MORPHOLOGICAL AWARENESS OF INDONESIAN KINDERGARTEN CHILDREN AGED 5-6: A CASE OF REDUPLICATION

Eri Kurniawan, Hira Hanif Asyifa, Wawan Gunawan
Indonesia University of Education
erikurn@gmail.com, hiraasyifa@ymail.com, and wagoen@upi.edu

ABSTRACT
This study attempts to examine the morphological awareness of Indonesian children between the ages of 5 and 6 in two kindergartens. Specifically, the study aims to observe children's morphological awareness in two schools that have a different approach in terms of teaching reading and writing towards their students. Students in school A are implicitly taught reading and writing skills through various activities while students in school B are explicitly taught alphabetic symbols to improve their reading and writing skills. The examination focuses on children's ability in identifying and producing reduplication morphemes. Participants in this study were 42 children of two kindergartens in North Bandung. The study employs descriptive quantitative method because the collected data is quantitative information which is presented in numerical data in form of scores on two different types of test. The data are collected in one month. The findings show that Indonesian kindergarten children aged 5-6 begin to have awareness of reduplication morphemes. By considering the two schools' approach to teaching reading and writing towards children, children in the school which applies direct teaching reading and writing approach have a slightly higher awareness in reduplication morphemes.

Keywords: morphological awareness, reduplication, teaching reading and writing, kindergartners

INTRODUCTION
One of the basic areas of development in early childhood is language development. The time from two and half to five years, children's language is more similar with that produced by adults although sometimes the sentences are still grammatically incorrect (Rahman, 2009). Concerning this matter, the Ministry of Education and Culture of Indonesia No. 137 of 2014 regarding the National Education Standard of Early Childhood Education has emphasized the significance of language learning in early childhood education. Thus, the learning processes in early childhood education should be oriented to support each stage of their language development because these abilities are strongly related to the next level of language competency, particularly reading ability. In order to have a good reading skill or literacy development, children also need to have good language awareness because "readers of alphabets must have an awareness of phonemes, readers of syllabaries must have an awareness of syllables, and readers of logographies must have an awareness of morphemes" (Singson, Mahony, & Mann, 2000:191). Later, these skills will lead to the comprehension of text which relates to morpheme awareness as an essential type of awareness in literacy development.

Being one of the essential aspects of literacy development, morphological awareness can be defined as conscious knowledge in using morpheme based on its form and function. Several studies have been conducted to examine the great influence of morphological awareness towards literacy abilities such as word-level reading, reading comprehension, vocabulary skills, and spelling development (e.g., Apel, Wilson-Fowler, Brimo, & Perrin, 2012; McCutchen, Green, & Abbott, 2008; Nagy, Berninger, Abbott, Vaughan, & Vermeulen, 2003; Ramirez, Walton, & Roberts, 2013; Roman, Kirby, Parrila, Wade-Woolley, & Deacon, 2009; Tabatabaei & Yakhabi, 2011). Therefore, for kindergarten children themselves, morphological awareness can be the next predictor of their level of reading comprehension, spelling, and vocabulary knowledge.

Examination of language awareness has received little attention, particularly in early childhood age for native speakers of Indonesian language. Compared to phonological awareness, there are only very few studies assessing morphological awareness of children in Indonesian context which merely focus on investigating children's abilities in identifying and manipulating affixes (e.g., Kurniawan, Solehuddin, & Gunawan, 2015; Nurdiansyah, 2016; Silviany, 2017). None of them deals with other features of Indonesian language such as reduplication and compound words.

This present study aims to investigate the ability of kindergarten children in identifying and producing reduplication morphemes since reduplication is one of the morphological processes that are commonly used in both spoken and written communication. Specifically, this study attempts to explore the extent of morphological awareness of kindergarten children in two schools with different belief regarding their approach in teaching reading and writing to children.
Morphological awareness refers to the ability to consciously consider or identify and manipulate morphemes, the smallest units of meaning in language (Apel & Diehm, 2013; Ramirez, Walton, & Roberts, 2013). Since morphological awareness includes the conversion of sounds onto semantic information, it gives major contribution towards text comprehension ability as it has been demonstrated in several studies (e.g., Carlisle, 2000; Kirby, Deacon, Bowers, Izenberg, Wade-Woolley, & Parrila, 2012; McCutchen, Green, & Abbott, 2008; Roman, Kirby, Parrila, Wade-Woolley, & Deacon, 2009; Rothou & Padelidiu, 2014). An explanation to distinguish between the acquisition of morphology and the development of morphological awareness needs to be made. Unlike morphological awareness which is consciously formed, morphological acquisition is unconsciously acquired because it refers to "the ability to comprehend and produce morphologically complex words in natural communication" (Kuo & Anderson, 2006:163).

There are three types of morphological processes which have become the focus of a number of studies concerning the assessment of morphological awareness: inflections, derivations, and compounds (Kuo & Anderson, 2006). Inflectional morphemes are used to indicate aspects of the grammatical function of a word (Yule, 2006). The example of inflectional morphemes in Indonesian language is prefix meN-. When this prefix is affixed to verbal bases, it will construct a well-formed verb without changing the meaning of the base word, as in melihat (to see) and membuka (to open) (Djenar, 2003). Derivational morphemes are used to make new words or to make words of a different grammatical category from the stem (Yule, 2006). For instance, in Indonesian language, the prefix ter- is able to give a new meaning of an adjective. Compound is the process by which two or more words are joined to create a new term (Ramirez, Walton, & Roberts, 2013), for example, rumah sakit (hospital) in Indonesian language which consists of two unrelated words, rumah (house) and sakit (ill).

Reduplication can be defined as a morphemical process which involves the repetition of base words either wholly, partially, or by sound change (Chaer, 2007; H. P. & Abdullah, 2012). The classification of reduplication in Indonesian language formed by researchers is varied. One of the classifications is proposed by Chaer (2006). He proposes 4 categories of reduplication which are full, affix, partial, and vocalic reduplication. Full reduplication involves repeating an entire word just like in rumah-rumah (houses), pohon-pohon (trees), and pencuri-pencuri (thieves). Affix reduplication involves affixes in the process of the doubling of the base word, for example, berlari-lari (run continuously) and kemerah-merah (reddish). Partial reduplication occurs when the first syllable of a word is doubled. The example of partial reduplication is tetangga (neighborhood) and lelaki (man). Vocalic reduplication involves vocal or consonant change in the doubling process, for example, the words gerak-gerik (movement) and sayur-mayur (vegetables).

As one of the features in Indonesian language, researchers have gained their interest in classifying the inflectional and derivational forms of reduplication (R). Ermento (2008) asserts that reduplication verbs are formed by a hierarchical morphological process which is further categorized into two subclasses: morphological hierarchy of transitive reduplication verbs and morphological hierarchy of intransitive reduplication verbs. Morphological hierarchy of transitive reduplication verbs can be formulated with the pattern I: base word + derivational R (1) + inflectional affix (2). The example of the words can be seen in the verb panggil (call), panggil → panggil-panggil → memanggil-manggil. On the other hand, the morphological hierarchy of intransitive reduplication verbs can be formulated with three different patterns: pattern II, pattern III, and pattern IV. Pattern II consists of base word + (R+affix (derivational process)). The example of the word which applies this pattern is pukul (hit), pukul → pukul-memukul and hormat (respect), hormat → hormat-menghormati. Morphological hierarchy of intransitive reduplication verb with pattern III: base word + derivational R is shown on makan (eat), makan → makan-makan. Pattern IV, however, contains base word + derivational R + inflectional affix. It can be seen on the word lari (run), lari → berlari-lari and jalan (walk), jalan → berjalan-jalan.

Children’s emergent literacy begins to develop in their early childhood period. Their literacy skills are fundamental to their later reading, writing, and other academic abilities in various learning areas. Learning literacy skills in early childhood aims to help children communicate their ideas and feelings to other people, and also to interpret the message conveyed in their communication process (Christianti, 2013).

To introduce children with literacy, an appropriate approach to the stage of childhood development needs to be selected. Regarding this matter, Indonesian government in the Circular of Directorate General of Primary and Secondary Education Number 1839/C.C2/TU/2009 asserts that reading, writing, and arithmetic are introduced through the implementation of an appropriate approach for children. The context of literacy learning in early childhood education should be performed in the
framework of all aspects of children's development. Creating a literacy-rich environment will further encourage children’s readiness in learning reading, writing, and arithmetic. However, in practice, there is still a controversy of how children should be taught literacy skills in early childhood education in Indonesia.

Widiastono (2002, in Tajuddin, 2014) has provided some tips for gaining children’s interest in literacy. Some of the tips include the involvement of teachers and parents in familiarizing children with storytelling activities and reading them stories as early as possible, providing a special and quiet time to read with their children, for example when they are going to bed, providing time for children to form some mental pictures by not too fast reading the stories, and introducing children to books, libraries, and bookstores as early as possible.

METHODOLOGY

The present study employs a descriptive quantitative method for collecting and analyzing the data. Quantitative research method involves numbers which later can be systematically measured (Blackstone, 2012; Creswell, 2014; & Perumal, 2014). Consequently, the data of the presents study are in form of students’ scores on their morphological awareness tasks and a numerical value to participants’ responses. Moreover, a descriptive approach can be explained as an approach that is functioned as a tool to organize data into patterns that emerge during the process of analyzing data (Knupfer & McLellan, 1996). Therefore, the quantitative descriptive method has been considered relevant to be employed in this present study because the data collection process also involved some numerical data which are collected from students' assessment results. To describe the findings, the collected students' scores were calculated by using statistical descriptive calculation by using percentage, mean, and also standard deviation.

The participants of the study were 42 kindergartners aged 5 to 6 from two schools in Northern Bandung. The chosen schools have different beliefs regarding the approach to introducing reading and writing skills to children. School A implicitly teaches language skills through various activities (non calistung) while school B explicitly teaches alphabetic symbols to the students to improve their language skills (calistung). All students were administered two morphological awareness tasks, reduplication identification task and reduplication word analogy task. The identification task is adapted from the instrument named ‘suffix choice test’ by Nagy, Berninger, Abbott, Vaughn, and Vermeulen (2003). The identification task was performed orally by using a laptop. There are presentation slides which include a picture in GIF format, a sentence with a blank space, and three different words. The participants need to identify the correct reduplication form to fill the blank space in the sentence which best described the picture provided. Meanwhile, the word analogy task is inspired by Kirby, Deacon, Bowers, Izenberg, Wade-Woolley, and Parrila (2012). This task, which was also conducted orally, followed the form A:B::C:D. Children were asked to make the same kind of change to the given words (D) as were made in the original pair (A:B). The participants’ correct choice is scored by 1 and the incorrect choice is scored 0. The collected scores were calculated and analyzed by carrying out descriptive statistics method.

ANALYSIS

Generally, kindergarten children's awareness of morphology just begins to emerge. In more detail, the findings of the assessment of reduplication identification task and reduplication word analogy task are shown and discussed below.

Table 1 General findings of the study

<table>
<thead>
<tr>
<th>Test items</th>
<th>Number of answers</th>
<th>Correct answers</th>
<th>Percentage of correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>672</td>
<td>376</td>
<td>55.95%</td>
</tr>
</tbody>
</table>

Table 1 above shows the number of correct answers achieved by 42 children is 376 out of 672 answers, which is only 55.95% of the total expected answers. By taking account of the percentage of children achievement, it can be assumed that their development of morphological awareness is just beginning. This result is in line with the previous studies performed by Nurdiansyah (2016) which finds morphological awareness of Indonesian kindergarten children in terms of the ability to identify inflectional morphemes in verbs is not completed. The instrument of this study is designed to incorporate morphological processes, which are inflection and derivation, in connection with the morphemes assessed. The findings based on the morphological process are shown in the table below.

Table 2 Findings according to morphological process

<table>
<thead>
<tr>
<th>Morphological process</th>
<th>Number of answers</th>
<th>Correct answers</th>
<th>Percentage of correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflection</td>
<td>336</td>
<td>189</td>
<td>56.25%</td>
</tr>
<tr>
<td>Derivation</td>
<td>336</td>
<td>187</td>
<td>55.65%</td>
</tr>
</tbody>
</table>

168
Regarding the findings on the morphological process, children get a higher percentage of correct answers on inflectional morphemes (56.25%) than derivational morphemes (55.65%). Hence, from the study, it can be said that children are more aware of inflectional reduplication morphemes than derivational reduplication morphemes. As Kuo and Anderson (2006) have stated in their study, inflectional and compound morphology appears to develop earlier than derivational morphology. The table below presents the findings according to the types of reduplication morphemes.

<table>
<thead>
<tr>
<th>Reduplication type</th>
<th>Number of answers</th>
<th>Correct answers</th>
<th>Percentage of correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>336</td>
<td>227</td>
<td>67.56%</td>
</tr>
<tr>
<td>Affix</td>
<td>336</td>
<td>149</td>
<td>44.35%</td>
</tr>
</tbody>
</table>

As seen in Table 3, children perform better on identifying and manipulating full reduplication morphemes than others. There are 227 correct answers on full reduplication morphemes. Meanwhile, children only earn 149 correct answers on affix reduplication. It can be concluded that children have the higher awareness level of full reduplication morphemes than the other types of reduplication. Full reduplication morphemes merely include the doubling of base words or stems. On the contrary, the form of affix reduplication morphemes is relatively more complex since the addition of affixes is also required. Therefore, kindergarten children may consider identifying and producing affix reduplication morphemes as a more challenging task than identifying and producing full reduplication morphemes.

Regarding the different belief of literacy practice on the chosen schools, school B which explicitly teaches alphabetic symbols to the students to improve their language skills have the higher awareness level of reduplication morphemes than those in school A although the difference is only one point of the percentage of correct answers. The findings according to children's schools in more details are shown in the table below.

<table>
<thead>
<tr>
<th>Name of school</th>
<th>Number of answers</th>
<th>Correct answers</th>
<th>Percentage of correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>336</td>
<td>187</td>
<td>55.65%</td>
</tr>
<tr>
<td>School B</td>
<td>336</td>
<td>189</td>
<td>56.25%</td>
</tr>
</tbody>
</table>

A previous study which is conducted by choosing two schools with two different beliefs in terms of their teaching reading and writing is done by Silviany (2017). She performs morphological awareness pre-test and post-test towards children in two kindergartens to assess their abilities in analyzing and manipulating morphemes at affixation level. The results show that there is no significant increase in children's morphological awareness in two classes which leads to the conclusion that teaching reading and writing towards kindergarten children do not contribute to their level of morphological awareness. However, this present study cannot agree or disagree with Silviany's study because some statistical measurements are needed to be performed to see the significance of the differences.

**CONCLUSION**

By looking at the analysis, it can be said that the morphological awareness of Indonesian kindergarten children in terms of the ability of to identify and manipulate both inflectional and derivational reduplication morphemes is relatively low. This is described by the average score of the children that moderately the children could only identify 8 to 9 out of 16 test items or 55.95% of the correct answers. As the study also takes school as variable to compare the result, it is found that in general, children in school B, which are explicitly taught alphabetic symbols by the teachers to improve their language skills, have a slightly higher awareness level of reduplication morphemes than those in school A, which implicitly teaches alphabetic symbols to the students to improve their language skills.

**REFERENCES**


**CURRICULUM VITAE**

<table>
<thead>
<tr>
<th>Complete Name</th>
<th>Institution</th>
<th>Education</th>
<th>Research Interests</th>
</tr>
</thead>
</table>
| Eri Kurniawan   | Universitas Pendidikan Indonesia | - Bachelor of Education, English Education Department, UPI  
- Master of Arts, Linguistics, the University of Iowa  
- PhD, Linguistics, the University of Iowa | - Sundanese grammar  
- grammatical awareness  
- second language acquisition |
| Hira Hanif Asyifa | Universitas Pendidikan Indonesia | Bachelor, English Language and Literature Study Program, Department of English Education | Morphology |
| Wawan Gunawan   |                      | - Bachelor of Education, English Education Department, UPI  
- Master of Education, Educational Studies, University of Queensland  
- PhD, Educational Studies, the University of Massachusetts | - genre based teaching  
- ESL writing |