

Using Poems in Increasing Phonological Awareness among Children

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ABSTRACT: This study was conducted to analyze the effects of using phonology method and traditional method in Malay language poems on phonological awareness among 62 children in government pre-schools. Quasi-experimental study was conducted to compare two methods. The conceptual framework applied in the study was based on the preparation of reading by Stewart (2004) and Theory of Cognitive Development (Piaget, 1977). The experimental group ($n = 30$) was trained to read the poems by using phonology method whereas the control group ($n=32$) was trained by applying traditional method. Both groups were given pre-tests and post-tests to compare the level of phonological awareness in recognition of the number of syllables in a word, rhyming syllable discrimination in words, producing rhyming syllable, early and ended phonemic sound. The findings showed that usage of the rhyming poems has enhanced the level of phonological awareness among preschool children after the treatment significant. In contrary, the traditional method gave no effect on phonological awareness. However analysis of Mann Whitney U-test found no significant difference between the score between the male and female in experimental group. Therefore usage of poems to enhance phonological awareness can be used optimally by teachers in preschool because genre of poem is identified as an effective way to increase children's literacy.

Keywords: children, national primary schools, preschool, phonological awareness

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1 INTRODUCTION

According to a UNESCO's report (2008) and Taguma et.al (2013), early childhood education plays an important role in the development of a child's mind and can reduce existing deficits in future. Studies conducted in the US found that children who attended preschool were more committed to education and earned higher incomes in their future. Recognizing the importance of preschool education and the scope for Malaysia to increase the rate of enrollment, the pre-school has become one of the main objectives under the National Key Result Areas (NKRA) in education and National Education Blueprint (2013-2025). Malaysian government meant to develop the country as the educational centre in Southeast Asia, mainly to increase the country's literacy rate.

2. STATEMENT OF PROBLEM

In Malaysia, reading problems among school' students are always in the spotlight either of the parents or teachers. In fact, the country's top leaders are also worried about the problems. Ministry of Education' analysis found an average dropout in national primary schools from year 2006 to 2010 was about .3 per cent of male and .2 per cent for female. Culture of low reading habits among

school's students in addition to the failure to master the reading, writing, and counting skills is identified as a contributing factor to the dropout problem (*Utusan Online*, April 16, 2011). This showed that using Malay language as medium of instruction is a problem in primary schools, and the grassroots starts at preschool level.

Mastery of language skills is closely related to the development of spoken language. Oral language development is a highly complex cognitive processes. Children produce spontaneous speech at ages varying from 10 months to 2 years (Chang, 2010). However, they are unable to identify errors and corrections that need to be improved in speech. (Li, 2003).

Language development has led to the development of phonological awareness. Children who are sensitive to voice at preschool age known as phonological awareness (Yopp & Yopp, 2009). Phonological awareness is the ability to detect and manipulate the sounds of language without knowing its meaning (Lonigan, 2006). Phonological awareness has evolved from a two-dimensional form of simple to complex (Yopp & Yopp, 2009). Children aged 5 and 6 years old are usually able to distinguish the characteristics of sounds (phonemes) and produce some sounds. This is the beginning of children to recognize the songs, rhymes and poems. Thus, phonological awareness is a key foundation for the suc-

cess of the practice of reading and it is important to detect children who have trouble in reading (Ehri et al., 2001; Lonigan, 2003; Storch & Whitehurst, 2002).

The selection of reading materials is important in the process of reading. Quality reading materials such as poems and story books also have a positive effect on the level of phonological awareness. The beat and rhythm of the poem may improve short-term memory of children (Michalis et al., 2014). Preschool teachers can perform mechanical reading to draw attention to the sound of children reading. At the same time, children are encouraged to make observations towards the sound and language (Yopp & Yopp, 2009).

According to The Poetry Library (2003), poetry is the most appropriate art of literature to express any speech. Poems is favored by all levels of society, especially the children. Children become interested in poetry since childhood. Children who are reading the poem are to be the inspiration and role model to young readers. The practice of reading, writing and listening to nursery rhymes is the most meaningful experience for children of various ages (KBYU Eleven, 2010).

Children with phonological problem are likely to face problems in the spoken language. They often make the mistake of replacing the sound in words such as "name" to "mama" and "blink" to drink". The root of the problem is the delay in language phonology, aphasia and central auditory processing disorder (Central auditory processing disorders/ CAPD). There are children who acquire language later than usual. Some children will be able to master the language although somewhat slower than others, but there are children who do not show changes and require early intervention to help him/her. Therefore, early intervention is important to be implemented to detect the Malay language reading problems in order to solve the phonological problems at the early stage.

Many studies showed female outperformed male in reading and writing competencies. On the other hand, many researchers found no significant differences between the genders with the achievement of children in reading and writing. The lack of insight on this topic in Malaysia suggests that a review of recent empirical studies on the topic.

Preschools in Malaysia emphasize reading and writing competency of children to prepare them with basic literacy skills before entering primary schools. This is main objectives of preschools as foundation to form literate young generation (Malay Language Standard Curriculum Document in Preschools, 2011).

In this context, Malay language as medium of instruction in national preschools, is phonic language. It can be learnt and mastered easier by using phonic method (Yusoff et.al 2014). To increase phonological awareness of children, poem become the main literary material in the study.

Thus, this study aimed to answer the research questions as below:

1. What is the level of phonological awareness of experimental group in pretest and posttest?
2. What is the effect of using poems to enhance the level of phonological awareness of children with different teaching method?
3. Is there any significant difference between phono-logical awareness and gender after using phonic method?

3. CONCEPTUAL FRAMEWORK

Phonological awareness is one of the indicators of reading ability. Therefore, the conceptual framework applied in this study is based on the theory put forward by Stewart (2004) who suggested to read poems to children as their preparation of reading as shown in Figure 1. The traditional poems interchangeable with modern poems to read mechanically to children to enhance their phonological awareness.

According to Theory of Cognitive Development (Piaget, 1977), children age 5 to 6 years old can identify and manipulate the sounds of vowels, syllables, words and sentences but most like-ly still do not appreciate the true meaning behind the words and sentences.

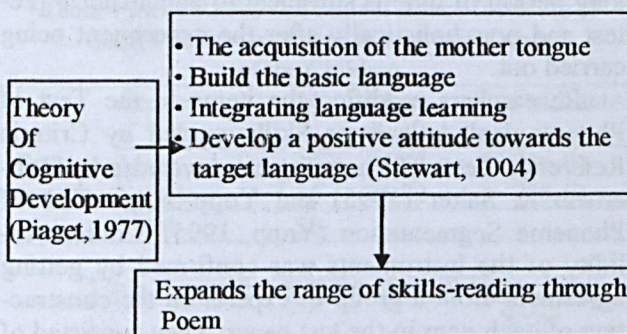


Figure 1 Conceptual framework

Research Design

This study used a quasi-experimental design. The study involved two groups, namely experimental group and the control group. The respondents were selected based on purposive sampling method. The experimental group received the phonological awareness intervention by using rhyming poems

whereas the control group received traditional teaching method on the rhyming poems. Pre-test in this study was based on the test that was developed by the researchers based on phonological awareness items. Both groups were tested separately and post-test will be given after the children have been went through the teaching session.

Training sessions have been held for 2 months' time. The researchers developed the training modules, based on transactional model of development which states that meaning is constructed through reading and influenced by social, cultural, and environmental factors (Miller, 2000). The module allows the researchers to teach Malay language poems based on preschool program syllabus established by Ministry of Education (2010).

Research Instrument

The test used in this study was based on the concept of phonological awareness proposed by Cisero and Royer (1995) who divided phonological awareness into three forms: firstly segment word into sounds; secondly divide each syllable of a word, and finally into individual phonemes.

There were five sections in pre and posttest administered during the study, including:

- (a) Part 1: Recognition of syllables in words
- (b) Part 2: Discriminate rhyming sounds in syllable
- (c) Part 3: Producing rhyming syllables
- (d) Part 4: Early phonemic sound
- (e) Part 5: End of phonemic sound

Items used in the pre and posttest were the same and being administrated twice. Then, two month-long period of time is sufficient to administer a pre-test and post holistically after the experiment being carried out.

Researchers modified the items in the Test of Phonological Awareness Skills guided by Criteria Reference Tests of Phonological Awareness by Robertson & Salter (1995) and Yopp-Singer Test of Phoneme Segmentation (Yopp, 1995). Content validity of the instruments was confirmed by getting agreement from a group of experts on the construction of each item in the test paper. They consisted of Madam N who has more than 10 years' experiences in teaching Malay language in preschool, Madam A who is Head of Malay language in National Primary schools and a Malay language lecturer at the university, Dr. C.

Before the data collection, the test was tested for reliability. The pilot study was done among 30 pupils at a national primary school. Results of the analysis showed that the test has the consistency or .85 Cronbach alpha value. This means the instru-

ment was robust and can be implemented in the study.

Respondents of Study

There were 62 children were selected in this study that involved two preschools in Kuala Lumpur, comprised of 28 male and 34 female. Pre-school A and B represented the experimental group (n=30) and the control group (n=32) by using rhyming poems with and without training and practice of phonological awareness respectively.

In terms of ethnicity, the Chinese showed that most numbers, ie by 42 children or 67.7%, followed by the Malays of 12 children or 19.4%, Indians by 6 children or 9.7% and the others of 2 children or 3.2%. The age range of the preschoolers was from 6 years 0 months to 6 years 11 months. There were 32 respondents in control group and 30 children in experimental group.

4. FINDINGS

Research Question 1: What is the level of phonological awareness of control and experimental group in pretest and posttest?

Table 1: Marks Distribution of Control Group for Pretest and Posttest

Range of Score	Pretest		Posttest		Changes in F	Changes in %
	F	%	F	%		
0-20	5	15.6	5	15.6	0	0
21-40	9	28.1	5	15.6	-4	-12.6
41-60	4	12.5	6	18.8	+2	+6.3
61-80	5	15.6	7	21.9	+2	+6.3
81-100	9	28.1	9	28.1	0	0
Total	32	100	32	100	-	-

F = frequency, % = percentage

Each part of test carried 20 marks, and total of 5 parts formed 100 marks. For instance children who scored 20% meant they can recognize syllables in words (Part I), 40% meant they can discriminate rhyming sounds in syllable (Part II) and Part I, 60% meant they can produce rhyming syllables (Part III), Part II and Part I, and so on.

Table 1 showed the overall pretest and posttest scores for control group. Range of score from 0 to 20% and 80% to 100% respectively did not perform any increase among the children after the post-test was conducted; followed by the reduction of 4 (12.6%) children at range of score from 21% to 40%. On the other hand, range of score from 41% to 60% and 61% to 80% showed increase of 2 (6.3%) children. The frequency distribution of scores for the

control group showed a decrease in the early stages of low range of score, followed by slow increase at the moderate range of score. This scenario presented that the traditional method to teaching poems in Malay language class perform moderate level of phonological awareness among children.

Table 2: Marks Distribution of Experimental Group for Pretest and Posttest

Range of Score	Pretest		Posttest		Changes in F	Changes in %
	F	%	F	%		
0-20	6	20.0	4	13.3	-2	-6.7
21-40	4	13.3	3	10.0	-1	-3.3
41-60	6	20.0	0	0	-6	-20.0
61-80	6	20.0	4	13.3	-2	-6.7
81-100	8	26.7	19	63.4	+11	+36.7
Total	30	100	30	100	-	-

Table 2 showed the overall pretest and posttest scores for experimental group. Based on analysis of the frequencies that have been executed, available range of score from 0 to 20% and 61% to 80% respectively decreased a total of 2 (6.7%) children after the post-test was conducted; range of score from 21% to 40% presented reduction of 1 (3.3%) child whereas range of score from 41% to 60% showed decrease of 6 (20%) children. On the other hand, range of score from 81% to 100% performed dramatic incensement with a total of 11 (36.7%) children. The frequency distribution of scores for the experimental group showed a decrease in the early stages of low and moderate range of score, followed by big increase especially at the maximum range of score. This scenario illustrated the use of phonology method in teaching Malay language poems enhance the level of phonological awareness among children greatly.

Research Question 2: What is the effect of using poems to enhance the level of phonological awareness of children with different teaching method?

Table 3: T-test comparing the Effect of Using Poem with Gender for Control Group

Poems	N	M	SD	t	p
Pre-test	32	55.56	32.29	9.53	4.38
Post-test	32	61.88	31.57		

* Significant level at $p < .05$

Pair sample t-test analysis showed no significant differences in the overall score of control group that applied traditional method (chalk and talk) between the pretest ($M = 55.56$, $SD 32.29$) and posttest ($M =$

61.88 , $SD 31.57$), $t(32) = 9.53$, $p > .05$. The mean score obtained clearly showed that the control group that learnt poems by using the traditional method did not made much progress. Thus, the null hypothesis (H_01) sound as "there is no significant difference of using traditional method to teach poem in increasing phonological awareness" is accepted.

Table 4: T-test comparing the Effect of Using Poem with Gender for Experimental Group

Poems	N	M	SD	t	p	n
Pre-test	30	55.93	32.15	7.00	.00*	.52
Post-test	30	78.76	32.98			

* Significant level at $p < .01$

Pair sample t-test analysis showed significant differences in the overall score of experimental group between the pretest ($M = 55.93$, $SD 32.15$) and posttest ($M = 78.76$, $SD 32.98$), $t(30) = 7.00$, $p < .01$. The value of the effect size for the overall score of the poem in the post-test was at .52, showed a moderate effect sizes. These values clearly show that the use of a simple rhyme gave significant impact on phonological proficiency among preschool children. The mean score obtained clearly showed that the experimental group made more progress after they went through the phonic training. Thus, the null hypothesis (H_02) sound as "there is no significant difference of using phonic method to teach poem in increasing phonological awareness" is rejected.

Question 3: Is there any significant difference between phonological awareness and gender after using phonic method?

Table 4 Mean Ranks and Sum of Ranks for Score of Using Phonic Teaching Method with Gender of the Children

	Gender	N	Mean Rank	Sum of Ranks
Post-test	Male	16	14.78	236.50
	Female	14	16.32	228.50
	Total	30		

Table 5 Significant of the Mann-Whitney U^{ab}

	Score
Mann-Whitney U	100.500
Wilcoxon W	236.500
Z	-5.30
Asymp. Sig. (2-tailed)	.596
Exact Sig. (2*(1-tailed sig))	.637 ^b

a. Grouping Variable: Gender

b. Not corrected for ties

Analysis of Mann Whitney U-test was used to find the relationship between gender of children with their phonic awareness score in post-test. It was found that there was no significant difference be-

tween the score between the male pupils ($Md = 3$, $n = 16$) with female pupils ($Md = 3$, $n = 14$), $U = 100.50$, $Z = -5.30$, $p > .05$, $r = .97$. This showed that gender was not related to their score in posttest. Z value was not significant at $p < .05$ indicated that null hypothesis that sound as "there is no significant difference between phonological awareness and gender after using phonic method" was accepted. Therefore, the male and female pupils did not differ in their phonic score in posttest.

5. DISCUSSION & INTERPRETATION

Descriptive findings showed the level of using poems among preschool children in experimental and control group can be detected through pretest and posttest of phonological awareness. Based on the results, it is proved that phonic method through poems in the implementation of teaching preschooler have influenced the process of teaching and learning in preschool in general and the Malay language in particular rapidly. Contrary to it, the traditional method of teaching poem was found increased the level of phonological awareness slowly.

This scenario explained that the phonic method of teaching poems enables children who are at moderate levels can directly read the follow-up sensitivity to sound without understanding and knowing the meaning of words or sentences. Children can read spontaneously and smoothly without spelling out the syllables. Most children can manipulate sound after mastering five basic skills of phonological awareness, namely phonemic awareness, phonics, fluency, vocabulary and comprehension to become good readers. Children are able to distinguish skills with segmenting the words to the sound, combining the sound of the word, and evaluate two words that have the same sound based on the scope and size of the components of the sound, depends on the component in the structure of words, emphasizing syllables or elements syllables as vowels, consonant and rhyme. Thus, phonological awareness can build basic skills of language (Stewart, 2004).

This finding coincided with the study done by Yopp & Yopp (2009) who found that children can detect and manipulate the sound in speech without understanding the meaning of the language. According to Rober (2010), phonological awareness is to identify and manipulate the language of words, syllables, phonemes, rhyme, intonation and play with sound. Children are able to master the syllables, phonemes, rhyme and so when playing with the sound of the syllables in the word recognize, rang the sound of early and late sound and produce rhyming word by word provided. The results in Yopp &

Yopp (2009) and Ambruster et.al's (2010) study that found similar sound can be manipulated without knowing its meaning.

The above statement was supported by the Theory of Cognitive Development (Piaget, 1977) which stated that children can solve problems intuitive but cannot understand the concepts and ideas. Phonological awareness is actually only meant to help children in detecting sound externally to apply the sound to form a word, either easy or difficult. In this context, children can identify and manipulate the sounds of vowels, syllables, words and sentences but most likely still do not appreciate the true meaning behind the words and sentences. They simply read spontaneously by the mere mention of allowing children to master reading skills in a short period. Playing sound through syllables, words and syntax in various forms not only amuse children, but can also be enhanced reading capabilities of the grassroots. Therefore, it is true that the theory of Cognitive Development indirectly practiced on children in this study.

Consequently, t-test analysis showed no significant differences of score in control group, but indicated significant differences of score in experiment group between the pretest and post-test with moderate effect size. The findings of Jason et. al (2005) was equivalent to the results of this study that the children learn the poem by using phonic method has achieved progress significantly ($t(30) = 7.00$, $p < 0.05$, $n = .52$) compared with children who were learning poems by using the traditional method ($t(32) = 9.53$, $p > .05$).

Analysis of Mann Whitney U-test showed that children who learn poems through phonic method showed no significant difference in performance between male and female. At this stage, the child's cognitive structure is still not reached maturity as adults. They will conduct follow his instincts as pioneered by Piaget's (1977) Theory of Cognitive Development.

This statement was in line with the study of Siegel and Smythe (2005) and Chia and Kee (2013) who revealed no significant differences between the gender with the ability of children to read and reading achievement. The study used three types of test kits to detect the level of the reading of 65 children of Word Recognition and Phonics Skills Test-Second Edition (Wraps-2) (Moseley, 2003), Comprehensive Receptive and Expressive Vocabulary Test-Second Edition (CREVT-2) (Wallace & Hammill, 2002) and Neale Analysis of Reading Ability-third Edition (NARA-III) (Neale, 1999).

However, the findings was contradict with Below et.al. (2010)'s study. By using a cross-sectional design and five Dynamic Indicators of Basic Early

Literacy Skills measures, they tested for gender differences in reading skills for 1,218 kindergarten through fifth-grade students. A series of two-way repeated measures analyses of variance with time of year (fall, winter, and spring) served as the within-subjects variable and gender serving as the between-subjects variable showed female scored significantly higher than male on the four kindergarten measures; however, these differences were small.

As a result, teachers need to be more concerned with the selection of literary material in accordance with the children in order to foster their interest in reading. Selection of a variety of materials and in accordance with the level of the children plays an important role to stimulate the ability of reading and early literacy for children. The preschools should give full support to the efforts of teachers to provide reading material for children.

Disclosure of the holistic phonics techniques provide insight and awareness to preschool teachers that the text of the poem can be optimized as teaching material to achieve the goal of preschool education including the Malay language. Poem as a medium of attracting children to learn, can lead them to track the correct reading skills.

6. CONCLUSION

In conclusion, the study showed that phonic method in teaching poem increase and effect the achievement of phonological awareness among preschool children rapidly regardless children's gender. This means that the literary material should to be considered for its role to assist children to master reading. Thus, appropriate teachers should take the initiative and creativity to apply phonic method in teaching for attracting and generating children's literacy. Future study may focus on the phonology awareness among children by using prose and poems to find out the best literary material.

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