

## NEED ANALYSIS ON TEACHING MEDIA TO IMPROVE MORPHOLOGICAL AWARENESS ON VOCATIONAL HIGHER STUDENTS

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### Abstract

Morphological awareness (MA) has relation to the language development. By having MA, it can be strong predictor in vocabulary and reading comprehension. Students of Politeknik Kota Malang was still lack of MA. It is because morphology study was not taught explicitly and there was not sufficient material. This study is aimed to investigate the students' needs on developing teaching media to improve students' morphological awareness (MA) that suits with their characters. From the result, they need teaching media in the form of game on ICT-based and the activity in the game can be expected for them to enrich the vocabulary and know the meaning of words. The game is also expected to provide them with a lot of texts and to help students in pronouncing the words correctly.

**Keywords:** Need Analysis, Teaching Media, Morphological Awareness

### INTRODUCTION

English is one of important subjects that always be taught in all education level in Indonesia. Politeknik Kota Malang (POLTEKOM) is no exception. This vocational institution has English subject in three until four semesters of the whole six semester that the students have. It can be said that students have to master and learn English well even though they are engineering students. Reading is one of skills learnt in English class that needs rich vocabulary. In comprehending the reading text, learners can guess the word by knowing the parts of word or this study called as morphology. It is a study of internal words structure (Haspelmath & Sims, 2010). Then, morphological awareness (MA) can be as strong predictor of English vocabulary and reading comprehension (Jiang, Kuo, & Sonneck-Winkler, 2015).

However, students of POLTEKOM especially Informatics Engineering department class of 2017/2018 have several problems especially in English class. From observation and experience, it is found by the researcher who is also the teacher some problems on students' MA. Usually, in the beginning of teaching a new topic in class, the first thing that should be done is building vocabulary about the topics, and for example the topic is about job communication with sub topic of job profession. The students have to guess the name of

profession by the root word given as clue, for example the root word *teach* becomes *teacher* or *program* becomes *programmer*. The suffix *-er* means the one who. However, when the root word of *bank* given, most of them do not realize about the word *banker*. They tend to guess by mentioning teller or even costumer service. Besides, some problems are found when they have reading activity.

In reading activity, to measure whether the students understand the text or not, there are some questions given based on the text, and one of the question types also asks about the vocabulary meaning. However, it takes long time for them, to read and understand the text. The students tend to find the unknown words from their first language dictionary rather than predict the words. Using morphology along with context is the most effective way to solve the meanings of new words (Blachowicz & Fisher, 2004). It means they do not have any sufficient morphology knowledge when they have new words. So, it is important to teach them about root words and affixes to improve their MA.

Several researches about MA had been conducted by several researchers such as Kirby, et al. (2012); Zhang & Koda (2017); McCutchen & Stull (2015), Jiang, Kuo, & Sonnenburg-Winkler (2015); Bangs & Binder, (2016); and Akbulut (2017). Those are experimental studies which got result experimental groups perform better than control groups when they have tested. Experimental groups were treated by morphological knowledge, like introducing and identifying base and root word, prefix, and suffix. Having MA can give good advantage to English vocabulary, writing and reading on young and adult learners. It can be inferred that giving treatment about morphological knowledge can influence students' language development.

However, morphology study for POLTEKOM students is not given explicitly. Students do not have enough material to learn about morphology. While, the process of experimental study, briefly, is testing the students or participants in the beginning of process, then giving treatment on morphology knowledge, then giving post-test in the end, and proving or testing the hypothesis. So, this present research is more interested in developing the media rather than directly to test students without any good and appropriate treatment media.

Before developing media, it is important to know students' characteristics and the process in English class, and students' need. So, this study is aimed (1) to find students' difficulties related to MA and what teaching media that suits with students characteristics and (2) to know what the students' and learning's needs to improve their morphological awareness. So, this finding is expected to be the references to develop appropriate teaching media that can be implemented for the students.

## **LITERATURE REVIEW**

### **Need Analysis**

Need analysis (NA) also called as need assessment is an essential step in foreign language curriculum. This activity involved in collecting information as the basis for developing curriculum that will meet the learning needs of the students (Brown, 1995).

Waters & Hutchinson (1987) differentiated the need analysis into two, target needs and learning needs. Target needs is to know what the learner needs to do in target situation, while learning need is to identify what the learners needs to do in order to learn. Target needs cover necessity, lacks, and wants. Nunan (2004) added that in designing media in task-based

language teaching, the minimum specification covers goal, input, and procedure. Goal aspect can be included in necessity that proposed to Waters & Hutchinson (1987). Necessity is the type of need determined by the students' demands. They have to know their need in order to function effectively in target situation. After knowing what students' need, so it can be decided which of the necessity of the learners' lacks. Then the language teaching institution can decide whether or not the instruction should be given to the students. Then, wants is defined as the subjective needs of the students.

Beside target needs, in conducting need analysis it is also important to know about leaning needs. Hutchinson & Waters (1987) stated that learning needs is about what knowledge and abilities will the students require in order to be able to perform to the required degree of competence in the target situation, for example skills, strategies, knowledge, etc.

While, Nunan (2004) proposed that input refers to written, spoken, and visual data that the learners work with. The data can be from teacher, textbook, or other sources like article from newspaper, magazine, internet, bulletins, slide, and others. The input can be a combination between an authentic material or combination from all of the sources. In procedure aspect, procedure specifies what students will actually do with the input. The task can be questions and answer, dialogues and role plays, matching activities, communication strategies, pictures and pictures stories, puzzle and problems, discussion and decision.

### **Morphological Awareness**

Morphological Awareness (MA) is one form of students' developing linguistics awareness as the ability to reflect on, analyze, and manipulate the morphemic units in words (Carlisle, 2015). While, morphology is a study of morpheme. Fromkin et al (1996) defined morpheme as the minimal linguistics sign and every word in every language is composed of one or more morphemes. The same definition stated by Bangs & Binder (2017) morpheme is the smallest unit of meaning in a word. Haspelmath & Sims (2010) further explained the words are easily segmented, for example broken up into individually meaningful parts: *read* + *s*, *read* + *er*, *kind* + *ness*, *un* + *happy*, and so on. Like the example *read* + *s*, it is composed from the root word *read* and morpheme *-s*. Or, in the word *reader*, *read* is as a root. Haspelmath & Sims (2010) stated that root is a base that cannot be analyzed any further into constituent morphemes. So, root word can be called as core word, and when a root is attached by affix, it is called as base or stem

Morpheme can be divided into two types, those are *free* and *bound* morpheme. The free morpheme can stand alone and be individual words for example *man*, *sick*, *prove*, *allow*, *frog*, *ride*, *eye*, while bound morpheme cannot stand alone as words but they have to combined with other morphemes to modify meaning of a word, bound morpheme can be either prefixes *de-*, *ex-*, *un-*, or suffix such as *-er*, *-ion*, *ly* (Fromkin et al, 2015; Lieber, 2009). The examples given are called as affix.

Affixes can change the quantity, tense, and meaning of the root word. The morpheme *-s* is also as affix that show quantity or in this context is plurality or more than one book. If we omit *-s* in the end of word, so the quantity, tense and meaning will be different.

Morpheme that occurs before or in the beginning other morphemes such as *un-*, *re-*, *pre-*, *dis-*, and *bi-* are called as prefixes, while morpheme that occur after or in the end other morphemes such as *-er*, *-ness*, *-ize*, *-ist*, *-ly*, is called as suffixes (Fromkin et al, 1996). Another affix in language is circumfix. The morphemes that occur before and after root / base word is called as circumfix.

## **METHOD**

This research used qualitative and quantitative methods. The instrument used in doing analysis proposed by Brown (1995) comprise the existing information that the teacher had, the interview, and questionnaire. The interview was analyzed qualitatively and the questionnaire was analyzed quantitatively. The interview is proposed to the students as research subject to know what the problems and difficulty arise and the characteristics of the students so that it can be known the teaching media that suits to the students characteristics. On the other hand, questionnaire were distributed to the students to collect the information about students' needs, both in language aspect and their technology usage for learning.

The interview transcription and the answer of questionnaire were as data in this research. The data sources was the students of Informatics Engineering of POLTEKOM class of 2017/2018. There were 14 students. However, there were only 12 students as participant of this research, because 2 other students were deaf students, so the researcher had difficulties in interviewing them or gathering data from them. Those 12 students consist of 9 male students and 3 female students that were in the range of 20 – 24 years old. So, they are categorized as adult learners.

To collect data, the researcher used interview and questionnaire as suggested by Hutchinson and Waters (1987) and Nunan (2004). The researcher interviewed them in semi-structured interview. There were 10 questions proposed, but other questions arose when the researcher thought there were unclear answer. Then, the second step in doing need analysis was distributing questionnaire. There were 20 questions items proposed that consist of target needs and learners' needs. In target need, it covered goal (item 1), necessity (item 2), lack (item 3-7), wants (8-10). While in learning needs, it covered input (item 11-13), procedure (item 14-16), and media design (item 17-20).

In data analysis, the researcher analyze qualitatively and quantitatively. In qualitative analysis, the data transcription from interview is used to find the pattern of the difficulties and characteristics of the students. After knowing students' difficulties and characteristics, it can be decided the teaching media needed. In quantitative analysis, the researcher took a look at the frequencies for every answer items, then shown the maximum or majority percentage, then generalized those into some interpretation and conclusion.

## **FINDING AND DISCUSSION**

### **Students' Difficulties and Characteristics**

Based on interview to the students, most of the students do not like learn English, but they realize that English is important because of several reasons. Their major is Informatics Engineering and all program operation in computer use English, it is important to master English. In addition, for graduation and sometimes applying job to the company, there is a

requirement to have certificate of English proficiency such as TOEFL (Test of English as Foreign Language) or TOEIC (Test of English for International Communication). So, English skill is needed here.

Students have variety difficulties that relate to their morphological awareness. Some of them said that the most difficulties skill were reading and speaking. But, those are because they have difficulties in translating the words. It can be meant that they did not master many vocabularies. To understand English, they tend to translate the words into their mother tongue language.

In addition, they were also confused because English words have present and past form. English has past and present form in verb. What Tahaineh (2015) had had explained. In past form, it can be regular and irregular. Both in regular or irregular, one of the characteristics the present changes to past is the changing of affixes. For example, the word *wash* becomes *washed*, *turn* becomes *turned* to show the past in second and third. The suffix *-ed* can be meant the past form and passive voice. The affix *-ed* after root word is classified as regular verb. It seems that regular form is easy because all verb is just added by *-ed*. It is different form the irregular form. The example is *eat* become *ate* and *eaten*, *see* becomes *saw* and *seen*. The root has change. Or sometimes there is no suffix and no root change like *hit*, and *beat*. Those all is covered in derivational and inflectional morpheme.

Not only about time form, English words have also different form, or it is called as word class, but their words are almost same. It is difficult for them to differentiate English classes of word such as noun, verb, adjective, etc. Some of them also have difficulties in arranging the sentence.

When the students were asked about the teaching media provided by the teacher, some of them said that the media provided was sufficient and interesting, but the some others said that the media provided was not sufficient and interesting. As stated from one of student:

*"Sebetulnya menarik sih, Bu... Tapi mungkin bisa ditambah game, soalnya kemarin pernah nyoba game..."*

(Actually the media was interesting but perhaps, it is provided with game, because I used to try the game...)

The game here is about education game of English. Some other students had also same statement. They suggest that the teaching media can suits to their characteristics which deal with technology. They expected that the teaching media can be in the form of interactive multimedia like game. It is because they tend to play online and/or offline game.

Game is actually not only just play. As stated Reigeluth, Beatty, Myers (2017) game is one of methods that can promote students motivation in learning. In current years, Information and Communication of Technology-based / ICT-based or online games attract students to play. Surprisingly, they play the games without any force by other people. Moreover, the games can be played in their gadget like laptop, smartphone, which those are high mobility. Learning English is an activity that can be done by playing the game. Reading is as one of skills in learning English, commonly the most emphasized skill that is taught

since at elementary school and it is also as a subject that deal with practice and a high degree of individualization is needed so that teachers find the game playing to be an especially valued method (Heinich, Molenda, and Russel, 2002).

### **Target Needs**

The targets' needs, or here is students need, consist of four aspects, those are goal, necessity, lacks, and wants.

#### **a. Goal**

Item 1 identified a goal that the students want in learning English. The finding revealed that there were 9 (75%) students who learn English because they want to master English well. This is the dominant score for other. Mastering English means mastering all aspects, those are listening, reading, speaking, and writing. Based on the interview, the majority answer of the students is reading is the most important skill is English that they should have. It is because several reasons. First is because reading is one of activity provided in TOEFL & TOEIC or any other English proficiency and it is important to master reading because reading activity in those tests are difficult to answer. Second, their major is informatics engineering, which of their terms used is English text. So, by master English well, they will know and understand the text too.

#### **b. Necessity**

The problem of the students is they lack morphological awareness when they have reading activity. So, the necessity aspect was asked in item 2 to identify what they need to achieve in reading activity. The finding of this item was varied and there is no significance percentage score or more than 50%. There were 5 (41.7%) students answered that they need to pronounce the words correctly. While there were 4 (33.2%) answered they need to use the grammar correctly and there were 3 (25%) need to master vocabulary.

In regular class, reading activity was usually done by reading the text aloud or the teacher read the text first then students' turn to read. The students need a model for them to know how to pronounce the word. But, a teacher just has two hour in a week to guide the students to be their model of teaching. Sometimes, pronunciation instruction is less important and teachers are not comfortable in teaching pronunciation in class (Gilakjani, 2016). Therefore, it is needed a teaching media ICT-based that can also provide the 'pronunciation' menu for students.

#### **c. Lacks**

The aspect of lack in item 3-7 to confirm what actually their lack in learning English and morphology knowledge. Based on the finding, it revealed that there were 6 (50%) can read and understand the text when they had reading activity. The other half separated into other answers, those are 5 (41.7) students can read but cannot understand the context and 1 (8.3%) master the vocabulary but cannot arrange the sentence. While in learning English they had difficulty in pronouncing the word correctly, it can be shown in the result of 4 (33.3%) chose this answer. While, in morphology lack of morphology, the equal answer went to the answer they are difficult in differentiating the class of word and the answer choice of 'three of

them' which shows differentiate the class of word, identify affixes, and identify the root word. For item the kind of class word that the students are not mastering at, the finding revealed that there were 4 (33.3%) answer that all of the choices (verb, noun, adjective) were the classes or word that they were not mastering at. While, the affixes that they are not mastering at, there were 4 (33.3%) answer suffix.

**d. Wants**

Wants aspect identify about the students willingness or want. Item 8 was identified about students' want after having reading activity. There were 5 (41.7%) students who want to understand the sentence structure correctly. Item 9 asked about their want for improving morphological awareness in reading activity and the highest answer was they want to read the text and completing the sentence with the vocabulary provided and understand the meaning of word. It was 66.7% or 8 students. In item 10, it was asked to identify what activity that the students want to mastering vocabulary. There were 8 (66.7%) students chose to read the text and completing the sentence with the vocabulary provided and understand the meaning of word.

**Learning Needs**

**a. Input**

Input aspect was proposed to know what input in the teaching media. In item 11, 4 students (33.3%) preferred the kind of text used in teaching media was text about current news or in internet, and 3 students (25%) preferred text was from TOEFL or TOEIC reading and literature work. In item 12, text with picture was dominantly chosen, that was 8 (66.7%) students. Moreover, there were 8 (66.7%) students preferred people as the input text. The other choices that they can fulfil to the questionnaire was, they preferred animation and game, that was 8.3% for each.

**b. Procedure**

This aspect proposed to know the procedure in learning process. Item 14 was identified about what kind of learning activity in reading that the students want. A majority answer was learning with interesting picture and audio, that was 5 (41.7%) students. in item 15, there were 9 (75%) students preferred to read and math the words with meaning. In item 16, in reading activity to improve morphological awareness, it should be completed with picture was 41.7% and quiz 41.7% too. Using visual aids and demonstration like picture can help learners in remembering vocabulary better, it is because visual technique can act as cues for remembering words (Alqahtani, 2015).

**c. Media Design**

Media design aspect are asked in item 17 – 20. It related to the multimedia design. Item 17 was asked about how many font style that can be used in the media. 5 (41.7%)

students answered that it is not a big matter on how many font style that will be used in teaching media. It can be one, two, or even more. While, in item 18, it was identified about the existing of the button. There were 8 (50%) students said that button on interactive multimedia game should be easy to find. Item 19 asked about the students want about the background, and 6 (6%) students answered that the background in interactive multimedia game should be interesting and motivating. The last item, it was identified about the use of backsound. 5 (41.7%) students said that the use of background is needed.

## CONCLUSION AND SUGGESTION

Students were lack of morphological awareness because of several points. They have no rich vocabulary to understand the text, they were confused about the word form or class, and the arrangement of sentence, and they were confused if there is a changing from the word. The changing here means like the root word if added by suffix, the meaning and form will change too. It can be suggested that the teaching media that will be developed should help the students to enrich the vocabularies and they can know the meaning. Because they expect to be provided a game on ICT-based, so the meaning can be represented by visual aid like picture. The word class must be proposed on the game. To decrease their confusing of the changing words, identifying root word and affixes are needed in development teaching media. Because morphology study is not their taught explicitly, so it is suggested that the game provide lesson menu for student to have prior knowledge before playing the game. Because they were lack MA in reading activity, it is expected that the game will provide them with texts that can make students to read. Not only to read, it is also expected that the game can provide menu that can help students in pronouncing the word correctly.

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