

The Enhancement of Multiple Intelligences through English Reading Materials for Students of Secondary Schools: A Need Analysis

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Abstract— This article is a part of research and development under the issue of developing English reading materials oriented to multiple intelligence accommodation (MIA) for junior high school students. It is aimed at generating the English reading materials which accommodate the enhancement of the multiple intelligences (MI). This relies on the evidence that a great number of English textbooks—the English reading materials, in particular, have not considered the enhancement of multiple intelligences on the part of the students. This directly or indirectly affects the acquisition of deconstructing and constructing the English texts. To achieve the objective, this study voluntarily involved 65 students of a junior high school in Yogyakarta Special Province, Indonesia, as the sample of study. Four data collection techniques were employed: Observation, interview, Multiple Intelligence Scale (MIS) test and questionnaire. The collected data were analysed using both qualitative and quantitative methods. In reference to the data analysis, several findings were gained. First, the majority of students had low English reading ability and interest. Second, the majority of students proposed three-top types of MI: musical, spatial, and bodily-kinaesthetic types. Third, the majority of students voiced that a great number of tasks in their main English textbook were not accommodating reading materials based on their MI. They further strongly support the development of English reading materials oriented to students' MI.

Keywords— *multiple intelligences; english learning needs; reading materials.*

I. INTRODUCTION

Currently, the development of English Language Teaching (ELT) especially in English as Foreign Language (EFL) learning is progressing. More researchers are trying to find ways to simplify ELT and make it more effective for secondary school students. One of their findings is by trying to apply MI theories by Gardner [1,2] and Armstrong [3,4]. It is based on a belief that students have different abilities and needs that in line with the concept of multiple intelligences. Therefore, they should be treated differently. In support of this statement, Gardner [1] claims that all human beings possess

different types of intelligences in varying degrees and each individual has different compositions of intelligences. Moreover, each of those intelligences is located in a different area of the brain. In other words, the intelligences have specific intellectual domains: linguistic, logical-mathematical, visual-spatial, bodily-kinaesthetic, musical, interpersonal, intrapersonal and naturalist intelligences. These eight domains reveal that each student has higher tendency to some intelligences and less to others. Therefore, each person could not be seen and treated as the same to others because each of them is “unique”.

With regard to the above description, the process of learning English made by teachers of English at secondary school level should be oriented towards the development of Multiple Intelligence Accommodation (MIA) embodied in a variety of activities, ranging from the development of learning tools (especially textbooks, media, and evaluation tools) to the implementation of the learning process. Nolen [5] finds out that a classroom learning can effectively be supported by students' MI. In addition, there are various ways and activities which can be applied to design effective English environment in the classroom based on MI.

Based on the preliminary observations of the researcher, there are still many reading materials that do not consider the balance of MI. Most reading materials in English textbooks, for example, the main English textbook from Indonesian government delivered at schools, have not yet maximized the verbal-linguistic and logical-mathematical intelligences. They mainly contain reading texts and comprehension questions without giving enough difficult vocabulary lists and discussing how to pronounce the vocabulary well and how to read aloud with correct intonation and pronunciation. Many educators argue that reading is one of the activities to develop linguistic abilities, nevertheless they do not consider on how students can master the linguistic abilities according to their MI and what are their needs, their lacks and willingness to master reading

skills. As a result, the other intelligences aspects, such as bodily-kinaesthetic, musical, and other intelligences are not accommodated in students' learning process in balance.

The unbalanced portion of MIA in English reading materials tend to cause problems for a high number of students, especially those whose dominant intelligences are not accommodated in their materials. These refer to difficulties in acquiring knowledge and less enthusiasm in learning since the materials do not cater their interests. Therefore, many secondary school students feel that reading is categorized as one of the most difficult skills to study in EFL learning. Moreover, many studies concerning reading among school students in Indonesia and some other developing countries show the low percentage of reading interests.

As conclusion, reading interest for secondary school students needs to be developed seriously since they are still in the school level preparing to be a better generation like those of other countries having high percentage in reading habit. Therefore, the analysis of reading materials based on students' MI profiles needs to be carefully considered for teachers and material developers as the follow up of the issues mentioned previously. It could be in the form of developing varied integrated activities but focusing on the development of reading skills.

II. LITERATURE REVIEW

A. *The Use of Multiple Intelligences in the Classroom*

Students in their ages need to get experience and develop all aspects of their intelligences. The activities, materials and tasks provided by teachers have to expose and focus on developing their intelligences in the same portions, not only some of those aspects. In relation with that, Nolen [5] states that the use of multiple intelligences theory from Howard Gardner requires teachers to modify their instructional strategies based on student's individual needs. In line with the statement, he finds out that a classroom can effectively supports MI. In addition, applying MI in language learning is highly recommended to facilitate students acquiring the target language.

With regard to the learning activities, Haley [6] studies the application of MI in several foreign language classrooms with the result that teachers with MI instruction were more eager to teach and the students' showed more interest in MI and good attitude to their L2 learning. Furthermore, Akbari and Hosseini [7] investigate students' L2 learning strategies and its relationship to their MI scores and revealed that MI has a strong impact to certain aspects of the L2. Therefore, teachers are required to be creative and imaginative in designing interesting and attractive learning activities for students based on

their intelligences that can make them interested and more motivated; thus, indirectly it can affect their learning outcomes.

In the same spirit, all students have their own potential and also different weaknesses that must be supported by strategic steps so that they are able to understand and exploit their own potentials [3]. The purpose of the development of MIA-based teaching is that students have the opportunity to discover and understand the potential of what they have and what their weaknesses are so that they can have better responsibility for their learning process. By applying the appropriate materials based on students' MI, they can get more understanding and further, can help the students to find out their potentials and the best way to learn based on their own potentials.

B. *Multiple Intelligences in Reading*

Regarding to the skills that can be developed by using MIA, reading is one of the four macro skills that needed to be developed since it is one of the receptive skills and also the basic skill that should be mastered by the students. Coltheart in Snowling and Hulme [8] urge that reading is an activity to process information by transforming printed or visual information from the text to get the meaning inside it. Although reading is a receptive skill, it belongs to a complex skill that needs a complex process to do. It is in line with Urquhart and Weir in Grabe [9] that argue about reading as the complex process to receive and interpret information from visual or written text.

There are many ways to teach reading by activating MIA in the classroom. Based on Armstrong [3], MI theory suggests a variety of ways in which students could demonstrate their understanding that can be used in analysing a reading text. Those activities can be performed not only in the same genre of reading text but also all texts that needed to be taught to the students. He also finds out that literacy is a whole-brain activity. Thus, reading and writing involve significant use of not only left-brain hemisphere but also right-brain hemisphere as well [4].

Relevant to this study, Iyitoglu and Aydin [10] explore the integrated impact of MI and reading strategies on EFL learners' reading performance in one of Anatolian high schools in Istanbul, Turkey. They conducted an explanatory sequential study, combining qualitative and quantitative research design. They noted that successful readers in EFL contexts tended to support reading strategies if they were dominant in musical, intrapersonal and verbal intelligences. It means that students with those intelligences also have a chance and ability to master reading skills as long as they get appropriate treatment. In line with that, Çelik [11] sees the influence of MI on reading instructions to freshman students whose levels were nearly the same as the pre-intermediate level, in Education Faculty of Ishik

University, Iraq. He conducted a quantitative experimental research. He found that directing the learners according to their intelligences can enhance their reading skill, maintain classroom discipline and improve awareness of their weaknesses and strengths in EFL classes. Both studies show that students with different multiple intelligences should get different treatments in order to help them comprehending reading skills.

Meanwhile, there have been a very few studies related to MI in reading skills that was conducted in EFL high school context, especially in Indonesia. The previous studies are different from the researcher's study in the form of research methodology, subjects and objectives of the research. For that reason, the researcher conducts this study to fill in the gap in the literature. Furthermore, this study proposes essential information that will help materials developers on EFL as well as teachers to get more awareness in designing their reading materials by activating high school students' MI in both hemispheres based on their dominant intelligences.

III. MATERIAL & METHODOLOGY

This need analysis study is classified as a part of research and development model. The purpose of this study is to observe students' MI in regard to develop reading materials based on MIA for junior high school. There were 65 eight grade students from one of junior high schools in Yogyakarta as the sample of the study. The school belongs to one of average schools in Yogyakarta based on the result of national test in recent years. The sample was selected after a preliminary observation that found different characteristics of students from different classes, which were considered to represent the population.

The instruments were in the forms of observation sheets, questionnaires, an interview guideline, and *Multiple Intelligences Scale* (MIS) sheets. The observation sheets as the first instrument were used to evaluate the available books as the comparison to the materials being developed. The questionnaires as the second instrument were used to get information related to learning and target needs of the students. The interview guideline as the third instrument was used to get the deeper information of their needs. The MIS sheets as the last instrument were used to get information of students' MI profiles. Descriptive qualitative technique was used in data analysis by describing the results of the observation, interview and questionnaire. The data was also analysed quantitatively based on the result of MIS by using percentage.

IV. RESULTS AND DISCUSSION

The need analysis data reveal the details of students' needs. The finding informed that students' access to English reading texts and activities was still low. This situation led to students of junior high

schools having dissatisfactory ability towards reading skills and indicated less interest towards English texts. The result of questionnaire and interview revealed the students' needs as follows.

- Majority of students only accessed English when they played games in English lesson (66,2%) or read English text in the classroom (60%). Only few of them enjoy reading as their hobby (33,8%). It suggests that the interest of reading among junior high school students is still low. They had no eagerness in reading except to do certain activities that needed reading in English. The result can be seen in the following chart.

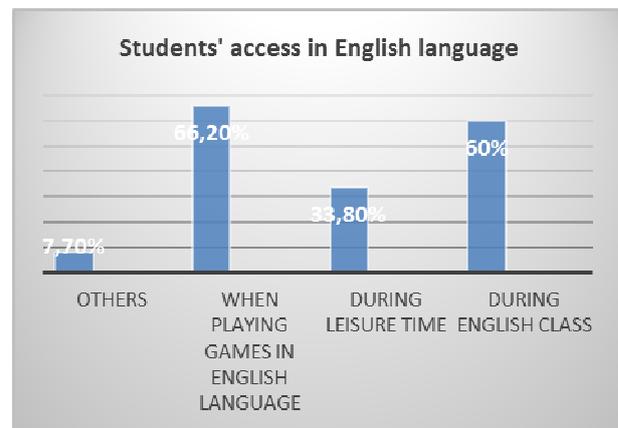


Fig. 1. Students' access in English language

- They were still in the level of A1 of CEFR. Figure 2 and Figure 3 show that the students could understand simple texts with simple or familiar vocabulary and describe things or situations in a shorter English discourse (64,6%). Therefore, they have got difficulties in understanding long texts with complex vocabulary (70,8%). In addition, they wanted to be given the texts which are interesting and entertaining (81,5%), familiar to their daily life (78,5%) and to be provided with difficult vocabulary list to help them understanding the texts (41,5%). They conveyed that they wanted to expose to interesting reading activities and easy texts that enable them to understand the target language in a better way.

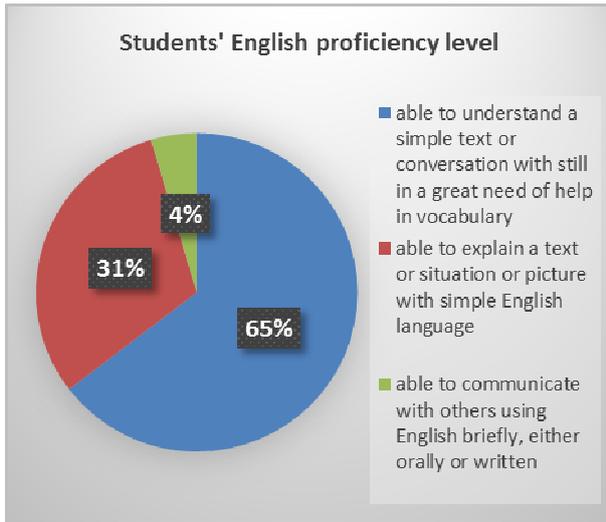


Fig. 2. Students' English proficiency

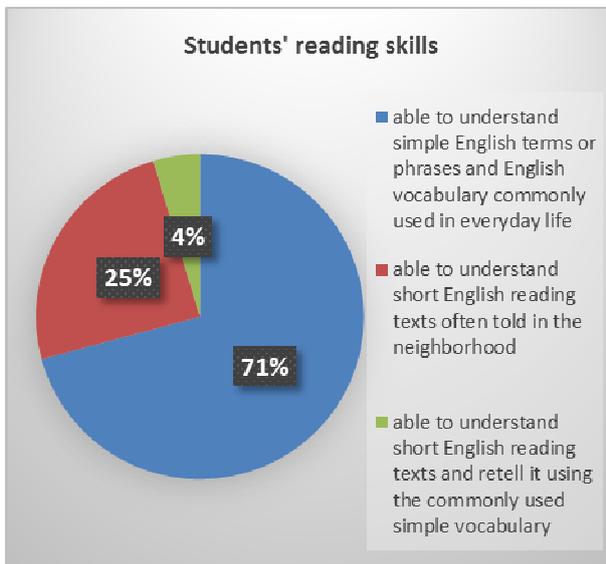


Fig. 3. Students' reading skills

- They wanted to improve their vocabulary and specific terms in English in order to be able to understand and access many kinds of English texts (44,6%) as shown in Figure 4. In spite of the fact that they had an interest in comprehending reading skills, they still felt confused and uninterested when they learned reading. Therefore, they need a better treatment that takes into account how they can learn according to their abilities so they could perform positive attitude to their reading lesson.

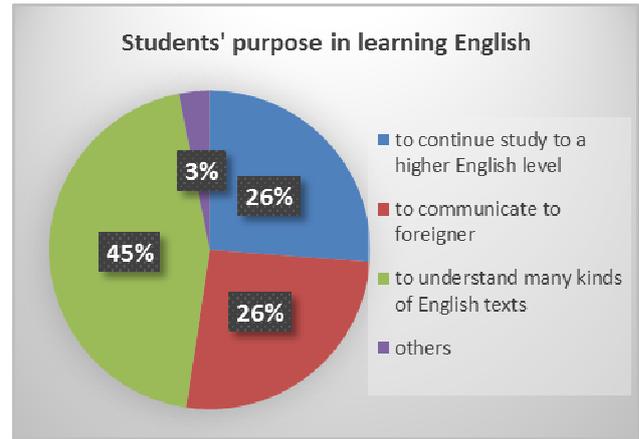


Fig. 4. Students' purpose in learning English

These findings conclude that English teachers and materials developers should considered more intensely to the reading skills. It was proven by the fact that the students still possess low interest and ability toward reading. In reference to the issue, providing reading materials and activities that equip students' abilities in a balanced way is a must. It could be carried out by taking more emphasis on students' multiple intelligences.

The second finding is related to the result of MIS test. Based on the test, the majority of students have musical, spatial and bodily-kinaesthetic intelligences as the top three of MI, followed by interpersonal, linguistic, intrapersonal, naturalist and logical-mathematical intelligences. It can be seen in the Figure 5 below.

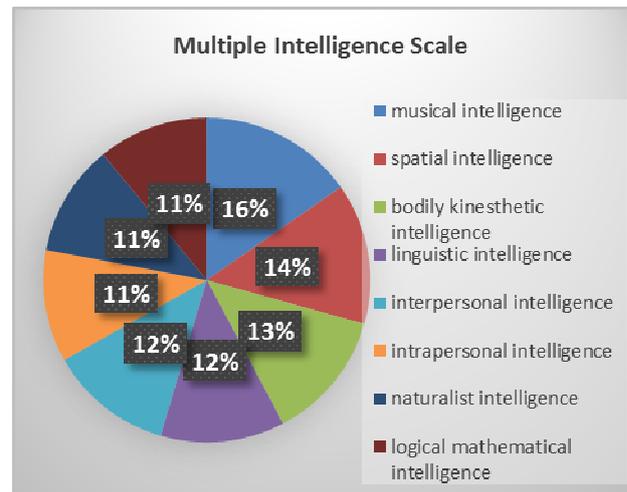


Fig. 5. Computational results of MIS test

This finding is supported by the result of the questionnaire and interview which demonstrated that students wanted the reading activities supported by many colourful pictures or videos which are related to their visual-spatial intelligence (60% of total respondents), followed by games which are related to their bodily-kinaesthetic intelligence (55,4%) and

musical activities which are related to their musical intelligence (56,9%), such as reading aloud with correct pronunciation and intonation. It is shown in Figure 6 below.

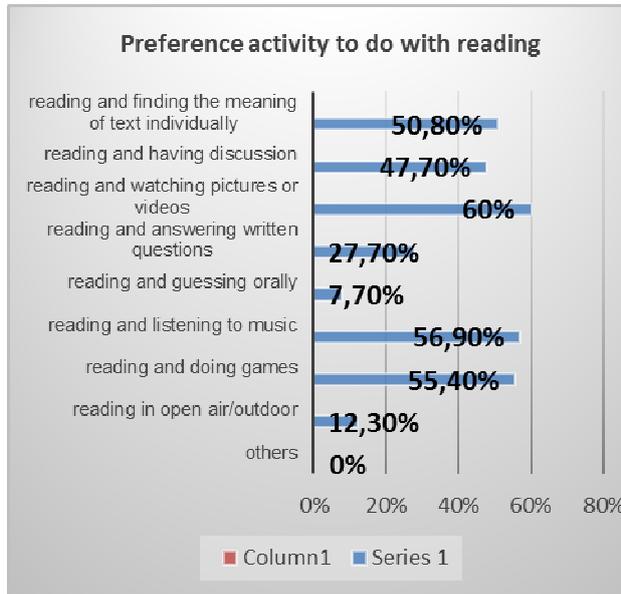


Fig. 6. Students' preference activity to do with reading

On the other hand, a contrast condition was revealed, in a way that the available English books put heavy emphasis merely on the aspects of linguistic, interpersonal and logical-mathematical intelligences in its reading activities. In other words, students still learned reading in unbalanced way to their learning intelligences.

The last finding demonstrated that the majority of students supported to develop English reading materials based on the accommodation of multiple intelligences. This finding is related to students' responses on the questionnaire and interview. They claimed that reading activities in the classroom were not interesting since the activities in the main textbook were mostly about monologue and dialogue by highlighting interpersonal, linguistic and logical-mathematical intelligences and the book's layout seemed to be boring since it was monotone and did not provide various pictures. Furthermore, they stated that there were not enough reading texts and activities based on their MI.

This study also reveals that high school students were more successful in EFL reading by given appropriate treatment based on their MI. The results of the study support the findings of the previous studies within the field[4]. Those studies indicate that educating learners based on their intelligences can enhance their reading skill, maintain classroom discipline and improve awareness of their weaknesses and strengths in EFL classes. However, the results were little bit different from Iyitoglu and Aydin's study [10] that high school students were dominant in

musical, spatial and bodily-kinaesthetic intelligences and unfortunately low in verbal-linguistic and logical-mathematical intelligent as highlighted in the reading materials they have been exposed to. In addition, learners in different ages have different abilities and characteristics that influence the development of their MI. Students' reading skills in high schools could be enhanced by their dominant intelligences in order to maximize their ability in EFL reading.

V. CONCLUSION

Based on the findings above, it can be concluded that secondary school students, especially in junior high schools, still have lower level ability and interests to learn English reading skills. One of the reasons is because the textbooks and its activities were not interesting and difficult. Moreover, the MI proportion in those textbooks is not developed in balance, in the sense that the materials are only putting an emphasis on some intelligences. However, it is agreed that they want to be able to master reading skills. They need the best method to learn reading skills that can be accommodated their MI profiles. Therefore, providing appropriate teaching methods and reading materials based on their different intelligences is strongly needed. Finally, the findings that the available reading materials were not yet providing students multiple intelligences in a balanced proportions, need to be seriously taken into account. These findings also trigger efforts for other researchers to conduct research and development about reading skills and textbooks which include the accommodation of students' multiple intelligences.

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