The Use of Gadgets as Learning Tools in Enhancing the Reading Skills of the Senior High School Learners Amidst Pandemic: An Assessment

Asimah G. Abdulsalam
Mindanao State University
asimah.abdulsalam@gmail.com

ABSTRACT

This study examined the use of electronic gadgets as learning tools in enhancing the reading skills and academic performance of Senior High School students, particularly in the context of increased digital learning. Using a quantitative descriptive research design, data were collected from 202 Senior High School students through a validated researcher-made questionnaire focusing on the types of gadgets used, learning applications installed, and perceived effects of gadget use on reading comprehension and learning behavior. Statistical treatments included frequency and percentage distribution, mode, and Spearman's rho to determine significant relationships among variables. Findings revealed that mobile phones were the most commonly used gadgets for reading-related activities, while laptops and computers were used occasionally. Educational applications focusing on vocabulary development, spelling, phonemic awareness, and reading comprehension contributed positively to students' reading skills by increasing motivation, engagement, and access to learning materials. However, the study also identified negative effects associated with excessive gadget use, such as reduced concentration, sleep disruption, eye strain, and procrastination. Results further indicated significant relationships between the gadgets used and the learning applications available, as well as between gadget use and students' English academic performance. The study concludes that electronic gadgets can be effective instructional tools when properly integrated and regulated in the learning process. It emphasizes the importance of guided usage, digital literacy, and monitoring by teachers and parents to maximize educational benefits while minimizing potential drawbacks. Based on the findings, an action plan was developed to support responsible gadget use and enhance students' reading development in secondary education.

Keywords: *Electronic Gadgets, Reading Skills, Academic Performance, Mobile Applications, Senior High School Students, Digital Learning*

INTRODUCTION

Gadgets nowadays are one of the most essential things in every person's life. One could always carry his or her gadgets such as mobile device and laptop everywhere. Presently, due to the COVID-19 pandemic the world of education has changed dramatically which resulted in the shutdown of schools across the world in which face-to-face classes are not allowed. However, with the help of gadgets both the students and teachers could still communicate through the digital forms.

Republic Act No. 10844 or the "Department of Information and Communications Technology (DICT) Act of 2015", is the administrative entity of the executive branch of the government for planning, implementing, and coordinating that will plan to develop and promote the national Information Communication Technology (ICT) agenda. DICT explained that the procurement of gadgets such as laptops is under its Digital Education Program (DEP) that intended to assist, facilitate and enable education with its partnership with the Local Government Units (LGUs) especially during the COVID-19 pandemic. In a press statement, the DICT said *"the gadgets which were turned over by the LGUs to student beneficiaries, enhance the delivery of services to the education sector, a mandate that DICT fulfills."*

An article released by the Department of Information and Communications Technology entitled "Laptops, Gadgets to Help LGUs Boost ICT-enabled Education Amid Pandemic: DICT", DICT Secretary Gregorio B. Honasan II said *"through these initiatives, we aim to be more responsive to the needs of our students under the online and blended learning modalities as face-to-face classes are currently suspended during this public health emergency."*

Anchored in digital learning is the Department Circular No.12, s. 2020, which mandates and prioritize the immediate implementation of the departmental projects to provide Information Communication Technology (ICT) on the educational institutions solutions from the exposure of administrators, teachers and learners to pandemic risks. As San Juan City Mayor's Zamora (2021) stated, *"the gadgets are a big help since face-to-face learning is currently suspended and online learning is the alternative method of education at present. How will students engage in online education if they have no tablets? Sometimes, the lack of gadgets even becomes an excuse for students to stop schooling."*

In an article released by Philippine News Agency (2020) "Education Goes on Amid COVID-19 thru DepEd's Continuity Plan", due to the coronavirus disease 2019 (COVID-19) educational delivery in the country has greatly changed. Education Secretary Leonor Briones (2020) said "The Basic Education – Learning Continuity Plan (BE-LCP) is the Department of Education's major response and commitment in protecting the health, safety, and well-being of learners, teachers, and personnel. Briones added that education must continue under the health protocols set by the Department of Health and the World Health Organization. The BE-LCP aims to provide quality distance learning with the use of self-learning modules in digital and printed form, radio, television, and the internet."

To overcome anxiety and mental stress during the lockdown, the idea of using digital technologies to teach students was introduced to teach students from their homes. Because of the COVID-19 pandemic, its aftereffect in the higher education system is the digital revolution such as through virtual interaction, online examination, online lectures, digital open books, and teleconferencing (Chatterjee et al., 2020). The outgrowth of gadgets (technology) is the primary widespread use of Internet channels for everyday use especially to the students and teachers both public and private schools. Student engagement in the use of gadgets such as mobile phones, computers, tablets, and laptops is usually through online. Generally, modern technology with the use of social media engagement is a recent phenomenon who are seen to have implications experienced by the students (Marpuah et al., 2021).

The usage of laptop and computer has increased at all levels of academia. The tablet computer is one of the new forms of technology that made its way into the classroom settings rapidly. Tablets are revolutionary platform for communicating and learning wherein it is engaging with peers and consuming content since they provide a portable interactive method (Simon et al., 2004 & Enrique, 2010). They also provide to the educators with a new teaching method that integrates traditional presentation method (Rogers & Cox, 2008). Hence, teachers may use different resources of teaching at times to enhance and support the reading skills of the students. With the augment use of gadgets such as computers, tablets, and e-books that are being implemented inside the classrooms.

This research aims to find out the use of gadgets, the effects of gadgets, and the applications available in the gadgets as learning tools that enhance students' reading skills amidst pandemic.

THEORETICAL FRAMEWORK

Connectivism

Connectivism is a learning theory developed by George Siemens and Steven Downs (2005). Kimmons (2018), behaviorism is touted as "a learning theory for the digital age." According to this theory, learning is derived from forming connections. Educators must help students connect previous knowledge to new knowledge, and students must be able to recognize gaps in their knowledge as well. With technology, students have an increased ability to independently seek the most current information on any topic. This type of exploration and self-motivated learning should be encouraged. Connectivism embraces the idea that learning is no longer a completely internal process. Students should have opportunities to connect knowledge and ideas, independently seek understanding, and connect with others to share knowledge via technology.

In addition, Connectivism regulates that the process and goals of learning in highly connected and networked world are different than learning in pre-digital world because learners are now tenaciously connected to information and other sources through the gadgets such as laptops or smartphones. From the connectivist perspective, becoming a capable citizen in digital society requires the learners to become connected with one another in such a way that they can make use of the different networks as an extension of their own body and mind, that is why learning need not be isolated to the mind. The goal of education

from the connectivist perspective is to efficiently connect the learners with one another and in which learners can make ongoing use of the networks to solve problems. Thus, with the use of technology, the students can connect with one another to improve learning experiences and get information resources in a persistent manner (Kimmons, 2018).

Cognitivism

Cognitivism is a theory developed by Jean Piaget (1936). Kimmons (2018) Cognitivism deals with the functions of the brain specifically with how information is being processed, stored, retrieved, and applied. Cognitivism in relation to learning and teaching focuses on helping the people to reinforce efficient studying and teaching strategies that would allow their brains to make use of technology meaningfully which can help in providing information and study resources that would assist the brain in storing and retrieving information efficiently such as through the use of mnemonic devices or multiple modalities such as audio and video.

In addition, Pitler et al. (2007) describe how students can better understand new material being presented by incorporating technology into their note-taking processes. For instance, students using word-processing software such as Microsoft Word to track changes made on a particular written passage to be better able to summarize the material.

Constructivism

Constructivism is a theory developed by John Dewey (1938) and Jean Piaget (1970). Kimmons (2018), constructivism is a means of understanding how social factors and individual might influence the process of learning for different individuals and groups of people. Constructivism believes that learners hold and construct learning on top of previous experiences, beliefs, and attitudes. In order for this method of learning to occur, new learning experiences must take into consideration and assist the individual in grasping new knowledge to constructs. Thus, if teachers are teaching their students about fractions, they must connect into their learning experiences that will have meaning for them and teach them using the language that they can comprehend. By making facts more grounded in personal experiences, making abstract concepts and also by allowing differentiated learning process for the individual learners such as through appropriate software or application, technology can help the constructivist learning processes.

In addition, Kimmons (2018) cited also Dwyer et al. (1991) suggests that technology is powerful tool for constructivism's main principle that students learn by doing. The constructivist approach works well with technology because it supports collaborative, interactive and student-centered learning. This partnership also has a positive effect on student attitudes because they feel more successful, are motivated to learn have better self-confidence. By using technology in the constructivist classroom, teachers will engage students with lesson more actively, work collaboratively and develop more complex thinking skills. Constructivists believe that technology should be used by the students as a tool to explore problem solutions and acquire new information. Once this is done, then the learners can apply their own meaning to the new knowledge. The constructivist approach supports child-driven learning and the latest technological

developments. It gives the children the opportunity to access knowledge instantly which puts them in a position there they are fully in control of which information they can access and how.
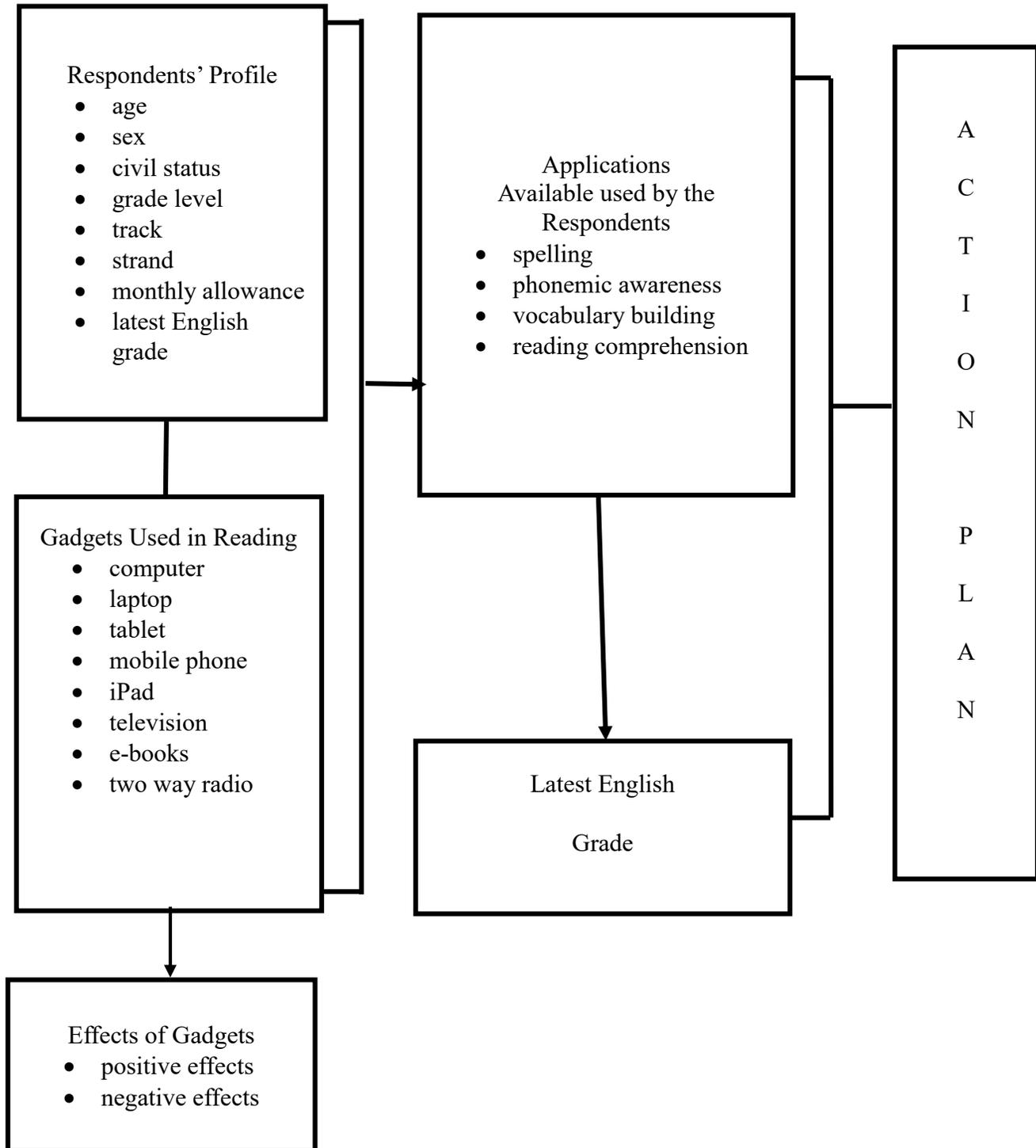
Behaviorism

Behaviorism is a theory developed by B.F. Skinner (1938). Kimmons (2018) behaviorism addresses learning as a response to stimulus. That is, to respond in certain ways to some certain stimuli, animals and humans must be trained such as salivating when a dinner bells rings or repeating a memorized fact to receive some external reward. Thus, learning and teaching is a process of conditioning the students to properly react to some certain stimuli and this is where technology can help to facilitate this training by providing motivation to learning like providing efficient stimulus response conditioning such as drill and skill practices or other rewards.

CONCEPTUAL FRAMEWORK

This study was focused on the use of gadgets as learning tools in enhancing the reading skills of Senior High School learners amidst pandemic such as Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), Ibn Siena Integrated School Foundation (ISISF), and Ranao Council Al Khwarizmi International College (RC - AKIC).

As can be seen in figure 1 on the next page, construct investigated variables consist of factors like the respondents' demographic profile such as age, sex, gender, civil status, grade level, track, strand, monthly allowance, and latest English grade. The most important aspects to be determined consists of the use of gadgets used in reading, applications available in the gadgets that enhance their reading skills, and the effects of gadgets.

Respondents' Profile
- age
- sex
- civil status
- grade level
- track
- strand
- monthly allowance
- latest English grade

Gadgets Used in Reading
- computer
- laptop
- tablet
- mobile phone
- iPad
- television
- e-books
- two way radio

Effects of Gadgets
- positive effects
- negative effects

Applications
Available used by the Respondents
- spelling
- phonemic awareness
- vocabulary building
- reading comprehension

Latest English

Grade

ACTION PLAN

Figure 1. Schematic Diagram of the Conceptual Framework of the Study

Statement of the Problem

This research study aimed to determine the use of gadgets as learning tools in enhancing the reading skills of Senior High School learners amidst pandemic. Specifically, it sought to answer the following questions:

1. What is the profile of the respondents in terms of:

   1.1 Age;

   1.2 Sex;

   1.3 Civil Status;

   1.4 Grade Level;

   1.5 Track;

   1.6 Strand;

   1.7 Monthly Allowance;

   1.8 Latest English grade?

2. What are the gadgets used by the respondents in reading in terms of:

   2.1 Computer;

   2.2 Laptop;

   2.3 Tablet;

   2.4 Mobile Phone;

   2.5 iPad;

   2.6 Television;

   2.7 E-books;

   2.8 Two way radio?

3. What are the effects of gadgets as learning tools in reading in terms of;

   3.1 Positive Effects;

   3.2 Negative Effects?

4. What are the applications available in the gadgets that enhance students' reading skills in terms of:

   4.1 Spelling;

   4.2 Phonemic awareness;

   4.3 Vocabulary building;

   4.4 Reading comprehension?

5. Is there a relationship between the gadgets and the applications available?

6. Is there a relationship between the applications available with students' latest English grade?

7. Is there a relationship between the gadgets and the effects of gadgets?

8. What action plan can be proposed for an effective use of gadgets as learning tools in reading?

Null Hypotheses:

The following null hypotheses are tested at 0.05 level of significance:

Ho_1: There is no significant relationship between the gadgets and the applications available.

Ho_2: There is no significant relationship between the applications available with students' latest grade in English.

Ho_3: There is no significant relationship between the gadgets and the effects of gadgets.

Significance of the Study

Exploring the use of gadgets as learning tools in enhancing the reading skills of Senior High School learners amidst pandemic is considered to be very significant and opportune or timely. Hence, the results of the study will be of great benefit to the following:

School administrators. The result of this study would give them the idea on the use of gadgets as learning tools in enhancing the reading skills of the learners. This would be beneficial for them to impose and implement the use of gadgets on the learning process.

Teachers. This study would benefit the teachers' knowledge by providing them about the use of gadgets to enhance the reading skills of the learners. They would exercise the use of gadgets in their teaching strategies to make their discussion easier, faster and enjoyable to the students.

Learners. This study may give the learners' information and ideas related to the use of gadgets as learning tools in in enhancing the reading skills. They would know the relationship of using gadgets in learning. They would also know the benefit of using gadgets in learning which will help them study effectively.

Future researchers. This study will help the future researchers especially those who are interested in conducting a research topic line like this, as would guide them in exploring more about the use of gadgets as learning tools in enhancing the students' reading skills.

Scope and Limitations

The purpose of this study was to determine the use of gadgets as learning tools in enhancing the reading skills of Senior High School learners in Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), Ibn Siena Integrated School Foundation (ISISF), and Ranao Council – Al Khwarizmi International College (RC – AKIC) amidst pandemic. Specifically, it focuses on the following: firstly on respondent's profile in terms of age, sex, civil status, grade level, track, strand, monthly allowance, latest English grade; secondly, the gadgets used in reading; thirdly, effects of gadgets as learning tools in reading

in terms of its positive and negative effects; fourthly, applications available in the gadgets that enhance students' reading skills in terms of spelling, phonemic awareness, vocabulary building, and reading comprehension; fifthly, the relationship between the gadgets and the applications available in the gadgets; sixthly, the relationship between the applications available in the gadgets with their latest English grade; seventhly, the relationship between the gadgets and the effects of gadgets; and lastly, action plan could be proposed for an effective use of gadgets as learning tools in reading

Several methodological limitations still exist such as the respondents' honesty and sincerity in answering the task, the questionnaire is out of the researchers' control.

Definitions of Terms

Application (App). This refers to an item of software that anyone with a suitable platform can install without the need for technical expertise (Martin et al., 2016). Software is also referred to as a software application used in mobile devices with an Operating System (OS). Software are programs developed to run on mobile devices for a specific purpose (Mohapatra et al., 2015). In this study, this refers to the applications available in the gadgets in terms of spelling, phonemic awareness, vocabulary building, and reading comprehension that used by the learners as learning tools in enhancing the reading skills.

Gadget. This refers to a small electronic device with various special functions (Cvano, 2013). The "novelty" element, is what makes the gadgets differ from the other electronic devices. In this study, it refers to computer, laptop, tablet, mobile phone, iPad, television, e-books, and two-way radio which are used by the respondents as reading tools in enhancing the reading skills.

Phonemic Awareness. This refers particularly on the segmentation of sounds as
an insight about oral language that are used in speech communication (www.literacy.org). In this study, this refers to an applications available in the gadgets that enhance students' reading skills.

Reading. This refers to the ability to comprehend, reflect, engage, and use with written texts to achieve one's goal, to develop one's own knowledge and potential, and to participate in social life (OECD, 2009). In this study, this refers to an act of learners to read in the gadgets in terms of the applications available in the gadgets.

Reading Comprehension. This refers to a sophisticated ability which requires a combination of cognitive skills comprises of decoding, prior knowledge, vocabulary, linguistic reasoning, working memory, and executive functioning (Kendeou et al., 2012; Scarborough & Cutting, 2006). In this study, this refers to an applications available in the gadgets that enhance students' reading skills.

Spelling. This refers to the way of using graphemes to represent a language in its written form, and it is a complex skill and an important part of writing (Tavaris, 2021). In this study, this refers to an applications available in the gadgets that enhance students' reading skills.

Vocabulary Building. This refers to simply a matter of reviewing the words regularly until you fix them in your memory (www.jocrf.org). In this study, this refers to applications available in the gadgets that enhance students' reading skills.

LITERATURE REVIEW

Related Literature

The presented literatures are from a collection of written works taken from published materials in several books, journals, online researches, articles, and other scholarly works that are related on the use of gadgets.

On March 12, 2020, the coronavirus (COVID-19) was declared as global pandemic. Due to this, it greatly affects the world of education wherein many countries around the world decided to close schools nationwide to prevent the spread of the virus. Among the highlighted problems and issues of COVID-19 is the management of school lessons and learning processes. This is where technology takes place as an educational platform for educational purposes (UNESCO, 2020a).

To overcome anxiety and mental stress during the lockdown, the idea of using digital technologies to teach students was introduced to teach students from their homes. Because of the COVID-19 pandemic, its aftereffect in the higher education system is the digital revolution such as through virtual interaction, online examination, online lectures, digital open books, and teleconferencing (Madhubrota et al., 2020).

A gadget is a device or small tool which has a particular function and purpose. The gadgets are unique than standard technology. In today's life, it is easier and maximized to accomplish daily tasks and people are also able to do work with efficiency with the use of gadgets. One cannot even dare to imagine life without smart phones, cell phones, laptops, tablets, iPads and so on (Tech Crates, 2012). Today's gadgets are one of the ways to make life more comfortable and easier. Shy (2010), says that *"no one can deny the fact that gadgets have not only simplified the lives of people but also made them more comfortable and elegant. Indeed, these gadgets really made a huge impact in people's lives and became part of it."*

Technology has significantly aided the students in educational settings especially in performing school related tasks. Clegg and Bailey (2008) stated that due to the appealing visuals and interactivity presents in the learning tools on the use of gadgets such as mobile phones, computers, laptops, and tablets, the learning process of the students become more conducive and fun through their effectivity. In addition, there are great collection of applications and learning games that exist in the gadgets especially in mobile devices or phones, as a matter of fact, the applications available for educational purposes are 96,000 (App Store Metrics, 2013). Apps in Education (2012) collected a data and confirmed that the subject areas covered by these applications include Grammar, Spelling, Science, Mathematics, and Arts and Humanities (Clegg & Bailey, 2008).

In the present era the introduction of modern technological gadgets has captured the attention of global population. The dependency of people on these technological gadgets and services provided by these has reached at such level that, without these, they cannot think a step forward in the direction of their growth. The degree of dependency is leading to addiction of the tech-devices and services. Youth is the vulnerable group among the population to be addicted to technology (Lee, 2018).

The utilization of gadgets as learning resources, globalization has changed our lives from the era of communicating with pen and paper which takes days before information could get to the destination and one of the ways in which it changed our lives, is how we communicate effectively through advancements in Information Communication Technology (ICT) (Dewi, 2019).

Macaraeg and Briones (2020), in our modern generation we can see that electronic gadgets are very useful everywhere. It is now the most useful gadgets of all human beings that can bring communication internationally in connection on their business transactions. In the field of education, it is helpful to students on their assignments, projects, and research works. With these positive views, there are negative effects on part of users especially to young ones because it can bring addiction and low academic performance to students or pupils.

As gadgets used in learning, according to Gammuac (2013), today's classrooms are more equipped with the latest technology to enhance the instructions. The use of smartphone in the classrooms is still somewhat controversial, but the Calgary Board of Education actually encourages it as a learning tool. In an interview with CTV, Queen's University National Scholar and Associate Professor Sidney Eve Matrix compared the situation to when calculators were first used by students in the classroom. *"We had a whole new level of computational skill, and now we're going to have a whole new level of mobile digital skills when we turn to mobile learning on the handhelds."*

It can be obviously observed nowadays that students spent much time on electronic gadgets which affects their academic performance and study habits. Students most likely focus on what entertains them than on what they may gain knowledge or what may help them in their academic due to the upgrade of these gadgets, so the students often spend more time on using gadgets than studying. Students usually uses gadgets for social interactions particularly with the use of messenger, twitter, Instagram, facebook and other social networking sites. Gadgets affect people in various ways, one of its effect is how it affects the students' performance in their academics. These gadgets may improve or it may be a distraction and a reason to fail a student's studies or grades (Mendoza, 2012).

According to Ling (2004), mobile phones have become the essential part of daily life since its rapid growth of popularity in the late 1990's. The mobile phones have virtually affected the society's accessibility, safety, security, and social activities and became part of culture of the whole world especially to the adolescents that it is their necessary medium of communication.

There are many benefits of mobile phone technologies in education. The most often cited are accessing content easily, integrating a broad range of educational activities such as encouraging student

enthusiasm, supporting classroom based collaboration, supporting inquiry based instruction and as well as interaction (Roschelle, 2003). Furthermore, sophisticated mobile phones are also known as smartphones which can be used to assist students in accessing information from the web, transforming it, transferring it, and collaborating with students (Ferry, 2009).

Related Studies

A recent study by Marpuah et al. (2021) entitled "The Implications of Modern Technology (Gadget) For Students Learning Development in University" aimed to identify the development of student learning in terms of the positive and negative effects of gadgets. The respondents of the study were 50 students of the university. The study used a qualitative design by using google form to gather data. The results revealed that the positive effects of the gadgets make it easier to the students to complete their assignments and help them find information on the subject and their quality of work can improve. While its negative effect on learning is that students spend a lot of time using their gadget like playing video games, surfing the internet and browsing social media.

The study of Balbaguio (2020) entitled "Effects of Electronic Gadgets in the Academic Performance of Senior High School Students" investigated the study habits, proficiency level in using electronic gadgets, and its effect on the academic performance of Senior High School. The respondents of the study were the eighty random selected SHS in the municipality of Sara, Iloilo. The result of the study revealed that using electronic gadgets in terms of the study habits of SHS learners was very good, in terms of proficiency level were highly proficient, and in terms of its effectiveness on academic performance was very effective. Therefore, there were no significant differences on the use of electronic gadgets in the study habits, proficiency level, and its effect on the academic performance of the SHS. In addition, there were no significant relationships of the study habit, proficiency level, and effect of electronic gadgets on the academic performance of the SHS on the use of electronic gadget. Moreover, learners are conscious on the effects of using electronic gadgets but they are educated and responsive regarding the ill effects of gadgets. The use of gadgets in educational setting develops a strong, progressive and effective citizen in the future. Hence, gadgets are advantageous and helpful in the schools.

Maracaeg et al. (2020) entitled "E-Gadget Management of Senior High School Students at Cuyapo West District" it sought to determine the E-Gadget Utilization Management among Senior High School Students at Cuyapo West District. The research method used was descriptive method with purposive sampling method in gathering data from teachers and students. The result shows that the respondents are predominantly females, ages 21-40, married and with masteral units. Moreover, majority of the respondents, both students and teachers make use of electronic gadgets. Further, the students sometimes utilize e-gadgets along mobile phones, laptops/net pads, tablets, earphones/headsets and iPhones/iPads, whereas desktop computers are perceived to have never used in terms of classroom activities. In addition, the teacher respondents always use E-gadgets namely mobile phones and laptops, sometimes utilize the devices such as desktop computers and IPhones/IPads and never for tablets and earphones/headsets in the classroom settings. Furthermore, the respondents involved management skills in the utilization of E-gadgets of grade

11 students. Lastly, the teacher respondents perceived e-gadgets to be always beneficial in the teaching-learning process while student respondents perceived the devices to be sometimes beneficial.

Othman et al. (2020) study entitled "The Impact of Electronic Gadget Uses with Academic Performance among Secondary School Students" it aimed to determine the association of electronic gadget use with academic performance and health status among selected secondary school students in Kuantan, Pahang. The research method used was a descriptive, cross sectional study by using convenient sampling which conducted on sample size of 233 school students at three selected secondary schools involving SMK Pelindung, SMK Bukit Goh and SMK Teluk Chempedak. The instrument used was structured questionnaire to assess the total time spent on electronic gadget, students' academic performance and students' health status. The result of the study implies that there were 233 school students who involved in this study and majority of them (59.2%) were Malay. For gender, 53.2% were male and 46.8% were female. In total of 48.1% students were spending time more than 6 hours on electronic gadget and the remaining 51.9% students spending time less than 5.99 hours on electronic gadget. Based on the findings, the result showed that there were significant association between race, gender, parent income, level of dependency, academic performance and health status and the total time spent on electronic gadget but opposing, there were no significant association between years started using electronic gadget and total time spent on electronic gadget.

Another study conducted by Ingram (2020) entitled "The Use of E-books, Computers, and Tablets to Enhance Reading Skills" aimed to determine the opinions of the teachers and its usage in reading instruction. It investigated the use of the teachers in terms of computers (reading programs), tablets, and e-books (electronic books) that enhance reading skills. It specifically investigated the beliefs of the elementary teachers on the use of computers (reading programs), tablets, and e-books (electronic books) that enhance the reading skills of the students who has reading difficulties. The respondents of the study were the four teachers who participated in the six-month observation sessions and interviews in the four urban elementary teachers of southeastern school district. Sessions for interview were held in the school classroom before, during, and after while sessions for observations were held while the teachers were teaching reading in their designated classroom. The result of the study exhibited that technology was an effective motivator for children and in reading instruction. Nevertheless, professional development for technology use is needed. Additionally, in order to implement writing and reading strategies effectively, teachers must be trained on how to design an effective lesson. The researcher observed that the purpose of the teacher in providing strategies in reading was vital such as scaffolding, differentiated instruction, and small and whole group instruction. Teachers utilized technology to support learning by administering reading programs, iPads into reading lesson, e-books and chrome books which build up the engagement of students in the process of learning. The research pointed out that the competence of the teachers to provide different in reading instruction and their form of instruction was important in learning to the success of students. Thus, training and professional development of teachers in using devices, gadgets and programs are needed to teach the students the new strategies and skills in using technology (McKenna, 2014).

In addition, Yonanda (2019) entitled "The Effect of Gadget Use in Learning Process in Muhammadiyah 1st Senior High School Surakarta" investigated how learning develop effectively through the help of gadget. The respondents of the study were the Muhammadiyah 1st High School of Surakarta.

The research method used was field observations which were executed by observing and looking at each part of the school such as the structure of the school, its organizational structure, teaching and learning activities inside and outside the classroom. To gather data, several students and teacher council of Muhammadiyah 1st High School was conducted for an interview. The study found out that the use of gadget has multiple benefits for both teachers and students inside the school environment especially in teaching and learning process. Mobile phones, laptops, and computers are the gadgets that sanctioned in the Muhammadiyah 1st High School. Hence, the gadget has a vast contribution in the learning process suchlike in evaluating the student learning performance.

Additionally, Fauzi (2018) entitled "The Impact of Mobile Gadgets in English as a Foreign Language (EFL) Learning: Perceptions of EFL Undergraduates" investigated the application of mobile gadget in EFL learning and the perceptions of EFL students about mobile gadget in learning activity. The respondents of the study were the thirty undergraduate students major in Accounting of Serang Raya University. The findings of the study were discovered that 30% of the students believe that they do not need to learn English spelling because they can always use mobile gadget and they believe that they can carry it at all times while 72% of the students think that through mobile gadgets, it can improve their English spelling skills. Therefore, it is not necessary to learn English spelling may hinder them from reaching higher proficiency levels. It was revealed also that when the students are not sure of English spellings, they always depend on their mobile gadgets. Because of the accessibility and availability of mobile gadgets at all times, undergraduate students feel that it is not necessary to practice or memorize the spelling of unfamiliar English words. Therefore, students believed that English dictionaries are effective in showing the accurate spelling of the words. Moreover, students can access the electronic version or mobile application of Standard English dictionaries like Oxford and Cambridge whenever they cannot understand the meaning of unfamiliar English words. Only 3% of the students believed that smartphone or mobile phones are useful, but they always need real books to learn as a student. The result of the study also suggested that the interviewed teachers are aware of the operative effectiveness of mobile gadgets for improving English language skills of the undergraduate students. English teacher's respondents opinioned that mobile gadgets can certainly make the students independent and enhance students' communication skills. Moreover, students access resources from different sources available on the internet repeatedly and can develop an independent learning habits. English teachers believed that mobile devices are useful for students to record their pronunciation and thus, it can enhance and develop their pronunciation skills. Dang (2013) conducted a research on the use of electronic gadget in learning a language. Such study revealed that 84% of learners used their mobile phones for English learning. It is conspicuous that there is a prevalence tendency in using mobile phones for learning activities for the students. 85% of the learners looked up new words in the dictionary through using their mobile phones while 62 % of the learner's study vocabulary through mobile phones. Half of the learners used their mobile phone applications to listened to English audio files and learn English and ultimately, via mobile phones anyone had done English exercises.

Furthermore, a study by Lutfiani (2018) conducted also a study entitled "The Use of Gadget on Student's Study Habit in English Language Learning at SMA An-Najiyah Surabaya" it investigated the use of gadgets and its effect on the study habits of students' in English language learning. The respondents of the study were the eleventh grade of SMA An-Najiyah Surabaya. This study used descriptive qualitative

design. The findings of the study revealed that in using gadget, there were some study habits applied by some of the eleventh grade students of SMA An-Najiyah especially in English learning. He concluded that listening song or music lyric, watching video in Youtube, giving comment to the post, making captions and reading some caption is the study habits of the respondents in using gadgets. While the effects of using gadgets on the study habits, they learn word pronunciation that they heard while they are playing the video, adding some vocabulary when they watch some music lyrics in the Youtube or some video, they can make descriptive text, they can make story and when given an instruction by the teacher in the class they recount text.

Another study was conducted by Talosig et al. (2018) study entitled "E – Gadgets of Generation X and Millennials: Their Social Life" compare the purpose and effect of the Generation X and Millennial on the use of E-gadgets and social media. This research used descriptive comparative design to compare the use of gadgets on both Generation X and Millennial regarding the effects of social media and gadgets on the social activities. The study also described the assessment on both groups. It was conducted at Cagayan State University -Andrews Campus who live within Tuguegarao City. The respondents were grouped according to their generation; Generation X ages 37-60 years old while the Millennial ages 36 and below. The findings of the study revealed that majority of those who are exposed to social media and gadgets for 1 up to 2 hours a day are the Generation X respondents while exposed 3 up to 4 hours a day are the Millennial. The positive effect of gadget and social media in the studies and work of the both groups are still advised in which parents' and teachers' guidance is still needed especially for Millennial.

METHODOLOGY

Research Design

The study employed the use quantitative research design particularly a descriptive survey. A set of survey questionnaire was utilized to collect data in order to answer questions concerning the demographic profile of the respondents, gadgets used in reading, applications available in gadgets that enhance students' reading skills, and effects of gadgets as learning tools in reading.

Locale of the Study

The study was conducted in the selected private schools of Marawi City namely: Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), Ibn Siena Integrated School Foundation (ISISF) and Ranao Council - Al Khwarizmi International College (RC – AKIC).
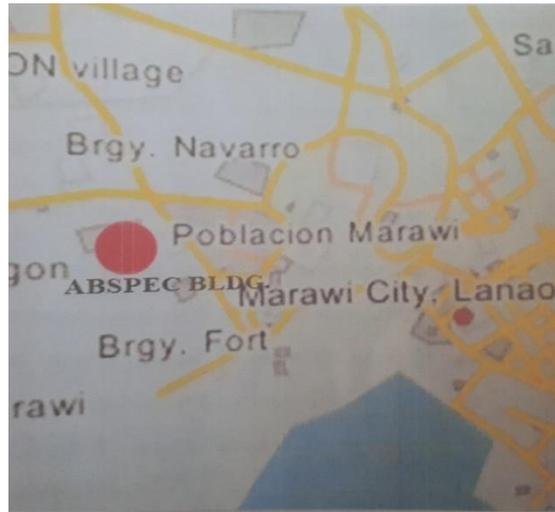
The Al Bangsamoro Shari'ah and Professional Education College (ABSPEC) is located at Brgy. Marawi Poblacion, Marawi City. It was established last October 2016 and owned by the founder of the school Omar Ali Mangondato Sharief and his behalf Bae Dayamon Guiling Sharief, the School President. The school offers Senior High School and College program.

Ibn Siena Integrated School Foundation, Inc. (ISISF) was established on May 1995 and started classes on the following month. It is a joint venture of the Markazoshabab Al Muslim Fil Filibin, Inc. and the Ranao Council, Inc. The said school is the first integrated school established in Marawi City and in Lanao del Sur. The ISISF started its operation with only one hundred and forty-three (143) pupils. It offered Junior and Senior Kindergarten and Grade 1. Management and operation of the school was under the so-called "Board Management" with Sultan Maguindanao as the first President and Engr. Macarambon as the full time affairs, while Alim Waliloden Pocaas and Alim Sahraman Ampaso were in-charge of the Arabic department.

The Ibn Siena Integrated School has the mission to establish a Muslim community in the Philippines that is infused with the spirit of Islam and characterized by faith and justice and whose members are committed to a peaceful and progressive living. Ibn Siena aims at providing the Muslim communities in particular with graduates who are not only technically and academically trained to help for the economic development of their respective communities but are trained to be leaders and imbued with strong Islamic values.

Ranao Council - Al Khwarizmi International College (RC-AKIC) is located at Brgy. Basak Malutlut, Marawi City, National Highway. It is an International school located in Sarimanok Bo. Marawi, Marawi City, Lanao del Sur. In 1995, the school has entered into a joint venture with the Markaz Shabab Al Muslim Fil Filibin, Inc. Several of the Senior RC members who have good qualifications and vast experience in University administration assisted him in managing MSU until 2005. Today, after 29 years, the Ranao Council continues to be a strong civic organization dedicated to the development and welfare of the Muslims in the Philippines. RC-AKIC is now 7 years after its establishments. The school already managed to gain recognition, not just for providing quality of education but also training and producing competent students.

The researcher chose this as the locale of the study since these schools have a large number of Senior High School enrollees. Hence, there was sufficient number of Senior High School learner which served as the respondents. Figure 2 on the next page, shows the map of Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), figure 3 on the next two pages shows the map of Ibn Siena Integrated School Foundation (ISISF), and figure 4 on the next three pages shows the map of Ranao Council – Al Khwarizmi International College (RC - AKIC).

Figure 2. Map of Al Bangsamoro Shari'ah and Professional Education College (ABSPEC)
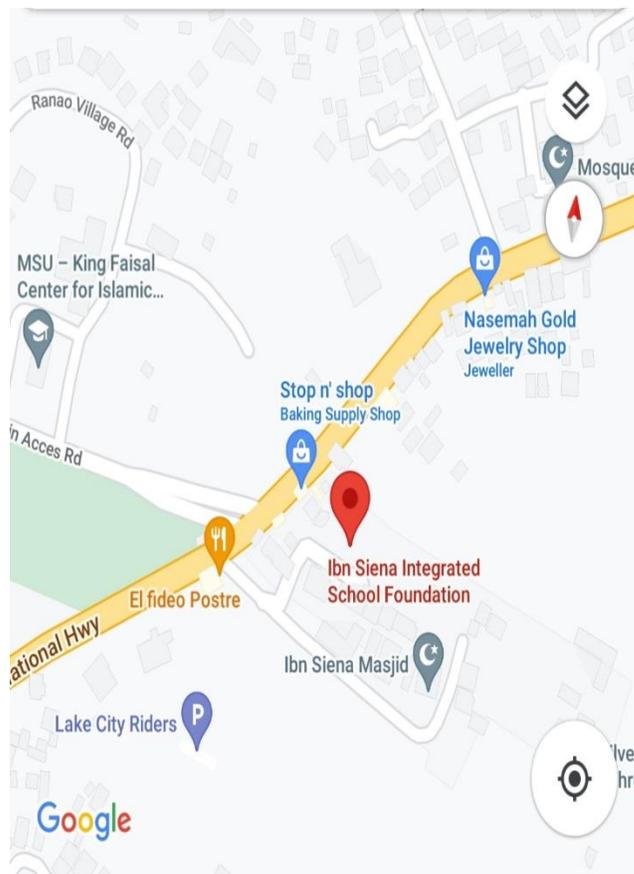
Figure 3. Map of Ibn Siena Integrated School Foundation (ISISF)
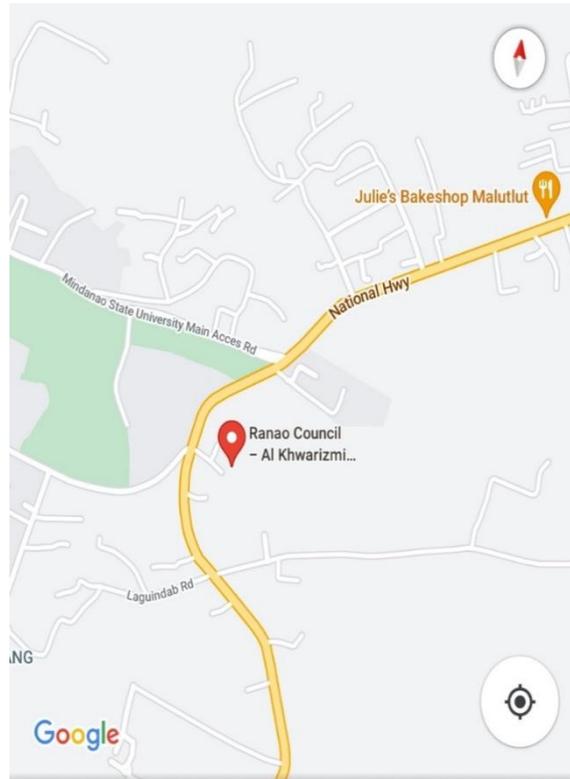
Figure 4. Map of Ranao Council - Al Khwarizmi International College, Senior High Department (RC - AKIC)

Respondents of the Study

The respondents of the study were the Senior High School learners of the Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), Ibn Siena Integrated School Foundation, Inc. (ISISF) and Ranao Council - Al Khwarizmi International College (RC - AKIC) in the school year 2021-2022. The two hundred two (202) respondents were from the aforementioned schools. Meanwhile, the researcher used incidental sampling method to get the number of the respondents.

Table 1
Distribution of Respondents of the Study

Schools	Number of Respondents
Al Bangsamoro Shari'ah and Professional Education College	102
RC – Al Khwarizmi International College Foundation, Inc.	80
Ibn Siena Integrated School Foundation, Inc.	20
Total	**202**

Research Instruments and Its Validity

The researcher used survey questionnaire in order to obtain the prescribed data needed. Each of these parts were patterned with the statement of the problems of the study and are described in the following part of this paper. To establish the validity of the survey questionnaire, an expert panel of four (4) members was requested to review the content validity of each of the statement indicators of the questionnaire. Each item was rated by the panel as to be retained, needed improvement, or to be deleted. It has a reliability result of Cronbach's Alpha .823. According to Fraenkel et al. (2012), for research purposes, a useful rule of thumb is that reliability should be at least .70 and preferably higher. This signifies that most of the statement indicators possessed content validity in the sense that it could measure the necessary data that are needed in the study. Few of the items were improved and revised based on the suggestions of the panel members.

Demographic Profile of the Respondents

The first part of the questionnaire asked for the respondent's profile in terms of age, sex, civil status, grade level, track, strand, monthly allowance, and latest English grade. Only these information were believed to be necessary for the scope of the study, hence no other personal information were asked.

Gadgets Used in Reading

For the second part of the questionnaire, a list of gadgets were provided and the respondents were required to indicate the use of those gadgets on a 3-point scale (always used, sometimes used, and never used). The list of gadgets was constructed by the researcher.

Effects of Gadgets as Learning Tools in Reading

For the third part of the questionnaire, asked for the respondents' positive and negative effects of gadgets. This is distributed into two subscales such as positive and negative effects. Each of these two categories consists of ten (10) statements which required the respondents to indicate their use of gadgets using 4-point scale (high impact, moderate impact, slight impact, and low impact). The statements used in this questionnaire were from the study of Johann Ceasar B. Menorca et al. (2017). However, the statements from this survey were modified to fit the purpose of the study.

Applications Available in the Gadgets that Enhance Students Reading Skills

For the fourth part of the questionnaire, asked for the respondents' applications available in the gadgets that enhance students' reading skills in terms of spelling, phonemic awareness, vocabulary building, and reading comprehension. This is distributed into four subscales such as spelling, phonemic awareness, vocabulary building, and reading comprehension. Each of these four categories consists of five (5) list of applications available which required the respondents to indicate their use of those applications available on a 3-point scale (always used, sometimes used, and never used).

Data Gathering Procedure

Prior to the data gathering, the researcher followed protocol to conduct the study. First, the researcher sent a letter asking for permission to the respective principals of the participating schools. The researcher enlightened them of the purpose and significance of the study. Second, upon the approval of the request, the researcher prepared the survey questionnaires. Since this study was conducted amidst the pandemic, hard copy and soft copy of the survey questionnaires were given to the respondents. The hard copy of the survey questionnaires was given to the respondents during the releasing and retrieval of their modules at school and soft copy of the survey questionnaires through online for the respondents to answer. The collected data were then subjected to analysis and interpretation.

Statistical Tools

To arrive at an accurate interpretation of the data that was gathered, the following statistical tools were used in interpreting and analyzing the data of this study:

1. **Frequency and Percentage Distribution.** This was used to describe the demographic profile of the respondents.

   Formula: $P = \frac{F}{N} x100$

   where, P = percentage
   F = frequency
   N = total number of cases

2. **Mode.** This statistical tool was used to calculate the average value of the gadgets used in reading, applications available in the gadgets that enhance reading skills in terms of spelling, phonemic awareness, vocabulary, and reading comprehension and the observation which occurs the most often in a set of values.

3. **Spearman's rho.** This statistical tool was used to compute the relationship between the variables of the study, namely: relationship between the gadgets and applications available, relationship between applications available and latest English grade, and relationship between the gadgets and the effects of gadgets.

   Formula: $r_s = 1 - \frac{6\sum D^2}{n(n^2-1)}$

   where, r_s = represents the coefficient
   D^2 = represented by the square of the difference in the ranks of the two coordinates
   n = represented by the number of points in the data set

4. **p-value.** This statistical tool was used to test the significance of z value to find the corresponding level of p and the acceptance and rejection of the hypotheses.

Formula:

$$Z = \frac{\hat{p} - p0}{\sqrt{\frac{p0(1 - p0)}{n}}}$$

Where $\hat{p}$ = sample proportion

p0 = assumed population proportion in the null hypothesis

n = sample size

RESULTS AND DISCSUSSIONS

I. Respondent's Profile

The respondents were distributed in frequency counts and percentages according to their age, sex, civil status, grade level, track, strand, monthly allowance, and latest English grade. This was to determine which range dominates the respondents.

Age

The respondents were made to indicate their age as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which age range dominates the respondents. Table 2 shows the frequency and percentage distribution of the respondents' age.

Table 2
Frequency and Percentage Distribution of the Respondent's Age

Age	Frequency	Percentage
Below 15 years old	1	5
15-19 years old	169	83.7
20-24 years old	31	15.3
Above 24 years old	1	5
Total	**202**	**100.0**

As shown in Table 2, one (1) or 5% of the respondents are at the age range of below 15 years old. One hundred sixty-nine (169) or 83.7% are aged of 15-19 years old. However, thirty-one (31) or 15.3% are at the age range of 20-24 and only one (1) or 5% has age above 24 years old. The findings signify that majority of the respondents (83.7%) age ranges from 15-19 years' old.

Relative to this findings, survey result from Nielsen company (2011) showed that 91% aging from 15-19 are teenagers who have mobile gadgets. Lately, one of the advantages of gadgets to the teenagers was developed which is the ability to connect with internet and it makes it easier to them in accessing various

things in the world. In addition, in the study of Talosig et al. (2018) revealed that Millenial ages 36 and below are exposed to social media and gadgets for 3 up to 2 hours a day.

In connection with this, in the present era the introduction of modern technological gadgets has captured the attention of global population. The dependency of people on these technological gadgets and services provided by these has reached at such level that, without these, they cannot think a step forward in the direction of their growth. The degree of dependency is leading to addiction of the tech-devices and services. Youth is the vulnerable group among the population to be addicted to technology (Lee, 2018).

Sex

The respondents were made to indicate their sex as part of their demographic profile so as to avoid gender bias among the results of the study. This was to determine which sex dominates the respondents. Thus, Table 3 shows the frequency and percentage distribution of respondents' sex.

Table 3
Frequency and Percentage Distribution of the Respondent's Sex

Sex	Frequency	Percentage
Male	73	36.1
Female	129	63.9
Total	**202**	**100.0**

As shown in Table 3, seventy-three (73) or 36.1% of the respondents are male. On the other hand, one hundred twenty-nine (129) or 63.9% of the respondents are female. The findings imply that majority of the respondents (63.9%) were female. In contrary to this findings, Rashid et al. (2021) concluded that male students always used gadgets than female students. The use of gadgets also determined on the easy access to the internet specifically online sources, which could differ based on respondents' socio-economic status. In addition, a study by Othman et al. (2020) implied that 53.2% of male and 46.8 female students were spending time more than 6 hours on electronic gadgets.

Civil Status

The respondents were made to indicate their civil status as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which civil status dominates the respondents. Table 4 shows the frequency and percentage distribution of the respondents' civil status.

Table 4
Frequency and Percentage Distribution of the Respondent's Civil Status

Civil Status	Frequency	Percentage
Single	196	97.0
Married	6	3.0
Total	**202**	**100.0**

As shown in Table 4, one hundred ninety-six (196) or 97.0% of the respondents are single. On the other hand, six (6) or 3.0% of the respondents are married. The findings signify that majority of the respondents (97.0%) are single. It implies that the student respondents were single students. In contrary to this findings, in the study of Macaraeg and Briones (2020) majority of the teacher respondents are married (75.9%) and only 7 respondents are single wherein they are using mobile phones and laptops as their gadgets.

Grade Level

The respondents were made to indicate their grade level as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which grade level dominates the respondents. Table 5 shows the frequency and percentage distribution of the respondents' grade level.

Table 5
Frequency and Percentage Distribution of the Respondent's Grade Level

Grade Level	Frequency	Percentage
Grade 11	91	45.0
Grade 12	111	55.0
Total	**202**	**100.0**

As shown in Table 5, ninety-one (91) or 45.0% of the respondents are Grade 11. On the other hand, one hundred eleven (111) or 55.0% of the respondents are Grade 12. The findings imply that majority of the respondents (55.0%) are Grade 12. Relative to this findings, Balbagui (2020) concluded that Grade 12 students believe that electronic gadgets are essential to the development of their academic routine. The finding on the effect of electronic gadgets on the academic performance is that all respondents, regardless of differences in sex, age, Grade level, length of years and exposure were "very effective." However, Grade 12 students were "extremely effective" in the awareness of the ill effect of these useful devices.

Track

The respondents were made to indicate their track as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which track dominates the respondents. Table 6 on the next page shows the frequency and percentage distribution of the respondents' track.

Table 6
Frequency and Percentage Distribution of the Respondent's Track

Track	Frequency	Percentage
Academic	202	100.0
Technical Vocational Livelihood (TVL)	0	0
Arts and Design	0	0

Sports	0	0
Total	**202**	**100.0**

As shown in Table 6, two hundred two (202) or 100.0% of the respondents are taking the academic track. The findings imply that all of the respondents (100.0%), the Grade 11 and Grade 12 students have an academic track. Relative to this findings, Balbagui (2020) implied from his study that Senior High School students in the district of Sara, Iloilo frequently use electronic gadgets on their academic feat. They believe that using electronic gadgets is very useful for development of their personal and academic improvement. Thus, electronic gadgets are very effective for the development of knowledge, skills, and attitude of students toward their academic performance in school.

Strand

The respondents were made to indicate their strand as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which strand dominates the respondents. Table 7 on the next page indicates the frequency and percentage distribution of the respondents' strand.

As shown in Table 7, thirty-four (34) or 16.8% of the respondents are taking up ABM. Forty-two (42) or 20.8% of the respondents are in the GAS strand. On the other hand, seventy-four (74) or 36.6% of the respondents are taking HUMSS and fifty-two (52) or 25.7% of the respondents are in the STEM strand.

Table 7
Frequency and Percentage Distribution of the Respondent's Strand

Strand	Frequency	Percentage
Accountancy, Business and Management (ABM)	34	16.8
General Academic Strand (GAS)	42	20.8
Humanities and Social Sciences (HUMSS)	74	36.6
Science, Technology, Engineering, and Mathematics (STEM)	52	25.7
Total	**202**	**100.0**

The findings signify that majority of the respondents (36.6%) are enrolled in HUMSS. Relative to this findings, Menorca (2017), Grade 11 STEM students always used cellphones, while computers are sometimes used by the students and tablets are seldom used by the students in learning.

In addition, Carmen et al. (2019) revealed that using gadgets affect the academic performance of Grade 12 Accountancy, Business, and Management (ABM) students in terms of these variable: (1) attendance – gadgets assist students to wake up early and report on or ahead of time in school. (2) Activities – using gadgets like laptops helps the students their research papers and other research activities. (3) Homework – gadgets help search for information required in the student's assignment. (4) Project – using gadgets in doing projects can help the students become more productive and produce well-done output.

Monthly Allowance

The respondents were made to indicate their monthly allowance as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which monthly allowance dominates the respondents. Table 8 shows the frequency and percentage distribution of the respondents' monthly allowance.

Table 8
Frequency and Percentage Distribution of the Monthly Allowance

Monthly Allowance	Frequency	Percentage
Below P500	70	34.7
P500-P900	50	24.8
P1,000-P1,500	40	19.8
P2,000-P2,500	13	6.4
P3,000-P3,500	9	4.5
P4,000-P4,500	2	1.0
Above P5,000	18	8.9
Total	**202**	**100.0**

As shown in Table 8, seventy (70) or 34.7% of the respondents have below P500 monthly allowance; Fifty (50) or 24.8% have P1,000-P1,5000; Forty (40) or 19.8% have P2,000-P2,500. Thirteen (13) or 6.4% have P2,000-P2,500; and Nine (9) or 4.5% have P3,000-P3,500 monthly allowance. However, two (2) or 1.0% have P4,000-4,500 while eighteen (18) or 8.9% have above P5,000 monthly allowance.

The findings imply that majority of the respondents (34.7%) have a below P500 monthly allowance. In connection to this, Rashid et al. (2021) concluded that the use of gadgets also depends on the easy access to the internet and relevant online facilities, which could differ based on respondents' socio-economic status. In addition, Othman et al. (2020) revealed that there were significant association between race, gender, parent income, level of dependency, academic performance, health status, and the total time spent on electronic gadget.

Latest English Grade

The respondents were made to indicate their latest English grade as part of their demographic profile so as to avoid bias among the results of the study. This was to determine which latest English grade dominates the respondents. Table 9 shows the frequency and percentage distribution of the respondents' latest English grade.

Table 9
Percentage Distribution of the Respondent's Latest English Grade

Latest English Grade	Frequency	Percentage
Below 76	7	3.5
76-80	24	11.9
81-85	50	24.8
86-90	70	34.7
91-95	36	17.8
Above 95	15	7.4
Total	**202**	**100.0**

As shown in Table 9, seven (7) or 3.5% of the respondents got an English grade of below 76; Twenty-four (24) or 11.9% got 76-80; Fifty (50) or 24.8% obtained 81-85; and Seventy (70) or 34.7% obtained 86-90. However, thirty-six (36) or 17.8% got 91-95 grade and fifteen (15) or 7.4% obtained above 95 grade.

The findings signify that majority of the respondents (34.7%) have 86-90 latest English Grade. It implies that using gadgets can improve the English grade of the students specifically their academic performance. Relative to this finding, Balbagui (2020) study on the effect of electronic gadgets on the academic performance found out all respondents, regardless of differences in sex, age, grade level, length of years and exposure were "very effective." However, Grade 12 students were "extremely effective" in the awareness of the ill effect of these useful devices. The preceding findings enforce the conclusion that highest-grade levels are highly educated in manipulating gadgets. Furthermore, he inferred that using electronic gadgets in the teachings and learning strategies could help in enhancing and improving the academic routine of the students as well as teachers. Though, students should be motivated in the various effects of these essential gadgets to become competitive learners and to be effective student in the class.

II. Gadgets Used in Reading

In this section, gadgets used in reading of the respondents were described as to their use. The level ranged from never used, sometimes used, and always used. Thus, Table 10 presents the gadgets used in reading in terms of computer, laptop, tablet, mobile phone, iPad, television, e-books, and two way radio.

Table 10
Distribution of Gadgets Used in Reading

Gadgets Used	Responses (n=202)			Mode	Interpretation
	1	2	3		
Computer	48	130	24	2	Sometimes used
Laptop	30	129	43	2	Sometimes used

Tablet	94	87	21	**1**	Never used
Mobile phone	0	6	196	**3**	Always used
iPad	126	61	15	**1**	Never used
Television	32	118	52	**2**	Sometimes used
E-books	105	67	30	**1**	Never used
Two-way radio	103	85	14	**1**	Never used

Legend: 1="Never used", 2="Sometimes used", 3="Always used"

As can be seen in Table 10, the gadgets used which were always used in reading was mobile phone (n=196, Mode=3). Additionally, computer (n=130, Mode=2), laptop (n=129, Mode=2), and television (n=118, Mode=2) are sometimes used. whereas the gadgets used were never used in reading were tablet (n=94, Mode=1), iPad (n=125, Mode=1), e-books (n=105, Mode=1) and two-way radio (n=103, Mode=1) are never used in reading. The findings imply that mobile phone is always used in reading amidst pandemic. Relative to this findings, Rashid (2021) revealed that due to the COVID-19 pandemic, of all the gadgets, the mobile phone used by 67.11 % of the respondents on a daily basis and 24.48% used electronic gadgets purposes for attending online classes.

Connectivism regulates that the process and goals of learning in highly connected and networked world are different than learning in pre-digital world because learners are now tenaciously connected to information and other sources through the gadgets such as laptops or smartphones (Kimmons, 2018).

Allsop (2016), it has been suggested that there is a very strong link between constructivist theory and technology in education. As an example of this is John Dewey's view that education can be practiced with the use of technology such as by using computers and the internet students are able to find, listen, and see the information actively instead of sitting and listening to a teacher or trying to find it in a book. Dewey agreed that technology should be used as a tool in education because of its ability to motivate learners to learn.

Relative to the findings, the study conducted by Enayati et al. (2014) on the use of mobile phones in providing educational content to students revealed that transmitting course materials via mobile phones and text messages are effective in learning. Similarly, Behnke et al. (2005) study confirmed that the use of gadgets in classes like tablets can contribute to the improvement on the performance of the students. It ca also contribute to the decrease number of the students who poorly perform in the class. Therefore, the use of gadgets in the classroom activities has become flexible. The different functions and features of gadgets in class transform learning and teaching methods efficiently. For that reason, through the use of gadgets the various senses of the students are activated.

In connection, Sheng Yu (2013) revealed that using mobile phone in learning English is definitely more effective than the traditional way. It is effective also in the part of reading, listening, and speaking but not good at writing. She added that modern technology tools such as mobile phone provides incredible processes in education especially in learning English as foreign language (EFL) and mobile phone give

benefits in enhancing the English language learning and teaching processes. It also suggested that technology like mobile gadget, computer software, tablet apps, social networking web, and online videos have a positive impact on learning English as a foreign language.

Furthermore, there are many benefits of mobile phone technologies in education. The most often cited are accessing content easily, integrating a broad range of educational activities such as encouraging student enthusiasm, supporting classroom based collaboration, supporting inquiry based instruction and as well as interaction (Roschelle, 2003).

Sophisticated mobile phones are also known as smartphones which can be used to assist students in accessing information from the web, transforming it, transferring it, and collaborating with students (Ferry, 2009). In addition, the students sometimes utilize e-gadgets along mobile phones, laptops/net pads, tablets, earphones/headsets and iPhones/iPads, whereas desktop computers are perceived to have never used in terms of classroom activities (Macaraeg & Briones, 2020).

III. Effects of Gadgets as Learning Tools in Reading

In this section, effects of gadgets as learning tools in reading were described as to its positive and negative effects. The level ranged from low impact, slight impact, moderate impact, and high impact.

Positive Effects

Table 11 reveals the positive effects of gadgets as learning tools in reading. The level ranged from high impact, moderate impact, slight impact, and low impact. Thus, Table 11 presents the positive effects of gadgets as learning tools in reading.

Table 11
Effects of Gadgets as Learning Tools in Reading in terms of Positive Effects

Indicator	Responses (*n*=202)				Mode	Interpretation
	1	**2**	**3**	**4**		
I am able to stimulate my senses and imagination better	2	47	92	61	**3**	Moderate Impact
I am encouraged to develop my analytical skills	2	30	83	87	**4**	High Impact
I am more creative in using the appropriate usage of gadgets	5	62	75	60	**3**	Moderate Impact
I am more knowledgeable in using computers	16	71	73	42	**3**	Moderate Impact
I am able to relieve stress and use it for more creative thinking purposes	10	49	76	67	**3**	Moderate Impact
My hand–eye coordination improved	16	61	73	52	**3**	Moderate Impact

My Mathematical skills improved	26	72	59	45	**2**	Slight Impact
I am having more fun learning	7	38	70	87	**4**	High Impact
I can research topic easier	7	37	66	92	**4**	High Impact
I can search for information anywhere	3	39	57	103	**4**	High Impact

Legend: 1="Low impact", 2="Slight impact", 3="Moderate impact", 4="High impact"

As can be seen in Table 11, the effects of gadgets as learning tools in reading in terms of positive effects has a high impact such as I am encouraged to develop my analytical skills (n=87, Mode=4), I am having more fun learning (n=87, Mode=4), I can research topic easier (n=92, Mode=4), and I can search for information anywhere (n=103, Mode= 4). Additionally, moderate impact such as I am able to stimulate my senses and imagination better (n=92, Mode= 3), I am more creative in using the appropriate usage of gadgets (n=75, Mode= 3), I am more knowledgeable in using computers (n=73, Mode= 3), I am able to relieve stress and use it for more creative thinking purposes (n=76, Mode= 3), and my hand–eye coordination improved (n=73, Mode= 3). Whereas positive effects of gadgets as learning tools in reading has a slight impact such as my Mathematical skills improved (n=72, Mode=2).

In connection with this, Kimmons (2018) cited and suggests that technology is powerful tool for constructivism's main principle that students learn by doing. The constructivist approach works well with technology because it supports collaborative, interactive and student-centered learning. This partnership also has a positive effect on student attitudes because they feel more successful, are motivated to learn have better self-confidence.

Connectivism regulates that the process and goals of learning in highly connected and networked world are different than learning in pre-digital world because learners are now tenaciously connected to information and other sources through the gadgets such as laptops or smartphones. The goal of education from the connectivist perspective is to efficiently connect the learners with one another and in which learners can make ongoing use of the networks to solve problems. Thus, with the use of technology, the students can connect with one another to improve learning experiences and get information resources in a persistent manner (Kimmons, 2018).

Relative to the findings, according to Collison (2020), the greatest purposes of gadgets in the classroom is known on the use for academic purposes especially in research purposes. Nowadays, the students no longer needed to browse books for assignment or research nor go to library instead they use their gadgets to search wherein information is within their grasp in just a seconds. Researching online also is not only limited in using Google. Some schools also paid some scholar digital databases platforms in order for their students to access easier which can be accessible through the use of mobile phones and tablets of the students.

In addition, Marpuah et al. (2021) revealed that the positive effects of the gadgets make it easier to the students to complete their assignments and help them find information on the subject and their quality of work can improve. In line with this, Lee (2018) most gadgets have positive effects because they enable

us to do things faster and easier and they are also good when it comes to learning new things and, let's face it, they make our life a lot easier.

Macaraeg and Briones (2020), positive effects of electronic gadgets is that in our modern generation we can see that electronic gadgets are very useful everywhere. It is now the most useful gadgets of all human beings that can bring communication internationally in connection on their business transactions. In the field of education, it is helpful to students on their assignments, projects, and research works. With these positive views, there are negative effects on part of users especially to young ones because it can bring addiction and low academic performance to students or pupils.

Negative Effects

In this section, it reveals the negative effects of gadgets as learning tools in reading. The level ranged from high impact, moderate impact, slight impact, and low impact. Thus, Table 12 on the next page presents the negative effects of gadgets as learning tools in reading.

As can be seen in Table 12, the effects of gadgets as learning tools in reading in terms of negative effects has a high impact such as I sleep less than usual (n=64, Mode=4). Additionally, moderate impact such as I am more likely to procrastinate (n=85, Mode=3), I am spending time outdoors to search all apps in my mobile phone (n=77, Mode=3), I am more short-tempered towards my family, classmates and teachers (n=61, Mode=3), I am having difficulty concentrating on my studies (n=77, Mode=3), I am having problems with lesson concentration than socializing with my friends and classmates (n=84, Mode=3), and I am having trouble falling asleep (n=74, Mode=3). Whereas negative effects of gadgets as learning tools in reading has a slight impact such as I am more reliant to plagiarism (n=77, Mode=2), my hand writing become worse (n=68, Mode=2), and I am too lazy to go to school (n=66, Mode=2).

Table 12
Effects of Gadgets as Learning Tools in Reading in terms of Negative Effects

Indicator	Responses (*n*=202)				Mode	Interpretation
	1	2	3	4		
I am more likely to procrastinate	26	52	85	39	**3**	Moderate Impact
I am spending time outdoors to search all apps in my mobile phone	28	55	77	42	**3**	Moderate Impact
I am more short-tempered towards my family, classmates and teachers	45	53	61	43	**3**	Moderate Impact
I am having difficulty concentrating on my studies	21	57	77	47	**3**	Moderate Impact
I am having problems with lesson concentration than socializing with my friends and classmates	20	57	84	41	**3**	Moderate Impact

I am more reliant to plagiarism	36	77	61	28	**2**	Slight Impact
My hand writing become worse	46	68	54	34	**2**	Slight Impact
I am too lazy to go to school	59	66	46	31	**2**	Slight Impact
I am having trouble falling asleep	23	47	74	58	**3**	Moderate Impact
I sleep less than usual	23	55	61	63	**4**	High Impact

Legend: 1="Low impact", 2="Slight impact", 3="Moderate impact", 4="High impact"

The finding is aligned to the study of Hysing et al. (2015) stated that the use of electronic devices and its availability such as mobile phones, television, tablets, computers, video games, audio players, and consoles has increased. Therefore, the electronic devices became an integral part of teenagers. He also stated that 97% of the American have at least one electronic device. Aside from the entertainment aspects of electronic devices, it also plays an important part in the social lives of the teenagers. However, a stimulating active use of social media has a negative effect to its users. In addition to the result of her study, the use of mobile phone, portable computer, TV, mp3-player, and game console before sleeping were all associated in the sleep deficiency.

In addition, Lee (2018) negative effects of these gadgets on students can be the fact that they can become obsessive and the students can neglect everything else, like their social life, their family and friends. It is not a bad thing to have a computer, but it is a bad thing to spend all your life in front of it pretending that everything else doesn't exist and its negative effect on learning is that students spend a lot of time using their gadget like playing video games, surfing the internet and browsing social media.

Furthermore, it can be obviously observed nowadays that students spent much time on electronic gadgets which affects their academic performance and study habits. Students most likely focus on what entertains them than on what they may gain knowledge or what may help them in their academic due to the upgrade of these gadgets, so the students often spend more time on using gadgets than studying. Students usually uses gadgets for social interactions particularly with the use of messenger, twitter, Instagram, facebook and other social networking sites. Gadgets affect people in various ways, one of its effect is how it affects the students' performance in their academics. These gadgets may improve or it may be a distraction and a reason to fail a student's studies or grades (Mendoza, 2012).

IV. Applications Available in the Gadgets that Enhance Students Reading Skills

In this section, the applications available in the gadgets that enhance the students reading skills were operationalized in terms of their spelling, phonemic awareness, vocabulary building, and reading comprehension.

Spelling

This section discusses the applications available in the gadgets that enhanced students reading skills in terms of spelling. The respondents were provided with the following applications available in spelling.

Applications available were scaled as never used, sometimes used, and always used. Thus, Table 13 presents the applications available in the gadgets that enhance students reading skills in terms of spelling.

Table 13

Applications Available in the Gadgets that Enhanced their Reading Skills in Terms of Spelling

Application	Responses (*n*=202)			Mode	Interpretation
	1	2	3		
Scrabble	52	123	27	2	Sometimes used
Ultimate English Spelling Quiz	46	122	34	2	Sometimes used
Text twist	49	119	34	2	Sometimes used
Word Search	23	88	91	3	Always used
Spell Mania	69	107	26	2	Sometimes used

Legend: 1="Never used", 2="Sometimes used", 3="Always used"

As can be seen in Table 13, the applications available in the gadgets which were always used that enhanced their reading skills in terms of spelling was Word Search (n=91, Mode=3). Whereas Scrabble (n=123, Mode=2), Ultimate English Spelling Quiz (n=122, Mode=2), Text twist (n=119, Mode=2), and Spell Mania (n=107, Mode=2) are the applications available in the gadgets which were sometimes used that enhanced their reading skills in terms of spelling.

Relative to this findings, Fauzi (2018) revealed that 30% of the students believe that they need not learn English spelling because they can always use mobile gadget because they believe that they can carry it at all times, while 72% of the students think that through mobile gadgets, it can improve their English spelling skills. Therefore, it is not necessary to learn English spelling as it may hinder them from reaching higher proficiency levels. It was revealed also that when the students are not sure of English spellings, they always depend on their mobile gadgets. Because of the accessibility and availability of mobile gadgets at all times, undergraduate students feel that it is not necessary to practice or memorize the spelling of unfamiliar English words. Therefore, students believed that English dictionaries are effective in showing the accurate spelling of the words. Moreover, students can access the electronic version or mobile application of Standard English dictionaries like Oxford and Cambridge whenever they cannot understand the meaning of unfamiliar English words. Only 3% of the students believed that smartphone or mobile phones are useful, but they always need real books to learn as a student.

In addition, Shutterland (2009) stated that "word search will train students' focus in identifying words which are hidden in the puzzle, exercise students' brain and also help the students with the visual and hand-eye coordination in another real benefits. There are five benefits according to Sutherland (200): (1) word search puzzles keep the brain active. (2) word search puzzles increase the vocabulary, vocabulary-building is one of the vocabulary. Vocabulary building is one of the biggest benefits of solving word

searches. (3) word searches are a great way to improve your spelling. Word search could actually help you learn to spell better by actively looking for the set of letter in order and the puzzle helps to cement their spelling in your brain. (5) word search puzzles train our brain to recognize patterns the ability to identify letters, faces, and all manner of objects – is a basic cognitive skill (the others include such useful games as a decision-making, focus and concentration, memory, problem solving, and categorization.”

Phonemic Awareness

This section discusses the applications available in the gadgets that enhanced students reading skills in terms of phonemic awareness. The respondents were provided with the following applications available in phonemic awareness. Applications available were scaled as never used, sometimes used, and always used. Thus, Table 14 presents the applications available in the gadgets that enhance students reading skills in terms of Phonemic awareness.

Table 14
Applications Available in the Gadgets that Enhanced their Reading Skills in Terms of Phonemic Awareness

Application	Responses (n=202)			Mode	Interpretation
	1	**2**	**3**		
English Phonetics – English Pronunciation, International Phonetic Alphabet (IPA)	59	124	25	**2**	Sometimes used
English Grammar and Phonetics	31	110	61	**2**	Sometimes used
Hear builder (HB) Auditory Memory	80	101	21	**2**	Sometimes used
English Phonetics and Vocabulary	45	112	45	**2**	Sometimes used
Phonemic Chart	90	92	20	**2**	Sometimes used

Legend: 1=“Never used”, 2=“Sometimes used”, 3=“Always used”

As can be seen in Table 14, the applications available in the gadgets which were sometimes used that enhanced their reading skills in terms of phonemic awareness were English Phonetics – English Pronunciation, International Phonetic Alphabet (IPA) (n=124, Mode=2), English Grammar and Phonetics (n=110, Mode=2), Hear builder (HB) Auditory Memory (n=101, Mode=2), English Phonetics and Vocabulary (n=112, Mode=2), and Phonemic Chart (n=92, Mode=2).

In line with this findings, Harrison (2015) concluded that students’ exposure on using iPad apps, their phonemic awareness has improved. Students’ greatest area of improvement was in the sound

identification of vowels and consonants. The study found that students' use on iPad apps that focuses on phonemic awareness were engaged. Students were able to understand how the apps works and what they were asked to do.

Fauzi (2018), English teachers believed that mobile devices are useful for students to record their pronunciation and thus, it can enhance and develop their pronunciation skills. Dang (2013) conducted a research on the use of electronic gadget in learning a language. Such study revealed that 84% of learners used their mobile phones for English learning. It is conspicuous that there is a prevalence tendency in using mobile phones for learning activities for the students. 85% of the learners looked up new words in the dictionary through using their mobile phones while 62 % of the learner's study vocabulary through mobile phones. Half of the learners used their mobile phone applications to listened to English audio files and learn English and ultimately, via mobile phones anyone had done English exercises.

Furthermore, the effects of using gadgets on the study habits, they learn word pronunciation that they heard while they are playing the video, adding some vocabulary when they watch some music lyrics in the Youtube or some video, they can make descriptive text, they can make story and when given an instruction by the teacher in the class they recount text (Lutfianil, 2018)

Vocabulary Building

This section discusses the applications available in the gadgets that enhanced students reading skills in terms of vocabulary building. The respondents were provided with the following applications available in vocabulary building. Applications available were scaled as never used, sometimes used, and always used. Thus, Table 15 presents the applications available in the gadgets that enhanced students reading skills in terms of vocabulary building.

Table 15
Applications Available in the Gadgets that Enhanced their Reading Skills in Terms of Vocabulary Building

Application	Responses (n=202)			Mode	Interpretation
	1	2	3		
Wordscapes	23	93	86	2	Sometimes used
Vocabulary Builder	55	94	53	2	Sometimes used
4 Pics 1 Word	21	113	68	2	Sometimes used
Pictoword	63	99	40	2	Sometimes used
Word of the Day	56	105	41	2	Sometimes used

Legend: 1="Never used", 2="Sometimes used", 3="Always used"

As can be seen in Table 15, the applications available in the gadgets which were sometimes used that enhanced their reading skills in terms of vocabulary building were Wordscapes (n=93, Mode=2), Vocabulary Builder (n=94, Mode=2), 4 Pics 1 Word (n=113, Mode=2), and Word of the Day (n=105, Mode=2).

Relative to this finding, Saleh (2019) stated that Wordscapes is a great game to get learners thinks about spelling and vocabulary. He concluded that games such Wordscapes game can create an effective environment for learning especially in vocabulary. The most popular game used by the educationalist and teachers to make the process of learning and teaching easier especially in teaching and learning vocabularies. He added that games that exclusively intended to deal with a certain problem like improving learner's vocabulary or teaching a certain skill have been particularly successful because they are interactive, engaging, motivating, strengthening, and provide rewards.

In connection with this, Ma and Yodkamlue (2019) cited that mobile phones provide sufficient opportunities for learners to have a continuous connection to the target words (Kukulska-Hulme, 2012). Therefore, the immediacy and portability of the mobile app enable learners to develop the vocabulary retention of the students in an interesting and effective way. The students referred to the app as a method to learn vocabulary without pressure, because it made them feel like they were having fun. One of the respondents of this study stated that "*as long as the mobile phone is on me, I can use the app to learn vocabulary, so convenient*". They concluded that using mobile app, the students had a good perceptions of vocabulary learning.

Dang (2013) conducted a research on the use of electronic gadget in learning a language. Such study revealed that 84% of learners used their mobile phones for English learning. It is conspicuous that there is a prevalence tendency in using mobile phones for learning activities for the students. 85% of the learners looked up new words in the dictionary through using their mobile phones while 62 % of the learner's study vocabulary through mobile phones. Half of the learners used their mobile phone applications to listened to English audio files and learn English and ultimately, via mobile phones anyone had done English exercises.

Reading Comprehension

This section discusses the applications available in the gadgets that enhanced students reading skills in terms of reading comprehension. The respondents were provided with the following applications available in reading comprehension. Applications available were scaled as never used, sometimes used, and always used. Thus, Table 16 on the next page presents the applications available in the gadgets that enhanced students reading skills in terms of spelling.

Table 16

Applications Available in the Gadgets that Enhanced their Reading Skills in Terms of Reading Comprehension

Application	Responses (*n*=202)			Mode	Interpretation
	1	**2**	**3**		
English Grammar	17	80	105	**3**	Always used
MangaToon – Manga Reader	69	68	65	**1**	Never used
Wattpad	82	65	55	**1**	Never used
Brain Out	61	107	34	**2**	Sometimes used
Elevate	116	69	17	**1**	Never used

Legend: 1="Never used", 2="Sometimes used", 3="Always used"

As can be seen in Table 16, the applications available in the gadgets which were always used that enhanced their reading skills in terms of reading comprehension was English Grammar (n=105, Mode=3), Additionally, Brain out (n=107, Mode=2) was sometimes used. Whereas applications available in the gadgets which were never used to enhance their reading skills were MangaToon – Manga Reader (n=69, Mode=1), Wattpad (n=82, Mode=1), and elevate (n=116, Mode=1).

Relative to this findings, Karyadi (2016) who conducted the study about the correlation between students' grammar mastery and reading comprehension found that there was a correlation between student's grammar mastery and reading comprehension achievement. Therefore, he concluded that the students who have a good mastery in grammar will also have a good comprehension.

In connection with this, English Grammar application serves as a media aid in learning which can develop the quality learning of the student because they cannot easily get bored instead they can learn grammar quickly to study anywhere and relaxed without difficulties. The English Grammar application as a mobile application which can be accessed on an android phone or tablet makes students motivated and happier to learn more often effectively and get good results for students according to their current learning (Hastuti, 2018).

In addition, Klimova and Zamborova (2020) concluded that second language acquisition is on the rise because using mobile applications can develop reading comprehension. Students likely to enjoy using mobile applications in educational settings, both inside and outside of the school especially if it contained interactive that stimulates real-life situations. He also concluded that mobile applications develop teaching learning processes wherein it has many advantages like the students can use the mobile application anytime and everywhere. In line with that Agustini (2018) also concluded that students have no reason if they could

not learn because there is the mobile applications that could help them to learn easily where it runs as planning and could help them learn especially in reading comprehension.

V. Relationship between the Gadgets and Applications Available

Discussed in this section is the result of the hypothesis testing which was done at 0.05 level of significance to find out the relationship between the gadgets and applications available. This was statistically treated using Correlation Coefficient and p-value of significance. Hence, Table 17 on the next page presents the relationship between the gadgets and applications available.

As can be seen in Table 17, the gadgets were significantly related with the applications available in the gadgets in terms of spelling, phonemic awareness, vocabulary building, and reading comprehension. This was because, when tested at 0.05 level of significance, the Correlation Coefficient of spelling 30.372, p-value of significance .000 which remark as significant, the Correlation Coefficient of phonemic awareness 29.380, p-value of significance .000 which remark as significant, the Correlation Coefficient of vocabulary building 17.577, p-value of significance .000 which remark as significant, and the Correlation Coefficient of reading comprehension 21.544, p-value of significance .000 which remark as significant.

Table 17
Relationship between the Gadgets and Applications Available

Relationship		Correlation coefficient (r_{rho})	*p*-value	Remark
Spelling	Gadgets	30.372	.000*	Significant
Phonemic awareness		29.380	.000*	Significant
Vocabulary building		17.577	.001*	Significant
Reading comprehension		21.544	.000*	Significant

Legend: *means significant at .05 level of significance

The findings imply that the relationship between the gadgets and applications available in the gadgets have a significant relationship. From the constructivist perspective, by making facts more grounded in personal experiences, making abstract concepts and also by allowing differentiated learning process for the individual learners such as through appropriate software or application, technology can help the constructivist learning processes (Kimmons, 2018).

Relative to this findings, Menorca et al. (2017) stated that using technology in education has significantly aided the students in performing their academic tasks. Clegg and Bailey (2008) stated that due to the appealing visuals and interactivity presents in the learning tools on the use of gadgets such as mobile phones, computers, laptops, and tablets, the learning process of the students become more conducive and fun through their effectivity.

In connection with this, there are great collection of applications and learning games that exist in the gadgets especially in mobile devices or phones, as a matter of fact, the applications available for educational purposes are 96,000 (App Store Metrics, 2013). Apps in Education (2012) collected a data and confirmed that the subject areas covered by these applications include Grammar, Spelling, Science, Mathematics, and Arts and Humanities (Clegg & Bailey, 2008). In addition, the use of gadgets in learning plays an important part as a source of learning. It also supports the creation of learning process to be comfortable, efficient and effective in improving the learning outcomes of the students (Haryantu, 2019).

VI. Relationship between Applications Available with Students' Latest English Grade

Discussed in this section is the result of the hypothesis testing which was done at 0.05 level of significance to find out the relationship between applications available with students' latest English grade. This was statistically treated using Correlation Coefficient and p-value of significance. Hence, Table 18 presents the relationship between applications available with students' latest English grade.

Table 18
Relationship between Applications Available with Students' Latest English Grade

Relationship		Correlation coefficient (r_{rho})	*p*-value	Remark
Spelling	Latest English Grade	13.318	.038*	Significant
Phonemic awareness		8.506	.203	Not significant
Vocabulary building		9.804	.133	Not significant
Reading comprehension		3.882	.693	Not significant

Legend: *means significant at .05 level of significance

As can be seen in Table 18, the applications available in terms of spelling was significantly related with students' latest English grade. This was because, when tested at 0.05 level of significance, the Correlation Coefficient 13.318, p-value of significance .038 which remark as significant. The findings imply that the relationship between the applications available with students' latest English grade have a significant relationship.

Relative to this findings, Clegg and Bailey (2008) there are great collection of applications and learning games that exist in the gadgets especially in mobile devices or phones, as a matter of fact, the applications available for educational purposes are 96,000 (App Store Metrics, 2013). Apps in Education (2012) collected a data and confirmed that the subject areas covered by these applications include Grammar, Spelling, Science, Mathematics, and Arts and Humanities. In connection with this, from the result of the study of Nurhayati (2007), by conducting games, it can increase the motivation of the students in learning English spelling ability and it can create different activities and tasks.

VII. Relationship between Gadgets and the Effects

Discussed in this section is the result of the hypothesis testing which was done at 0.05 level of significance to find out the relationship between gadgets and the effects of gadgets. This was statistically treated using Correlation Coefficient and p-value of significance. Hence, Table 19 presents the relationship between gadgets and the effects of gadgets.

Table 19
Relationship between the Gadgets and the effects of Gadgets

Relationship		Correlation coefficient (r_{rho})	*p*-value	Remark
Positive effects	Gadgets	.256	.000*	Significant
Negative effects		.255	.000*	Significant

Legend: r_{rho}=Spearman's rho, *means significant at .05 level of significance

As can be seen in Table 19, the gadgets were significantly related with the effects of gadgets. This was because, when tested at 0.05 level of significance, the Correlation Coefficient of positive effects .256, p-value of significance .000 which remark as significant and the negative effects .255, p-value of significance .000 which remark as significant. The findings imply that the relationship between the gadgets and the effects of gadgets have a significant relationship.

Relative to this findings, Tamayo and dela Cruz (2014), say that *"the current generation makes technology gadgets as their loyal companions and playmates especially when connected to the internet network."* Basically, the use of gadgets gives an immense benefit to students especially in learning. Many studies have stated that the positive effects of gadgets help that self-development of the students. Salmah and Malisah (2015) argue that the use of gadgets is an effective medium for education because it provides opportunities students' self-learning to be more innovative and creative.

In connection with this, Marpuah et. al. (2021) revealed that the use of gadget causes health problems to its users which is it is one of its negative effects. The radiation of gadget is what disrupts human health. Most gadgets show its front cover to its users and emit light. Studies found that if man is exposed to the gadgets for a long period of time, it can infer the physical health because of its radiation. Using gadgets like mobile phones is convenient in terms of communicating with others. In addition, the use of gadgets can make its users' body to always tired and sleep less. Lack of rest to the body can cause to feel unhealthy and from the fatigue as well, it is able to make feel tired to do leisure activities. Therefore, use of gadgets in its excessive way can cause health problem to its users. Moreover, the results of the study revealed that the majority of respondents stated that the use of gadgets causes them to forget their assignments and it causes them to sleep less also.

VIII. Proposed Action Plan for an Effective use of Gadgets as Learning Tools in Reading

Rationale: In our modern generation we can see that electronic gadgets are very useful everywhere. Gadgets have become familiar with human life in this era especially in education. In the field of education, it is helpful to students on their assignments, projects, and research work. Due to the outbreak of COVID-19 pandemic the world of education turned into a digital form. Through the use and functions of gadgets and applications, students and teachers can still communicate for learning purposes.

Objectives: To increase the use of gadgets in the curriculum and learning to meet the needs and enhance the reading skills of the learners, to engage the teachers, students, and parent through the digital form, to simplify creating, distributing, and grading assignments.

On the next page, it shows that proposed action plan for an effective use of gadgets as learning tools in reading.

Day/Time Frame	Specific Objective	Program/ App	Strategy	Persons Involve	Expected Outcomes
Whole school year	Students and teachers will be able to communicate through this platform	Google Classroom	Students and teachers will install the app to be able to communicate with each other	Teachers Students	Students and teachers will be able to reach out each other where learning occurs
Whole School Year	Students will be able to use their kinesthetic skills and teachers will be able to see the creativity of the students while the parents will be given a chance to see their child's output	SeeSaw	Students and teachers will install the app to be able to use their creativity skill	Teachers Students Parents	Students will be able to showcase their output to their teachers and to their parents
Whole School Year	Students will be able to enhance their reading, critical thinking and writing	Read Theory	Students will be given a passage wherein it will build their reading, critical thinking, and writing skills since this require reading comprehension	Teachers Students	Students will be able comprehend the given passage as they used their reading comprehension skills and critical thinking

The Proposed Action Plan for an Effective use of Gadgets as Learning Tools in Reading was shown in the previous page. The students and teachers will be able to use the gadgets to run or install the program or app.

Google Classroom is a platform which creates a classroom designed, easy to use tools to help the student and teacher manage classwork and learning. By using Google classroom, it allows educators especially the student and teacher to communicate in a paperless fashion. It helps and aids the teachers to post assignments, activities, organize individual student works and especially create a multiple class. Students can connect among peers and the teacher where learning occurs.

SeeSaw is an app that can be used by teachers to discover the creativity of the students. This platform allows students to draw, take pictures, record videos and create an online portfolio. Once the portfolio is complete, students and teachers may share to the parents via the internet.

Read Theory is an educational resource (program) for K-12 grade users that can be used at home or in the classroom to develop the reading, critical thinking and writing skills of the students. This online program for comprehension, assigns each student's assessments based on the level of their skill.

SUMMARY

This study aimed to determine the use of gadgets as a learning tool in reading of Senior High School learners amidst pandemic. Specifically, it sought to answer the following questions: 1. What is the profile of the respondents in terms of age, sex, civil status, grade level, track, strand, monthly allowance, and latest English grade? 2. What are the gadgets used in reading in terms of computer, laptop, tablet, mobile phone, iPad, television, e-books, and two-way radio? 3. What are the effects of gadgets as learning tools in reading in terms of positive and negative effects? 4. What are the applications available in the gadgets that enhance students' reading skills in terms of spelling, phonemic awareness, vocabulary building, and reading comprehension? 5. Is there a relationship between the gadgets and applications available? 6. Is there a relationship between the applications available with students' latest grade in English? and 7. Is there a relationship between the gadgets and effects of gadgets? 8. What action plan can be proposed for an effective use of gadgets as learning tools in reading?

This study was conducted at Al Bangsamoro Shari'ah and Professional Education College (ABSPEC), Ibn Siena Integrated School Foundation (ISISF), and Ranao Council – Al Khwarizmi International College (RC - AKIC), Marawi City in the school year 2021-2022. There were two hundred two (202) Senior High School respondents involved in this study. Survey questionnaire in soft and hard copies was employed as a major tool in collecting the data. Specifically, the survey questionnaire has four (4) parts. The first part is respondent's profile in terms of age, sex, civil status, grade level, track, strand, monthly allowance, and latest English grade. The second part is gadgets used in reading. The third part is the effects of gadgets as learning tools in reading in terms of its positive and negative effects. The fourth

part is the applications available in the gadgets that enhance students reading skills. The fourth part is the effects of gadgets as learning tools in reading.

Findings

After thorough data analysis and interpretation, the following findings were generated:

1.   Majority or 83.7% of the respondents' age ranges from 15-19 years old.
2.   Majority or 63.9% of the respondents were females.
3.   Majority or 97.0% of the respondents were single.
4.   Majority or 55.0% of the respondents were Grade 12 learners.
5.   All or 100.0% of the respondents were taking Academic track.
6.   Few or 36.6% of the respondents were under HUMSS strand.
7.   Few or 34.7% of the respondents have monthly allowance of below P500.
8.   Few or 34.7% of the respondents have a latest English grade of 86-90.
9.   For the gadgets used in reading; mobile phone (n=196, Mode=3) is always used, television (n=52, Mode=2), laptop (n=43, Mode=2), computer (n=24, Mode=2) are sometimes used, e-books (n=30, Mode 1), tablet (n=21, Mode 1), iPad (n=15, Mode=1), and two-way radio (n=14, Mode 1) are never used.
10.   Respondents display that the positive effects of gadgets as learning tools in Reading has a "high impact" with the mode of 4 because they are encouraged to develop their analytical skills, having more fun learning, can research topic easier, and can search for information anywhere.
11.   Respondents illustrate that the negative effects of gadgets as learning tools in reading has a "high impact" with the mode of 4 because they sleep less than usual.
12.   For the applications available in the gadgets that enhanced the students' Reading skills in terms of spelling: Word Search (n=91, Mode=3) is always used, Text twist (n=34, Mode=2) and Ultimate English Spelling Quiz (n=34, Mode=2), Scrabble (n=27, Mode=2), and Spell Mania (n=26, Mode=2) are sometimes used.
13.   For the applications available in the gadgets that enhanced their reading skills in terms of phonemic awareness are: English Grammar and Phonetics (n=61, Mode=2), English Phonetics and Vocabulary (n=45, Mode=2), English Phonetics – English Pronunciation, International Phonetic Alphabet (IPA) (n=25, Mode=2), Hear Builder (HB) Auditory Memory (n=21, Mode=2), and Phonemic Chart (n=20, Mode=20) are sometimes used.
14.   The applications available in the gadgets that enhanced their reading skills in Terms of vocabulary building are Wordscapes (n=86 Mode=2), 4 Pics 1 Word (n=68, Mode=2),   Vocabulary Builder (n=53, Mode=2), Word of the Day (n=41 Mode=2), and Pictoword (n=40, Mode=2) which are sometimes used.
15.   For the applications available in the gadgets that enhanced their reading skills. In terms of reading comprehension: English Grammar (n=105, Mode=3) is always used, Brain Out (n=34, Mode=2) is sometimes used, MangaToon- Manga Reader (n=65, Mode=1), Wattpad (n=55, Mode=1), and Elevate (n=17, Mode=1) are never used.

16. The relationship between the gadgets and applications available (Correlation Coefficient (r_{rho}) = 30.372, p-value = .000) revealed that there is significant relationship in terms of spelling.

17. The relationship between the applications available and latest English grade (Correlation Coefficient (r_{rho}) = 13.318, p-value = 0.38) revealed that there is significant relationship.

18. The relationship between the gadgets and effects of gadgets in terms of positive effects (Correlation Coefficient (r_{rho}) value = .256, p-value = .000) and negative effects (Correlation Coefficient (r_{rho}) value = .255, p-value = .000) revealed that there is significant relationship.

CONCLUSIONS

Based on the findings that were obtained in this study, the researcher concluded that the mobile phone is always used as the gadget used in reading. The effects of gadgets as learning tools in reading in terms of its positive effects has a high impact as learners are encouraged to develop their analytical skills, having more fun learning, can search topic easier, and can search for information anywhere while its negative effects has a high impact also as they sleep less than usual. The applications available in the gadgets that enhance their reading skills, Word Search is always used for spelling, in terms of phonemic awareness, English Grammar, English Phonetics and Vocabulary, English Phonetics – English Pronunciation, International Phonetic Alphabet (IPA), Hear builder (HB) Auditory Memory and Phonemic Chart are sometimes used, Wordscapes, 4 Pics 1 Word, Vocabulary Builder, Word of the Day and Pictoword are sometimes used for vocabulary building, in terms of reading comprehension, English Grammar is always used. There was a significant relationship between the gadgets and the applications available. There was a significant relationship between the applications available in the gadgets with their latest English grade. And there was also a significant relationship between the gadgets and the effects of gadgets.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are suggested:

For School Administrators. They may implement the integration of the gadgets, where it can enhance the reading skills of the learners as learning tools in reading.

For Teachers. As facilitators of learning, teachers should use another strategy especially method in teaching. They may use gadgets as an as an alternative way to teach for instructional tool such as in reading where they could use a strategy to improve learners reading performance.

For Learners. It is recommended that learners should be aware on the use of gadgets as learning tools in reading to enhance their reading skills where in their spelling, phonemic awareness, vocabulary building and reading comprehension could improve and develop through the use of gadgets and its available applications.

For Future researchers. It is suggested that future researchers conduct similar research using other kinds of application that the students can use for the learning process. Another research should be conducted as follow-up study to investigate further the impact of gadgets in learning and they can use this study for references.

REFERENCES

Agustini, S., Wardhani, N., Kurniawan, M., & Amalina, E. (2018). *Mobile application for English reading comprehension.*
https://www.researchgate.net/publication/330316357_Mobile_Application_for_English_Reading_Comprehension

Al-Furqon, A. (2017). The effect of word search puzzle game in teaching vocabulary to the first grades of SMPN 3 Proppo. *Journal of English Teaching, 5*(2), 101–108. https://www.researchgate.net/publication/327343802_The_Effect_Of_Word_Search_Puzzle_Game_In_Teaching_Vocabulary_To_The_First_Grades_of_SMPN_3_Proppo

Balbaguio, L. (2020). *Effects of electronic gadgets on the academic performance of senior high school students* (Unpublished thesis). Ardemil National High School, Iloilo, Philippines.

Chatterjee, M., Saha, S., & Jha, M. (2020). Transitioning classes into electronic gadgets: Life of students in lockdown. *Down To Earth*. https://www.downtoearth.org.in/blog/health/transitioning-classes-into-electronic-gadgets-life-of-students-in-lockdown-72962

Demir, K., & Akpinar, A. (2018). The effect of mobile applications on students' academic achievement and attitudes toward mobile learning. *Malaysian Online Journal of Educational Technology, 6*(2).

Fauzi, I. (2018). The impact of mobile gadgets in EFL learning: Perceptions of EFL undergraduates. *Journal of English Language Teaching, 6*(1).

Harrison, M. (2015). *Increasing phonemic awareness in kindergarten students: Using iPads in language arts centers* (Master's thesis). Graduate Capstones and Culminating Projects, Paper 163.

Harrison, R., Flood, D., & Duce, D. (2013). Usability of mobile applications: Literature review and rationale for a new usability model. *Journal of Interaction Science, 1*(1).

Harynato, D. (2019). Analysis of utilization of gadgets as effective learning media in education to improve student learning achievement. *KnE Social Sciences*. https://www.knepublishing.com/index.php/KnE-Social/article/view/4671/9402

Hastuti. (2018). *Utilizing Learn English Grammar mobile application in improving students' grammar at SMP Negeri 14 Palopo* (Unpublished thesis). State Institute of Palopo.

Hysing, M., Pallesen, S., & Sivertsen, B. (2015). Sleep and use of electronic devices in adolescence: Results from a large population-based study. *BMJ Open, 5*(1). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4316480

Ingram, N. (2020). *The use of e-books, computers, and tablets to enhance reading skills* (Doctoral dissertation). Kennesaw State University.

Keumala, M., Yoestra, M., & Putri, Z. (2018). The impacts of gadgets and internet use on the implementation of character education in early childhood. *Graduate Program of English Education*, Universitas Syiah Kuala.

Kimmons, R. (2018). Technology integration: Effectively integrating technology in educational settings. In *The K–12 educational technology handbook*. EdTech Books. https://edtechbooks.org/k12handbook/technology_integration

Klimova, B., & Zamborova, K. (2020). Use of mobile applications in developing reading comprehension in second language acquisition. *Education Sciences*, *10*(12), 391. https://www.mdpi.com/2227-7102/10/12/391

Kumar, M. (2011). Impact of evolution of smartphones in educational technology and its application in technical and professional studies: Indian perspective. *International Journal of Managing Information Technology*, *3*(3), 39–49.

Lee, H. (2018). *Positive and negative effects of gadgets on students* (Unpublished thesis). Buenavista National High School. https://pdfcoffee.com/positive-and-negative-effects-of-gadgets-to-the-student-pdf-free.html

Lutfiani, D. (2018). *The use of gadgets on students' habits in English language learning at SMA An-Najiyah Surabaya* (Unpublished thesis). Universitas Islam Negeri Sunan Ampel Surabaya.

Ma, X., & Yodkamlue, B. (2019). *The effects of using a self-developed mobile app on vocabulary learning and retention among EFL learners* (Unpublished thesis). Nakhon Ratchasima, Thailand.

Macaraeg, L., & Briones, B. (2020). E-gadget management of senior high school students at Cuyapo West District. *Asian Journal of Multidisciplinary Studies*, *(3)*.

Marpuah, S., Wan, A., Kirin, A., Mahmudah, U., & Normawati, S. (2021). The implications of modern technology (gadgets) for students' learning development in university. *Turkish Journal of Computer and Mathematics Education*, *12*(2), 588–593.

Menorca, J., Idos, G., Manangan, R., & Patacsil, J. (2017). *The impact of gadgets in learning among Grade 11 students*. Urdaneta City National High School.

Twu, M.-L. M. (2017). *Examining the influence of educational mobile application software on students' technology literacy* (Doctoral dissertation). University of Houston–Clear Lake.

Othoman, N., Kelana, M., & Jamaludin, T. (2020). The impact of electronic gadget use on academic performance among secondary school students. *Research Article*, *(2)*.

Saleh, A. (2019). *Using Wordscapes game as a tool to develop EFL learners' vocabulary repertoire*. Al-Mustansiriyah University.

Septiani, E. (2018). *The correlation between grammar mastery and reading comprehension achievement of eighth graders at SMP Negeri 13 Palembang* (Unpublished thesis). Sriwijaya University.

Talosig, G., Lardera, M., Sarmiento, S., & Macabadbad, R. (2018). E-gadgets of Generation X and millennials: Their social life. *International Journal of Advanced Research in Management and Social Sciences*.

UNESCO. (2020a). *COVID-19 crisis and curriculum: Sustaining quality outcomes in the context of remote learning*. UNESDOC Digital Library. https://unesdoc.unesco.org/ark:/48223/pf0000373273

Yonanda, A. (2019). The effect of gadget use in the learning process in Muhammadiyah 1st Senior High School Surakarta. https://publikasiilmiah.ums.ac.id/handle/11617/11168

Zickuhr, K. (2011). *Generations and their gadgets*. Pew Research Center. https://www.pewresearch.org/internet/2011/02/03/generations-and-their-gadgets/