

Phonological Awareness and Vocabulary Formation among Kindergarten Learners

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Abstract

This study aims to assess the Phonological awareness and Vocabulary formation among Kindergarten. Specifically, the study seeks to achieve the following objectives: level of Phonological awareness of Kindergarten learners in terms of: onset and rime, phoneme blending and phoneme segmentation; level of vocabulary formation of Kindergarten learners in terms of: word recognition, word invented meaning and word associated meaning; and significant relationship to the vocabulary formation of learners.

The respondent of the study were thirty nine (39) kindergartens from Magdalena District who were 6 years of age. Learning activities given composed of onset and rime, phoneme blending and phoneme segmentation tasks and checklist. In addition, word recognition, word invented spelling and word associated meaning actual kindergarten word answer.

The results are as follows in terms of objectives, significant relationship between the phonological awareness and vocabulary formation of the kindergarten learners. Specifically, it presents the relationship between the awareness on students on Onset and Rimes, Phoneme Blending, and Phoneme Segmentation with their abilities in Word Recognition, Word Invented Spelling, and Word Associated Meaning.

Onset and Rimes is observed to have a significant strong relationship with Word Recognition ($r=0.668$, $p=0.000$) and a moderate relationship with the Word Invented Spelling ($r=0.436$) and Word Associated Meaning ($r=0.561$, $p=0.000$) with the respective p-values of 0.000, 0.006, and 0.000. Obtained p-values for the test were less than 0.05 hence the significance.

Consecutively, Phoneme Blending is observed to have a strong significant relationship with Word Associate Meaning ($r=0.619$), a moderate relationship with Word Recognition ($r=0.562$), and a weak significant relationship with Word Invented Spelling ($r=0.367$) with the p-values of 0.000, 0.022, and 0.000 respectively.

On the other hand, the Phoneme Segmentation is perceived to have no significant relationship with Word Recognition ($r=0.073$) and Word Associated Meaning ($r=0.285$) all the while having a significant moderate relationship with word invented spelling ($r=0.525$). Only the p-value for the latter was at 0.001 which was less than the significance alpha.

Researchers tested the hypothesis rejected. This calls for the acceptance of the alternative which incites that there is a significant relationship.

Keywords: Phonological awareness; Vocabulary formation; Phoneme blending, and segmentation; word recognition; word associated meanin

1. Main Text

Introduction

Phonological awareness has many studies and is often interchangeable with terms underneath it. Phonemic awareness, which pertains to the skills in sounds, cannot be “do-it-away” in phoneme manipulation and orientation. Studies suggest that alphabetic principle, letter name knowledge, and repetition were key ways to initiate phonemes in kindergarten.

Teachers and parents have a significant role in imparting phonemes to a child's early years. They have to thrive for phonological awareness and create effective learning instruction for learners. Parents have a crucial role in imparting phoneme skills with technology integration in this new normal, specifically in television education networks and media apps. Teachers must provide the necessary learning materials for phoneme instruction and vocabulary formation tasks. Everybody has to be equipped with phonemic skills that are a great indicator of a child's ability to read. A sound program of phonemic awareness and phonics instruction is essential for early reading success (Shanahan T., 2014).

Language in which the child acquires their L1 and L2 significantly impacts their phoneme. They may intertwine the sounds of /c/ to /k/ or /b/ to /d/ or maybe alienated with /ng/ and /ñ/ that has no counterpart in their L2. Language is the key indicator of transfer knowledge from phoneme awareness to vocabulary formation since it is addressed orally and eventually scribbled. Readers will struggle in every school day's activity if they have difficulty understanding English. This may force them to drop out and lose potential education opportunities, creating poverty among generations, Gove & Cvelich (2010).

Background of the Study

The Early Language Literacy and Numeracy Program (ELLN) have been launched to capacitate teachers to teach and assess learners' numeracy and reading. The program visualizes the improvement of learners in their K-3 reading and numeracy skills. The program hopes to establish school-based monitoring through School Action Learning Cell SLAC. In connection, the School Readiness Year-End Assessment in Kindergarten revealed the five least learned skills in kindergarten, namely; (1) listening comprehension, (2) conservation concept, (3) distinguishing rhyme, (4) book print knowledge, and (5) word recognition. Hence, these minor learned skills were school-based acquired.

In the light of Covid 19 public health response, the Department of Education introduced a learning continuity plan DepEd order no. 12 s. 2020. Most Essential Learning Competencies (MELCs) have been focused on instruction and must be acquired by learners. The shift from traditional classrooms to blended modalities such as modular/online, radio/T.V., and modular print became inevitable. Technological integration, parents as home teachers, and teachers providing appropriate learning instruction became a scenario.

The mother's level of education, in particular, appears to be a significant predictor of reading development (Catts, Fey, Zhang, & Tomblin, 2001; Hecht, Burgess, Torgesen, Wagner, & Rashotte, 2000). Immediate circle has a more significant influence on learners' language and literacy. It is believed that children learn to read "naturally," just as they learn to speak and use language (Smith, 1985; 1999; Smith & Elley, 1994).

There should be early knowledge that a learner must possess, like letter name knowledge and alphabet principle. Proponents have argued that success in reading depends on the mastery of the alphabet principle. Stahl and Dusty-Hester (2006) declared that phonological awareness was the key that led to alphabetic principle development, invented spelling, and word recognition. It pertains to understanding sound function in isolation and combination. Hence, it involved letter and word knowledge association in reading and writing. However, opponents have claimed that English spelling patterns are complex and inconsistent in learning.

Kindergarten learners who were engaged in an online-distance learning and modular print (1) become phonologically aware, and (2) the level of vocabulary formation develops at a certain level. This study identified the significant relationship between the level of phonological awareness and level of vocabulary formation among children.

Theoretical Framework

This study is anchored to the **Chard and Dickson** (1999) a continuum of complexity of phonological awareness wherein the level of phonological awareness starts rhyming songs, then sentence segmentation, syllable segmentation, onset-rime blending and segmentation and finally, blending and segmenting individual phonemes. It suggests that as phonological awareness increases, level of activities complexities also increase.

The **Alphabetic Theory** by Adams (1990) and Ehri (1983) that letter names includes letter sounds. It mirrored the acquired knowledge of a child in letter-phonemes. Letter Name Knowledge (LNK) serves as a guide in acquiring letter sound knowledge. Evidence suggests that children that used letter names makes levelled in letter sound knowledge.

Theory of Mind by Del Rio (2013) conducted with children ages 3 to 6 pertains on their understanding of people's thought and want. In line, understanding on how people think helps children comprehend stories. Larraín, and Lissi (2013), identified that asking question in storybook reading intervention created positive effects in children comprehension.

Bruner's Educational Theory suggests that children early years of cognition. He insisted that learning is an active process of inquiry in which learners create ideas based on their knowledge. The images or icons that children produced represent what they have learned.

Statement of the Problem

1. What is the level of Phonological awareness of Kindergarten learners in terms of:
 - a. Onset and rimes
 - b. Phoneme Blending
 - c. Phoneme Segmentation
2. What is the level of vocabulary formation of Kindergarten learners in terms of:
 - a. Word recognition
 - b. Word Invented Spelling
 - c. Word Associated meaning
3. Does the level of phonological awareness have a significant relationship to learners' vocabulary formation?

Research Methodology

Intended to analyse the level of phonological awareness and vocabulary formation among Kindergarten learners, the researcher conducted quantitative research. This approach allowed the researcher to study a particular group: the sample population and its complex data about the level of phonological awareness and vocabulary formation among Kindergarten learners.

Respondents of this study were parents of kindergarten learners in Ananias Laico Memorial Elementary School, Magdalena district. Parents answered the survey questionnaires through Google form or printed form. Thirty-nine learners answered the activity sheets. They were between 5 to 6 years old. They were under online-distance learning. Parents answered the survey based on how learners answer the provided activity sheets. In this study, respondents were identified using a stratified sampling technique.

The researcher identified the school engaged in online-distance learning. She secured a permit to conduct a study. She informed the school principal and kinder teacher about the procedures of her study. Parents were briefed on the procedures like the activity sheets, the time duration, and the survey questionnaires.

Learner's activity sheets were provided one week prior to parent's survey questionnaires. Survey questionnaires in Google and printed forms were provided for parents' easy access. On the third week, the researcher gathered all the data.

For the purpose of data collection and investigation, an online-survey questionnaire was created to estimate the level of phonological awareness and vocabulary formation among kindergarten learners. However, printed survey questionnaires were available for parents with limited internet access.

First part consists of the name (optional), age and gender of the learners. Second part, phonological awareness in kindergarten in terms of onset (5 initial consonant sounds /C/, /M/, /F/, /S/, /L/) and rime (5 ending vowel-consonant sounds /-et/, /-at/, /-ap/, /-ick/, /-amp/); phoneme blending (8 letter blending sounds /Mat/, /Tap/, /Bag/, /Cat/, /Lag/, /Stick/, /Lamp/, /Stamp/) and phoneme segmentation (5 items /Hat/, /Beg/, /Tip/, /Lap/, /Mop/) with segmented vowels (4 items /a/, /e/, /i/, /u/) as well as segmented consonant sounds (6 items /H/, /B/, /T/, /t/, /g/, /p/).

The third part was the vocabulary formation among kindergarten learners in terms of word recognition (4 items), a word invented spelling (4 items) and word associated meaning (5 items)

Prior to the parent's survey questionnaire distribution, learners answered the activity sheets composed of the first part in their level of phonological awareness in terms of onset (5 items), rime (5 items), phonological blending (9 items), and phoneme segmentation (15 items). In the second part the learners' level of vocabulary formation in terms of word recognition (storytelling, five items), a word invented spelling (illustration, five items), and the word associated meaning (storytelling, five items) were identified

Results and Discussion

1. Level of Phonological awareness among Kindergarten learners in terms of Onset and rime

Table 1. Mean Level of Phonological Awareness of Kindergarten Learners in Terms of Onset and Rimes

He / She is aware of initial consonant sounds;	MEAN	SD	VERBAL INTERPRETATION
/c/	4.21	0.86	Highly aware
/M/	4.23	0.87	Highly aware
/F/	4.00	1.03	Aware
/S/.	4.26	1.02	Highly aware
/L/	4.15	1.04	Aware
He / She is aware of ending sounds or ending vowel-consonant			
/-et/	3.97	1.01	Aware
/-at/	4.13	0.92	Aware
/-ap/	3.90	1.07	Aware
/-ick/	3.74	1.16	Aware
/-amp/	3.67	1.15	Aware

Overall Mean = 4.03

Standard Deviation = 1.03

Verbal Interpretation = High

Table 1 presents the level of phonological awareness of kindergarten learners in terms of onset and rimes. Learners are aware of the initial consonant sounds /S/” ($M=4.26$, $SD=1.02$) and were remarked as “highly aware”. This is followed by Learners being aware of the initial consonant sounds /M/ with a mean score ($M=4.23$, $SD=0.87$) and remarked as “highly aware”. On the other hand, learners aware of ending sounds or ending vowel-consonant /amp/ received the verbal interpretation as “aware”. Overall, kindergarten learners' level of phonological awareness in terms of onset and rimes attained a mean score of 4.03 and a standard deviation of 1.03. This indicates that the learners know the initial and ending consonant sounds.

Initial word reading has been identified as a significant predictor of growth in decoding (Lemons & Fuchs, 2010). Letter sounds / M/ and /S/ were among the letter sounds mostly words used and early introduced in kindergarten. Both the onset and coda positions can create complex syllable structures and affect the development of reading fluency and how reading difficulties manifest (Ziegler & Goswami, 2006). In the word *stamp* combination of the vowel and the onset, represented by the combination of *stain* in this example, does not make psychological sense to English speakers, so this level is best presented by onset and rime (Kessler&Treiman, 2001).

2. Level of Phonological awareness among Kindergarten learners in terms of phoneme blending

Table 2. Mean Level of Phonological Awareness of Kindergarten Learners in phoneme blending

He / She is aware of Blending letter sounds;	MEAN	SD	VERBAL INTERPRETATION
/Mat/	4.26	0.85	Highly aware
/Tap/	4.26	0.85	Highly aware
/Bag/	4.31	0.89	Highly aware
/Cat/	4.31	0.86	Highly aware
/Lag/	4.23	0.90	Highly aware
/Stick/	3.92	1.09	Aware
/Lamp/	3.62	1.29	Aware
/Stamp/	3.56	1.33	Aware
Overall Mean = 4.06 Standard Deviation = 1.06 Verbal Interpretation = High			

Table 2 presents the level of phonological awareness of kindergarten learners in terms of phoneme blending. Among the statements above, Learners are “highly aware” of blending letter sounds /Bag/and/Cat/ ($M=4.31$, $SD=0.89$) and ($M=4.31$, $SD=0.86$). This is followed by learners being “highly aware” of blending letter sounds /Mat/ and /Tap/ with a mean score ($M=4.26$, $SD=0.85$). On the other hand, learners are aware of blending letter sounds /Stamp/ received the lowest mean score of responses with ($M=3.56$, $SD=1.33$). Overall, kindergarten learners' phonological awareness level in phoneme blending attained a mean score of 4.06 and a standard deviation of 1.06, high among the students.

Children vary in learning phoneme blending and may somehow interchange the sound /k/ and /c/ or /b/ and /d/ respectively. The words *cat*, *mat*, and *bag lag* have similar blend sounds. However, the words *stick*, *stamp*, and *lamp* have a CVCC pattern that adds to the usual pattern in kindergarten. Ambruster (2010) added that phoneme blending and segmentation in words are more likely to benefit students in reading than teaching several types of manipulation.

3. Level of Phonological awareness among Kindergarten learners in terms of phoneme segmentation

Table 3. Mean Level of Phonological Awareness of Kindergarten Learners in phoneme segmentation

He / She can easily identify the segmented phoneme sounds;	MEAN	SD	VERBAL INTERPRETATION
/ Hat/	4.26	0.88	Highly aware
/Beg/	4.05	1.05	Aware
/ Tip/	4.03	1.04	Aware
/ Lap/	4.00	1.05	Aware
/ Mop/	4.00	1.03	Aware
He / She forgets segmented vowel sounds;			
/a/	3.08	1.53	Slightly aware
/e/	3.13	1.45	Slightly aware
/i/	3.08	1.48	Slightly aware
/o/	3.03	1.51	Slightly aware
He / She forgets segmented consonant sounds;			
/H/	2.97	1.33	Slightly aware
/B/	2.85	1.35	Slightly aware
/T/	2.92	1.40	Slightly aware
/t/	2.87	1.42	Slightly aware
/g/	2.85	1.39	Slightly aware
/p/	2.85	1.39	Slightly aware

Overall Mean = 3.33

Standard Deviation = 1.39

Verbal Interpretation = Moderate

Table 3 presents the level of phonological awareness of kindergarten learners in terms of phoneme segmentation. Learners can easily identify the segmented phoneme sounds /Hat/ yielded the highest mean score ($M=4.26$, $SD=0.88$) and as “highly aware”. Learners can easily identify the segmented phoneme sounds /Beg/ as “aware” with a mean score ($M=4.05$, $SD=1.05$). On the other hand, learners forget segmented consonant sounds /B/”, “/g/”, and “/p/” with “slightly aware” responses with ($M=2.85$, $SD=1.35$), ($M=2.85$, $SD=1.39$), and ($M=2.85$, $SD=1.39$) Overall, kindergarten learners' phonological awareness level regarding phoneme segmentation attained a mean score of 3.33 and a standard deviation of 1.39 and was Moderate among the students.

In phoneme segmentation, learners individually segment words into phonemes. It forms a critical bridge that results in the development of word recognition (Alhumsy & Affendi, 2016). Segmented word /Hat/ learners can easily combine the CVC *H-at* sounds. However, segmented consonant /b/ and /p/ were often confused with consonant sounds /d/ and /f/. The segmented /g/ interchanges with the /ag/ instead of /eg/. Sounds are abstract, making this a hard concept for children to grasp (Cayer, 2018). According to Chard and Dickson (1999), training learners in phoneme segmentation skills requires much instruction, and it has a complex level of phonemic awareness.

4. Level of Vocabulary formation among Kindergarten learners in terms of word recognition

Table 4. Mean Level of Vocabulary formation in terms of word recognition

He/she can identify CVC words without re-reading the story;	MEAN	SD	VERBAL INTERPRETATION
Cat	3.74	1.12	Moderately promising
Rat	3.74	1.09	Moderately promising
Fat	3.69	1.08	Moderately promising
Bat	3.69	1.10	Moderately promising
Mat	3.67	1.11	Moderately promising
Sat	3.72	1.10	Moderately promising
He/she can identify three CVC words with a re-reading story.			
Cat	3.72	1.02	Moderately promising
Rat	3.72	1.05	Moderately promising
Fat	3.72	1.02	Moderately promising
Bat	3.67	1.08	Moderately promising
Mat	3.62	1.07	Moderately promising
Sat	3.67	1.08	Moderately promising
He/she can define the meaning of CVC or consonant-vowel-consonant words.			
Sat	3.69	1.15	Moderately promising
Cat	3.74	1.12	Moderately promising
Mat	3.54	1.12	Moderately promising
Bat	3.64	1.18	Moderately promising
Fat	3.64	1.14	Moderately promising
Rat	3.67	1.13	Moderately promising
He / she shows _____ in answering details about the story.			
Confidence	3.62	1.16	Moderately promising
Hesitation	2.79	0.89	Slightly promising
Needs assistance	3.10	0.91	Slightly promising

Overall Mean = 3.61

Standard Deviation = 1.10

Verbal Interpretation = High

Table 4 presents the level of vocabulary formation of kindergarten learners in terms of word recognition. Learners can identify CVC words without re-reading the story, like /Cat/ and /Rat/ yielded the highest mean score ($M=3.74$, $SD=1.12$) and ($M=3.74$, $SD=1.09$), as well as Learners, can define the meaning of CVC or consonant-vowel-consonant words /Cat/ ($M=3.74$, $SD=1.12$) as “moderately promising”. On the other hand, learners' hesitation in answering details about the story received slightly good mean scores responses with ($M=2.79$, $SD=0.89$). Overall, the level of vocabulary formation of kindergarten learners in terms of word recognition attained a mean score of 3.61 and a standard deviation of 1.10 and was High among the students.

The Alphabet system is a mnemonic device that supports our memory of specific words, Ambruster (2010). The word *cat* has usually been given or encountered in their lesson and initial CVC in the Kindergarten task. The story has word patterns such as *cat*, *mat*, *fat*, *bat*, and *mat* that pre-determine sequence in the story. Ehri (2014; 2005) added that word recognition was words that are automatically and immediately recognized by emergent readers, and the analysis for their identification is not required. In line, phoneme segmentation forms a critical bridge that results in the development of word recognition (Alhumsia&Affendi,2016).

5. Level of Vocabulary formation among Kindergarten in word invented spelling

Table 5. Mean Level of Vocabulary formation in terms of word invented spelling

He / She can correctly spell words	MEAN	SD	VERBAL INTERPRETATION
Cat	3.95	1.12	Moderately promising
Mop	3.51	1.14	Moderately promising
Stick	3.03	1.18	Promising
Hat	4.03	1.14	Moderately promising
Elephant	2.82	1.30	Promising
He/she pauses and asks a question for unfamiliar word/s			
Cat	2.95	1.30	Promising
Mop	2.95	1.19	Promising
Stick	2.97	1.27	Promising
Hat	2.97	1.39	Promising
Elephant	2.95	1.36	Promising
He/she attempts several times before he/she correctly spells word/s.			
Cat	2.77	1.27	Promising
Mop	2.85	0.96	Promising
Stick	3.03	0.96	Promising
Hat	2.67	1.13	Promising
Elephant	2.85	1.01	Promising
He/she shows confidence in word spelling.			
Cat	4.08	1.01	Moderately promising
Mop	3.64	1.04	Moderately promising
Stick	3.28	1.10	Promising
Hat	3.92	1.11	Moderately promising
Elephant	3.13	1.08	Promising
Overall Mean = 3.22			
Standard Deviation = 1.23			
Verbal Interpretation = Moderate			

Table 5 presents the level of vocabulary formation of kindergarten learners in terms of word invented spelling. Learners show confidence in word spelling /Cat/ with “moderately promising” ($M=4.08$, $SD=1.01$). Learners can correctly spell the words /Hat/ with “moderately” good yields ($M=4.03$, $SD=1.14$). On the other hand, Learners attempt several times before they correctly spell the word/s /Hat/ as favorable responses with the lowest mean score ($M=2.67$, $SD=1.13$). Overall, the level of

vocabulary formation of kindergarten learners in terms of word invented spelling attained a mean score of 3.22 and a standard deviation of 1.23 and was Moderate among the students.

In word invented spelling, learners can break the word/cat/ into /c/-/a/-/t/ phonemic segments and then selects the alphabet corresponding to the segmented sound. Children's early development of phonological awareness presents as their ability to differentiate between large segments of sounds (i.e. words, rimes) in their language and proceeds to their ability to manipulate phonemes (i.e. distinct units of sound that distinguish one word from another) in their language (Kaliaetal,2018).

In Syllable juncture spelling, the word *mop* vs. *mopping*, like with *hopping* vs. *hoping*, pertains to the knowledge of polysyllabic words. Templeton (2000) stated that children in this spelling stage analyse the spelling of single-syllable words more abstractly. They have moved away from a strict one letter/one sound expectation and can now manipulate more complex letter patterns.

In the letter name spelling stage, a child can use alphabet principle, sound, and articulate spelling. Initial word reading has been identified as a significant predictor of growth in decoding (Lemons and Fuchs, 2010). As a result, learners understood the basic short vowel pattern CVC or consonant-vowel-consonant pattern. Bear et al. (2000) claimed that the purpose of word study revealed that through active exploration, word study teaches students to examine words to discover the regularities, patterns, and rules of English orthography needed to read and spell. Second, word study increases specific knowledge of words--the spelling and meaning of individual words.

6. Level of Vocabulary formation among Kindergarten in word associated meaning

Table 6. Mean Level of Vocabulary formation among Kindergarten in word associated meaning

He/she remembers _____ words and can define their meaning	MEAN	SD	VERBAL INTERPRETATION
1 to 3 words	3.92	1.09	Moderately promising
4 to 6 words	3.49	1.30	Moderately promising
7 to 10 words	3.31	1.34	Promising
more than ten words	3.13	1.34	Promising
He/she tries to ask _____ unfamiliar words and cannot understand the story.			
1 to 3 words	3.08	1.18	Promising
4 to 6 words	2.77	1.16	Promising
7 to 10 words	2.77	1.25	Promising
more than ten words	2.82	1.25	Promising
He/she tried to ask _____ unfamiliar words but can understand the story.			
1 to 3 words	3.44	0.94	Moderately promising
4 to 6 words	3.21	1.06	Promising
7 to 10 words	3.13	1.06	Promising
more than ten words	3.05	1.10	Promising
He/she learned _____ new vocabulary by listening to a story and asking about its meaning.			
1 to 3 words	3.85	1.04	Moderately promising
4 to 6 words	3.51	1.17	Moderately promising
7 to 10 words	3.46	1.21	Moderately promising
more than ten words	3.18	1.27	Promising
He / she shows _____ in answering details and new word/s encountered in the story			
Confidence	3.56	1.12	Moderately promising
Hesitation	3.03	0.96	Promising
Needs further assistance	3.23	1.27	Promising

Overall Mean = 3.26
 Standard Deviation = 1.20
 Verbal Interpretation = Moderate

Table 6 presents the level of vocabulary formation of kindergarten learners in terms of word-associated meaning. Learners who remember 1 to 3 words and can define their meaning yielded the highest mean score ($M=3.92$, $SD=1.09$) with “moderately promising”. Learners learned 1 to 3 words of new vocabulary by listening to a story and asking about its meaning with “moderately promising” ($M=3.85$, $SD=1.04$). On the other hand, learners showed hesitation in answering details, and new word/s encountered in the story as “promising” and received the lowest mean scores of responses with ($M=3.03$, $SD=0.96$). Overall, the level of vocabulary formation of kindergarten learners in terms of word associated meaning attained a mean score of 3.26 and a standard deviation of 1.20 and was Moderate among the students.

In acquiring new vocabulary, a child becomes familiar with the sounds and structure and tries to discover its word meaning. Walker added that children make many gains when studying words. They come to see the naturally occurring patterns in words and then make connections between the words. As a result, children are better prepared to build links between print and meaning.

Hayward et al. (2017) also found that errors among different PA tasks are not random; instead, they are evidence of the child's knowledge and strategies while completing the task. In acquiring new vocabularies, learners underwent different word repetitions and activities that gradually revealed the meaning of a given word/s. The learners *remember 1 to 3 words and can define their meaning, and learners learned 1 to 3 words of new vocabulary in listening to a story and asking its meaning* got the highest yielded mean. However, vocabulary acquisition did not fall into 4 to 6 or 7 to 10 because they were hesitant to answer details and new words encountered in the story.

Awareness of the specific English phonemes is fundamental for English Foreign Language learners as they most likely contribute to word processing skills (Arum A., 2021). As a result, knowledge as a second language became an edge to gain confidence in word-associated meaning.

Table 7. Relationship between the Phonological Awareness and Vocabulary Formation of Kindergarten Learners

Phonological Awareness	Vocabulary Formation	Computed r-value	Strength	p-value	Analysis
Onset and Rimes	Word Recognition	0.668	Strong	0.000	Significant
	Word Invented Spelling	0.436	Moderate	0.006	Significant
	Word Associated Meaning	0.561	Moderate	0.000	Significant
Phoneme Blending	Word Recognition	0.562	Moderate	0.000	Significant
	Word Invented Spelling	0.367	Weak	0.022	Significant
	Word Associated Meaning	0.619	Strong	0.000	Significant
Phoneme Segmentation	Word Recognition	0.073	Very Weak	0.658	Not Significant
	Word Invented Spelling	0.525	Moderate	0.001	Significant
	Word Associated Meaning	0.285	Weak	0.079	Not Significant

Legend:
 Range Degree of correlation
 0.80-1.00 Very Strong
 0.60-0.79 Strong

0.40-0.59 Moderate
 0.20-0.39 Weak
 0.00-0.19 Very Weak

Table 7 presents the relationship between phonological awareness and vocabulary formation of kindergarten learners. Specifically, it presents the relationship between students' awareness on onset and rimes, phoneme blending, and phoneme segmentation with their abilities in word recognition, word invented spelling, and word associated meaning.

Onset and rimes are observed to have a positive and strong relationship with word recognition ($r=0.668$, $p=0.000$); a positive and moderate relationship with the word invented spelling ($r=0.436$, $p=0.000$), and word associated meaning ($r=0.561$, $p=0.000$). All these correlations are significant.

Phoneme blending is observed to have a positive and strong relationship with word-associated meaning ($r=0.619$, $p=0.000$). A positive relationship with word recognition ($r=0.562$, $p=0.000$) and weak positive relationship with word invented spelling ($r=0.3667$, $p=0.000$). There is a weak positive relationship in phoneme segmentation to word invented meaning ($r=0.525$). The correlations ranged from weak to strong but were all significant.

There is a significant relationship between onset and rimes to word recognition, a word invented spelling and word associated meaning, phoneme blending to word associated meaning and word invented spelling, and phoneme segmentation to word invented spelling.

The null hypothesis was rejected from the findings, significance level of 0.05.

On the other hand, phoneme segmentation is perceived to have no significant relationship between word recognition ($r=0.073$, $p=0.000$) and word-associated meaning ($r=0.285$, $p=0.000$).

Onset and rime with a strong relationship with word recognition can be concluded that initial sounds can hint at a word, like in letter-sound *c-a-t* to *cat*, *m-a-t* to the *mat*, and *f-a-t* to *fat*. When words are used in a story patterned events, children can be fixated with the /c/cat, /m/mat, and /f/ as *fat*. Ehri (2014) stated that in word recognition, words are automatic and immediately recognized by emergent readers, and the analysis for their identification is not required. In addition, Walker (2000) said that one of the small victories very early learners have is discovering that words are consistently written the same way.

In this study, phoneme blending in word-associated meaning suggests that learners have different learning approaches to revealing words' inclusive meaning. As Buckley (2016) stated, it remains possible that children were reading actual words using alternative strategies.

In dealing with the onset and rimes to invented spelling, the words *cat* and *hat* were answered correctly, while *stick* and *elephant* have some attempts and errors in learners' activity tasks. Hayward (2017) found that errors among PA tasks are not random; instead, they are evidence of the child's knowledge and strategies while completing the task.

Despite no positive relationship between phoneme segmentation and word-associated meaning, learners have an initial background in manipulating phonemes that eventually develops and gradually associates word meaning. Zhao (2017) suggested that having the ability to segment or decode words into their tiniest amount fraction can develop awareness and wise words with distinct meanings.

Learners' phoneme segmentation with a weak relationship in their word invented spelling output suggests that there are learners who segment phonemes to spell words in CVC. In contrast, others cannot quickly grasp the segment phoneme into new word sounds or spells. As to what Torgesen & Grek (2005) explained, Phoneme segmentation has a significant role in learners' invented spelling. Sounds became an excellent clue in spelling. It is needed for children to recognize the alphabetic principle and to sound out printed words.

Summary of Findings

The study attempted to determine the phonological awareness and vocabulary formation among kindergarten learners.

Specifically, it sought answer to the following questions: (1) what is the level of phonological awareness in terms of onset and rimes, phoneme blending, and phoneme segmentation? (2) What is the level of word formation in terms of word recognition, a word invented spelling, and the word associated meaning? (3) Is there a significant relationship between phonological awareness and word formation in kindergarten?

In onset, 39 respondents have 48.72% with “highly aware” as well as /M/ and /S/ initial consonant sound. Second, 46.15% were “highly aware” of the /c/ initial consonant sound. Lastly, 41.02% got “aware” in /L/ and /F/ initial consonant sound. Respondents in terms of rime were aware of ending sounds or ending vowel-consonant /amp/ received the verbal interpretation as “aware”. Overall, kindergarten learners' level of phonological awareness in terms of onset and rimes attained a mean score of 4.03 and a standard deviation of 1.03. This indicates that the learners know the initial and ending consonant sounds.

Learners are “highly aware” of blending letter sounds /Bag/ and /Cat/, with 54% responded. Learners who follow this are “aware” of blending letter sounds /Mat/ and /Tap/ with 48.72%. On the other hand, learners are “aware” of blending letter sounds /Stamp/ with the lowest responses of 30.76%. The level of phonological awareness of kindergarten learners in terms of phoneme blending attained a mean score of 4.06 and a standard deviation of 1.06 and was “high” among the learners.

Phoneme segmentation of sounds /Hat/ got “highly aware”, with 48.72% responded. Next, segmented phoneme sounds /Beg/ as “aware” with 46.15%. However, learners forgot segmented consonant sounds /B/ 15.38%, /g/ 7.69%, and /p/ 15.38% with “slightly aware” responses. In terms of phoneme segmentation, Kindergarten learners attained a mean score of 3.33 and a standard deviation of 1.39 and were “moderate” among the students.

Learners can identify CVC words without re-reading the story like /Cat/ and /Rat/ with 30.76% “moderately promising”. Learners can define the meaning of CVC or consonant-vowel-consonant words /Cat/ as “moderately promising”. On the other hand, learners showed hesitation in answering details about the story received “slightly promising”, with 12.82% responding. In terms of word recognition, it attained a mean score of 3.61 and a standard deviation of 1.10 and was “high” among the students.

Learner shows confidence in word spelling /Cat/ “moderately promising” 43.59%. Learners can correctly spell the words /Hat/ with “moderately promising” with 48.72%. However, learners attempt several times before correctly spelled the word /Hat/ as favourable responses with the lowest mean score. In terms of word invented spelling, kindergarten learners attained a mean score of 3.22 and a standard deviation of 1.23 and were “moderate” among the students.

Learners remember 1 to 3 words and can define their meaning with a “moderately promising” 41.02%. Learners learned 1 to 3 new vocabulary words by listening to a story and asking about its meaning with a “moderately promising” 35.89%. However, learners showed hesitation in answering details, and new word/s encountered in the story as “moderately promising” and received the lowest mean scores of responses. The word associated meaning has attained a mean score of 3.26 and a standard deviation of 1.20 and “moderate” among the students.

Conclusion

In accordance with the findings, the conclusions were made:

The researcher, therefore, concludes that Onset and rimes are observed to have a positive and robust relationship with word recognition; a positive and moderate relationship with the word invented spelling and word associated meaning. Phoneme blending is observed to have a positive and robust relationship with word-associated meaning. However, a positive relationship with word recognition has a weak positive relationship in phoneme segmentation to word invented meaning. Phoneme segmentation is perceived to have no significant relationship between word recognition and word-associated meaning. Based on the findings of the study, the conclusion below was made. Respondents' result on the level of phonological awareness and vocabulary-formation among kindergarten learners has a positive relationship..

Recommendations

Based on the conclusions drawn from the study, the following are recommended:

1. The researcher recommends that parents should have appropriate learning-based instruction in imparting phonemic and vocabulary formation to learners.
2. Technological integration for learning tasks and instruction in these new standards must be prioritized.
3. There should be an urgent need to include English language (L2) in the kindergarten instruction and be embedded in its curriculum.
4. Teachers should keep learning to improve teaching strategies in their phoneme awareness and vocabulary formation.
5. Researcher encourages conduct of studies in phonological awareness and vocabulary formation in different time-framed and classroom environments.

References

- Alhumsi, M. & Awwad, A (2020). The Influence of Phonemic Awareness Instruction on EFL Emergent Readers' Word Recognition: Saudi Electronic University.
- Ambruster, B., Lehr, F. & Osborn, J. (2001). Put Reading First: The Research Building Blocks for Teaching Children to Read: Kindergarten to Grade 3: Published by the Partnership for Reading.
- Aslam M., & Kaka. A. (2007). Introduction to English Phonetics and Phonology: Cambridge University Press
- Arrow, A. (2010). Emergent literacy skills in New Zealand kindergarten children implications for teaching and learning in ECE settings: Massey University of College of Education.
- Arrow, A. W. (2007). Potential Precursors to the Development of Phonological Awareness in preschool children: ResearchSpace@Auckland.
- Burgoyne E, K., Duff F. Snowling M. Buckley S.& Hulme C. (2013). Training phoneme blending skills in children with Down syndrome: Down Syndrome Education International.
- Carroll, J. M., Snowling, M. J., Stevenson, J., & HULME, C. (2003). The development of phonological awareness in preschool children. Researchgate
- Chard, D. J. & Dickson S.V. (2015). Phonological Awareness: Instructional and Assessment Guidelines: Southern Methodist University.
- Del Rio, F. & Strasser, K. (2013). The Role of Comprehension Monitoring, Theory of Mind, and Vocabulary Depth in Predicting Story Comprehension and Recall of Kindergarten Children: International Reading Association
- Department of Education.(2019). DepEd Memorandum no. 173 Hamon: Bawat Bata Bumabasa.
- Dilman, H.(2014). Effect of studying vocabulary enhancement activities on students' vocabulary production levels: Published by Elsevier Ltd
- Dziuban, C., Graham, G.R. (2018). Blended learning: the new normal emerging technologies: Springer Link.
- Foulin, J.N.(2005). Why is letter-name knowledge such a good predictor of learning to read: ACADEMIA accelerating the world's research
- Holopainen, L., Hakkarainen A., Koch, A., & Kofter D. (2020). Predictors of Reading Skill at the First and Second Grade: Role of Orthography: Research gate.
- Hoover, W. (2002). The Importance of Phonemic Awareness in Learning to Read: SEDL Archive
- Joyce, M.F. (2011). Vocabulary acquisition with kindergarten children using song picture books: Northeastern University
- Gorfen, D, Berger S., Bubka A.(2000). The selection of homograph meaning: Word association when context changes: Psychonomic Society.
- Ibenegbu, C. (2021). Interaction Effect of Mode of Illustration and Colour Preference on Pupils' Achievement in Phonics: University of Nigeria.
- Lyons, (1995). Big Ideas in Beginning Reading: Phonemic Awareness Research Says the University of Oregon.
- Kelly, C.(2018). Literacy Programs Evaluation Guide: Reading Rockets.
- Tresselt, M. & Mayzner, M. (2014). Value and Meaning Beyond the First Word Association: Research gate Psychonomic Science. 1. 203-204.
- Mcculough, J. (2018). Reading 101: The importance of Phonemic Awareness: PediaSpeech Services. INC.

Rockman, M., Lintangari, A.P, & Perdhani, W.C.(2020). EFL learners' phonemic awareness: A correlation between English phoneme identification skill and word processing. Journal of English Educators Society.

Shanahan, T. (2014). Phonemic Awareness and Phonics: McGraw-Hill.

Sithitikul, P.(2014). Theoretical Review of Phonics Instruction for Struggling/Beginning Readers of English: Thammasat University

Tangel, D.M & Blachman, B.A.(1992). Effect of Phoneme Awareness Instruction on Kindergarten Children's Invented Spelling: Syracuse University

Ukrainetz, T.A (2010). The effects of syllable instruction on phonemic awareness in preschoolers: University of Wyoming Laramie.

Walker, N.(2000). Word study: An inter d study: An interactive approach to word solving d solving: California State University, San Bernardino

Wasik, B. (2001). Phonemic Awareness and Young Children: Johns Hopkins University.

Wilcox, J. (2018). Families can use simple ways to enhance their child's phonological awareness: Kentucky Department of Education.

Wooldridge, L. (2017). The Big Five: Phonological and Phonemic Awareness-Part 1:Orton Gillingham Online Academy.