Morphological Awareness of Indonesian Kindergarten Children Aged 5-6: A Case of Inflection

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Abstract: The purpose of the study is to provide empirical description of morphological awareness of Indonesian children aged 5-6 in terms of the ability to identify inflectional morphemes on verbs, specifically on prefix *me(N)-*, *be(R)-*, *di-*, and *ter-*. This study employs quantitative descriptive approach. The data are collected from an instrument called prefix choice task which consists of 15 test items. The participants are 17 children of a kindergarten in Bandung which consist of nine female children and eight male children. The result shows that children are able to demonstrate morphological awareness skill, but, the awareness is somehow incomplete (53%). The aspect of the awareness can be seen from several aspects: sentence forms (active-passive), verbal forms (transitive-intransitive), type of morphemes, and specific morphemes types. The study also found that generally female children have better morphological awareness than male children. Unlike English which can be simply divided into derivational and inflectional awareness, the study also suggests that the complexity of morphological features of Bahasa Indonesia contributes to the extent of the awareness that is being measured and further investigations in relation with other language development aspects are recommended.

1 INTRODUCTION

It is known that the peak of children language acquisition occurs in age 5, in which, children should have acquired the full competency of their mother language and is considered fluent as signified by their ability to produce complete linguistic structures of the language i.e. structure of sound, words, and sentence (Lenneberg 1967; Khrashen, 1973 in Harley, 2001). As the studies of children language acquisition increases, researchers begin to observe whether or not children are aware of the language they are using which is further labeled as language awareness (sometimes metalinguistic awareness, see Tunmer and Herriman, 1984). In English context, the development of the research is so high that there are many studies investigating the relationship between various aspect language awareness and various literacy skills (i.e. morphological awareness and reading skills, see Curinga, 2014; Deacon and Kirby, 2004; Wolter, Wood and D'Zatko, 2009; morphological awareness and vocabulary knowledge, see Carlisle and Fleming, 2003; Kirby and Bowers, 2009; Gafoor and Remia 2013; Jornlin, 2015). On the other hand, in context of Bahasa Indonesia, it is found that the number of evidence in language awareness is still relatively small (see Kurniawan, Komara, and Nurdiansyah, 2016; Mazka 2014; Asyani, 2013).

Morphological awareness (MA) can be defined as the conscious ability to analyze, replicate and manipulate morphemic elements, involving the ability to identify base words and their affixed forms (Carlisle, 1995; Gafoor and Remia, 2013). Apel (2014) adds that there are four aspects of morphological awareness which needs to be considered: 1) MA in spoken or written language; 2) MA in terms of changes in meaning and grammatical class (i.e. inflection or derivation); 3) MA in terms of changes in structure of the morphemes; 4) MA in terms of word variety and possible morphemes. However, due to the complexity of morphological system of Bahasa Indonesia, it appears that there will be challenges in order to design a well-structured morphological awareness assessment as the specificity of the morphological aspects of the language needs to be clearly defined. In addition, according to Carlisle (1995), children at age 5 are on their peak of the development of MA in inflectional morphemes. Thus, this research attempts to

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investigate MA of children aged 5-6 in the context of Bahasa Indonesia.

2 PURPOSE OF THE STUDY

By using quantitative descriptive approach, the purpose of this research is to provide empirical description of MA of Indonesian kindergarten children aged 5-6 in terms of their ability to identify inflectional morphemes, specifically prefixes in verbs.

3 PARTICIPANTS AND LOCATION OF THE STUDY

17 children aged 5 to 6 from total 20 children of the school which consist of 9 females and 8 male children participated in the study. The three children refused to participate. The study took place in a laboratory-kindergarten school in Bandung.

4 INSTRUMENTS

The instrument is called prefix choice task inspired by Nagy et al. (2003, in Curinga, 2014) as described on the following table. The order of the test items is further randomized in order to prevent the children from pattern-guessing. The instrument is being read to the children and they need to choose the correct form from the choices provided. There are one pilot items and.

Table 1: Detailed indicators and test items and sample of the test items.

	Test Items
	*1. Kakak sedang menendang bola* *2. Adik sedang memakan apel* *3. Adik sedang membaca buku*
	1. Kakak sedang melompat *2. Adik sedang memasak* *3. Kakak sedang melukis*
	1. Kakak sedang berlari *2. Adik sedang bermain* *3. Adik sedang berjalan*
	1. Mobil itu dicuci kakak *2. Tikus itu dikejar kucing* *3. Pizza itu dimakan kakak*
	1. Adik terjatuh dari sepeda *2. Rumah itu terbakar* *3. Rumah itu terbalik*

5 RESULTS

The general findings show that the kindergarten children have demonstrated some extent of morphological awareness in terms of their ability to identify inflectional morphemes in verbs as presented below.

Table 2: General findings of the research.

Participants	*Items*	*Answers*	*Correct*	*x*	*StDev*	*%*
17	15	255	134	7.88	3.33	53%

From the table, it can be seen that the extent of MA of the children is 53%. In other words, the children are able to answer 7 to 8 correct answers from the 15 test items. The standard deviation of the score is 3.33 which represents the varying awareness among the children. Thus, in contrast with the language acquisition process which is considered complete at this age, it can also be said that presumably the MA of the children is still developing.

The detailed analysis of the findings is described on the following subsections.

5.1 Findings on Sentence rorm: Active-Passive

Table 3: Findings according to sentence forms.

Sentence form	*Morpheme*	*Answers*	*Correct*	*%*
Active	*Transitive me(N)-; Intransitive me(N)-; be(R)-*	153	87	53%
Passive	*di-; ter-*	102	47	46%

The table above shows the categorized findings based on sentence form. From the table, it can be seen that the children demonstrated more awareness in active sentence (53%) than passive forms (46%).

5.2 Findings on verbal forms: transitive-intransitive

The table below shows the categorized findings based on verbal forms.

Table 4: Findings according to verbal forms.

Verbal form	*Morpheme*	*Answers*	*Correct*	*%*
Transitive	*me(N)-; di-*	102	56	55%
Intransitive	*me(N)-; ter-; be(R)-*	153	78	51%

By considering the verbal form of the test items, it can be seen that moderately children are more sensitive to inflectional morphemes on transitive forms (55%) than that of intransitive (51%).

5.3 Findings according to the types morphemes

Table 5: Findings according to morpheme types.

Morphemes	*Form*	*Answers*	*Correct*	*%*
me(N)-	Active-transitive	51	33	65%
me(N)-	Active-intransitive	51	29	57%
be(R)-	Active-transitive	51	25	49%
di-	Passive-transitive	51	23	45%
ter-	Passive-intransitive	51	24	47%

The above table shows the findings according to the types of morphemes. It can be seen that children are more aware to morpheme *me(N)-* (transitive, 65%; intransitive, 57%) than the others. In addition, the transitive *me(N)-* is higher than the intransitive which confirms the previous findings that children are more aware of the inflectional morphemes on transitive sentences.

5.4 Findings according to specific test items

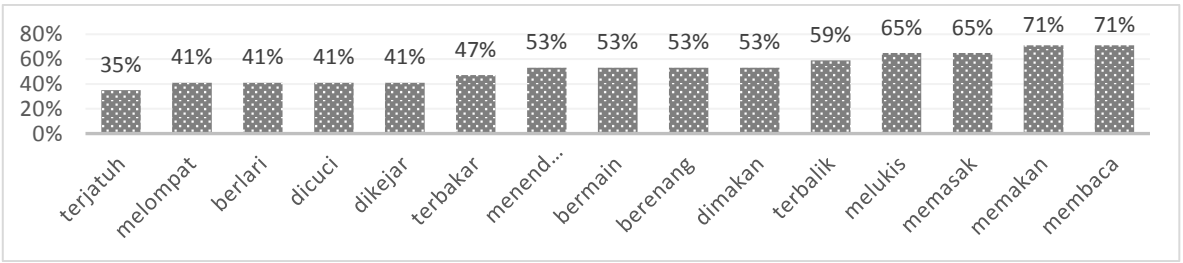

Figure 1: Ascending chart of achievement according to test items.

On the analysis of the individual test items, it can be seen that children are somehow demonstrated higher level of awareness on the test item *memakan* and *membaca* (71%). The lowest items answered correctly by the children is *terjatuh* (35%).

5.5 Findings according to incorrect answers

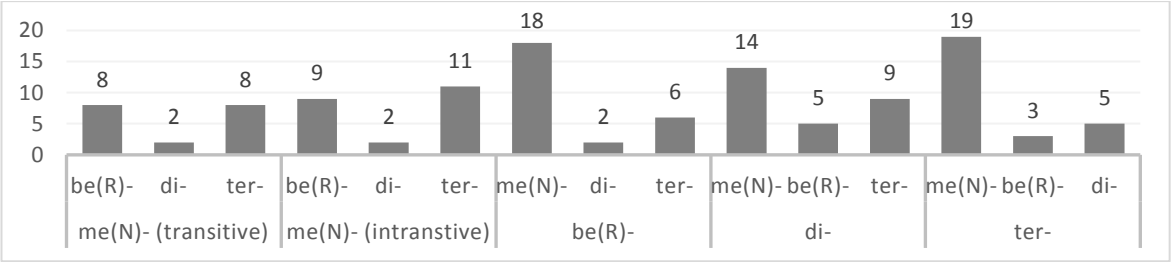

Figure 2: Incorrect answers on the test items.

The incorrect answers are also considered as the point of analysis. From the above figure, it can be seen that on morpheme be(R), di- and ter-, the most-chosen distractor by the children is *me(N)-*. This finding somehow confirms the previous finding that children are more aware on this inflectional morpheme *me(N)-*

5.6 General findings on gender

As the number of female and male children is slightly equal, this research also consider gender as a variable for comparing the findings.

Table 6: General findings on gender.

Gender	*Participants*	*Average score*	*StDev*	*Min*	*Max*
Female	9	8.33	4.42	3	15
Male	8	7.38	1.60	5	9

It appears that female children performed better than male children as represented by the average score. This can be seen from the average score of female children (8.33) which is larger than the score of male children (7.38). However, it also appears that a group of female children might have a more varying awareness than that of male child as represented by the standard deviation and the gap between the minimal and maximum score of a child could answer.

5.6.1 Gender on categories: Sentence forms

Table 7: Gender on sentence forms.

Gender	*Sentence forms*	
	Active	*Passive*
Female	62%	46%
Male	51%	46%

The table above shows the comparison between genders according to the sentence forms. It can be seen that achievement on passive forms is relatively equal (46%). On the other hand, female children achieve better (62%) than male children (51%) on active forms.

5.6.2 Gender on categories: Verbal forms

Table 8: Gender on verbal forms.

Gender	*Verbal forms*	
	Transitive	*Intransitive*
Female	61%	52%
Male	52%	50%

In respect of the verbal forms, it can be seen that the awareness of female children both dominate the achievement on transitive and intransitive forms than that male children.

5.6.3 Gender on categories: Types of morphemes

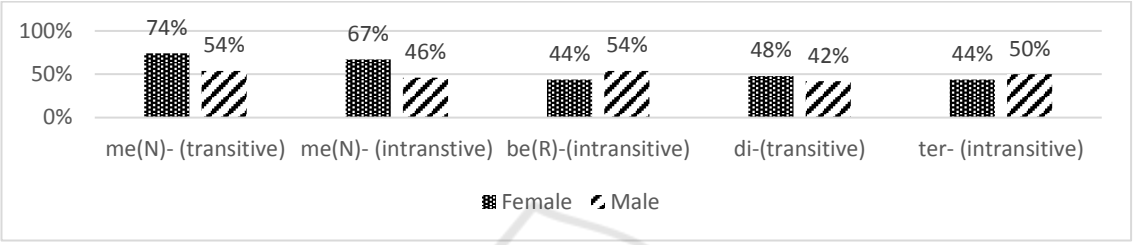

Figure 3: Findings on types of morphemes according to gender.

From the figure, it can be seen that male children demonstrated better morphological awareness only on the intransitive *be(R)-* and intransitive *ter-*.

5.6.4 Gender on categories: Specific test items

As there are three test items in every morpheme, below is the score of the children on each test item summarized on the figure.

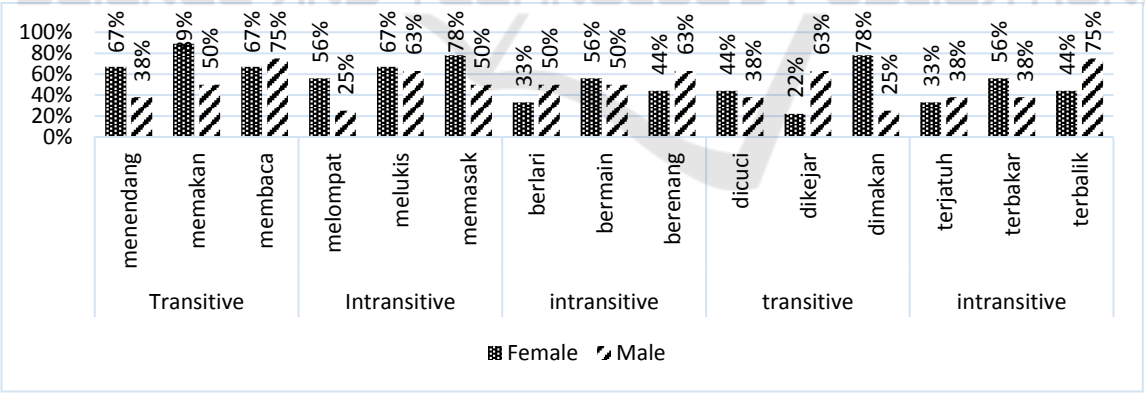

Figure 4: Findings on specific test items according to gender.

The most prominent item answered by female children is *memakan* (89%), *memasak* and *dimakan* (78%). On the other hand, on male children, the most prominent items are *membaca* and *terbalik* which is correctly answered by 6 out of 8 children (75%). The lowest item answered correctly by female children is *dikejar* in which there are only two children could answer it correctly (22%). On male children, the least answered item is *melompat* which is only answered by 2 out of 7 children (25%). By comparing gender categories and specific test items, it can be concluded that some test items are relatively familiar to each gender category in spite of the results according to sentence forms and verbal forms

6 CONCLUSION

From the findings, it can be concluded that the development of morphological awareness of the Indonesian kindergarten children aged 5-6 in terms of their ability to identify inflectional morphemes in verbs is still in development. Additionally, the extent of the awareness might vary between individuals which implies that there are presumably many factors which could affect the development of the awareness, one of which is the characteristic of Bahasa Indonesia which is relatively complicated in terms of morphological structure. Moreover, due to the complexity of Bahasa Indonesia, the aspect of morphological awareness to be observed needs to be carefully specified because in English, the aspect of awareness can simply be divided by inflection, derivation, and compounding. In this research, it can be seen that the aspect of morphological awareness can be viewed from: 1), sentence forms, active-passive; 2) verbal forms, transitive-intransitive; 3) morphemes types; and 4) specific test items.

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