DEVELOPMENT AND EVALUATION OF DIGITAL STORYTELLING ON LISTENING COMPREHENSION FOR KINDERGARTEN PUPILS

AMOR F. LONIZA

SULTAN IDRIS EDUCATION UNIVERSITY

2020

DEVELOPMENT AND EVALUATION OF DIGITAL STORYTELLING ON LISTENING COMPREHENSION FOR KINDERGARTEN PUPILS

AMOR F. LONIZA

THESIS PRESENTED TO QUALIFY FOR A DOCTOR OF PHILOSOPHY

NATIONAL CHILD DEVELOPMENT RESEARCH CENTER
SULTAN IDRIS EDUCATION UNIVERSITY

2020

Please tick (√)
Project Paper
Masters by Research
Master by Mixed Mode
PhD   √

INSTITUTE OF GRADUATE STUDIES

DECLARATION OF ORIGINAL WORK

This declaration is made on the 22nd day of March 2021.

i.   Student's Declaration:

I, AMOR F. LONIZA, P20161000120, NATIONAL CHILDREN DEVELOPMENT RESEARCH CENTRE Hereby declare that the work entitled DEVELOPMENT AND EVALUATION OF DIGITAL STORYTELLING ON LISTENING COMPREHENSION FOR KINDERGARTEN PUPILS is my original work. I have not copied from any other students' work or from any other sources except where due reference or acknowledgement is made explicitly in the text, nor has any part been written for me by another person.

Signature of the student

ii.   Supervisor's Declaration:

I, ASLINA BINTI SAAD, hereby certifies that the work entitled DEVELOPMENT AND EVALUATION OF DIGITAL STORYTELLING ON LISTENING COMPREHENSION FOR KINDERGARTEN PUPILS was prepared by the above named student, and was submitted to the Institute of Graduate Studies as a * partial/full fulfillment for the conferment of Doctor of Philosophy in Special Education, and the aforementioned work, to the best of my knowledge, is the said student's work.

15.04.2021
Date

Signature of the Supervisor

UNIVERSITI PENDIDIKAN SULTAN IDRIS

اونيۏرسيتي ڤنديديقن سلطان ادريس

SULTAN IDRIS EDUCATION UNIVERSITY

INSTITUT PENGAJIAN SISWAZAH /
INSTITUTE OF GRADUATE STUDIES

BORANG PENGESAHAN PENYERAHAN TESIS/DISERTASI/LAPORAN KERTAS PROJEK
DECLARATION OF THESIS/DISSERTATION/PROJECT PAPER FORM

Tajuk / *Title*:   DEVELOPMENT AND EVALUATION OF DIGITAL STORYTELLING ON LISTENING COMPREHENSION FOR KINDERGARTEN PUPILS

No. Matrik /*Matric's No.*:   P20161000120

Saya / *I* :   AMOR F. LONIZA

(Nama pelajar / *Student's Name*)

mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek (Kedoktoran/Sarjana)* ini disimpan di Universiti Pendidikan Sultan Idris (Perpustakaan Tuanku Bainun) dengan syarat-syarat kegunaan seperti berikut:-
acknowledged that Universiti Pendidikan Sultan Idris (Tuanku Bainun Library) reserves the right as follows:-

1. Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UPSI.
   The thesis is the property of Universiti Pendidikan Sultan Idris

2. Perpustakaan Tuanku Bainun dibenarkan membuat salinan untuk tujuan rujukan dan penyelidikan.
   Tuanku Bainun Library has the right to make copies for the purpose of reference and research.

3. Perpustakaan dibenarkan membuat salinan Tesis/Disertasi ini sebagai bahan pertukaran antara Institusi Pengajian Tinggi.
   The Library has the right to make copies of the thesis for academic exchange.

4. Sila tandakan (√) bagi pilihan kategori di bawah / *Please tick (√) for category below:-*

☐ **SULIT/*CONFIDENTIAL***   Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972. / *Contains confidential information under the Official Secret Act 1972*

☐ **TERHAD/*RESTRICTED***   Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan. / *Contains restircted information as specified by the organization where research was done.*

☐ **TIDAK TERHAD / *OPEN ACCESS***

_____
(Tandatangan Pelajar/ Signature)

Tarikh: 15·04·2021

(Tandatangan Penyelia / *Signature of Supervisor*)
& (Nama & Cop Rasmi / *Name & Official Stamp*)

ASSOC. PROF. DR. ASLINA SAAD
Department of Computing
Faculty of Art, Computing and
Creative Industry
Universiti Pendidikan Sultan Idris
35900 Tanjong Malim Perak

Catatan: Jika Tesis/Disertasi ini SULIT @ TERHAD, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan ini perlu dikelaskan sebagai SULIT dan TERHAD.

Notes: If the thesis is CONFIDENTAL or RESTRICTED, please attach with the letter from the organization with period and reasons for confidentiality or restriction.

ACKNOWLEDGEMENT

ABSTRACT

This study aimed to develop and evaluate the Kindergarten Digital Storytelling (KiDS) material designed for early childhood education learners to improve their language listening comprehension skills. A mixed methods research with a quantitative approach to analyze the effectiveness of the KiDS and a qualitative approach consisting of interview and observation to further validate the quality of the developed materials was used. The ADDIE (analysis, design, development, implementation, evaluation) model was applied as a guideline in conducting the study. Based on the experts' evaluations, it was revealed that the material had a very high acceptability level in terms of its content, technical, and aesthetic qualities. Furthermore, the contents of the developed learning material were anchored primarily on the language listening comprehension strategies for kindergarten pupils, composing of contextualized lessons (written in the mother tongue, used local information), along with its digitized features. The effectiveness of the KiDS material for language learning comprehension was evaluated using a t-test with pre-test and post-test. The result of the independent sample t-test showed that there was a significant difference between the means of the post-test of the experimental group (M=14.04; SD = 1.27) and the control group (11.2; SD=2.25), resulting in a 2.84 mean difference. Additionally, the result of the paired t-test revealed that there was a significant difference between the experimental group's post-test mean scores of 14.04 from the pre-test mean score of 9.06. It can be concluded that the KiDs material that has been developed is not only effective but also essential as a teaching tool in developing the language listening comprehension skills of the learners. Thus, the use of KiDS material is recommended to make language learning more interesting. The implication of this research is that teachers should devise learning material that appeals to the learners in language learning. School administrators should also support the usage of technology-assisted learning material towards promoting globalized learning to achieve 21st-century education.

ABSTRAK

Kajian ini bertujuan untuk membangunkan dan menilai bahan Cerita Digital Tadika (KiDS) bagi murid pendidikan awal kanak-kanak untuk meningkatkan kemahiran pemahaman mendengar bahasa. Suatu kaedah penyelidikan campuran dengan pendekatan kuantitatif telah digunakan untuk menganalisis keberkesanan KiDS dan pendekatan kualitatif yang terdiri daripada temu bual dan pemerhatian untuk mengesahkan lagi kualiti bahan yang dibangunkan. Model ADDIE (analisis, reka bentuk, pembangunan, pelaksanaan, penilaian) digunakan sebagai panduan dalam menjalankan kajian ini. Berdasarkan penilaian para pakar, tahap penerimaan KiDS adalah sangat tinggi dari segi kandungan, teknikal, dan kualiti estetiknya. Kandungan bahan pembelajaran yang dibangunkan sangat berkaitan dengan strategi pemahaman mendengar bahasa untuk murid-murid tadika, terdiri daripada pembelajaran mengikut konteks (ditulis dalam bahasa ibunda dan menggunakan maklumat tempatan) bersama dengan ciri-ciri digital. Keberkesanan bahan KiDS untuk pemahaman pembelajaran bahasa dinilai menggunakan ujian-t (ujian pra dan ujian pasca). Hasil ujian-t sampel bebas menunjukkan bahawa terdapat perbezaan yang signifikan antara min bagi ujian pasca kumpulan eksperimen (M = 14.04; SD = 1.27) dan kumpulan kawalan (11.2; SD = 2.25), dengan perbezaan min 2.84. Selain itu, hasil ujian-t berpasangan menunjukkan bahawa terdapat perbezaan yang signifikan antara skor min ujian pasca kumpulan eksperimen sebanyak 14.04 daripada skor min ujian pra 9.06. Dengan ini dapat disimpulkan bahawa bahan KiD yang telah dibangunkan bukan sahaja berkesan, malahan penting sebagai alat pengajaran dalam meningkatkan kemahiran pemahaman mendengar pelajar. Oleh itu, penggunaan bahan KiDS disyorkan untuk menjadikan pembelajaran bahasa lebih menarik. Implikasi dari penyelidikan ini adalah bahawa guru harus merangka bahan pembelajaran yang menarik minat pelajar dalam pembelajaran bahasa. Pentadbir sekolah juga harus menyokong penggunaan bahan pembelajaran berbantukan teknologi untuk mempromosikan pembelajaran global bagi mencapai pendidikan abad ke-21.

TABLE OF CONTENTS

5.7   Recommendation for Future Works

REFERENCES

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

ADDIE	Analysis, Design, Development, Implementation and Evaluation
DEpEd	Department of Education
DST	Digital Storytelling
ECE	Early Childhood Education
EFA	Education for All
ICT	Information and Communications Technology
K-12	Kindergarten to Grade 12
KiDS	Kindergarten Digital Storytelling
LAD	Language Acquisition Device
MTBMLE	Mother Tongue Based Multilingual Education
NELF	National Early Learning Framework
RA	Republic Act
TOS	Table of Specification
UNESCO	United Nations Educational Scientific and Cultural Organization
VARK	Visual, Auditory, Reading, and Kinesthetic

APPENDIX LIST

A1	Letter to the superintendent
A2	Letter to the supervisor
A3	Letter to the school principal
A4	Letter to the teachers
A5	Appointment letter
A6	Letter to the validators
A7	Letter to the publisher
A8	Letter to the author
B	Interview questionnaires
C1	Validation instruments
C2	Evaluation of the validation instruments
D1	Table of specification
D2	Pre-test and post-test
E1	Language listening comprehension lesson 1
E2	Language listening comprehension lesson 2
E3	Language listening comprehension lesson 3
E4	Language listening comprehension lesson 4
E5	Language listening comprehension lesson 5
F	Teacher's interview transcript
G	Documentation
H	Development of KiDS Material
I	KiDS material (CD)

CHAPTER 1

INTRODUCTION

1.1 Introduction

In today's information age, various form of digital media production has become quite common approaches used in educational system. As there has been an increasing demand in using technology in the classroom, there is also a need to further increase and improve the convergence of using instructional material in facilitating the teaching and learning process. Hence, learners need more learning materials that will help them understand the lesson better and at the same time, become more attentive and motivated in their learning. Instructional materials play a vital role in the teaching and learning process at various levels of education, especially in kindergarten level where strong foundation is needed.

In school, multimedia materials are commonly used as a common medium for transfer of learning. It is also used as an innovative tool and has become one of the highlights of today's teaching. Being widely used in the teaching-learning process, multimedia has conquered the heart and soul of the learners. Thus, learners' interest and attentiveness have increased and deepened, making them more active and participative in class. There were numerous beliefs that the changing scene requires the inputs from the structure and culture of the schools and the classrooms as well, alongside with what educators do teaching. Likewise, teachers find multimedia more relevant as they go along using it. Researchers have also revealed the impacts of using technology in teaching.

The need for these technologies was brought out by various research literature highlighting their significance in increasing learning experiences and producing better student learning outcomes. This significance is not only exclusive to a particular learning group but also transcends to early childhood education learners (Sarrab & Aldaabbas, 2012). For many years, technology has brought out massive reformation in the field education. It corresponds to what Martin, Roldan-Alvarez, Haya, Fernandez-Gaulles, Guzman and Quintanar (2019) stressed. According to the group of researchers, technology helped early childhood learners become more motivated and achieved better learning results. Similar to what Kelly-Williams, Berson and Berson (2017), multimedia technology helped improve quality of early childhood education. It is a great movement for better and more improved instruction especially for the young minds. It is also the main reason why educators have integrated technology with the curriculum and made it a tool for instruction.

Among these educational technologies, digital story telling is one of the topmost outputs that helped shape the world of learning among early childhood learners. It serves as an innovative pedagogical approach to engage learners towards meaningful learning development (Smeda, Dakich & Sharda, 2014). Even though digital storytelling has been practiced for more than two decades, a limited amount of research has been conducted on this technology (Robin & McNeil, 2012). In fact, this carried out development and progress to the academic development, attitudes towards learning, and learning efficacy to its learners receiving instruction from such learning medium (Kotluk & Kocakaya, 2017). It also brought promising strategy to achieve high quality reflection for learning in different levels (Hamilton, Rubin, Tarrant & Gleason, 2019). Therefore, further study needs to be done to examine the feasibility of using digital storytelling in kindergarten learners. This level of learning studies is a great deal since it serves as a foundational stage in one's life development. Among its foundational components, it is critical to see how this type of learning media can help to increase learning efficacy on learners' language listening comprehension and achievement.

With developing the listening comprehension skills of the learners, it can further bring learning development among early childhood learners. It is important to help kindergarten pupils learn more and develop foundations for their learning through their listening comprehension (Koops & Wendt, 2019; Lyndon, Bertman, Brown & Pascal, 2019). Aside from foundational development concerns, Cigerci and Gultekin (2017) mentioned in their research that listening plays an important role in individuals' day-to-day undertakings as well as learning activities. Thus, the proficiency of the pupils is obtained and developed naturally at the very early years of

their lives. Hence, the children can understand, synthesize, evaluate more efficiently what they listened to if they are taught effectively on their own spoken language.

Moreover, The Curriculum Planning and Development Division of Singapore (2010) emphasized the importance of the learner's receptive and productive skills in such a way that viewing must support listening and reading. Thus, instructional materials must be properly selected and organized to give opportunities for children develop their language and proficiency in a playful and enjoyable context (Van Scoter, Ellis & Railsback, 2011). It is also evident in the studies of Duncan, Cunningham and Eyre (2019), Cocuk and Yanpar Yelken (2018), and Yamac and Ulusoy (2016) who believed that digital stories could prove to be very useful in developing children's language and listening comprehension skills.

Teaching language learning to youngsters is a fundamental component of their development. It can be effectively aided by the use of instructional technologies to make it more effective and meaningful. However, Cigerci and Gultekin (2017) cited that in teaching language education, very few use digital stories in teaching mother tongue. The researchers found out the necessity to conduct further study about how digital stories help to improve various language skills of the young learners on their own spoken language. Teachers' lack of understanding on the essential components of implementing digital stories in early childhood development classrooms also hamper its full potential to further help teachers and learners (Christiansen & Koelzer, 2016).

Since language learning is further intensified in story telling activities, it is

therefore needed in providing strong foundation for first language development (Lucarevschi, 2016). In particular, young learners show positive response on utilizing storytelling strategies to help them gain effective acquisition of their native and even second languages (Ali Isik, 2016). Hence, it can be geared that mother tongue language development can be also effectively achieved through introducing digital storytelling in classroom instruction.

In the Philippine education context, there is a challenge posed for the sufficiency of learning materials, particularly for language listening development, for the mother tongue of early childhood learners. Cruz (2015) noted that there should be learning materials, particularly dedicated for storytelling, in early childhood classrooms. Bueno and Bueno (2016) also recommended for sufficient and multidisciplinary mother tongue-based learning materials that will help teachers in their effective classroom instruction. This will pave the way for effective instruction specifically improving listening comprehension of early childhood learners in the country.

With the surfaced situation, this study aims to design and develop suitable digital storytelling for kids named as Kindergarten Digital Storytelling, which will be known as KiDS material, and to analyze the effectiveness of the material on the language listening comprehension of the pupils. To meet this purpose, the study employed ADDIE model. Further, this study would help the teachers and researchers gain a deeper understanding on Digital Storytelling processes involved in children's mother tongue that is pedagogically, theoretically and practically sound. The teacher

shall also be more aware on how they would make an advance technique of teaching and learning process.

1.2 Background of the study

For about many decades and since the time of American regime up to the 2011, the Philippine Educational system has been changed. It tries to look on the curriculum, which will help the Filipino youth to be better educated and became globally competitive to compete with graduates from other countries. Throughout the years, the country is continuously developing in education from the very first establishments of the schools and the curriculum and up to now the administration is continuously seeking for the betterment of the educational system in the country.

Just within the decade, the Philippines was able to massively reform its education system. It has already introduced its K to 12 Enhanced Basic Education Program through the enactment of RA 10533 also known as the Enhanced Basic Education Act of 2013. This law envisions to provide a complete, adequate and integrated education system with quality and responsive education and towards lifelong learning and employment. It has mandated transformation from its curriculum, delivery, learning resources, and assessment. Under curriculum and program delivery aspect, kindergarten education is mandated as a compulsory first stage of basic education in the country. This was institutionalized through the enactment of RA 10157 also known as the Kindergarten Education Act. The law mandates that five-year-old Filipinos received free, mandatory and compulsory kindergarten education among public schools in the country. This law was further magnified by the former

since it requires Filipino learners to take kindergarten as a prerequisite in moving to Grade 1 serving as its preparatory education. Moreover, the law aims to provide strong learning foundation among early childhood pupils for them to be able to transition from social deployment progression to academic learning as they start their first grade in elementary.

These laws have mandated for a comprehensive education reform that will help teachers and learners bring all out the best for them. Even in the K to 12 Law, it recognized that the curriculum and its delivery need to be contextualized to suit in the needs of its learners. In terms of language comprehension and development, the law even mandated to craft learning resource that addresses appropriate language development. This includes development of mother tongue learning resources that will fit in the needs of the learners.

Correspondingly, both the former and current education chiefs have cited their intent on empowering learning resource, including language development of learners, through the use of technology. Former Education Secretary Armin Luistro noted that the government is banking its resources to provide appropriate technologies to create better learning opportunities and improve access to education (Luistro, 2014). In the same way, current Eduation Secretary Leonor Briones also noted the significance of technology to learning delivery as it serves as platform where everything can be integrated (Geronimo, 2016). These show how education leaders put premium in utilizing technology for classroom learning. Similarly, local studies also noted how classroom learning technologies are critical in promoting classroom instruction. Carbonilla Gorra and Bhati (2016) cited that there is a need to optimally integrate

technology in Philippine classrooms to further aid teaching effectiveness. Utilizing such learning medium can help improve instructional quality (Cacayan, Tenorio & Bautista, 2017) and teaching efficacy (Mores & Zamora, 2010). Moreover, studies in the locale have both cited the need and the significance of utilizing technology in providing meaningful learning resource to basic education learners as it helps teachers facilitate effective instruction and engage learners in more active learning experience (Villenes, Villenes & Alcaraz, 2018; Villenes, 2017a).

With the aforementioned situations, it is therefore needed to maximize utilizing learning resource for language learning and development particularly to early childhood development. More importantly, developing their listening comprehension can be achieved through integrating technology and utilizing their own mother tongue language. Among technology integration mechanisms in developing language listening comprehension in youngsters, digital storytelling is one of the most effective medium in achieving its intended pinnacle.

Digital storytelling is an audio-visual clip that is usually a 2 to 5-minute presentation composed of colorful photographs or graphic arts, voice-over narration, and other audio inputs (de Jager, Fogarty, Tewson, Lenette & Boydell, 2017). It is intended to provide community development and artistic sense to classroom learning that outweighs its disadvantages as it notes more positive effects to students' learning. Commonly described as art-based method, digital storytelling is also significant in capturing meaningful contextualization as it may incorporates participants' lived experiences as part of their learning (Rigger et al., 2018). Further, it served as a meaningful approach for creating a constructivist learning environment that enhances

student engagement and education outcomes (Smeda, Dakich & Sharda, 2014). This teaching technique is also significant in applying to most subjects particularly in language learning (Hsu, 2013).

With digital storytelling, it combines the traditional storytelling activity and use of multimedia technology to deliver the target learning message to its intended audience (Normann, 2011a). Utilizing this kind of educational technology is viable in today's classroom and basically, teachers have access from most of it (Hsu, 2013). It aids teachers in effectively narrating stories with visuals and audios that further create aesthetic sense for its intended audience.

Mostly, teachers showed positive attitude towards utilizing digital storytelling in classroom (Hsu, 2013). It served as their teaching tool that also improves their technological skills, technical competency, and information literacy. Furthermore, it facilitates communication through visual media rather than just simple word articular alone. It provides deeper learning for learners in all fields as it provides suitable opportunities for developing learning (Jantakoon, Wannapiroon & Nilsook, 2019). It also encouraged for more learning interaction among storytellers and learners (Lewis Ellison & Wang, 2018). With digital storytelling, it helps teachers apply more active learning strategies that create more engaging environment in the class (Rimando, Smalley & Warren, 2015). It eases to communicate ideas, experiences and beliefs of the topic through the use of multimedia technology that helps create a personal voice and interpretation as shared in the classroom community (Hartsell, 2017). These only provide the proof how critical digital storytelling is in providing meaningful learning among children. On the other hand, teacher shall benefit from these aspects as it helps them become more effective and efficient in classroom instruction.

Correspondingly, literacy development can be enhanced through the use of digital storytelling (Prins, 2017). It is crucial to bring literacy development in early childhood classrooms as it served as the foundational learning throughout their life. Also, literacy development corresponds to language development acquisition of learners. This teaching approach also helps develop different skills and literacies necessary for learners' progress and growth (Hartsell, 2017). Aside from critical literacies, it also aids cultural development to be able to relate more with students' perspectives and backgrounds (Ruppert, Adcock & Crave, 2017). In this aspect, it shows that language development can progress completely through digital storytelling as it helps out literacy and cultural development.

With these notions, developing listening comprehension for language acquisition if learners, particularly those in early childhood spectrum, can be effectively aided by digital storytelling. This teaching approach supports literacy development in early childhood education that increases children's literacy skills (Maureen, van der Meij & de Jong, 2018). In expanding the view point of literacy development, this also includes language development, even in forms of reading, writing, speaking or listening (Zolfaghari & Ahmadi, 2016; Lombard, 2016; Wong, 2018). Moreover, it assists teachers in providing appropriate technological tools in children's learning environment (Yuksel-Arslan, Yildirim & Robin, 2016). In this sense, it contributes to preparing effective teaching approach that can yield more positive result in early childhood instruction.

Philippine classrooms have also noted that using storytelling strategies provide

meaningful results in improving literacy, particularly language development, among learners. The work of Alaya-ay (2012) has underscored the importance of conveying stories through video in improving literacies among primary learners in rural communities. The research has also used bilingual approach that highlights the significance of their mother tongue in providing meaningful literacies to the learners. Academic achievements are seen in this storytelling innovation and learners have cited its significance in developing their native language. Moreover, storytelling in Philippine classrooms is relevant in the context of viewing it in an authentic and unique way of learning process (De La Cruz, 2015). Utilizing digital literacies also provide an increased learning attitude to learners (Alag, Sering & Limjuco, 2016). In this sense, it shows how digital storytelling can affect student learning among early childhood learners. This further depicts how it can improve more language development with the presented studies as it brings authentic and meaningful learning experiences.

On the other hand, the aforementioned positive points are challenged with the existing condition of listening comprehension for language development in Quezon province. Reading profile data of DepEd Division of Quezon shows that there are 35,146 learners who are under frustration levels (Evardome, 2019). These vast numbers of learners in primary school show that there is a need for language development among youngsters in the locale. Further, the report highlighted that listening comprehension affects the reading development of learners as they fail to show understanding and analysis of information that they have taken in. These challenges critically affect language development among children that affect teachers in facilitating optimum learning.

However, in these levels, mother tongue as the first language of the learners is their primary mode of instruction. This aspect shows both advantage and disadvantage in the development of learners' language listening comprehension. Namanya (2017) noted that utilizing their first language helped them learn much from it but is challenged in learning the second language. In the same way, utilizing their first language also affect students' grammar awareness, vocabulary development, and even reading comprehension (Cruz, 2015). Yet, teachers still believe that the introduction of the policy in utilizing the mother tongue language of the learners can help them teach and bring more meaningful learning experiences in the classroom (Wa-Mbaleka, 2014). This shows that it is critical to utilize learners' first language in promoting language listening comprehension. It should also be noted that knowing its loopholes can be used as input in its planning to mitigate its expected side effects.

In kindergarten curriculum, storytelling is a global culture depicting the way people live, feel, and interact in life. Storytelling, especially in early childhood springs naturally in children's play helping children exercise a great variety of skills. For children, storytelling, and dialogue are an essential component of their early lives that introduce children to the initial stages of communication and literacy. Likewise, it also helps them to share experiences and feelings in an entertaining way and engaging manner (Choi, 2018; Brailas, 2017; Wang, 2010; Huffaker, 2004). This only means that storytelling is not just simply part of the daily lesson plan among teachers but it is an innovative tool, which will help the learners to fully understand the lesson. In storytelling children begin to create imagination and visualize things and develop critical thinking. Even before, most of the users have emphasized the importance of

digital storytelling in language teaching and learning (Brenner, 2014; Robin, 2016; Gregori-Signes, 2008; Robin, 2006). Based on the mentioned, literature it simply shows how digital storytelling affects the language listening comprehension of the learners. It also proves that storytelling is one of the effective ways in teaching language.

Today, the ICT's importance in society and possibly in the future of education, identifying the possible obstacles to the integration of these technologies in schools, would be an important step in improving the quality of teaching and learning. The emergence of the new curriculum comes with the advancement of strategies and teaching devices and materials as well. Eventually, this change affected the ways of teaching strategies and processes. Furthermore, the occurrences of adjustments and adaptations lead to various developments in teaching strategies, which are now encouraged in every part of the country. In addition, majority of the studies have not found   any potential negative impact of the use of storytelling on language learning. Consequently, giving us the impression that it is a pedagogical instrument that only brings positive contribution to language listening comprehension.

It can be clearly seen that storytelling will be more effective if especial attention shall be given to the integration and application of technology in education specifically in the teaching and learning process. According to Ramirez-Verdugo and Belmonte (2007), one of the fields in which technology is utilized is in language teaching. Stories evoke children's imaginary world and develop vocabulary, reading, speaking, listening, and writing skills in both mother tongue and foreign language education. In the same manner digital stories, a way of expressing stories by using

technology, are effective tools for developing students' listening skills.

It is therefore imperative that teaching and learning process in language should be designed in such a way that they can capture the interest of the learners, driving them listen and understand the lesson. Moreover, it is important to use variety of teaching materials suitable to the learning needs of the children. To make learners active listeners and develop their listening comprehension enjoyable listening activities with colorful and attractive materials must be provided during engagement period.

Further, Adams (2008) stressed that early childhood education is the key to building a strong foundation for a child's educational success. Young children learn habits and form patterns that are not easily changed in later years. If parents and educators are able to establish good habits and develop productive patterns of behavior among children in their charge, the children are likely to achieve great educational success (Adams, 2008). Eventually local educators would certainly agree to such statement.

To clarify the problems and instructional needs of the kindergarten pupils, the researcher distributed questionnaire to the teachers of kindergarten as preliminary interview. Based on the results of preliminary interview, respondents revealed that children enjoy stories about animals and stories with songs. Thus, teachers in kindergarten must be able to provide children a well-presented storyboard to develop and sustain their interest.

In addition, with the integration of ICT in the educational system as mandated by DepEd Order No. 78, s 2010, the learners have begun to experience the use of ICT in the classroom while teacher have found access to instructional materials of help in making the use of storytelling effective in developing the language and comprehension skills of the learners.

It is therefore clear, as revealed from the readings and preliminary interview that the need for an advance tool for teaching and learning a language will help develop and enhance learners' language listening comprehension. Teachers can efficiently carry out their teaching objectives and make teaching effective to the learners. These can be achieved through the use of technology.

1.3 Problem statement

Language acquisition basically commences with listening as briefly described by Renukadevi (2014), Yildrim and Yildrim (2016), and Turkish Ministry of Education (2009). Through listening, learners are provided a basis for the other skill areas that enable perform the act of learning. It is also noted that listening is the only comprehension skill used by individuals at the very early age, before they learn to read and write. Consequently, with its long history, from the readings of analog, phonograph, through the era of the audiotape, and into the realm of digital (Wagner, 2007), listening comprehension has been the focus of storytelling activity in the classroom.

However, the Philippine Educational System still faces many challenges

especially today that the new curriculum is being implemented. Some of these are the facilities and materials, which are important in the teaching and learning process. This statement is currently happening especially in the public schools since the materials, the facilities and the computers provided by the department are very limited Nolasco (2010). He also mentioned that the absence of digital story telling as instructional materials for kindergarten is another problem of the educational system (Nolasco, 2010). Consequently, while essential technology is currently accessible in the classroom, digital storytelling has not been fully recognized as a valuable tool for developing student's learning skills and achieving 21st century learning outcomes (Milley, 2009).

To some extent, traditional storytelling and the application of computer technology in education have followed different paths to date (Banaszewski 2005). Thus, there is a need to integrate technology in the teaching of language inside the classroom. As Nolasco (2010) mentioned in his study, the most evident ramifications in the move of educational programs are the absence of instructional materials. Such statement becomes very alarming to the teacher and appears to be one of the problems that hamper effective teaching.

However, a strong emphasis is given to the need to develop Technologically Based Instructional Material that utilizes the use of the first language in the kindergarten (Pinon, 2016). This need is further heightened by the fact that only 14 countries have confirmed their active engagement in digital storytelling for educational purposes (Yuksel et al., 2009). The Philippines however being not included in the list, has now become concerned of using digital storytelling in

developing leaners' comprehension and listening skills.

The motive behind DepEd Order No. 74, s. 2009, also known as the policy for institutionalizing mother-tongue based multilingual education (MTB-MLE), is now generally accepted to have helped both the official bilingual training approach of the nation and introduced the likelihood of the multilingual- instruction in the Philippines. Hence, the Philippines stated in the National Kindergarten Curriculum Guide 2011, under the New K to 12 Curriculum has considered story telling part and parcel of the day-to-day teaching of the kindergarten teachers. It has served as the jumping board of the lesson after the supervised recess. The content of the lesson and medium of instruction used in the Kindergarten is the children's mother tongue as modified in the module and daily plans provided by the DepEd. However, since the materials to be used in storytelling are not available, the development of ready-made digital story telling for kindergarten becomes a necessity. Thus, teachers should be hardworking enough to devise ready-made materials that can be used effectively in the storytelling activities among the kindergarten.

Despite the importance of digital storytelling to children and its significant usage to the teacher and pupils as an instructional material in teaching language listening comprehension. There is still no available Digital Storytelling material that will serve as the guide of the teachers to teach language learning. Likewise, the absence of available digital storytelling with the use of the children's mother tongue is still the problem by most of the teachers who are teaching language listening comprehension in the country.

There is therefore a need, based on the findings of the researcher, to conduct further research on the use of digital storytelling material to assess its efficacy on children's language learning (Ramires & Verdugo, 2017). Furthermore, it is revealed that there is insufficient research on how digital storytelling contributes in the improvement of children's listening comprehension (Haddad & Jurich 2002). In addition, Cegerci and Gutlekin (2017) emphasized that most of the studies on the use of digital stories in language teaching focus on foreign language education. It was further found out that there are few studies in which digital stories are used for mother language teaching. Therefore, researchers should conduct further studies on the use of digital stories, which are capable of developing various language skills through learners' spoken language.

In these contexts, the researcher discovered the necessity to design and develop, validate, and evaluate the effectiveness of the mother tongue-based digital storytelling material for kindergarten pupils, which will be known as KiDS material.

1.4 Research objectives

The objectives of this research are as follows:

1. To investigate suitable Digital Storytelling for language listening comprehension among young learners.

2. To design and develop Kindergarten Digital Storytelling (KiDS) material

3. To evaluate the effectiveness of the KiDS material on the language listening comprehension of the pupils.

1.5 Research questions

Specifically, it sought to answer the following questions:

1. What are the contents of the developed Kindergarten Digital Storytelling (KiDS) material for effective listening comprehension?

2. What is the acceptability level of the developed Kindergarten Digital Storytelling (KiDS) material for effective listening comprehension as validated in terms of the following criteria:

   2.1. content quality;

   2.2. technical quality; and,

   2.3. aesthetic quality?

3. Is there a significant difference between the pretest and posttest mean scores of the control group?

4. Is there a significant difference between the pretest and posttest mean scores of the experimental group under the Kindergarten Digital Storytelling (KiDS)?

5. Is there a significant difference between the posttest mean scores of the control group as compared to the experimental group under the Kindergarten Digital Storytelling (KiDS) material to determine the latter's effectiveness in facilitating language listening comprehension?

1.6 Hypothesis

There are three null hypotheses tested related to research objective number two. These are either accepted or rejected.

1. *H_O:* There is no significant difference between the pretest and posttest mean scores of the control group.

2. *H_O:* There is no significant difference between the pretest and posttest mean scores of the experimental group under the Kindergarten Digital Storytelling (KiDS).

3. *H_O*: There is no significant difference between the posttest mean scores of the control group as compared to the experimental group under the Kindergarten Digital Storytelling (KiDS) material for effective listening comprehension.

1.7 Conceptual framework

The conceptual paradigm is shown in Figure 1. The paradigm portrays the organized ideas presented as a cyclical chart, which depicts a description of the variable considered for this research study. It also explains the relationship of the variables.

Figure 1. The Conceptual Framework

The study aimed to design and develop a Kindergarten Digital Storytelling material and determine its effect on pupil's language learning focused on their listening comprehension skills. The conceptual framework as shown in the diagram has two important parts, the dependent and independent variable.

Before the development of the independent variable, the Kindergarten Digital Storytelling (KiDS) material, different aspects were considered through analysis, preliminary interview with the teachers and consultation to some experts and DepEd officers. First was the analysis of learners' instructional needs where the researcher gathered available and existing learning standards based on the K to 12 curriculum

guide and daily plans of kindergarten teachers. The researcher also reviewed the Kindergarten Act or RA 1057. This law states that the first compulsory education is the kindergarten level. This pointed out the need for significant learning development activities in this aspect. Moreover, the series of review drove the researcher to recognize the inclusion of Mother Tongue-based Multilingual Education as spelled out in DepEd Order No. 74, s. 2009 and the language policies embedded in RA 10533, also known as the Enhanced Basic Education Act of 2013, to be considered as one of the bases of the language of the KiDS material.

In line with the K to 12 Curriculum is the need for new instructional materials for both teachers and pupils. Philippine ICT Roadmap (2006) the basis of the contents of the teaching relies on the need of our 21st century leaners. The future of teaching is right in the hand of all teachers.

Proceeding further with the interview, the researcher came to know from the teachers that learners showed dynamic involvement in classroom engagement when computer and multimedia are used. This emphasized the idea that ICT is really capable of facilitating instruction eventually achieving the expected learning outcomes. Moreno (2015) is therefore correct when he mentioned that teachers consider ICT an effective teaching innovation that improves teaching-learning process and motivates students to be attentive and participative.

Thus, with DepEd Order No. 78, s. 2010, ICT integration in the school system became of paramount importance and this gave the researcher an opportunity to

conceive the idea of developing Digital Storytelling material to be used by teachers in the kindergarten.

The bases of the study therefore are the related literature that shows results that there is a need for the development of instructional materials for K to 12-curriculum, the unquestionable effectiveness of teaching through the use of ICT and the computerization program of the DepEd.

Such an idea was highlighted by learning and language theories which in return influenced the design and development of this material. One of the theories that supports in t development of KiDS is the Motivational Theory (Maslow, 1943). Abraham Maslow states, "Man's behavior is controlled by both internal and external factors." He further emphasized that "humans have a unique ability to make choices and exercise free will."

Consequently, three important key concepts have been considered in designing the KiDS material. These are the good design principles, storyboard and the learning activities in language. The storyboard is a place to plan out a visual story in two dimensions. The first dimension is time: what happens first, next, and last. The second dimension is interaction: how the audio, the voiceover narrative of the story and the music interacts with the images or video. In addition, a storyboard is also a notation of where and how visual effects such as transitions, animations, or compositional organization of the screen will be used to make the material more captivating and motivating to the learners. This is essential because motivation has an important role on children's language listening comprehension. It is necessary that

learning materials to be used are suitable to the learners, hence, appropriate strategy in the teaching and learning process be carefully planned.

The next theory considered in this study was the Multiple Intelligences (Gardner & Lambert, 1972). The multiple intelligences of Howard Gardner show that there are multiple ways on how the students learn. It shows that each individual possesses different skills and capabilities, which enable him, perform and learn best. This theory is vital to the current study since it supports the idea that children learn and understand in varied means and ways.

Furthermore, Howard Gardner, in his Frame of Mind in 1983 indicated that the Verbal-Linguistic Intelligence ("word smart" or "book smart") involves the knowing which comes through language and through reading, writing, and speaking. It also involves understanding the order and meaning of words in both speech and writing and using properly the language. Hence, having been inspired by this theory, the researcher has included the vocabulary development in the content of the KiDS material.

Meanwhile, under the independent variable is the Kindergarten Digital Storytelling material developed for language listening comprehension lessons. It is composed of five language lessons produced by specific stories followed by comprehension activities and language lesson. Digitalized learning activities are provided in language lessons and five stories have been adapted from the Philippine Kindergarten Curriculum Guide (DepEd, 2013). For the dependent variable, the

researcher considered the listening comprehension as the focus of the language learning among the Kindergarten pupils.

1.8 Significance of the study

The purpose of the study is to design and develop Kindergarten Digital Storytelling (KiDS) materials and to determine its effect on the language listening comprehension of the pupils. This research is therefore deemed necessary and important to the following stakeholders.

1. Kindergarten Learners the study is significant to the kindergarten learners because it will bridge the gap between the use of traditional storytelling technique and the digital storytelling technique. As mentioned in the study of Ohler (2011); Ware and Warschauer (2005), utilizing the digital storytelling provides a number of benefits to children that could not be as well achieved through traditional storytelling.

Specifically, among the benefits that kindergarten learners will get include: increased motivation that will sustain their interest, especially on the part of struggling readers and writers, and allowing opportunity to experience in them what the story conveys. So, if it is successfully implemented the program will improve the learners' performance. The use of digital storytelling will give assurance of providing quality teachers and learning process to kindergarten learners.

2. Kindergarten Teachers: The use of multimedia and digital storytelling will facilitate the teaching-learning process making the process more effective and more interesting to the learners. It will enhance creativity and imagination effective among the learners making teachers really facilitators of learning.

3. Government/Department of Education: The DepEd being the major agency of the government taking charge of education will be provided ample information on which facilities and materials will be prioritized for funding. It will also help DepEd plan appropriate programs and training for teachers in the kindergarten. This study will also serve as an eye-opener to the local division to help teachers equip themselves with tools necessary for the development of effective classroom instruction and use of methodologies responsive to the needs of the learners.

4. Researcher: Since there are limited researches on the evaluation and implementation of developed digital storytelling materials in the Philippines, this study will provide reference for future researchers in conducting similar study. This will also provide future researchers baselines to conduct follow up researches relative to the digital storytelling or make a comparative study related to this topic.

1.9 Scope and limitations

The study aimed to identify the effectiveness of KiDS material on language learning of kindergarten pupils with focus on listening skills. The material sought to identify

its effectiveness by comparing it to the traditional way of teaching storytelling. Specifically, this study or area of investigation was centered on identifying the good elements of digital storytelling, the principle of good design to be followed in developing KiDS material for language learning, characteristics of the story board to be included in KiDS material, the effectiveness of KiDS material on language learning and the significant difference to be noted between the pre-test and post-test mean scores of control and experimental group and the significant difference between the control and the experimental group.

Since there were large number of kindergarten pupils in Lopez West District the researcher limited the number of respondents to fifty-four (54) kindergarten pupils, both 27 pupils for control and experimental group. These pupils are both categorized as heterogeneous class. Six kindergarten teachers acted respondents from Lopez West District who were also made part on the conduct on the data gathering procedure. The research was therefore limited to the selected kindergarten teachers and pupils in Lopez Quezon.

The researcher used survey questionnaire, conducted interview and directly applied the KiDS material during classroom instructions to test its effectiveness in terms of elements, principle of design, storyboard quality and test result of two groups studied, the control group and experimental group. Finally, the significant difference on the mean percentage scores obtained by two groups from the test conducted. In gathering the data, the researcher used quantitative research and ADDIE model in the creation of the material. The researcher used t-test in determining the significant difference between the two groups studied.

1.10 Operational definition

In this section, the researcher defined the significant terms and words for the better understanding of this study. Terms are defined conceptually and/or operationally. The terms were also organized in alphabetical order for easy of recognition.

Content quality

In this study, it refers to the standards determining the value of the digital storytelling material for mother tongue based multilingual education. This criterion focuses on the objectives, quality of the content, the activity mechanisms, and the features of the developed learning application.

Design

It refers to the stage in this research study, involving the careful analysis of providing framework for the architecture to be established before proceeding to the development of the application software. This phase primarily sets the standards and check if it conforms to the technical specifications of the target material.

Development

It is the stage in this research undertaking, involving careful planning, and sequential organization of all the gathered data towards the progression of the target material. It

includes writing the content and designing the module in digital storytelling for MTB-MLE as well as stating its technical specifications.

Digital storytelling

It refers to the creative instructional material using multimedia, which kindergarten teachers can utilize in storytelling activities in the classroom.

Effectiveness

It refers to the usefulness of the material resulting from the evaluation of its efficacy test on the language learning of the kindergarten pupils.

Features and format

It is a criterion that refers to content quality of the learning material developed. It is focused on the designed feature and structured format and organization of the content of the digital storytelling module.

Kindergarten

It refers to a mandatory early education program for children aged 4-6 that served as their induction to school life

KiDS

It refers to a term that stands for Kindergarten Digital Storytelling. In this study it is a learning material with digitalized stories intended to help teachers facilitate listening comprehension lessons and motivate kindergarten learners to become interested and
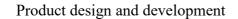
find enjoyment in the lessons given. Being innovative KiDS promotes effective and enjoyable classroom engagement.

Mother tongue

It refers to the first language learned by the child. It is the language learned and spoken by individual at home, It maybe *Tagalog*, a native language in the Philippines or *Bicolano, Visaya, Ilocano*, or other dialects of the provinces or regions where the child was reared or grew up.

Storytelling

In this study, it refers to the presentation of the story through the use of the KiDS material.

Product design and development

In this study, design and development refers to the process used in constructing the proposed digital storytelling material, which includes the phases of design, development, testing and validation.

Validation

It refers to the phase of this study focused on determining and confirming the soundness and usefulness of the developed instructional material by getting its acceptability level in terms of content, technical, and aesthetic qualities.

1.11 Summary

This chapter presented an overview of the research study conducted. It provides the background of the study, the reason for conducting the research, the central problem of the study, as well as the conceptual framework, research objectives and specific questions that served as a guide and blueprint for the researcher in the conduct of the study. Finally, significance of the study, limitations of the study, and operational definition of key terms are also offered.