

## EXPLORING STORYTELLING AND PHONICS APPROACHES FOR EARLY LITERACY ENHANCEMENT IN KINDERGARTEN: EXPLORATORY MIXED-METHOD

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### ABSTRACT

This exploratory study gives a comprehensive description of using storytelling and phonics approach in early literacy enhancement in kindergarten. The goal of this study is to learn more about importance of storytelling and phonics approaches in the delivery of the learning instructions. In this design, both qualitative and quantitative data were collected. The research participants included ten (10) teachers for in-depth interviews and seven (7) teachers for focused group discussion. The constructed survey questionnaire from the qualitative interview was disseminated to three hundred (200) respondents. The study's findings revealed that the three (3) emerging themes were motivation, differentiated instruction and technological content knowledge. It means that the factor loadings from exploratory and confirmatory factor analyses for each item are suitable and adequate for factor loadings. Exploratory Factor Analysis (EFA) was used to determine the three (3) underlying dimensions for the three factors model for using using storytelling and phonics approach in early literacy enhancement in kindergarten., which include the motivation, differentiated instruction and technological content knowledge. Furthermore, it was revealed that the measuring tools used in this study are 18 item sets of questionnaires. In addition, it was suggested that a new tool be created for future references.

**Keywords:** *Early literacy, Kindergarten education, Storytelling, Phonics Approach, Literacy Enhancement, Teaching Strategies*

### INTRODUCTION

In the realm of education, early literacy and language development are considered fundamental building blocks for a child's academic success and lifelong learning journey. The kindergarten stage serves as a critical phase in a child's cognitive and linguistic development, laying the groundwork for future academic achievements. It is during this formative period that children acquire fundamental reading and language skills, which significantly impact their overall educational progress. Research consistently highlights the importance of early literacy and language development as the foundation for future academic achievements. During the kindergarten years, children undergo significant brain development, absorbing information at a remarkable rate. It is this phase when they are most receptive to language acquisition and can easily develop phonological

awareness, vocabulary, comprehension, and narrative skills (Retrieved from [www.zerotothree.org/BrainWonders](http://www.zerotothree.org/BrainWonders) on December 23, 2023).

Green (2022) also mentioned that in the context of early literacy, storytelling can be a captivating and engaging way to introduce children to the world of words, imagination, and language. When children are exposed to stories, they develop a deeper understanding of narrative structures, character development, and emotional expressions. Additionally, storytelling fosters active listening, critical thinking, and creativity, enabling children to build a strong foundation for language and literacy skills.

According to Cooper (2019) that Early Literacy Skill development is essential for children's learning and future academic success. Despite these encouraging results, there are differing opinions on how such training should be structured within early childhood education (Flynn, 2018). The purpose of the current study was to evaluate the efficacy of a set of early reading skill development activities that used the second strategy (Langford, 2020).

## Worldview and Theoretical Lens

The Constructivist Learning Theory of Levy Vgotsky serves as the foundation for this research project. Constructivism is then theory that says learners construct knowledge rather than just passively take in information. The constructivist theory is based around the idea that learners are active participants in their learning journey; knowledge is constructed based on experiences. As events occur, each person reflects on their experience and incorporates the new ideas with their prior knowledge. Learners develop *schemas* to organize acquired knowledge.

Another theory is the Theory of Pragmatism by John Dewey (1959) which is a philosophical movement that includes those who claim that an ideology or proposition is true if it works satisfactorily, that the meaning of a proposition is to be found in the practical consequences of accepting it, and that unpractical ideas are to be rejected.

According to Capps (2019) that Pragmatic theories of truth have the effect of shifting attention away from what makes a statement true and toward what people mean or do in describing a statement as true. While sharing many of the impulses behind deflationary theories of truth (in particular, the idea that truth is not a substantial property), pragmatic theories also tend to view truth as more than just a useful tool for making generalizations. Pragmatic theories of truth thus emphasize the broader practical and performative dimensions of truth-talk, stressing the role truth plays in shaping certain kinds of discourse. These practical dimensions, according to pragmatic theories, are essential to understanding the concept of truth.

## Research Questions

The study aimed to determine the level in exploring storytelling and phonic approaches in early literacy enhancement in kindergarten.

Specifically, this study sought to answer the following questions:

1. What are the themes that emerged from the interview in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten?
2. What are the underlying dimensions exploring storytelling and phonics approaches in early literacy enhancement in kindergarten?
3. What is the reliability of the instrument for exploring storytelling and phonics approaches in early literacy enhancement in kindergarten?
4. Based on the results of qualitative and quantitative analyses, what measurement tool is suitable for exploring storytelling and phonics approaches in early literacy enhancement in kindergarten?

## **METHODS**

### **Research Design**

Qualitative research approaches investigated the phenomenon that occurred, created a hypothesis, or defined the nature of an individual's experience, whereas quantitative research methodologies dealt with difficulties with causation, generalizability, or magnitude effect (Fetters, Curry, and Creswell, 2018).

In addition to this, an exploratory mixed-method research design was used to broadly explore and understand data in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten in Kidapawan City Division.

### **Research Locale**

The research study was conducted in all kindergarten schools in Kidapawan City Division. Kidapawan City is located in the Second Legislative District of North Cotabato Province. Kidapawan is located at the foot of Mount Apo in the south-eastern section of Cotabato province, placed in the middle of other major cities of General Santos, Davao City, Cotabato City and Cagayan de Oro.

### **Research Participants**

To find the participants, the researcher used total enumeration sampling. This means that the researcher chose all participants because they can help the researcher better understand the research questions (Creswell, 2014 as cited by Santosidad, 2023). A total of two hundred (200) kindergarten teachers from all kindergarten schools in the Division of Kidapawan City Division participated in this study and completed the questionnaire. The researcher also chose ten (10) teachers to participate in the In-Depth Interview (IDI) and seven (7) teachers for the Focus Group Discussion (FGD). The participants included in this study were the teachers in the kindergarten who teach in a permanent position.

The constructed survey questionnaire was based on qualitative results disseminated to two hundred (200) teachers to be used for exploratory factor analysis. This study involved the stratification of the population before selecting the sample. This required that characteristics of the population members be known so that the population can be stratified first before selecting the sample (Fowler, 2013 as cited by Santosidad, 2023).

## Research Instruments

In the qualitative phase, the researcher formulated interview guide questions that gave insight in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten. The interview guide employed a semi-structured format that provided direction for the face-to-face interview in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten.

In the quantitative phase, the researcher formulated the survey questionnaire tool based on the result of the interview conducted during the qualitative phase. The researcher also invited five (5) expert validators to perform faced and content validity of the interview questions and check the suitability of the items that capture dimensions on the use of social media platforms. This is to ensure the readability and comprehensibility of the questionnaire.

## Data Collection

The following are steps in gathering data: First, the researcher asked permission through a letter duly noted by the Dean of Graduate Studies, to conduct the research. Then, the distribution of permission letter to the DepEd personnel, namely: Schools Division Superintendent, Public School District Supervisors, and School Principal/School Head. After the approval was obtained, the researcher personally approached the competent participants for this study and elaborately explained the informed consent and the purpose and objective of the study. Upon the approval of the participants, the researcher proposed a venue, date, and time for interview proper or in responding survey questionnaires.

On the day of data collection, the participants were requested to sign the letter of consent which specified in the instrument for voluntary participation in the study. Only those who signed the consent letter were consider as part of this study. Participants were assured that their responses were kept confidential and that their names did not appear in any part of this study. After the data were retrieved, encoding of the data with a proper label were carried out.

## Data Analysis

In this study, exploratory mixed-method design was used to collect data using both qualitative and quantitative techniques. The two data strands fusion or linking revealed and underscored the value of hybrid research approaches. According to Fetters, Curry, and Creswell (2013 as cited by Santosidad, 2023) and Creswell and Plano Clark (2011 as cited by Santosidad, 2023), integration can take place at various levels, including the research level, the level of methodologies, or the level of interpretation. It can also take various forms, including connection, construction, merging, or embedding. In this study, the first connection between data at the design level and a sequential design was made, using the outcomes of the first part of the research to construct the second phase of the research design.

Using this approach, the researcher evaluated the two data-bases independently and applies the findings to the first exploratory database's quantitative measurements. As a result, the researcher paid close attention to the qualitative data analyses and choose the conclusions that the data were based on. A qualitative case study may offer various instances that focus on important elements in the second quantitative phase.

To better address the research questions, a combined presentation and interpretation-level integration were used to connect the qualitative data from phase one of the study with the quantitative data from phase two of the study. It was possible to "draw additional insights beyond the data received from the individual quantitative and qualitative outputs" using a combination presentation, according to Fetters, Curry, and Creswell (2018 as cited by Santosidad, 2023).

Sample quotations and the findings of the statistical analysis of the survey data were contrasted and analyzed in qualitative interviews. Controversial areas and points of convergence between qualitative and quantitative phases have been looked at in order to construct meta-interferences or an overview of the data strands combined (Teddlie and Tashakkori, 2018).

When the qualitative analysis was used to create a questionnaire, the codes were transformed into variables, the subjects into scales, and the quotes into survey questions. Open-ended inquiries and scale-based research techniques may be used in the collection of quantitative data. This was also based on a survey of the literature and the well-known qualitative stage. Use the qualitative data language to ask questions.

In research using mixed methods, the "interface point" was the connecting point between the qualitative and quantitative components (Creswell & Plano Clark, 2018). This happens in the stages between the qualitative and quantitative approaches to exploration. However, it's important to keep in mind that the research may prioritize either the qualitative or the quantitative component. For instance, we invested a lot of money and time into collecting qualitative data and conducting a theory study, an ambitious tradition that aims to develop both theoretical concepts and subjects.

Although the emphasis of the research may be viewed as qualitative, a survey to further assess the thesis may be conducted. This kind of sequential exploratory design's themes or theories would be known as QUAL (Creswell & Plano Clark, 2018). In contrast, one or two focus groups might be conducted, followed by a summary of the results, a survey, and sophisticated statistical analysis in a thorough quantitative phase. This kind (Creswell & Plano Clark, 2018) would be referred to as qual the QUAN, which denotes that the research has a strong focus on quantitative analysis.

## **RESULTS AND DISCUSSION**

This study is divided into two parts; Part 1 covers the qualitative aspect of the study which shows the data analysis procedure and the steps in the categorization of the emergent themes from the result of the in-depth interviews and focus group discussion. Part 2 deals with the quantitative aspect of the study where the data is gathered through survey questionnaires and the statistical treatment of the collected data. Essential themes that emerged in exploring storytelling and phonic approaches in early literacy enhancement in kindergarten

In this study, thematic analysis was utilized to create a theme based on the replies and fundamental concepts of respondents acquired via in-depth interviews and Focus Group Discussions. As a result, three primary themes emerged in exploring storytelling and phonic approaches in early literacy enhancement in kindergarten namely: motivation and interest, differentiated instructions and technological content knowledge.

**Table 1. Themes and core ideas in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten**

Major Themes	Core Ideas	Formulated Meaning
Motivation	<p>I usually start with a song to set the mood of the pupils before going to the main lesson.</p> <p>I use storytelling and phonics approach as the springboard to start the lesson.</p> <p>I use storytelling to relate the experiences that happen in the story to the real-life scenario of the learners.</p> <p>I usually observe that learners are excited about the story if it is relatable.</p> <p>I believe that storytelling helps the learning of the pupils.</p> <p>I agree that storytelling phonics approaches affect positively to the learning of the pupils.</p> <p>I use phonics approach so that when pupils heard the sounds, they can easily follow.</p> <p>I integrate storytelling so that the pupils can easily understand the meaning of the words.</p> <p>I use songs because pupils can easily understand the context of the lessons.</p>	The participants integrate songs in their storytelling and phonic sound as springboard of the lesson

	<p>I use pictures so that pupils can say the word and pronounce it properly.</p> <p>I employ audio-video presentation.</p> <p>I apply higher order thinking skills in asking questions.</p>	
<p>Differentiated Instructions</p>	<p>I establish routinary activities for learners for them to easily understand.</p> <p>I provide activities that develop their critical thinking skills</p> <p>I employ various teaching strategies to keep their interest in the lessons.</p> <p>I use effective strategies that enhance their collaborative and creative skills.</p> <p>I use voice animation and actions to catch their attention.</p> <p>I inject moral lessons from the story.</p> <p>I encourage learners to express their feelings and emotions.</p> <p>I ensure that my class is enjoyable and conducive for learning.</p> <p>I introduce activities that develop their imagination.</p> <p>I ensure that their attention to the lesson is sustained thru employing various activities.</p> <p>I provide more time to those learners who have difficulties in sounds recognition.</p> <p>I look for suitable learning materials for all learners.</p> <p>I put emphasis on value integration from the story.</p>	<p>The participants use differentiated instructions in the delivery of the lessons</p>

<p>Technological Content Knowledge</p>	<p>I contextualize/localize learning resources to be used in the lessons.</p> <p>I use ICT-aided instructions in the delivery of my lessons.</p> <p>I find ways to look for materials in the absences of the school learning resources.</p> <p>I give so much respect for diverse learners: Lumads, Christians and Muslims.</p> <p>I upgrade myself thru attending seminars, training and other capability buildings.</p> <p>I ensure that everyday is an interesting and enjoyable to learn for my learners.</p> <p>I used language code or shift to cater diverse learners.</p> <p>I am flexible.</p> <p>I embrace new trends in teaching.</p> <p>I develop time management.</p>	<p>The participants used ICT-aided instructions and contextualized/localize materials</p>
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**Motivation.** The participants have different lived experiences in exploring storytelling and phonics approaches in early literacy enhancement in kindergarten depending on the situation including the nature of their learners. The participants shared that:

*“In terms of storytelling, we usually start with a song to set the mood of the pupils before going to the main lesson.” (FGD 1.1)*

*“Storytelling is the way to relate the experiences that happen in the story to the real-life scenario of the learners.” 1.3)*

*“In the phonics approach, since they already heard the sound, they easily can follow.” (FGD 2.1)*

*“Using the phonics approach makes our discussion easier in introducing the sound since they already followed what they heard.” (FGD 2.3)*

*“We also employ audio presentation.” (FGD 2.6)*

Motivation is an internal state that propels individuals to engage in goal-directed behavior. It is often understood as a force that explains why people or animals initiate, continue, or terminate a certain behavior at a particular time. It is a complex phenomenon and its precise definition is disputed. Pupils who are motivated in their learning are going to show characteristics of being goal-oriented and are likely to see more success and



higher achievement. Motivated learners take responsibility and initiative, show curiosity and a willingness to try, put forth genuine effort, and take pride in their work.

According to Hawthorne (2021) that motivated learners are much more likely to achieve their potential and find success. Motivation is an essential ingredient in effective teaching and learning. It not only yields more positive behaviour in the learners, but it also contributes to a greater sense of wellbeing. Understanding how to motivate children and young people in education is crucial, if we are to provide them with the best possible start in life.

**Differentiated Instructions.** Differentiated instruction and assessment, also known as differentiated learning or, in education, simply, differentiation, is a framework or philosophy for effective teaching that involves providing all students within their diverse classroom community of learners a range of different avenues for understanding new information (often in the same classroom) in terms of: acquiring content; processing, constructing, or making sense of ideas; and developing teaching materials and assessment measures so that all students within a classroom can learn effectively, regardless of differences in their ability.

Differentiated instruction is the process of tailoring lessons to meet each learner's individual interests, needs, and strengths. Teaching this way gives learners choice and flexibility in how they learn, and helps teachers personalize learning. Differentiated instruction is the way in which a teacher anticipates and responds to a variety of learners' needs in the classroom. To meet students' needs, teachers differentiate by modifying the content (what is being taught), the process (how it is taught) and the product (how learners demonstrate their learning).

*"It made them active and attentive inside the class, but it is also important to employ different instructions and strategies in every class discussion."* (FGD 4.6)

*"I also utilize the animation of my voice and proper action so that they can relate and catch our attention."* (FGD 4.8)

*"The advantage of using this to our learners is that they will build the willingness to express their feelings and emotions as well as their ideas. On the other hand, storytelling enhances their imagination and creativity while listening to the story."* (FGD 5.2)

*"On the phonic approach, I have a case in which my student has a deficiency in pronouncing the letters /r/ and /s/ it may cause bullying among them so, we need to process this inside the classroom."* (FGD 5.9)

*"It's hard to select a suitable story to tell since we have learners who are diverse in culture. For example, the story about the three pigs and even in the discussion, it is Haram in Islam."* (FGD 5.10)

Carol Ann Tomlinson (2013), a leading modern-day proponent of differentiation, defines it as a commonsense, student-centered, empathetic approach in which the teacher believes, if they know who their students are, they can see the world through their point of view.

Bruner (1966) as cited by Cruz (2021) states that a theory of instruction should address four major aspects: (1) predisposition towards learning, (2) the ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner, (3) the most effective sequences in which to present material, and (4) the nature and pacing of rewards and punishments. Good methods for structuring knowledge should

result in simplifying, generating new propositions, and increasing the manipulation of information.

**Technological Content Knowledge.** It also proved that the integration of ICT is mostly dependent on the personal factors which define as self-perceptions. This research also shows that the acceptance of ICT of teachers and students in classroom and outside of classroom whereby both are more likely to use technologies outside the classroom.

The Technological Content Knowledge describes the kinds of knowledge required by teachers for the successful integration of technology in teaching. It suggests that teachers need to know about the intersections of technology, pedagogy, and content. Knowledge of how to use technology within a specific content area. Knowing how to use a spreadsheet provides an example of how to analyze a set of data for patterns or knowing how to use Fraction Bars to show a proportional relationship. A person's understanding of the function and operation of currently available technology and applications on that technology, for example, an understanding of how to operate a tablet, download an app, and share a screenshot of something made in that app.

*"There are storybooks that we need to contextualize in our language from the other language specially in the translation."* (FGD 7.1)

*"We also have difficulty in the integration of ICT especially since we lack facilities but our school is trying its very best to provide the needed materials in our classroom such as TV."* (FGD 7.2)

*"The language barrier and cultural sensitivity. Since our school is situated in a Muslim village, we also have IP learners."* (FGD 3.5)

*"If there is no ICT integration, less participation and integration."* ((FGD 8.9)

*"Diverse cultures also really affect the class but I will make a point that they will enlighten and learn the value of respect."* (FGD 8.1)

*"Like for instance, we go to further study to strengthen our knowledge."* (FGD 9.2)

*"Attend seminars and training in the subject matters."* (FGD 9.4)

In this 21st century, the term "technology" is an important issue in many fields including education. This is because technology has become the knowledge transfer highway in most countries. Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live (Casim, 2019).

Integration of Information, Communication, and Technology (ICT) in education refers to the use of computer-based communication that incorporates into daily classroom instructional process. In conjunction with preparing students for the current digital era, teachers are seen as the key players in using ICT in their daily classrooms. This is due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2022).

According Albirini (2021), the aim of ICT integration is to improve and increase the quality, accessibility and cost-efficiency of the delivery of instruction to students, it also refers to benefits from networking the learning communities to face the challenges of current globalization (AlbirProcess of adoption of ICT is not a single step, but it is ongoing and continuous steps that fully support teaching and learning and information resources.

The need for ICT integration in education is crucial, because with the help of technology, teaching and learning is not only happening in the school environment, but

also can happen even if teachers and students are physically in distance. However, ICT integration is not a one-step learning process, but it is a continual process of learning that provides pro-active teaching-learning environment (Capan, 2023).

### Dimensions of Storytelling and Phonics Approaches in Early Literacy Enhancement in Kindergarten

Testing of the Proposed Questionnaire consisting of 35- item scale on Storytelling and Phonics Approaches in Early Literacy Enhancement in Kindergarten. Prior to the proposed 35-item scale for using of social media platforms underwent factor analysis, the Kaiser Meyer-Okin Measure (KMO) of Sampling Adequacy and Bartlett’s test of sphericity was performed. Table 3 highlighted the results.

**Table 3. KMO and Bartlett’s Tests**  
**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.639
Bartlett's Test of Sphericity	Approx. Chi-Square	1197.213
	df	153
	Sig.	.000

The results displayed that the KMO test generated the value of .639 which is above the .5. This means the sample can be treated with EFA. Also, Bartlett’s Test of Sphericity result yields a .000 significant value which tells that the data have patterned relationships, and factorability was assumed. Hence, there was empirical evidence to proceed with the factor analysis.

Derivation of Factors Structures for exploring storytelling and phonics approach in early literacy enhancement in kindergarten. To determine the number of factors, the 35-item scale was tested using an unrotated factor matrix with estimates of eigenvalues, percent of the variance, and cumulative variance. Eigenvalues represent the total amount of variance that can be explained by a given principal component. They can be positive or negative in theory, but in practice, they explain variance which is always positive (UCLA, 2021). Under the Kaiser criterion, all components are dropped with eigenvalues under 1.0, this being the eigenvalue equal to the information accounted for by an average single item (Costello & Osborne, 2005).

Meanwhile, 4 factors were identified in the model with eigenvalues above 1. The loading factor for each item corresponds to a factor score which was above .40. This means, there was a sufficient correlation between factors and variables; hence, the item can be considered as part of the particular factor.

**Table 4. Pattern Matrix**

Pattern Matrix <sup>a</sup>			
	Factor		
	1	2	3

1.	I usually start with a song to set the mood of the pupils before going to the main lesson.			
2.	I use storytelling and phonics approach as the springboard to start the lesson.		.720	
3.	I use storytelling to relate the experiences that happen in the story to the real-life scenario of the learners.			
4.	I usually observe that learners are excited about the story if it is relatable.			
5.	I believe that storytelling helps the learning of the pupils.			
6.	I agree that storytelling phonics approaches affect positively to the learning of the pupils.			
7.	I use phonics approach so that when pupils heard the sounds, they can easily follow.			
8.	I integrate storytelling so that the pupils can easily understand the meaning of the words.		.722	
9.	I use songs because pupils can easily understand the context of the lessons.			
10.	I use pictures so that pupils can say the word and pronounce it properly.			
11.	I employ audio-video presentation.			
12.	I apply higher order thinking skills in asking questions.			.508
13.	I establish routinary activities for learners for them to easily understand.			
14.	I provide activities that develop their critical thinking skills			
15.	I employ various teaching strategies to keep their interest in the lessons.			
16.	I use effective strategies that enhance their collaborative and creative skills.			.652
17.	I use voice animation and actions to catch their attention.		.550	
18.	I use voice animation and actions to catch their attention.			
19.	I inject moral lessons from the story.			
20.	I encourage learners to express their feelings and emotions.			
21.	I ensure that my class is enjoyable and conducive for learning.			.568
22.	I introduce activities that develop their imagination.			

23. I ensure that their attention to the lesson is sustained thru employing various activities.			
24. I provide more time to those learners who have difficulties in sounds recognition.	.569		
25. I look for suitable learning materials for all learners.	.619		
26. I put emphasis on value integration from the story.		.873	
27. I contextualize/localize learning resources to be used in the lessons.			.695
28. I use ICT-aided instructions in the delivery of my lessons.	.837		
29. I find ways to look for materials in the absences of the school learning resources.	.723		
30. I give so much respect for diverse learners: Lumads, Christians and Muslims.	.526		
31. I upgrade myself thru attending seminars, training and other capability buildings.		.873	
32. I contextualize/localize learning resources to be used in the lessons.			.698
33. I ensure that everyday is an interesting and enjoyable to learn for my learners.	.837		
34. I used language code or shift to cater diverse learners.	.723		
35. I tend to be flexible.	.526		

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalization.

#### a. Rotation converged in 3 items

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Table 4 shows the pattern matrix using Principal Axis Factoring with a rotation method of Promax with Kaiser Normalization. It can be gleaned in the results, the loading of items <.4 that items 1, 3, 4, 5, 6, 7, 9,10, 11, 13, 14,15, 18,19, 20, 22, and 23, did not meet the desired criterion of item loading by indicating no values, thus these items were subjected for deletion. This is supported by Field (2009) that the suppression of loading less than .4 is recommended and rerunning of analysis is necessary to obtain the desired factors.

Moreover, the item loadings of each item to their factor are above .4 which indicates sufficient correlation between factors and variables and thus can be considered as a component of the factor. Hair, et al., (1998) that loadings indicate the degree of correspondence between the variable and the factor, with higher loadings making the variable representative of the factor.

The 4-factor model with a 35-item construct which developed through EFA were: Motivation and Interest, Contextualization and Localization and Technological Content Knowledge. For factor 1 which is Motivation, 8 items, 5 items under factor 2 which is

Differentiated Instruction, and 5 items under Factor 3 which is Technological Content Knowledge.

**Table 5. Factor Correlation Matrix**

Factor	1	2	3
1	1.000	-.065	.003
2	-.065	1.000	-.073
3	.003	-.073	1.000

Extraction Method: Principal Axis Factoring.  
 Rotation Method: Promax with Kaiser Normalization.

Table 5 shows that Factor analysis was used to analyze variables and to classify them into the relevant factors for using them in further statistical analysis. The Factor Correlation Matrix gives the estimated correlation between the three extracted factors. The larger this correlation is the bigger the difference between the factor and pattern matrices. If the correlation is zero, the rotated and unrotated solutions will be the same.

**Table 6. Reliability Analysis in exploring storytelling and phonics strategy in early literacy enhancement in kindergarten**

Factor	Cronbach's Alpha
Factor 1	.858
Factor 2	.837
Factor 3	.859
<b>Overall Reliability</b>	<b>.851</b>

**Reliability Test in exploring storytelling and phonics strategy in early literacy enhancement**

**Reliability Test Scale.** The instrument was used to determine its reliability and validity test for the uniformity of the items. Table 6 revealed the overall reliability test in exploring storytelling and phonics strategy in early literacy enhancement is very high with Cronbach's Alpha value of .851. It was found out that subscale for Motivation ( $\alpha = .858$ ), Differentiated Instruction ( $\alpha = .837$ ), and Technological Content Knowledge ( $\alpha = .859$ ) is also very high and above 0.70. This means that the tool is being used in the study has good internal consistency.

According to Hinton et al. (2004) as cited by Santosidad (2023), for an exploratory or pilot analysis, cut-off points for reliability include outstanding reliability (0.90 and above), high reliability (0.90 and above), and moderate reliability (0.90 and above) (0.70-0.90). Moreover, Straub et al. (2004), high reliability (0.60 and above), moderate reliability (0.50-0.70), and poor reliability (0.50 and below) are all ideal.

**Table 7. Instrument to measure in exploring storytelling and phonics approaches in early literacy enhancement**

<b>Pattern Matrix<sup>a</sup></b>					
	5	4	3	2	1
<b>Motivation</b>					
1. I use storytelling and phonics approach as the springboard to start the lesson.					
2. I integrate storytelling so that the pupils can easily understand the meaning of the words.					
<b>Differentiated Instructions</b>					
3. I apply higher order thinking skills in asking questions.					
4. I use effective strategies that enhance their collaborative and creative skills.					
5. I use voice animation and actions to catch their attention.					
<b>Technological Content Knowledge</b>					
6. I ensure that my class is enjoyable and conducive for learning.					
7. I provide more time to those learners who have difficulties in sounds recognition.					
8. I look for suitable learning materials for all learners.					
9. I put emphasis on value integration from the story.					
10. I contextualize/localize learning resources to be used in the lessons.					
11. I use ICT-aided instructions in the delivery of my lessons.					
12. I find ways to look for materials in the absences of the school learning resources.					
13. I give so much respect for diverse learners: Lumads, Christians and Muslims.					
14. I upgrade myself thru attending seminars, training and other capability buildings.					
15. I contextualize/localize learning resources to be used in the lessons.					

16. I ensure that everyday is an interesting and enjoyable to learn for my learners.					
17. I used language code or shift to cater diverse learners.					
18. I tend to be flexible.					

Extraction Method: Principal Axis Factoring.  
Rotation Method: Promax with Kaiser Normalization.

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a. Rotation converged in 3 iterations.

Legend:

- 5 = Strongly agree
- 4 = Agree
- 3 = Moderately agree
- 2 = Disagree
- 1 = Strongly Disagree

### **Final Version of the instrument in exploring storytelling and phonics approaches in early literacy enhancement**

The final version of the instrument, which is the output of this study, is presented provided in Table 7. This scale consists of 18 items. Specifically, a total of two (2) items for Motivation, three (5) items for Differentiated Instruction, and thirteen (13) for Technological Content Knowledge. The five-point Likert scale from 5-strongly agree to 1-strongly disagree is shown above.

### **Implication for Educational Practice**

The result of this study in exploring storytelling and phonics approaches in early literacy enhancement has drawn several implications for educational practice. As revealed in the study, kindergarten teachers employed varied skills in integrating storytelling and phonics approaches in their teaching delivery to their pupils.

## **CONCLUSIONS**

To give the light of the study, the following conclusions are enumerated.

1. Three emerging themes significantly emphasized on exploring storytelling and phonics strategy in early literacy enhancement were the motivation, differentiated instruction, technological content knowledge.
2. Results revealed from the Exploratory Factor Analysis (EFA) three (3) underlying dimensions occur from in exploring storytelling and phonics strategy in early literacy enhancement such as motivation, differentiated instruction, technological content knowledge.
3. Reliability test revealed the results on exploring storytelling and phonics strategy in early literacy enhancement that the overall Cronbach's Alpha was .851 which interpreted as moderate. It means that the validity of the instruments was very high and suitable for using the instrument as a tool.



4. Results from the Exploratory Factor Analysis revealed that there are 18 items of sets of questionnaire that are suitable for factor loadings. This means that these items are appropriate and pass the face validity for measuring tools in the study.

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