

Chapter Two

Literature Review

This chapter reveals the literature related to the study including multiple intelligences, multiple intelligences in language learning, reading comprehension, and reading comprehension in TOEFL. This part also exposes the related previous studies to support this study and shows the conceptual framework as the map of this study. In the last part of this chapter, the hypothesis as the prediction result of this study is also presented.

Multiple Intelligences

Every person has different intelligence and certainly different learning style based on their intelligences. Brewster, Ellis and Girard (2004) stated that students take information based on their learning style, such as students with visual learning style then they learn the information through their eyes, while students with the kinesthetic learning style learn the information through movement which engages their body. Moreover, when a student has not good performance in mathematics, the student cannot be judged as a slow-witted student because that student might have the other intelligences such as linguistic, musical, or kinesthetic. Furthermore, Gardner (1999) stated many kinds of intelligence named multiple intelligences theory. This theory delivers some concepts of intelligence through features of cognitive, psychology, anthropology, and sociology.

Gardner stated types of multiple intelligences in different time. For the first time in 1983, Gardner (1993) proposed seven intelligences. Then, Gardner

(1999) investigated humans' intelligence continuously and added naturalist as eighth intelligence and existential intelligence as ninth type intelligence.

Gardner's multiple intelligences describe as follow:

Verbal/linguistic intelligence. Verbal or linguistic intelligence is the ability of using words effectively and creatively in speaking and writing. This ability is when people speak to others, write a letter or a story in a diary book, or do any kinds of verbal activities. Linguistic intelligence contains the ability to control syntax or structure of language like being good at making a sentence, phonology or sounds of language, pragmatic dimensions or practical of using language, and semantics or meaning of language (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012; Maftoon & Sarem, 2012).

Writers and poets are really good in stringing up words into writings, and then lawyers are good in delivering message through speaking. Thus, writers, poets and lawyers are people who have high linguistic intelligence (Heidari & Panahandeh, 2013; Maftoon & Sarem, 2012).

Assessing linguistic intelligence can be done through some activities such as playing word games, reading a book, memorizing, or writing a story, a poem or a song. These activities will help students with linguistic intelligence to develop and optimize their ability.

Logical/mathematical intelligence. Logical or mathematical intelligence is the ability in numbering and thinking abstractly, conceptually and logically. People with logical or mathematical intelligence are usually doing well on written language tests and interested in solving abstract problems. Processes of

mathematical intelligence service are calculation, hypothesis testing, generalization, categorization, and classification (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012; Maftoon & Sarem, 2012). People who have high mathematical intelligence are scientists, engineer, doctors, and programmers. Students who want to develop their mathematical intelligence can do some activities such as reading a book or watching television about science, playing puzzles, keeping interested in technology.

Spatial/visual intelligence. Spatial or visual intelligence is an ability at something performing like picture and visual image. This intelligence is the ability to comprehend and imitate models in detail. Then, spatial intelligence is also able to recognizing lines, colors, and shapes of things well. People with spatial intelligence prefer to tell a paragraph in drawing then writings. (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012; Maftoon & Sarem, 2012). Painters, decorators, designers have high visual intelligence because they are really good in combining shape and color into attractive product. Developing spatial intelligence can be done through these activities such as painting, imagining storytelling, understanding and creating maps, and playing puzzles.

Musical intelligence. Musical intelligence is the ability to identify, to convert, and to perform rhythm, melody, and tone of music. People with this ability usually are able to sing a song and learn song quickly. They like to play a musical instrument and spend time by listening to music, and then they usually learn something through music like memorizing vocabulary using song (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012; Maftoon & Sarem, 2012).

Students with musical intelligence usually like music, they engage music in daily life like a composer and a singer. It means like a composer who always engages a singer in producing a song. Singing a song, listening different types of music, and analyzing musical structures are helping in students' musical intelligence development.

Bodily/kinesthetic intelligence. Bodily or kinesthetic intelligence is the ability to express feeling using body movement. According to Javanmard (2012), bodily or kinesthetic intelligence is the capability to perform something through budging. People with kinesthetic intelligence usually cannot keep silent when doing something or making a product. Students with kinesthetic intelligence always move their hands during memorizing a lesson. Furthermore, Total Physical Response (TPR) method as one of teaching language methods rely kinesthetic intelligence like touch body in learning parts of body vocabulary (Maftoon & Sarem, 2012). Some profession like actors, athletes, mechanics, farmers and dancers are the person who has high kinesthetic intelligence. The students have to keep their interests in sport, dance, and act to develop their kinesthetic intelligence.

Interpersonal intelligence. Interpersonal intelligence is the ability to respond different mood, motivation, and feeling to others (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012). Interpersonal ability is the ability to interact and cooperate with others. Fahim, Bagherkazemi and Alemi (2010) stated that people with interpersonal ability do well in group working, group brainstorming, and peer reviewing. They are able to cooperate with other people easily, so they

become a good partner. People who have high interpersonal intelligence are usually owned by teachers, politicians, and salespersons. Developing interpersonal intelligence can be done through some activities like joining an organization and building relation with many friends.

Intrapersonal intelligence. Intrapersonal ability is self-identifying ability which person is able to understanding self well. This ability is a self-awareness to inner feelings or an emotion which someone cannot explain to other but he feels it briefly, self-desires or a strong feeling that person wants something, self-discipline or a dedication to oneself to be holding responsibility and controlling gratification, and self-confidence or a strong feeling in trusting oneself mentally and physically (Fahim, Bagherkazemi & Alemi, 2010; Javanmard, 2012). People with intrapersonal intelligence are being “independent, appreciate time alone, and self-reflective” (Maftoon & Sarem, 2012, p. 36). They really know about themselves and usually they choose to do individual work than group work. Then, therapist and writer are the profession who have intrapersonal intelligence because they often work individually and doing well in personal work. Assessing intrapersonal intelligence can be done through some activities like writing reflection and personal goals for future.

Naturalist intelligence. Naturalist intelligence is an ability to classify and category flora, fauna, and another part of the world, for example, an expert who is able to classify many kinds of animal species. This intelligence is sensitive in categorizing the similarities and the differences of objects. It is the ability to indicate similarities and differences of living things like animals and plants.

(Hajhashemi, Akef & Anderson, 2012; Maftoon & Sarem, 2012; Rad & Rahanama, 2015). Farmers, botanics, hunters, and gardeners are people who have high naturalist intelligence. Developing naturalist intelligence can be done through some activities such as joining science club, reading books and magazines about nature, possess hobby to nature like take care of flowers.

Existential intelligence. Existential intelligence is the ability of understanding the meaning of human life from wide context, it is an ability to challenge the deep question about role of human existence, such as human life, death, role, religion, and love. People with existential intelligence are interested on philosophy and have high curiosity on some unusual questions like why they exist in this world, what their role is in this world, what is meaning of life (Hajhashemi, Akef & Anderson, 2012; Heidari & Panahandeh, 2013; Maftoon & Sarem, 2012). Rad and Rahanama (2015) also have the same idea that existential intelligence is the meaning of life on humans' view. Moreover, Logsdon (2016) said that existential person think critically on nature of existence and reality of this universe. Some profession like scientist, philosopher and theologian are people who have high existential intelligence. Then, they are good in reflective and deep thinking and designing abstract theory.

Multiple Intelligences in Language Learning

Multiple intelligences as individual cognitive might play a role in language learning, certainly multiple intelligences also influence students' learning process which students learn language through a learning strategy that makes them comfortable. According to Bandarabbasi and Karbalaei (2013), learning strategies

are the way to make students' language learning more effective, and then they can achieve their learning success. Therefore, students have to know what their intelligence types then they are able to choose an appropriate learning strategy for them in order to achieve their learning success.

Multiple intelligences might not only influence students to choose their learning strategies in a language learning process but also influence teacher to apply an appropriate language teaching method towards students in order to achieve language learning purpose. Moreover, Maftoon and Sarem (2012) also stated that multiple intelligences play a role in English language learning methods. In a language learning method, the teacher should provide the activities that are able to encourage students' entire potential (Brewster, Ellis & Girard, 2004). Thus, the teachers are able to choose the appropriate method by seeing students' kinds of intelligences.

These are some language learning method based on multiple intelligences, such as Total Physical Response (TPR) that emphasizes language learning in body movement (bodily/kinesthetic intelligence) (Brown, 2000; Brewster, Ellis & Girard, 2004; Maftoon & Sarem, 2012; Perez & Ruz, 2014), suggestopedia method that emphasizes language learning in students' relaxed condition and the greatest way is using music (musical intelligence), and silent way method that concentrates in students' own problem solving development (intrapersonal intelligence) (Brown, 2000; Maftoon & Sarem, 2012; Perez & Ruz, 2014).

Reading Comprehension

Reading is one of four language skills which is as a familiar activity in people's daily life especially students'. According to Hajhashemi, Akef and Anderson (2012), reading is a cognitive process to construct the meaning of author purpose in the text which uses brain ability. In other words, reading is an activity that utilizes brain ability to know author's meaning in the text, it is a communication between reader and author. Reading is one of the important activities that help the reader to expand the knowledge. Besides, Cabansag (2013) exposed that there are some students who meet the problem in reading, they do not understand or do not get what the meaning in the reading. Therefore, reading activity is needed to comprehend the reading in order to achieve the meaning or the writer's purpose namely reading comprehension.

Students have to comprehend reading in order to not only know the sentences but also get the meaning of the sentences, so reading comprehension seems important for readers. Woolley (2011) defined that reading comprehension is the process that aims to get the understanding of the text. Moreover, Gilakjani and Sabouri (2016) stated that the purpose of reading comprehension is to understand the meaning of the text rather than the meaning of the words. It seems that reading comprehension involves cognitive skill or intelligence in the process of reading. Brown (2000) revealed the comprehension strategies to help the students comprehend the reading, there are some reading comprehension strategies mention as follow: identifying the reading's purpose, using silent reading technique, using skimming reading technique for main ideas, using

scanning reading technique for detail information, using semantic mapping strategy or meaningful cluster, guessing reading, analyzing vocabulary, distinguishing between direct and indirect meanings, and capitalizing on reading markers. Thus, these strategies might help students to comprehend the reading.

TOEFL-Like

TOEFL stands for Test of English as a Foreign Language. It is a test to assess non-native English language proficiency. English education people are familiar with TOEFL. Fahim, Bagherkazemi and Alemi (2010) said that TOEFL always becomes one of the important requirements for academic institutions and workplaces at English or non-English countries. It means that TOEFL score is required when there are students who want to study abroad and also want to get their master's degree at a university domestic or international one. Some workplaces also make TOEFL score as the requirement for their employee candidates.

Moreover, TOEFL is a test of English proficiency which used to measure non-native's English ability. According to Hidayat (2015), TOEFL is a trademark of English Test Center (ETS). Then, questions and certificate of TOEFL are made by ETS, and the TOEFL test is organized by institutions which agreed by ETS. Therefore, TOEFL test which organized by ETS institution official is called by TOEFL-Like test. TOEFL-like is usually organized by universities for self-importance, such as TOEFL-like test that organized by Language Training Center of Universitas Muhammadiyah Yogyakarta. Then, the questions of TOEFL-like are typically taken from TOEFL books, such as Longman and Barron.

Reading Comprehension in TOEFL-Like

The questions on reading section of TOEFL-like consist of some types. Phillips (2001) declared that reading section of TOEFL paper-based test (PBT) consists of two types of question: the first is reading comprehension, test-takers are asked to answer the questions about the information about the text. The varieties of reading comprehension questions include main idea questions, directly and implied detail questions. The second type is vocabulary questions in which test-takers are asked to identify the meaning of vocabulary in the text. Furthermore, Fahim, Bagherkazemi and Alemi (2010) believed that critical thinking ability is used to answer these types of question, especially the question about the main idea of the paragraph in the reading section. Besides that, Hibbard (2009) argued that vocabulary mastery also helps in answering TOEFL questions, it will save test taker's time while doing reading section. Therefore, vocabulary mastery and critical thinking are useful to comprehend the reading and answer the questions in TOEFL-like reading section.

As explanation above that reading comprehension is one of question types in reading section of TOEFL-like test. Then, reading TOEFL-like text contains some paragraph and certainly many words. Moreover, one of multiple intelligence type such as verbal or linguistic intelligence is ability to understanding words. It can be assumed that multiple intelligences might be playing a role in reading TOEFL-like test.

Related Studies

There are previous studies that researched about multiple intelligences in language learning without exception multiple intelligences and reading as one of language skills. The researchers raised this topic because it will give many benefits especially for educational field. This sub heading reveals some related previous studies about multiple intelligences and reading that is valuable for supporting this research.

The first relevant study of this research begins with the research of Sabet and Kiaee (2016) that aimed to examine the correlation between EFL students' multiple intelligence and their reading comprehension. The participants of this study were 157 university students of Guilan University of Medical Sciences. Eighty-six males and seventy-one females were in the age range of 19-22. The researchers developed three instruments to collect the data of the study. The first instrument was Oxford Placement Test (OPT) to assess students' language ability level. Then, the researchers designed the reading comprehension test that consists of grammatical knowledge, vocabulary knowledge, and short reading text to measure students' reading comprehension ability. The last instrument was Multiple Intelligence Developmental Assessment Scale (MIDAS) questionnaire to know how the students' multiple intelligence.

The results revealed that there is a positive but weak correlation between students' multiple intelligence and their reading comprehension proficiency. Moreover, this study found that the medical students' most multiple intelligence type was verbal-linguistic intelligence. The findings also showed that there is no

difference between male and female medical students except in naturalistic intelligence.

Sabet and Kiaee's (2016) research has a clear methodology, they revealed detail information how to collect and analyze the data. Therefore, this study might be giving the trusted results of the research. Hence, the results of the study are valuable to support this research also becomes the research's reference.

Another related study was investigated by Jokar and Hesabi (2014) about relationship between multiple intelligences and reading skill. The subjects were 100 third grade male students of ShahidRaziei Boys High School of Azna, Iran. The students' age range was between sixteen and eighteen years old. The researchers designed three types of instruments to gather the data. The first instrument was Interchange Objective Placement Test (IOPT), this test was used to measure students' level of reading skill. The second instrument was McKenzie's Multiple Intelligences Inventory (1999) to assess students' multiple intelligences types, and the last one was reading comprehension text. The results of the study revealed that there was a significant correlation between linguistic, logical-mathematical, spatial, and interpersonal intelligences with students' reading skill. The study also found that linguistic and naturalist intelligences act as reading skill predictors.

Jokar and Hesabi's (2014) study gives beneficial information about the correlation between multiple intelligences and students' reading skill. They also found other information about multiple intelligences that some types among

multiple intelligences become reading predictors. Therefore, the results of Jokar and Hesabi's study are valuable for this research.

In conclusion, two previous researches above generally found the same results. Sabet and Kiaee (2016) revealed that there is correlation between multiple intelligences and students' reading comprehension. Types of multiple intelligences that correlate with reading comprehension are linguistic, logical-mathematical, spatial, and interpersonal intelligences (Jokar and Hesabi, 2014). This research will add information about correlation between multiple intelligences and students' reading comprehension in TOEFL whether there is correlation both of them or not.

Conceptual Framework

Reading is a familiar activity that everybody does in their daily life. Reading demand the reader to comprehend the text in order to understand what author's purpose in the text. Hajhashemi, Akef and Anderson (2012) explained that reading is a cognitive process that uses brain ability to construct author's meaning. It can be assumed from the definition, there is brain role in reading activity which means that someone's intelligence is related to his or her reading comprehension. Reading is not only about books, but also all types of reading such as paragraph in TOEFL reading section.

Every person has each intelligence to solve problems as Gardner (1999) believed that there are many types of intelligence and every person has a different intelligence type. Although identical twin that has the same appearance but they possibly have different intelligence, the types of intelligence known as multiple

intelligences. Then, based on the result of mini research that the researcher did before conducting this research, EED of UMY students' most dominant multiple intelligence is existential intelligence.

Existential people use their critical thinking ability to think all their curiosities as Logsdon (2016) said that existential person think critically on nature of existence and reality of this universe. Besides, reading comprehension is also the brain ability to analyze authors' meaning of the text. Furthermore, the researcher is interested to investigate the relation between existential intelligence as EED of UMY students' most dominant multiple intelligence and their reading comprehension in TOEFL-like test. It is because both of them are same as a cognitive process in the brain.

The diagram below will shows the plan of this study as follows:

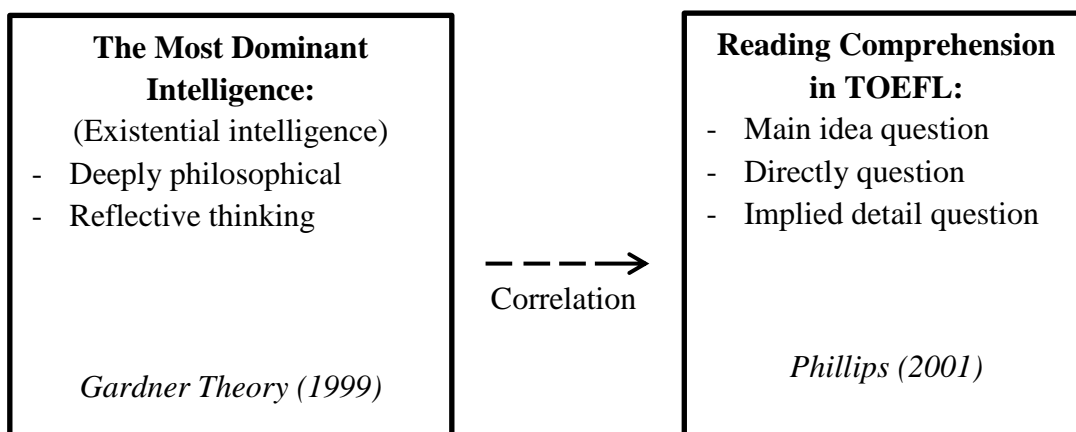


Figure 1. Conceptual framework

Hypothesis

The hypothesis of this study is:

(H₁) = There is a correlation between students' most dominant multiple intelligence and their reading comprehension in TOEFL-like at EED of UMY batch 2014.