

Developing Speaking Learning Materials Oriented to Multiple Intelligences: from Theory to Practice

Desi Sugiarti

English Education Department, Graduate Program
Yogyakarta State University
Yogyakarta, Indonesia
desi0648pasca@student.uny.ac.id

Margana

English Education Department
Yogyakarta State University
Yogyakarta, Indonesia
margana@uny.ac.id

Abstract—It is not unsafe for us to conclude that needs analysis is always crucial to a development study since it is the key to the appropriate developed product. In addition, learner's individual strength should also be taken into consideration in order to allow them to experience a joyful yet meaningful learning. In connection with this, a Research and Development study, of which aim is to develop the Multiple Intelligences (MI)-based English speaking activities, has been conducted with 30 students of a secondary school participated in the data collection. This paper is the manifestation of this initial stage of the study namely the needs analysis stage of which intention is to figure out the students' needs and major intelligences and then to develop the appropriate speaking learning activities based on the data. The conclusion drawn based on the analysis of the quantitative data from the questionnaire and MI Profile Test filling supported by the interview are that: (a) English speaking skills are considered important to master, (b) Science and Technology, also Arts and Culture, are the most preferred topic of discussion, (c) the students' level of English proficiency is intermediate mid, and (4) the students expect to improve their mastery of the future-job-related vocabulary and their confidence to communicate with English native and nonnative speakers upon learning the materials. Regarding the MI theory, the most developed intelligences profiles are musical, bodily-kinesthetic, intrapersonal, and existential. The realization of the individual strength of the students and the effort to make use of them to undergo a meaningful learning is an innovation in education practices in terms of the value of empathy.

Keywords—multiple intelligences, needs analysis, innovation, speaking activities, individual strength, English

I. INTRODUCTION

Decades have witnessed the dramatic increase of the implementation of Multiple Intelligences (henceforth, MI) proposed by a professor at Harvard Graduate School of Education, Dr. Howard Gardner, in various fields. Up to this 21st century, the scheme continues to gain its popularity among scholars and educators, including those dealing with English instruction and research.

According to Hoerr in [1], before Gardner in 1993 urged the notion of MI through his *Frame of Mind*, there are at least three influencing figures in the field namely (1) Robert Sternberg with his three forms of intelligence covered in *Thriarchic Theory of Intelligences* followed by (2) Daniel Goleman who proposes Emotional Intelligence, and (3) Robert Cole who brings along his Moral Intelligence. Baum,

et al. in [2] adds the name of J. P. Guilford who identifies up to 150 intellectual capacities in his *Structure of Intellect* into the list. Today, scholars and educators are well acquainted with the nine MI theorized by this dominant figure in psychology, Howard Gardner, namely (a) verbal-linguistic, (b) logical-mathematical, (c) visual-spatial, (d) bodily-kinesthetic, (e) musical, (f) interpersonal, (g) intrapersonal, (h) naturalist, and (i) existential intelligences.

Palmberg in [3] sums up the characteristics of the students who develop each of the nine intelligences as the following: (1) those who develop their verbal-linguistic intelligence well, or are 'word smart', are good in expressing themselves using spoken and written language and like jokes, riddles, wordplay, and listening to stories; (2) those with dominant logical-mathematical intelligence, or are 'number/reasoning smart', enjoy working with numbers, reasoning, logic, and problem solving; (3) those who develop their visual-spatial intelligence well, or are 'picture smart', tend to picture a situation, draw mental images, enjoy illustrations, charts, tables, and maps; (4) those with bodily-kinesthetic intelligence, or are 'body smart', experience learning best through body movement e.g. mimicking, impersonating, imitating, acting out situation, or doing role play; (5) those who develop their musical intelligence well, or are 'music smart', love songs, patterns, rhythms, and musical expressions and learn best through them; (6) those with dominant intrapersonal intelligence, or are 'self smart', are reflective, analytical, and intuitive about their identity and what and how to learn; (7) those with interpersonal intelligence, or are 'people smart', prefer pair and group works to individual works; (8) those with strong naturalist intelligence, or are 'nature smart', prefer work outside the classroom and fond of classifying and categorizing activities; and (9) those who develop the existentialist intelligence better than other MI profile, or are 'existence smart', need to see the whole picture or situation in order to be able to understand minor learning details and points.

Despite being one of the most important language skills to master by the participant of this study, according to some participants, English speaking skills is among the most difficult ones to master, particularly on the grounds that the language is not the first or even second language for Indonesians. Because English is a foreign language, it is not widely used in every day communication. Therefore, in order to be able to speak English fluently and accurately, the students need to be trained with ongoing speaking practices. BBC in [4] defines fluency as the ability to share ideas

without thinking too much about what to speak or what is heard, while accuracy is the absence of grammatical or vocabulary errors in speaking. In conclusion, fluency, accuracy, vocabulary, and pronunciation are four inseparable factors of speaking. Thus, the teachers need to support the mastery of the skills of their students by providing the appropriate materials and activities.

The importance of textbooks and audio-visual aids in English teaching and learning in secondary school becomes the concern of [5]. Quoting Djojosoekarto in [6], he believes that these seven factors are crucial for successful Teaching English as a Foreign Language in Indonesia (henceforth, TEFLIN): (1) adequate teachers quantitatively and qualitatively; (2) the existence of teachers who possess good control of English, personality, and intellectual characteristics, and who are highly motivated to teach; (3) teacher education program which are expected to produce professional teachers; (4) a sufficient source of highly-qualified faculty members; (5) textbooks and audio-visual aids; (6) sufficient time to develop the students' skills; and (7) social-psychological condition that encourages them to perform good communication skills. It is for this ground that the study to develop the appropriate textbooks containing speaking materials and activities was undergone.

Meanwhile, textbook developers across the globe believe that doing needs analysis is always as essential and fundamental of importance to textbook development project as the needs of oxygen for every living thing. In line with this, Graves in [7] suggests that the purpose of doing needs analysis is to find out what the learners know and can do, and what they need to learn and do. In addition to this, Nunan, as it is cited by [8], claims that "courses should be designed to fit the students". It is not unexpected then, that in order to provide the best learning experience for the participants of this study, therefore, an analysis on their needs and MI profile was done at the very beginning.

The rest of this paper is organized as follow: Section II describes proposed research method. Section III presents the obtained results and following by discussion. Finally, Section IV concludes this work.

II. METHOD

This study, according to Sugiyono in [9] is the initial step of the '4D Steps' model of Research and Development study aimed at developing the supplementary English-speaking learning materials oriented to MI for grade XI students, namely the 'Define' stage. Therefore, the participants of the study were XI graders. Receiving the official letter to request for permission and cooperation to gather the data, the school instructed one of their English teachers who taught grade XI students to help with the process. She then agreed to permit the researchers to undergo the study in one of her classes, with a total of thirty students participated in it. In order to gain the expected data, questionnaires of the students' need, and a test of MI profile proposed by [10] were distributed to each of the students. Before they started filling in the instruments, a detailed explanation about the instruction and the purpose of the test was given. Moreover, this is also important to mention that they are expected to express their true selves and that their answers would not bring any consequences to their English score. It was also stated that

the data would not be used for any other purposes rather than this study. The data from the questionnaires and MI test were then analyzed using simple mathematical formula in Microsoft Office Excel 2007 in order to get a conclusion of what intelligences are possessed by most of the students.

III. RESULTS AND DISCUSSION

This section presents the findings of the research in the form of figures and tables, preceded by the explanation, and followed by explanations. Agreed to declare that English speaking skills are among the most important language skills to master, the students chose 'Science and Technology' and 'Arts and Culture' as the most expected topics to learn during the English class, followed by 'Humanity' and 'Citizenship', as it is shown in Figure 1.

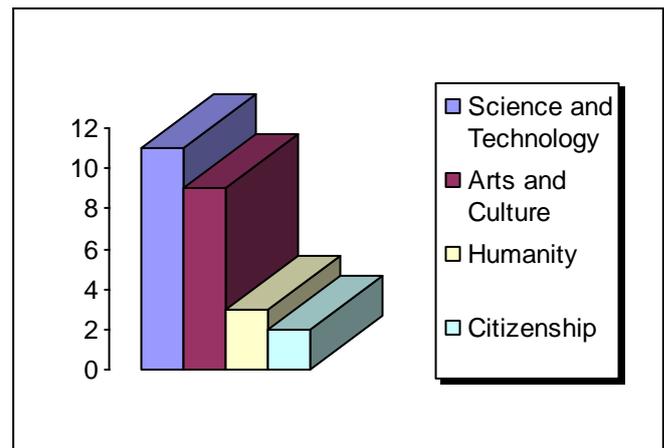


Fig. 1. The students' choice of topic of interest.

Speaking of the important of needs analysis, [11] suggested two types of needs namely target needs and learning needs. Target needs include: (1) necessity, (2) lacks, and (3) wants. In this study, the 'How important English is' for the participants of the research has been answered by all the interviewees. They stated that English is very crucial for the students of grade XI of the major. It is because the subjects of the research have the potential to meeting English native speakers in the future. For those who are eager to look for a job in a multinational company, the chance to pass the interview session is expected to be bigger than other candidates who are lacking of speaking skills.

Meanwhile, the students who want to continue studying in a college may have even greater possibilities to use their English language skills. One of them is preparing for a group presentation. They need to read and look for the information about the topic of the presentation, which are usually produced in English.

In order to make it a joyful learning, the topics of the discussion should be able to draw the students' attention. In the case of this study, as the students mostly chose 'Science and Technology' and 'Arts and Culture, the learning activities and discussion are better about the chosen topics. Regarding arts and culture, the teacher can also insert some beneficial cultural tips whenever necessary.

The next aspect of target needs is the 'lacks', or the gap between the ideal image and the reality. Based on American Council on the Teaching of Foreign Languages (ACTFL),

speaking ability are categorized into: (1) Intermediate high, (2) Intermediate mid, (3) Intermediate low, (4) Novice high, (5) Novice mid, and (6) Novice low. Majority of the students identified their ability as intermediate mid which means they are able to have a communication about their real life, or about the topics they are well-acquainted with, such as about themselves, family, home, daily activities, hobby, etc.

Figure 2 illustrates the self-assessment of the students. They were to value their own English proficiency level and the majority claimed that they are on the intermediate mid level.

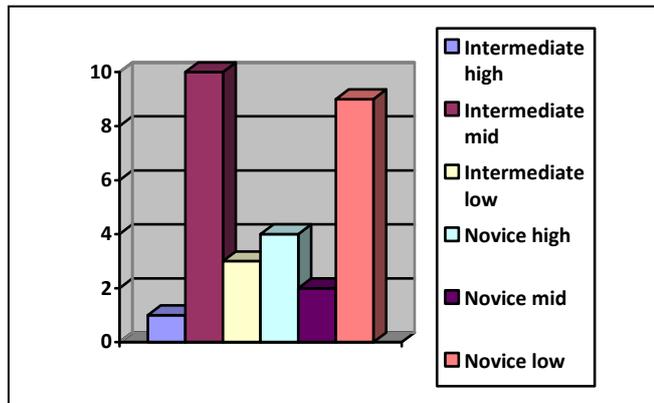


Fig. 2. The students' English proficiency level

Meanwhile, when asked to prioritize the goal they want to reach by being actively participated in the English learning activities, most of them pointed out 'mastering the future-job-related vocabulary' and 'improving self-confidence to communicate with English native and non-native speakers' as the most intended ones, as it is shown in Figure 3.

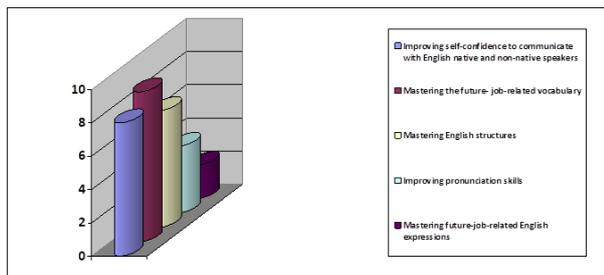


Fig. 3. Goal of learning

It is then revealed through the study that although the students have a tendency to like the topics of their interests, they were still unconfident about their personal strengths. For this reason, the English teacher and the students themselves admit that they have poor vocabulary mastery. Therefore, they expect to enrich it upon learning the materials. They also expect that once their vocabulary mastery is getting better, they will gain confidence to communicate using spoken or written English, with English native or nonnative speakers. Thus the 3000 frequently used English words are included in the developed textbook.

Another thing should not be put aside when preparing for the class is analyzing the MI of the students. It is compulsory because every student has different intelligence; different way to respond to a similar case. Then, the students who are

good in handling existential matters would be able to find the answer to difficult questions such as finding out reason of why certain language formula works that way. In contrary, tasks to raise questions from some provided answers are also suitable for them.

Among the nine intelligences theory proposed by Gardner, four of them possessed by the majority of subjects of the research, there are musical intelligence, bodily-kinesthetic, intrapersonal, and existential knowledge.

According to [12], individuals with high score of musical intelligence will be able to perform speaking tasks well for the following reasons. First, they are able to identify the rhythmic of sound. Therefore, in the initial level, they will be able to imitate correctly. Also, they will be able to pronounce words correctly. For this reason, pronunciation drill is suitable for the students who belong to this group. Third, they are also able to recognize the stress in a word or sentence, so they are able to speak with the correct stress. Teachers can make use of this data, for instance by grouping those who possess high musical intelligence with the ones whose musical intelligences are not as high as them. Then, the students of this group will also be able to speak with appropriate speed and intonation. In other words, they can be the good examples in the dialog practices.

The next group consists of the students who score high in the bodily-kinesthetic area. They will also be able to handle the pronunciation tasks well as they are able to speak with clear pronunciation and articulation. Reading aloud some authentic learning materials will make them excited, before presenting their own spoken texts.

The students who are good in intrapersonal matters will be able to express their own thought and recalling the past learning experience. Teacher can accommodate the development of their individual strength by raising questions about their learning experience. This can help during the context building too. Then, at the end of the learning, the students can be asked to reflect their new learning experience. Grouping them with their peers whose intrapersonal intelligence has not been developed as excellent as theirs yet can help the two sides too.

Then, the students who are good in handling existential matters would be able to find the answer to difficult questions such as finding out reason of why certain language formula works that way. In contrary, tasks to raise questions from some provided answers are also suitable for them.

TABLE I. MAJOR INTELLIGENCES OF THE STUDENTS

No.	Name	Major Intelligence(s)
1.	Student 1	intrapersonal
2.	Student 2	visual, bodily-kinesthetic, intrapersonal
3.	Student 3	visual-spatial, musical, intrapersonal, existential
4.	Student 4	musical
5.	Student 5	existential
6.	Student 6	verbal-linguistic, naturalist, existential
7.	Student 7	musical
8.	Student 8	verbal-linguistic, bodily-kinesthetic, interpersonal, intrapersonal, existential
9.	Student 9	musical
10.	Student 10	existential
11.	Student 11	visual, bodily-kinesthetic, musical, naturalist
12.	Student 12	interpersonal, intrapersonal
13.	Student 13	logical-mathematical, musical, existential
14.	Student 14	interpersonal
15.	Student 15	bodily-kinesthetic, musical, interpersonal
16.	Student 16	logical-mathematical, bodily-kinesthetic, musical
17.	Student 17	verbal-linguistic
18.	Student 18	verbal-linguistic, logical-mathematical
19.	Student 19	verbal-linguistic, intrapersonal
20.	Student 20	interpersonal
21.	Student 21	bodily-kinesthetic, existential
22.	Student 22	naturalist
23.	Student 23	verbal-linguistic, bodily-kinesthetic, musical
24.	Student 24	logical-mathematical, visual-spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalist, existential
25.	Student 25	bodily-kinesthetic, musical
26.	Student 26	bodily-kinesthetic
27.	Student 27	verbal-linguistic, intrapersonal, existential
28.	Student 28	musical, intrapersonal
29.	Student 29	intrapersonal
30.	Student 30	visual-spatial

These data in Table I were then used to develop the appropriate the supplementary English speaking materials. On the grounds that it is developed based on a needs analysis study, it is expected that the product meets the students' needs. Furthermore, the percentage of the majority of the intelligences is presented in Table II.

TABLE II. THE PERCENTAGE OF MAJOR INTELLIGENCES

Name of intelligences	Frequency (f)	Percent (%)
verbal-linguistic	7	23.33
logical-mathematical	4	13.33
visual-spatial	5	16.67
bodily-kinesthetic	10	33.33
musical	12	40
interpersonal	6	20
intrapersonal	10	33.33
naturalist	4	13.33
existential	9	30

IV. CONCLUSION

In conclusion, the awareness of the uniqueness of every student to perform the task in various ways helps the teachers to value their differences. Therefore, hopefully, there will be no more cases where learning English is not fun for the reason of teachers' judgment and belittling of the students who perform the tasks differently. This innovation in language teaching will help the realization of best practices to improve the quality of education in the 21th century.

ACKNOWLEDGMENT

The researchers acknowledge the contribution of the following to the data collection during the study: the English teacher and all the 30 participants of the study. We also wish to thank the authors whose insightful works are cited in this paper. Also, to colleagues who willingly help brainstorming

ideas during the writing of this paper, our sincere gratitude belongs.

REFERENCES

- [1] T.H. Hoerr, *Becoming a Multiple Intelligences School*. Alexandria, Virginia: ASCD, 2000.
- [2] S. Baum, J. Viens, and B. Slatin, *Multiple Intelligences in the Elementary Classroom: A Teacher Toolkit*. New York and London: Teachers College Press, Teachers College, Columbia University, 2005.
- [3] R. Palmberg, *Multiple Intelligences Revisited*. Karperö: Palmsoft Publications, 2011.
- [4] British Broadcasting Corporation, *BBC Learning English Better Speaking: A guide to improving your spoken English*. London: BBC World Service, 2003.
- [5] E. Sadtono, "A concise history of teaching English as a foreign language in Indonesia," in *English Education in Asia: History and Policies*, ASIA TEFL Journal, Y. Choi & B. Spolsky, Eds. Seoul: Jeongwon Bldg, 10th Floor, 2007, pp. 205-230.
- [6] Djojosoekarto, G.K. 1973. *A study of several development factors in the revision and updating of the national English language program with reference to inservice teacher-training and the preparation of teaching specific materials*. Unpublished doctoral thesis. Austin: University of texas at Austin.
- [7] K. Graves, *Designing Language Courses: A Guide for Teachers*. Boston, MA: Heinle & Heinle Publishers, 2000.
- [8] M.F. Supriadi and W. Purbani, "The prospective flight attendants' English language needs," unpublished.
- [9] Sugiyono, *Metode Penelitian & Pengembangan: Research and Development untuk Bidang Pendidikan Manajemen, Sosial, Teknik*. Bandung: Penerbit Alfabeta, 2015.
- [10] M. Fleetham, *Pocket Pal Multiple Intelligences New Ed*. Stafford: Network Continuum Education, 2006.
- [11] T. Hutchinson and A. Waters, *English for Specific Purposes*. Cambridge: The Press Syndicate of the University of Cambridge, 1987.
- [12] S. Madya, *Metodologi Pengajaran Bahasa dari Era Prametode sampai Era Pascametode*. Yogyakarta: UNY Press, 2013.