

Investigation into a Second Attempt at the Re-introduction of Tablets in the Education System of Mauritius: A Case Study

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ABSTRACT

This study aims at exploring the use of tablets in Grade 1 and Grade 2 from the educators' point of view in Mauritius. Data were collected via an online survey, after one year of implementation of use of tablets in these grades. Twenty three (23) educators responded, and semi-structured interviews were conducted with five (5) educators from three different achieving schools. For the purpose of analysis, the qualitative method with quantitative insight was opted for the survey and a thematic approach based on themes generated from the interview of the educators was chosen. The general findings show that educators play a key role in the use of tablets in the classroom. This in turn depends on direct impacting factors such as training, infrastructure, educational resources, personal effort and indirect impacting factors such as peer pressure and previous experience with technology in the classroom. The results indicate that the use of tablets has not been fully exploited in the classroom for the benefit of teaching and learning. There is room for further research to identify the on-field problems and hence propose adequate solutions so that optimum use of the tablets can be made.

Keywords: *Tablet PCs; Primary Schools; 21st century learners; Information and Communication Technology*

INTRODUCTION

The Government of Mauritius brought reforms in the education system to provide a world class education to students in Mauritius. By arming the youngsters with the appropriate tools and encouraging them to develop cognitive maturity, they are being trained to become successful learners of the 21st century thus making them more competent in the world market and more employable in emerging sectors in the Mauritian economy. In 2018, the Ministry of Education introduced the system of nine-years of schooling following the abolition of the CPE (Certificate of Primary Education) in 2017, as a measure to reduce the gap in the number of students ending primary level and the number of students entering the secondary level. At the end of those basic nine years of education, students sit the National Exams. In 2020 the first cohort of the nine-year schooling system will be channelled into the streams of either academic or technical sectors depending on their aptitudes and interests to develop their personal skills. The main resolutions of the nine-year schooling system are to eliminate pressure and stress due to unhealthy competition at the primary level and to provide basic skills to all students.

Information and Communication Technology (ICT) was first introduced in the education system in 1990 in secondary schools only. Since then major changes have been brought in the Educational System to get rid of the shackles of chalk and board instruction, rote learning and the one size fit all learning approach. The wave of change began in 2002 with the recruitment and training of 330 ICT educators in the primary sector, according to the School Information Technology Project (SITP), MoEHR, TE & SR (2019). By 2003, ICT had been integrated as a subject in the primary curriculum, Ramharai and Goodoory (2003). The MoEHR, TE & SR (2019) further mentioned the planning, structure and organisation of a training program for all 5,400 primary school teachers in

ICT Curriculum Integration from 2003-2005 so that they could become ICT literate and able to use ICT as a pedagogical tool in their classes from 2006. In its endeavour to bring a new approach to teaching and learning, the Ministry of Education initiated the Sankoré Project in 2011 and by 2014, all Grade 4 to Grade 6 classes, were provided with interactive whiteboards and projectors (GIS, 2013; Bahadur & Oogarah, 2013). In 2014, the Government distributed 24,111 tablets to secondary students of Grade 10 (Jugee & Santally, 2016). The students were given access to digital educational content along with a plethora of multimedia tools relevant to their curricula so as to improve their learning by providing them with anytime, anywhere opportunities to become independent learners through technology. Such an initiative was expected to result in an enhanced pass rate of students at Cambridge SC /GCE O Level. However, many issues came up which hindered this initiative of the Ministry of Education. Grade 10 educators, being one of the main stakeholders were not given the appropriate training on how to use the tablet for the benefit of the class. Educators who were conversant with technology could not use the tablet as there was a lack or even an absence of multimedia tools for certain subjects like English and Design. Jugee & Santally (2016) revealed that educators found that students were distracted and that class management was difficult. In addition, the quality of the tablets provided were of low quality. The project was discontinued after 2015.

In 2018, the Ministry of Education, with the collaboration of the Indian Government, distributed 26,800 tablets to Grade 1 and Grade 2 students. This marked the start of a new era in the primary school cycle where, at the very beginning of their schooling, the students were introduced to the smart class.

It has consequently been of utmost importance to bring changes in order to improve the quality and relevance of the current education and training system so as to produce a workforce consisting of highly-skilled human resources. Mauritius has not been comparing satisfactorily with its peer upper middle-income countries and one of the reasons is that a significant proportion of students fail to obtain a minimum level of learning achievement, with a high percentage of 15-year olds not reaching the international limit of basic skills level, MoEHR, TE&SR (2016).

LITERATURE REVIEW

The job market now seeks a workforce with 21st century skills which the education sector is expected to supply. According to Saavedra & Opfer, (2012), students need to have seven survival skills namely: critical thinking and problem solving, collaboration and leadership, agility and adaptability, initiative and entrepreneurialism, effective oral and written communication, accessing and analyzing information, and finally curiosity and imagination. The traditional classroom hinders the development of such skills hence it is important to change to a new way of teaching and learning. Teachers have been able to access different learning styles by making use of the low-cost apps available, to provide enhanced learning prospects to students. Sivakumar (2018) used the statement that "Learning should never be technology led. Teachers teach, technology assists" which many failed to remember. He also pointed out that the efficacy of technology should be exploited and focused in order to find ways to aid learning processes. Use of technology is has advantages, such as: students being more engaged with the touch interaction, increased stimulation, and decreased time to learn to promote knowledge retention. In addition, Sivakumar affirmed that the technology used with tablets presents a revolution to the traditional exploitation of ICT such as desktop computers or laptops. Consequently, this permits an additional usage of distinct situations and insertion of learning activities which were not previously correlated with ICT.

Tablets, used for educational purposes, usually demonstrate one fundamental characteristic: they come with particular educational software and content already preloaded on the devices. Thus, the user interface of the tablets may support an ICT environment for students. According to Trucano

(2015), a large number of nations are adopting on a very large-scale, government-supported ideas to allocate tablet devices in the K–12 schooling field. Sadly, there is a big misunderstanding that by merely placing this type of technology in the hands of students, educational issues will be addressed and a positive educational revolution will occur. Trucano (2015) conducted a survey of the literature which confirmed that 11 countries (Antigua & Barbuda, Australia, Brazil, India, Iran, Jamaica, Kazakhstan, Pakistan, Russia, Turkey, and the United Arab Emirates) have started government-led tablet initiatives and the assessment concluded that the greater part of these ideas have been constrained by the tablet propaganda rather than by educational evidence. Nevertheless, Montrieux *et al.* (2015) argued that it must be clear that even though a ministry of education has not been lucid on exactly how a specific scheme will facilitate certain objectives, this does not mean that the objectives will not be met in the future. He also pointed out that whether or not the ministry of education has come to a decision to buy educational tablets in bulk, for the wrong or right reasons, the main question to be asked remains: *what will be the impact of the tablet use on student learning?*

The Ministry of Education, in Turkey, has dispensed about 732,000 tablets to students in schools, as part of the Movement to Increase Opportunities and Technology (FATİH) project in order to progress in the successful exploitation of computers by students and teachers. This scheme made vast progress with these activities which have been executed since 2013 (Daily Sabah, 2014). Adkins (2014) noted that in Brazil, more than 460,000 devices were acquired and distributed to teachers at the start of the school year in 2014, but the tablet project has been impacted for several years due to the lack of an educational approach to use of the devices by teachers. As a result, a structure was decided upon for educators to attend courses to acquire skills to inform the pedagogical context for the use of tablets in schools.

Schools in Dubai (Gulf News, 2013), are functioning on a specific scheme called the “bring your own device (BYOD)” where students bring their own tablets to class. Moreover, kindergartens are being supplied with IT spaces accommodating tablets and computers so that students aged two and three years get the essential exposure to the device. Although schools regard these devices as indispensable to learning, some parents find that they are under a “digital coercion” to abide by promising electronic necessities and that most parents asserted caused depletion in their finances, were a source of health problems and also created a sombre menace to the social and cognitive development of their young children. Some other didactic issues detected were; ineffective use of the Mobile Device Management (MDM) by teachers to control students’ tablets in the classroom, and poor class control to prevent students from playing games and accessing social networking sites. According to Ali (2012), the main concern, in implementing the use of tablets in a class environment, consists of the acquisition of a consistent, maintainable and prolonged wireless network infrastructure. The previous infrastructure of the school comprised only wired local area network (LAN) but the use of tablets in classrooms required a wireless LAN so as to get the tangible benefit from this project. Another challenge reported was the lack of agreement and governance guidelines for maintenance of the tablets and to reduce drainage of battery life. Since the tablets contained all the e-books, the school has to ensure that all the tablets were fully charged before class began because a drained tablet is quite similar to a student forgetting his/her textbook at home. Alternatively, the main intention of the American International School of Dubai (AIS) was the exploitation of environment friendly tablets to sustain traditional learning using pre-installed e-books to lighten the carriage of weighty and costly original books, and lastly to provide interactive activities that will make learning easier to understand and more enjoyable. According to the latest research by Gulf News (2018), 52 per cent of UAE schools now have fully integrated technology in their classrooms making use of cloud services, tablets and digital chalkboards.

Algoufi (2016) stated that the educational implementation of tablet usage in schools is aimed at convincing learners to concentrate more on the content being delivered. In addition, Johnson *et al.* (2013) noted that tablets facilitate the development of student-based learning neighbourhoods;

learners are able to continue with their learning outside the perimeter of the classroom, in order to improve their competencies in accordance with 21st-century requirements. Furthermore, it is significant to note that the mobile apps on tablets present an ideal prospect to have genuine schooling that takes into consideration each student's needs. Buldu (2002) and Franklin (2007) found that as technology continues to grow and develop, educators need to explore the tablet as a new tool to use with their students in order to effectively integrate technology in the early childhood curriculum. Further research showed that tablets have made it easier for both pupils and teachers to use technology in teaching and learning on a general level, (Kongsgården & Krumsvik, 2016). Based on the research of Mcewen and Dube (2015), tablet computers and their applications offer a learning experience that appears to be inherently highly interactive thereby introducing challenges to the cognitive load of children as users.

The success of the introduction of tablets in the Mauritian education system depends on educators and how they use these devices for the benefit of learning in the classroom. It is hence important to investigate the on-field reality in order to arm the educators with the adequate tools to be able to make the best possible use of the tablets for the benefit of the students.

AIMS

The study aims to explore the use of tablets in Grade 1 and Grade 2 from the educators' perspective. It is expected that the findings could be used as a guide to help educational institutions to implement the use of tablets in their classroom by providing them with an overview of what is required for a successful implementation.

METHODOLOGY

Two groups of educators participated in the study as follows:

Group 1: Educators of Grade 1 and Grade 2 to whom questionnaires were administered

Group 2: Educators of Grade 1 and Grade 2 who were interviewed

Questionnaires were administered to participants in Group 1 using Facebook, WhatsApp, and email messages. Participation was voluntary and hence no group size was mandated. For this study, 23 educators responded to the questionnaire.

Convenience sampling was used for the selection of participants for Group 2. For this research, three educators of Grade 1 and two educators of Grade 2 from three different schools were interviewed. The schools were chosen based on their proximity and where access to participants was given by the Head of School. The main advantages of this type of sampling are cost-effectiveness, time-saving, and participation is voluntary. On the other hand, the data collected maybe biased and results may not be generalized. However, in order to have a representative sample, the choices included a high achieving school, an average achieving school and a low achieving school.

For this research, two tools were used: Online survey using a questionnaire; and Semi structured interviews.

The questionnaire consisted of 27 questions including both open and closed ended questions which varied from easy to complex ones. Google form was used to design the survey as it is a free online Google app where data can be accessed, collected and analysed in real time. The survey questionnaire was sent through Facebook, WhatsApp and email messages. The data collected

from the survey were expected to give an overview of the problems that might be arising due to the introduction of tablets in the school curriculum. For the survey, the approach used was a qualitative analysis with quantitative insights and for the interview, a thematic approach was used to analyse the data. The strategy used for the data analysis of the interviews was based on coding which involved 'breaking, examining, comparing, conceptualizing and categorizing data' (Corbin and Strauss, 1990). Data were organized in order to understand the textual data. The following procedure was followed:

-) Reading the transcripts several times to become familiar with the data
-) Coding the data by highlighting repeated words, phrases and patterns.
-) Grouping codes into categories.
-) Grouping categories into themes

All the data collected from the interview were hand written notes by the researchers as the participants were not agreeable to the idea of having the interview video or audio recorded.

For the purpose of the study, educators from three different achieving schools were approached for a face-to-face interview in order to get detailed information about the use of tablets in the classroom. Through the interviews, highly personalized data were obtained. An interview guide was used to ensure that questions asked were within the scope of the study. The interview was conducted after school hours so as not to disturb the educators and consequently the students during their working time.

SURVEY FINDINGS

According to the findings, most of the educators surveyed were female (96%) as compared to male (4%). The participants were mostly middle-aged teachers. 3 of the educators were between 20-29 years old, 11 educators in the range 30-39 years, 7 educators in the age group of 40-49 years, 2 educators were between 50-59 years. 15 educators out of the 23 respondents had between 10-19 years of teaching experience, 4 educators had between 1-9 years of teaching experience and the remaining 4 educators had 20 plus years of working experience in the education field. 48 % of the educators surveyed worked in Grade 1 compared to 52 % in Grade 2 classes.

All of the educators surveyed had ICT skills, however not all of them used this ability on a daily basis. Educators with less than 20 years of experience were found to use the tablets more often than the educators with more teaching experience. Nevertheless, the survey revealed that two educators with 20-29 years of experience adopted the use of tablet on a daily basis whereas the remaining 2 educators with 30 plus years of teaching used the tablet once a week. All the educators are ICT literate and most of them are conversant with the applications found on the tablet. However, a few of them encountered minor difficulties, in terms of switching apps or modifying the settings for better usability. The findings revealed that 17 educators found the tablet easy to use, 2 of them reported that the tablets are quite easy to use and 4 respondents said it was moderate.

Among the 23 teachers, 21 of them confirmed having attended training sessions organised by the Ministry of Education on the use of tablets. 18 participants responded positively to the content of the training while 3 of them thought that the training was not useful. This could be explained through the fact that the training was basic and hence was not compliant to the requirements of a real classroom. During the survey, educators were asked whether some improvement should be brought to the workshops that involved training of teachers. The responses obtained were as follows:

-) 12.2% thought that the lessons provided on tablets should be demonstrated adequately, first, by professionals to the educators, to get an idea of how the lessons should be delivered;

-) 16.3% believed that the workshop should be organised regularly so teachers could always be aware of updates and also to find solutions to new problems that crop up;
-) 4.6 % found that it was fair enough for teachers to bring their tablets home so that they are able to prepare their class with additional resources;
-) 10.2% deemed it right that professional trainers should come regularly to school to act as facilitators in the use of the tablets;
-) 14.2 % judged that the level of interactivity in the activities as quite low and should be reinforced to increase positive learning;
-) Finally, for some 4.7% of the educators, the workshops were assessed as quite satisfactory, they had clear and explicit training and hence did not need any improvement.

Educators were asked for which subject(s) they usually used the tablets. 22 respondents used tablets in core subjects like Mathematics, English and French. 2 of them replied that they also used the device for health and physical education, 1 participant reacted positively for creative education, 1 respondent said the use of tablets for Arts is important and finally 1 educator stated that the tablets can be used for all subjects.

Educators were questioned on the use of the tablet in the classroom. The responses obtained were as follows:

-) One respondent said that it was quite difficult for the students to follow the instructions;
-) Six educators replied that the students were interested in the class;
-) Four participants found that the students were more focused;
-) Eleven educators pointed out that the students were very excited;
-) Six respondents explained that the students felt motivated with this new change in learning.

The introduction of tablets to young learners is very important for future use in class. The initiation to use of the tablet is a must so that the students can perform basic actions such as how to switch on and off the tablets correctly; since the tablets are in touch-screen formats, students must know how to use the special pen or their finger tip without scratching the screen. 9% of the educators were of the opinion that it was not necessary to show the students how to manipulate the tablet as they already seemed well informed about the device. A majority of the educators responded that the introduction of the tablet was important for the smooth running of the classes hence the number of sessions allocated for the initiation process ranged from one to five classes depending on the students.

After the initiation process, the students had to access the Erudex platform in order to get the academic materials provided on the tablets. This platform does not require connection with the Internet. Out of a group of 23 educators, 19 of them reported that the students accessed the platform without any difficulties while 4 of them noted that some students faced problems to access the e-learning environment. The Erudex platform offers several apps, also called widgets, for academic purposes. To be able to use the apps, the icons must be well defined so that the students can recognize them easily without ambiguity. 74% of the educators found that the students effortlessly recognized the subject icons by distinguishing the colours and the title written beneath each icon. On the other hand, 26% of the educators noted that some students took time to locate a specific icon due to the fact that scrolling using the digital pen or using the finger tip moves the screen too fast. The Erudex platform consists of the digital version of books used in class and also a series of activities within the apps. 74% of the educators observed that students could easily recognize the keys to access activities while a small sample of educators still noted a slight difficulty for a minority of students to identify the keys.

Educators were asked to rate the activities that were proposed to enhance learning. Five respondents pointed out that the activities were appropriate whereas 10 participants said that the activities were too basic and did not meet the level of the students, 6 educators noted that the activities were not appropriate. The digital classroom is expected to be equipped with a projector as well as a cabinet for storing and charging the tablets. However, when the educators were asked whether they used the projectors during their lessons it was surprising to note that 30% of them replied negatively because either there were no projectors installed or the projector was not operational. The remaining educators, used the projector regularly to assist them in their classes.

A further investigation consisted of finding the impact of the use tablets on students to assist them in their learning. Out of 22 educators, 17 noted that the students concentrate more on what they are learning while the rest said they did not identify any sign of greater concentration during the session. 15 educators further reported that the students learned more easily using tablets. 19 educators noted that students were more independent in their learning. 14 educators further stated that students remembered what they had learned without difficulty. Data shows that 13% of the educators noted that the engagement of students towards learning was quite low as some students were more curious in exploring other apps. On the other hand, 87 % of the educators stated that the students were more engaged when the tablet was used in class.

Educators were invited to give their opinion on how to make learning more interesting by using tablets. 52% of the respondents thought that it should be fair to include more self-discovering activities, 24% mentioned that the effect of academic gaming will have a positive impact on the class, while 8% of the participants believed that a story telling widget will help the students to focus more on their lessons.

The completion of the school curriculum has always been a challenge for educators. The main question remains: "Will the curriculum be completed on time?". The educators were surveyed to get an insight on whether, with the use of tablets, the curriculum could be completed. The following results were obtained: 11 educators responded positively, 3 of them answered negatively, 8 were still on the neutral side while 1 did not respond.

RESULTS FROM THE SEMI-STRUCTURED INTERVIEWS

There are several factors that can influence the progress of the tablet to enhance teaching and learning. The table below shows how the categories were grouped under the following themes.

Table 1: *Categories and Themes*

Categories	Themes
Training Infrastructure Educational resources Personal effort	Direct impacting factors
Peer influence Use of technology in class prior to tablet distribution	Indirect impacting factor

Two training sessions were provided to educators in Mauritius; the first one before the introduction of tablets in the classroom to introduce the teaching resource and the second one after the semester to present the new proposed activities. Two out of the five participants interviewed found that the training was useful and helped them to become familiar and use the tablet as a resource

in class. However, 60% of the respondents found that the training was too basic and did not help them. Some of the participant views are illustrated below:

"I found that the training was beneficial and the instructions were quite clear as to how to operate the tablet in class." [AB & CD]

"The trainer went quite fast, hence it was difficult to follow the instructions and get familiar with the tablet." [GH & IJ]

"I am not at ease with a tablet, it is the first time I am using it. I took time to recognize the different applications... The training session was too fast for me... It seems more appropriate for those who are conversant with technology." [EF]

Two of the participants who found the training was not useful reported that more training sessions should have been given and a booklet with illustrated guidelines could have been provided to help the educators in case they are facing any difficulty in using a particular program as the tablet is a new teaching tool. All the interviewees agreed that there must be good infrastructure for the use of tablets in the classrooms. They further added that they had to unplug the tablets and distribute them to the students prior to the start of the session and after the lessons, the tablets had to be collected and charged for next day use. They all consented that it was time consuming while 60% admitted that this limited the use of the tablet in the class. Moreover, all the participants stated that Internet facilities were provided only on the educator's tablet and there was no class assistant to help the educator during the distribution, use and collection of the tablets after the session.

All the educators interviewed found that the educational resources proposed were really basic and they did not help in enhancing teaching and learning. The activities were mostly matching and click and drag. Moreover, the widgets did not allow the students to make mistake as an incorrect answer was not allowed to be recorded. Hence all students got the answers either directly or by trial and error. They further added that all the explanations were usually done prior to the use of the tablets. All the participants agreed that there are interesting resources online which could be used in class. However, Internet access is granted only to the educator's tablet and they were not briefed during the training on how to send new activities from their tablet to the students' tablets. Two participants used their tablets to download activities and videos which they projected on the board for the students to benefit from additional resources as a complement to some chapters, for a quick revision or to learn about English/ French language and values. It is noteworthy to point out that the tablet allocated to students in Grade 1 and Grade 2 contained an electronic version of the books they use in class. The educators found the e-book to be a great aid as they used their tablet along with the projector to display the required exercise on the board thus, they no longer need to copy long sentences on the board. All the students could follow in their book and copy the answers the educators put on the board.

Four educators found that they got familiar with the tablet functions quite easily and were confident for the first time use of the tablet in class with their students. However, one educator admitted that it took time to become familiar with the tablet and had some apprehension for the first class as illustrated below:

"I had to practice several times on my own before getting familiar with the tablet... It is important for an educator to be prepared prior to a class... For the first time I had to use the tablet in the class without any support, I was a little nervous." [EF]

In addition to their general subjects, all educators had to spend some time during the initial use of the tablets to help the students become familiar with the device allocated to them. 60% took about 2 classes (of 30 mins each) while the remaining took up to more than 3 hours. The educators had different opinions when asked about class management. 60% admitted that they encountered some

difficulty to manage the class. They mentioned that some students do not listen to instructions when they get the tablets, while others move to other applications once they finish their activities. 40% found that there was no difference in class management with or without tablet. The effective use of tablets was perceived to depend indirectly on:

1. peer pressure where the educators were found to be influenced by their colleagues, and
2. the experience of the educators on the use of technology in class prior to tablet distribution

All respondents reported that peer pressure had an impact on them concerning the use of the tablet in class. However, 3 participants pointed out that eventually the decision to use the tablet or not depended on their time constraints to finish the syllabus. Conversely, two educators stated that they were influenced by their peers to use the tablet to get additional resources to enhance their teaching.

“My colleagues often discussed about the different ways they could use the tablet as an aid in conducting their classes... I was limiting my use of tablet for the projection of the e-book and completing the proposed activities... I realized I could use the tablet more efficiently. I started looking for additional resources which would enhance my teaching...”[AB & CD]

Three out of five participants agreed that prior experience with technology can facilitate the use of the tablet as a teaching resource. These educators had been part of the Sankoré project hence the idea of using the tablet in class with younger students was readily accepted. These educators have actually been using the tablets more often to assist them in class rather than the students and they justified this by the lack of assistance to conduct the class with tablets.

CONCLUSION AND RECOMMENDATIONS

The tablet distribution in grade 1 and grade 2 is an initiative of the Ministry of Education as part of the Early Digital Learning Program (EDLP) to ensure that the new generation is exposed to technology from the very beginning in order to avoid issues related to the digital divide in the future. This program also aims at having students becoming more engaged in their learning process. It is worth mentioning that the distribution of tablets in the lower grades is just the beginning of a long process of digitizing the education system in Mauritius. According to the MoEHR (2016) reform agenda, there are several intermediate strategic actions which need to be taken so that by 2030, and digital technology will be fully embedded in the schooling system.

The preliminary findings of the study reflect the classroom reality on a small scale. However interesting facts came to light. The educator is the most important link between the decision makers (the Government) and the beneficiaries (the students) hence it is essential to empower them so that they willingly adopt the tablet in their classroom. In order to ensure the successful integration of the tablet in the education system to enhance teaching and learning, it is important to provide the adequate training, infrastructure and educational resources. Sahu (n.d.) found that educators need to be very well prepared using a well detailed scheme and lesson plan to finish the curriculum successfully. Furthermore, he mentioned that they must be authorized to handle and meet the learning demands of students, to keep pace with confidence in the digital learning environment, to introduce 21st century skills in the current practice, to develop new evaluation methods and to take necessary influential actions as society progresses. In order to achieve this, pertinent training along with relevant materials and support must be allocated to educators to promote the affective and cognitive requirements of learners. According to Scott (2015), the teaching population must be made skilful and talented in the use of digital tools so as to cultivate a learner-centred and contributory approach in teaching.

In addition to these factors, the expected effort input by the educator, peer pressure and educator's experience with the use of technology prior to the distribution of the tablet also contributes to the effective use of the device. The findings revealed that most educators are using their tablet only to display the e-book with the help of the projector however only a few of them are using the tablet to find new activities to enhance learning. Moreover, these educators are also limited the distribution of the tablet to the students as there is no class assistant to help them to distribute the tablets and collect the devices and charge them after each session. Consequently, the tablets destined for students were more often left in the rack chargers than they were out of the cabinet. As a consequence the use of tablets has not been exploited fully in the classroom for the benefit of teaching and learning.

The use of tablets in grade 1 and grade 2 to enhance teaching and learning has been very limited. The main challenges lie in adequately preparing the educators so that they can in turn use the tablet as an educational resource to enhance their teaching and improve the learning experience of their students. Based on the outcomes of the study, the following recommendations can be taken into account:

- J To be able to use tablets efficiently, it is important for the educators to believe that technology can be beneficial for their instruction by assisting them to meet the objectives of their lessons and improve their performance. Hence, it is necessary to provide prospective and in-service educators with learning skills embedded with technology in order to experience the benefits of using technology and eventually develop their digital literacy to help them improve their teaching practices. Moreover, regular training with demo classes and focus groups should be organised to be able to bring forward problems encountered in class and eventually come up with solutions. The government must encourage lifelong and continuous learning for educators so that they can in turn promote this culture among students.
- J There must be good wireless connection for both educators and students. Internet access will not necessarily promote the use of tablets in class, however lack of such facility can encourage educators to avoid using the device. It is necessary to provide a platform for educators to be able to give assessments to their students. The number of pupils per educator must be reduced; else there should be a class assistant to help the educator during the distribution and collection of tablets in cases where there is a large number of students in a class.
- J There is need for research and development on the different pedagogical tools which can be embedded in the tablet in order to motivate learners while assessing complex skills. Educators should be encouraged to consult and use Open Educational Resources (OER) appropriate for their class.

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