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Investigating the Representation of Multiple Intelligences (MI) Theory in The Activities of ESL Young Learner's Textbook

Istihari[1*], Vivi Sofiah[2], Yanwar Abidin[3], Rifari Baron[4]
[1,2,3,4] Faculty of Language and Arts, English Education, Universitas Indraprasta PGRI, Indonesia
email: istihari@pribadibandung.sch.id

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***ABSTRACT** (10 PT)*

The present study aimed at examining how Multiple Intelligences (MI) Theory is incorporated in a specific series of English as a Second Language (ESL) young learner's textbooks. One textbook and workbook level 3 of Super Minds series were analyzed using a MI checklist from developed by Botelho (2003); Estaji & Nafisi (2014); and Kirgoz (2010) based on the review of the related literature and frameworks of the theory of Gardner (1983). As many as 596 activities were analyzed from the textbook and the workbook. The result showed that the analyzed textbook and workbook primarily addressed verbal/linguistic intelligence (40.60%), also included a fair number of activities related to bodily/kinesthetic (12.42%), interpersonal (11.41%), visual/spatial (11.07%) and logical/mathematical (10.74%) intelligence. Musical (6.71%), intrapersonal (4.36%), and naturalistic (2.68) intelligences were the least dominant types in the textbook and existential intelligence did not particularly exist in the examined activities. It is recommended for the textbook developers that a variety of intelligence types in materials for young learners could be distributed evenly.

Keywords :** **Multiple Intelligences; English textbooks; primary education; activities.

INTRODUCTION

Education undoubtedly plays a major role in developing students' potential so that their intelligence can develop optimally. Shearer, C.B., and Karanian, J.M. (2017) mention Grabner (2006) and Goswami et al. (2011) for their redefining of intelligence as the capacity to solve issues or produce goods that are valuable to a society or culture. Every child has varied bits of intelligence in various aspects. However, in some societies, it is still believed that the word "smart or intelligent" is addressed to those who have excellence in numeric (Trytten, D. A., Lowe, A. W., & Walden, S. E. (2012), in the sense that if a person is good at math, he can be said as an intelligent person. Intelligence seems to be the only domain of students who stand out and be recognized in academic competitions.

Rather than one central intelligence, there have been myriads of notions suggesting that people espouse combinations of different intelligences in everyday life or what are so-called multiple intelligences. The theory of multiple intelligences was first introduced and developed by Harvard psychologist Howard Gardner in the 1980s. Gardner (1987) proposed that intelligence is not a single, general ability that can be measured by IQ tests, but rather a collection of multiple, distinct abilities that can be applied in different ways. According to Gardner (1993), there are eight types of intelligence: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic. Each person has a unique combination of these intelligences, and individuals can develop and use their strengths in different ways to learn and succeed in various areas of life (Gardner, 1993). Gardner's theory of multiple intelligences has been influential in the field of education and has been used to inform teaching methods and curriculum design.

RESEARCH METHODS

This study developed a multiple intelligences (MI) checklist based on the schema of the theory of Multiple Intelligences (see Gardner, 1983, 1993, 2000) and based on the review of literature (Botelho, 2003; Estaji & Nafisi,2014; Kirgoz, 2010) entailing definition of each of the intelligences and a matrix of activities. For instance, a definition of verbal-linguistic intelligence involves one's ability to use words and language effectively both in spoken and written form, speak on a subject, and write a speech. In other words, this checklist was employed as a coding scheme for better classification and evaluation

of textbook content according to MI theory. Coding categories were labeled as VL for verbal/linguistic; LM for logician/mathematician; SV for spatial/visual; BK for bodily/kinaesthetic; M for musical; IR for interpersonal; AI for intrapersonal, N for naturalistic intelligence, and EI for existential intelligence.

The current study used one young learner English textbook entitled Super Minds Level 3 written by Herbert Puchta, Gunter Gerngross, and Petter Lewis Jones. It was chosen and investigated to determine the representation of multiple intelligences and to find out to what extent the textbook accommodates different intelligences as reflected through the tasks and the activities. The selected textbook is currently taught at one private primary school in Bandung Indonesia to the children of ages 8-9. One set of the books contains a student book, a workbook, a teacher's resource book, and additional resources such as worksheets and flashcards. The book consists of ten units and each unit entails four English skills namely listening, speaking, reading, and writing, and other aspects such as vocabulary, grammar, phonic focus, and integrated English. The units consist of Unit 0 (Meet the explorers), Unit 1 (Our school), Unit 2 (The picnic), Unit 3 (Daily tasks), Unit 4 (Around town), Unit 5 (Under the sea), Unit 6 (Gadgets), Unit 7 (In the hospital), Unit 8 (Around the world), Unit 9 (Holiday plans). These were considered as the unit of data collection.

Data Collection Technique

a. Data were gathered from the student's book and workbook. Each book has the same number of units and each unit was evaluated carefully concerning multiple intelligences that were depicted in each activity and task. To categorize the proper intelligence in each task and activity, the procedure was to determine to what extent each activity and task represents a type of intelligence predominantly. For example, the activities like numbering the parts, story problems with numbers, putting the sentences in order, doing the puzzle, or unscrambling the sentences are related to Logical-Mathematical intelligence. All the activities and exercises in 10 units from the textbook and workbook were carefully examined to identify the intelligence types embedded. A key step in identifying the appropriate intelligence for each activity was deciding what kind of intelligence that activity addressed. For example:
b. Verbal/linguistic intelligence: e.g., listen and read the following text, complete the sentence, listen and say, etc.
c. Logical/mathematical intelligence: e.g., number the part, do the puzzle; put the sentences in order.
d. Musical intelligence: e.g., let's sing, listen and chant.
e. Visual/spatial: e.g., color the picture, look at the pictures, and draw; draw the lines.
f. Bodily/kinesthetic intelligence: e.g., act out with a partner, do the role-play; do the actions.
g. Intrapersonal intelligence: e.g., write about your favorite gadget, and think of what you like/dislike.
h. Interpersonal intelligence: e.g., work with your partner, ask your friends about the holiday plan.
i. Naturalist intelligence: e.g., what's the weather like? Classify which ones belong to herbivores!

Data Analysis Technique

There are several approaches to consider when analyzing data on the representation of multiple intelligences in an English as a Second Language (ESL) textbook. The present study will be mainly conducted qualitatively by investigating carefully the chosen textbook based on the elements related to different intelligence following the review of literature by Botelho (2003); Estaji & Nafisi (2014); and Kirgoz (2010). Using the help of Microsoft Excel as a medium of descriptive statistics, the data were gathered, and calculated the numbers of occurrences of the different intelligence for each unit in the textbook were examined according to the checklist of multiple intelligences. Each qualitative analysis was followed by the illustration of descriptive statistics in the form of a chart and table.

RESULTS AND DISCUSSION (Capital, bold , Times new romance 11 pt)

The results of the young learners' ESL textbook analysis in terms of MI theory revealed the following distribution of intelligence in text intelligence.

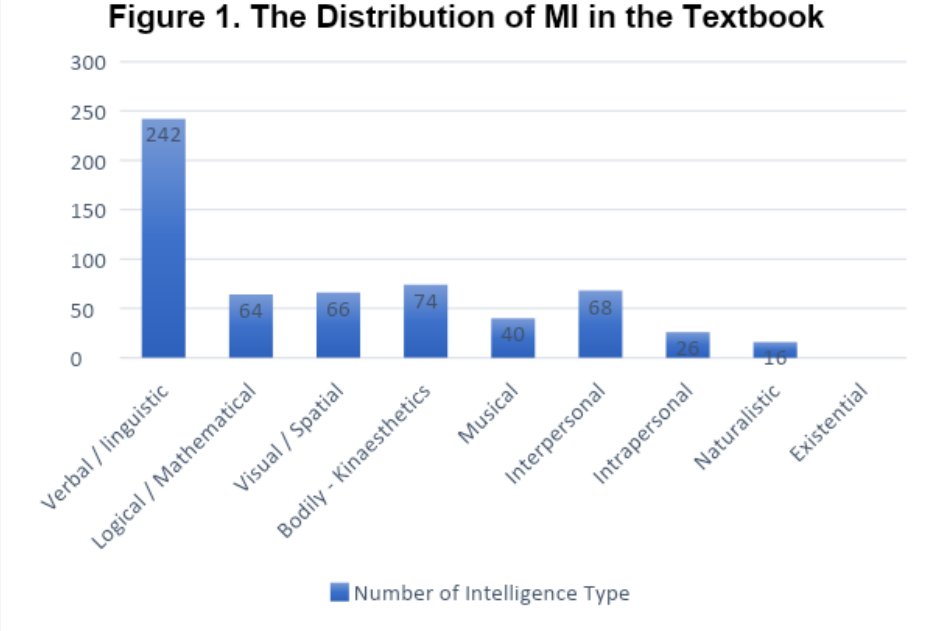

Figure 1 The Distribution of MI in the Textbook

Figure 1 graphically illustrates the general distribution of the activities and exercises catering different multiple intelligences. It can be said from the figure that Verbal/linguistic intelligence is the predominant intelligence type in the textbook and workbook and then followed by bodily/kinesthetics, interpersonal-kinesthetic-spatial, and logical/mathematical intelligences. Musical, intrapersonal, and naturalistic intelligence are the least dominant types in the textbook and existential intelligence is particularly vacant in the examined activities. In addition, the detailed information about the distribution of the multiple intelligences' activities covering each unit of the book is depicted in Table 1. Using frequency and percentage, the results of data analysis from each unit is summarized in the follareing table.

Table 1. Followingtion of Intelligences in ESL textbook

Textbook Units	**Intelligence Types f %**									**Number of Activities**
	Verbal / linguistic	Logical / Mathematical	Visual / Spatial	Bodily - Kinaesthetics	Musical	Interpersonal	Intrapersonal	Naturalistic	Existential	
Unit 0	22	2	2	0	6	4	0	0	0	36
f %	61,11	5,56	5,56	0	16,67	11,11	0	0	0	100%
Unit 1	28	14	6	4	4	8	2	0	0	66
f %	42,42	21,21	9,09	6,06	6,06	12,12	3,03	0	0	100%
Unit 2	26	6	8	8	2	8	4	6	0	68
f %	38,24	8,82	11,76	11,76	2,94	11,76	5,88	8,82	0	100%
Unit 3	20	6	8	12	4	2	4	2	0	58
f %	34,48	10,34	13,79	20,69	6,90	3,45	6,90	3,45	0	100%
Unit 4	22	2	14	8	4	6	2	0	0	58
f %	37,93	3,45	24,14	13,79	6,90	10,34	3,45	0	0	100%

Unit 5	26	6	10	6	4	6	0	4	0	62
f%	41,94	9,68	16,13	9,68	6,45	9,68	0,00	6,45	0	100%
Unit 6	22	12	4	4	4	10	2	0	0	58
f%	37,93	20,69	6,90	6,90	6,90	17,24	3,45	0	0	100%
Unit 7	26	8	2	12	4	8	4	0	0	64
f%	40,63	12,50	3,13	18,75	6,25	12,50	6,25	0	0	100%
Unit 8	24	4	8	8	4	6	2	0	0	56
f%	42,86	7,14	14,29	14,29	7,14	10,71	3,57	0	0	100%
Unit 9	26	4	4	12	4	10	6	4	0	70
f%	37,14	5,71	5,71	17,14	5,71	14,29	8,57	5,71	0	100%
N	***242***	***64***	***66***	***74***	***40***	***68***	***26***	***16***	***0***	***596***
%	40,60	10,74	11,07	12,42	6,71	11,41	4,36	2,68	0	**100%**

Ten units from the textbook and workbook were analyzed. The total number of the activities and exercises involved in those units was 596. As Table 1 shows, verbal/linguistic intelligence was the most predominantly used of the intelligence type that was embedded for 40.60% of the activities. This means that out of 596 activities, as many as 242 activities cater to verbal/linguistic intelligence. Bodily/kinesthetic intelligence was the next most frequent intelligence making up 12.42% of the activities, meaning that 74 activities served for this intelligence type. The third most used intelligence type was interpersonal intelligence encompassing 11.41% of the activities and exercises. Furthermore, visual/spatial intelligence almost had the same number as the previous intelligence which made up 11.07% of the activity. Musical (6.71%), intrapersonal (4.36%), and naturalistic (2.68%) bits of intelligence were the least intelligence types in the textbook and workbook. There was no example of existential intelligence found in both textbook and workbook activities.

As Table 1 shows, the intelligence profile of each unit of the textbooks and workbook is approximately similar. Verbal/linguistic intelligence is the uppermost intelligence type in the textbook followed by bodily/kinesthetic, interpersonal, visual/spatial, and logical/mathematical bits of intelligence. Meanwhile, Musical, intrapersonal, and naturalist bits of intelligence were the least dominant types among the ten units of the book and existential intelligence was particularly absent in all the unit activities. Unit 0 indicated the least number of activities because it was the introduction part of the book.

The findings of this study indicate that the intelligence profile of the ESL textbook is made up predominantly of verbal/linguistic intelligence then followed by bodily/kinesthetic, interpersonal, visual/spatial, logical/mathematical bits of intelligence, musical, intrapersonal, and naturalistic bits of intelligence. Existential intelligence never showed up in the activities.

Based on the results shown, 40.60% of the 596 activities in the textbook and workbook accommodated verbal/linguistic intelligence. This could be because language textbooks tend to include various activities that provide listening, speaking, reading, and writing skills, as well as vocabulary and grammar sections that are aimed at developing linguistic features. The fact that verbal/linguistic intelligence was the most dominant intelligence in the activities and exercises of an English textbook was quite unsurprising. These consistent results were in line with the findings from the previous studies on textbook evaluation by Botelho (2003); Estaji & Nafisi (2014) and Kirkgöz, Y. (2010), which found that language textbooks are primarily verbal/linguistic intelligence.

Bodily/kinesthetics was presented as the second predominant intelligence for as many as 12.42% of the analyzed activities. A reasonable explanation for the representation of bodily/kinesthetic intelligence is the fact that language workbooks generally ask the students to do hands-on activities, exercise, role plays, mime or do creative movements, and so on. Bodily/kinesthetic intelligence, or the ability to use one's body effectively and express oneself through physical movement, should be included in textbook activities and taught to most children for several reasons. According to Howard Gardner's theory of multiple intelligences, bodily/kinesthetic intelligence is one of the eight different types of intelligence that individuals possess and a crucial aspect of child development (Gardner, H. (1983). Furthermore, children also like to move and practice instead of theory. Thus, by including activities that

engage children's bodily/kinesthetic intelligence in the textbook, teachers can help children develop this aspect of their intelligence and encourage them to use their bodies in meaningful ways.

The ability to interact effectively with others, known as interpersonal intelligence, was identified in 11.41% of the analyzed language learning activities. These activities often include working in pairs or groups, which can help facilitate communication and promote interpersonal intelligence. The example activity from the book is “Ask and answer with a partner” which was often found in the third section on the first page of every unit. However, the 11.41% frequency of these types of activities found in the analyzed textbooks is not considered a high percentage. Therefore, as suggested by Ibragimova (2011), there is a need for more group work activities to help develop learners' communicative competence. According to Brown (1995), group work activities can create various situations and emotional experiences that allow learners to engage in linguistic interaction and take ownership of their learning.

Moreover, visual/spatial intelligence (11.07%) and logical/mathematical intelligence (10.04%) were also commonly addressed in the analyzed language learning activities. The use of pictures, charts, and other visual aids in language textbooks is likely a contributing factor to the high representation of visual/spatial intelligence, as these tools can help attract learners' attention and improve comprehension. Frequently including activities such as matching, categorizing, and problem-solving in language textbooks may be responsible for the high representation of logical/mathematical intelligence. These activities are designed to challenge learners' minds and stimulate intellectual abilities. This finding aligns with the results of previous research studies (Botelho, 2003).

The least common types of intelligences addressed in the analyzed language learning activities were musical, intrapersonal, naturalist, and existential intelligences. These were present in less than 10% of the activities. Musical intelligence was the most commonly addressed of these less common intelligences, appearing in 6.71% of the activities and ranked sixth in frequency. These activities often involved recognizing aspects of language such as stress, joining in a song, singing for pleasure, patterns, and pronunciation, as well as the use of songs. Intrapersonal intelligence, which was in seventh place, was present in 4.36% of the activities and was found to be lacking in activities that address personal opinions and self-evaluation. The common tasks that were mainly found in the Super Minds book such as: Write about the meal you would like and a meal you would not like (Book unit 2 p.33). Naturalist intelligence, which in the last two frequencies, appeared in only 2.68% of the activities, and referring to the previous study, it was the least commonly addressed of these intelligences. There were a few activities related to natural phenomena, the environment, and living species found in the book such as topics about the food chain and habitats (unit 2), saving water (unit 3), sea creatures (unit 5), and seasons in unit 9. Existential intelligence was not addressed in any of the analyzed activities.

All in all, the analysis of intelligence types addressed in the language learning activities in the ESL young learners' textbooks revealed an imbalance in the distribution of these intelligences. However, there was an adequate representation of intelligence types across different units of the book. In the ESL primary context taught in the expanding circle of English-speaking countries such as Indonesia, where students are less proficient with the target language, the textbook is considered child-friendly since it includes activities that focus on visual/spatial and bodily/kinesthetic intelligence. As students become more proficient, activities that focus more on interpersonal and intrapersonal intelligence are preferable as has been noted by Armstrong (2000), claiming that with appropriate instruction, individuals have the potential to develop competency in all types of intelligence. Some intelligence types, such as musical, bodily/kinesthetic, intrapersonal, and naturalistic, may require more opportunities and attention to be adequately addressed in language learning materials.

CONCLUSION

The current study aimed to examine the representation of multiple intelligences in language learning activities for young learners in textbooks, to understand the extent to which these materials address and cater to different intelligence types. The results showed that the analyzed textbooks primarily addressed verbal/linguistic intelligence, but also included a fair number of activities related to bodily/kinesthetic, interpersonal, logical/mathematical, and visual/spatial intelligence. Musical, intrapersonal, and naturalistic intelligence were the least dominant types in the textbook and existential intelligence was particularly not found in the examined activities.

The findings of this study have implications for teachers, researchers, and textbook writers. Teachers should be aware of the individual differences among their students and strive to provide instruction that addresses a range of intelligence types. Textbook writers, in particular, should consider the theory of multiple intelligences when creating materials for young learners, ensuring that the activities and tasks provided are suitable for students' needs and address a range of intelligence types. This can help ensure that all students have the opportunity to learn and engage with the material in a way that is meaningful to them.

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