicated that some of the learners do not have these gadgets, making it difficult to teach and learn at home. One would be surprised why the participants believed online was costly because learners need the gadgets and data, but it was because the learners had to have all the equipment to be used in both face-to-face and online learning. Teacher 2 said, *"Sometimes as a teacher, you would want to have your lesson online but you are restricted by the fact that it is costly because the learners should have the gadgets to use and the data to stay connected."* All the participants also shared the same sentiment about the issue of cost whenever they needed to migrate online. For instance, teacher 3 said, *"Our major obstacle in fully utilising blended learning is because both the school and learners do not have enough resources to buy technological gadgets needed for online learning; hence we frequently use the face-to-face teaching and learning."* Teacher further 9 highlighted:

> Most of our students do not have access to computers and the school has few computers to be shared among the learners. This is a challenge because only a few come with their laptops, tablets and cell phones. This is the main challenge that we have which makes us use more face-to-face teaching and less online learning when learners are at home.

On another note, the gadgets used for online learning by learners, sometimes social media disrupted learners because they tend to be enticed by it instead of focusing on what they are learning. There was also a challenge of poor internet connectivity, which disturbed the lessons. Teacher 6 stated, *"Teenagers, once they get on the internet they are distracted by social media, therefore, they tend to deviate toward social media instead of learning."* Moreover, teacher 10 highlighted, *"Besides having expensive Wi-Fi, the network connectivity is not always stable, therefore, disturbing our lessons."*

The participants indicated that some of the teachers were not conversant in teaching and learning using the blended approach; hence, they were not clear on how to prepare lessons, which caused some resistance to migrating to online teaching even during the COVID-19 pandemic period. The participants also stated that some of the teachers were not knowledgeable about using technology; however, the blended approach required them to use it. The Whole group rotational model (Tucker, 2022) highlighted that the learning should be done online and offline; hence, teachers are expected to be oriented to conduct lessons online. Teacher 11 had this to say:

> When the COVID-19 pandemic hit, we did not have the experience of blended teaching and learning as teachers and did not know how to prepare lessons of such an approach; however, we were forced to use it and we had to be innovative and also help the learners adapt to it.

Furthermore, teacher 12 said:

> …..the young teachers did not have a challenge with technology while older ones struggled to migrate to online teaching, which affected their learning. We needed workshops and other training programmes to expose us to a blended learning approach.

The participants indicated that for subjects with practical experiments like Science, they would arrange that the experiments be done when learners attended classes face-to-face. Teacher 6 said, *"During Science experiments, I would ensure that the learners come to class in person. I would only allow the online when there are no experiments."*

4.2 Reasons for blended teaching and learning approach during post-COVID-19 pandemic

The participants highlighted several reasons for continuing with the blended teaching and learning approach even in the post-COVID-19 pandemic period.

1. Blended learning enhanced the performance of learners

96

The participants stated that the learners' acquisition of concepts improved because the learners were interested in using the electronics; therefore, they were always eager to search for information on the internet. The use of technology in accessing information by the learners improves learner acquisition as highlighted by Kennedy (20121) which concurs with what the participants stated. They further mentioned that learners managed to be detailed in the examinations. Teacher 6 had this to say:

> Blended learning is beneficial to the learners because it is exciting to use online learning since these adolescents like using electronics and when correctly used, students easily get detailed information that may be shallow in their textbooks; hence, they can elaborate points clearly, especially in their tests and examinations causing them to perform well.

2. Blended learning improved collaboration among learners

The learners formed study online groups on their cell phones because they were allowed to bring their cell phones to school and they even added the teachers. It is in line with the whole group rotational model of blended learning (Tucker, 2022), which requires that learners form groups both online and offline where they do their discussions. This made the learners collaborate in their learning because they kept contacting each other and teachers as they did their studies. Whatever challenges learners encountered in the online discussion; they brought the discussion to the classroom during face-to-face sessions. Likewise, Teacher 7 stated:

> Our students have formed online discussion groups using their cell phones which they are now allowed to use at school and they can use the study groups anytime wherever they are. Sometimes they invite us teachers to help them in areas where they encounter difficulties in their online discussions or learning.

Teacher 9 mentioned, *"When these learners come across difficulties during their online discussion, they would either request for help from the teacher added to their online group or sometimes bring those challenges to the face-to-face classroom."*

3. Blended learning encouraged innovation and thinking critically in learners

The participants stressed that blended learning improves creativity and critical thinking in learners because they access more information from the internet. Another research conducted also indicated that blended learning improves critical thinking and communication skills in learners (Hasanah & Nalik, 2020). The participants further emphasized that the learners displayed their creativity and

critical thinking when writing examinations. Teacher 10 highlighted:

> Blended learning is beneficial to learners who can access information on their own and display the knowledge acquired from the internet when they answer questions during tests and examinations. They also portray a depth of knowledge even during debates in the in-person classroom.

4. Blended learning was inspiring and brings more flexibility

The participants stated that blended teaching and learning was advantageous in that it allowed the learners to access information at any time and it did not limit the depth of the knowledge on a particular concept. Hence, in blended learning, the learners were not confined to the textbooks which may be shallow. The literature concurs with the flexibility of teachers in adjusting their teaching approach to allow learners to access information from different sources and times (Cunningham, 2021). On flexibility, Teacher 8 said, *"The blended learning approach allows flexibility in terms of learning time and accessing the information in more depth from the internet compared to what is in their textbooks."* On the same issue, teacher 12 mentioned this:

> Blended learning offers a variety of learning material that enhances flexibility which increases more interest in it. It is also very inspiring with a variety of learning activities that learners are more likely to have an interest in and remain motivated in learning.

5. Blended learning promoted independent learning

Participants indicated that blended teaching and learning encouraged autonomy in learning and learners could engage in appropriate debates in their online discussion groups. The literature has also portrayed that blended learning encourages flexibility in terms of time and sources of information (Agrawal, 2017). The learners could go deeper in terms of sourcing information as compared to the limited information they get from their textbooks, which is the result of the autonomy in acquiring information. Teacher 4 said:

> The good thing about blended learning is that it motivates learners to learn by themselves and even do effective discussions of their findings among themselves without involving the teacher. They get good content when they study by themselves and they can respond to questions very well**.**

5. Conclusion and Recommendations

5.1 Conclusion

The main research question was "What is the usefulness of the blended teaching and learning approach during post-COVID-19 in a selected high school in Eswatini?" In answering the main study question, the findings portrayed that blended teaching and learning was useful to the learning of learners in the selected high school and it is a learning approach that was appropriate in improving the acquisition of information by learners during the post-COVID-19 pandemic period.

The first sub-question of the study was, "What are the experiences of teachers of using the blended teaching and learning approach during the post-COVID-19 pandemic in the classroom?" The conclusions of findings on this sub-question were as follows:

1. The participants understood the meaning of blended teaching and learning to be the combination of online and face-to-face teaching approaches. However, when the COVID-19 pandemic hit Eswatini, they did not know of it.
2. The participants understood that the teachers should always direct the blended teaching and learning, and immediately the learners acquire the basics of this learning approach, the teachers should allow for learners' autonomy.
3. The teachers at the school started employing a blended teaching and learning approach immediately after the COVID-19 pandemic hit Eswatini because circumstances forced them. Since they found this teaching approach useful, they decided to continue with it even in the post-COVID-19 pandemic period.
4. The blended teaching and learning approach was useful but expensive because learners had to have learning material for both face-to-face and online; hence, some teachers decided to use face-to-face traditional teaching most of the time.
5. The learners are distracted by social media whenever they are learning online because they access the internet with their electronic gadgets, and teenagers enjoy using social media.
6. In practical subjects like science where practical activities had to be done, teachers would always expect learners to attend class in person because they found it difficult to manage practical sessions online.

The second sub-question of the study was "What are the reasons for continuing with a blended approach during the post-COVID-19 pandemic in the classroom?" In answering the sub-question, the conclusions of the findings were:

1. Blended teaching and learning enhanced the performance of the learners, which was noticed when they wrote examinations, tests and debates during face-to-face classrooms.
2. Blended teaching and learning promoted collaborative learning among learners because the learners formed online study groups where they interacted as they were engaged in their studies.
3. Blended teaching and learning encouraged innovation and thinking critically in learners because they could access more information, and were not only limited to the textbooks.
4. Blended learning inspired learners to get more information online and brought more flexibility in terms of learning time and sources of information.
5. Blended learning enhanced autonomy in the learning because learners controlled the pace of their learning and the depth of the information they access.

5.2 Recommendations

The recommendations based on the findings of the study were as follows:

1. A blended teaching and learning approach should be employed by the selected school as it is useful as learners access more information.
2. Teachers should be trained through workshops on blended teaching lessons and further be oriented on the technology needed for the blended teaching approach.
3. The learners should be provided with a course outline at the beginning of the year for them to plan their time properly.
4. The school should strive to use affordable technologies that would benefit the learners as some technologies use gadgets that consume a lot of data.
5. Teachers should be more innovative in structuring blended teaching and learning lessons to promote interest among learners.
6. The Ministry of Education and Training should consider aligning the curriculum to blended learning.
7. The teachers should be more supportive of learners when using blended learning and start by orienting them on how they are to use the technology.

For future study, a mixed method research study must be conducted that would involve several teachers and schools from all four regions of Eswatini to allow for generalisation.
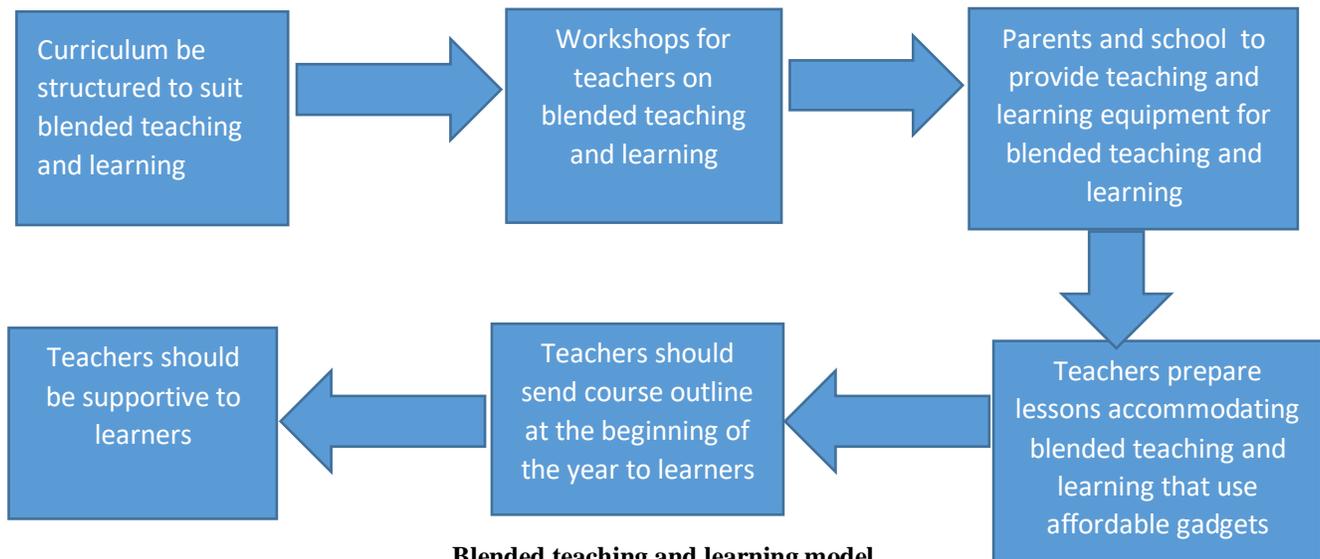
Blended teaching and learning model

As informed by the findings of the study the researcher developed a model for blended teaching and learning for the selected school, which is transferrable to schools of similar context.

1. Structure the curriculum to align with blended teaching and learning;
2. Workshop teachers about blended teaching and learning including the technology involved;
3. Parents and school administrators should avail the needed equipment for the blended teaching and learning;
4. Lessons by teachers be prepared to accommodate blended teaching and learning that use affordable gadgets;
5. The learners should receive the course outline for the different subjects at the beginning of the year;
6. Teachers should be more supportive of learners in a blended teaching approach.

The following diagram portrays the model of blended teaching and learning as informed by the findings of the study:

Blended teaching and learning model

The recommended blending and learning model can be implemented in selected school by having the willing principal and prepare for it for the following year. Schools with similar contexts can also employ the proposed model.

References

Alnesafi, A. (2018). Blended learning and accounting education in Kuwait: An analysis of social construction of technology. *Academy of Accounting and Financial Studies Journal*, *22*(3):1–19.

British Educational Research Association. 2018. Ethical guidelines for educational research. Fourth edition. London.

Agrawal, H. (2017, November 16). 6 Elements of an Effective Blended Learning Classroom. Retrieved from https://elearningindustry.com/blended-learning-classroom-6-elements-effective

Burrow, C. Steber, C. Kreiling, C., and Coleman, A. (2018, June 02). In-Depth Interviews: Data Collection Advantages and Disadvantages. Retrieved from https://www.cfrinc.net/cfrblog/in-depth-interviewing

Creswell, J.W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches.* Fourth edition. Thousand Oaks, CA: Sage.

Cunningham, D. (2021). A Case Study of Teachers' Experiences of Blended Teaching and Learning. *Journal of Online Learning Research, 7*(1), 57-83. https://files.eric.ed.gov/fulltext/EJ1301080.pdf

Daries, N. and Valenzuela, C. (2020, August 10). In Eswatini, online learning has become the new normal during coronavirus. Retrieved from https://www.globalpartnership.org/blog/eswatini-online-learning-has-become-new-normal-during-coronavirus

Hassanah, H. and Nalik, M.N. (2020). Blended learning in improving students' critical thinking and communication skills at University. *Cypriot Journal of Educational Sciences, 15*(5),1167-1178. DOI:10.18844/cjes.v15i5.5168

Lothridge, K., Fox, J. and Fynan, E. (2013). Blended learning: Efficient, timely and cost effective. *Australian Journal of Forensic Sciences,* 45(4),407-416.
DOI:10.1080/00450618.2013.767375

Kennedy, E. (2021). *Blended Learning in Teacher Education and Training: Findings from Research and Practice*. Brussels, Belgium.

Maxwell, J.A. and Chmiel, M. (2014). Generalization in and From Qualitative Analysis. In: Flick, U., Ed., The SAGE Handbook of Qualitative Data Analysis, SAGE Publications Inc., Thousand Oaks, 540-553. https://doi.org/10.4135/9781446282243.n37

Mutya, R.C. and Masuhay, A.L. 2022. The extent of implementation of blended learning in senior high school science education vis-a-vis students' academic achievement. *Turkish Online Journal of Distance Education,* 24(2),47-63.

Raouna, K. (2022, January 12). Blended learning: What it is, why it matters and how to apply it. Retrieved from https://www.learnworlds.com/blended-learning/

Robinson, G. (2022, July 28). *Blended learning the future of school.* Retrieved from https://www.greatschools.org/gk/articles/is-blended-learning-the-future-of-school/

Snelling, J. 2022. (2023, August 25). 4 tips for better blended learning. Retrieved from http://iste.org

Spiro, K. (2023, July 26). 6 benefits of blended learning and why you should use the approach. Retrieved from https://www.easygenerator.com/en/blog/blended-learning/benefits-blended-learning/

Stanley, T. 2022. Types of Resources for Blended Learning Approach to Study High School Chemistry. *Proceedings*, 82(1),94.

Tucker, C. (2022). (2023, August 03). Getting started with blended learning. Retrieved from https://www.modernclassrooms.org/blog/getting-started-with-blended-learning

Wilson, D. (2023 August 25). How to improve blended learning. Retrieved from https://democreator.wondershare.com/elearning-tips/how-to-improve-blended-learning.html

Ziqiri, Jusuf, Veronika, Alija & Sadri. (2020, August 21). The impact of bleanded learning on students' performance and satisfaction in South East Europe University,ERNET- Society for advancing innovation and research in economy, Zegreb, pp233-244,. Retrieved from https://proceedings.entrenova.org/article/view/326