WORD ASSOCIATION RESPONSES AND THEIR RELATIONSHIP WITH LEXICAL STORAGE (A CASE STUDY OF WORD ASSOCIATION TEST ON JAPANESE STUDY PROGRAM STUDENTS UNIVERSITY OF BRAWIJAYA)

THESIS

BY
ANGGI MEIKA PRATAMASARI
NIM 0710330014

ENGLISH STUDY PROGRAM
LANGUAGE AND LITERATURE DEPARTMENT
FACULTY OF CULTURE STUDIES
UNIVERSITY OF BRAWIJAYA
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BY
ANGGI MEIKA PRATAMASARI
NIM 0710330014

ENGLISH STUDY PROGRAM
LANGUAGE AND LITERATURE DEPARTMENT
FACULTY OF CULTURE STUDIES
UNIVERSITY OF BRAWIJAYA
2011

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Herewith I,

Name : Anggi Meika Pratamasari
NIM : 0710330014
Address : Jl. Bendungan Wlingi 22, Malang

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Anggi Meika Pratamasari
NIM 0710330014

This is to certify that *Sarjana* thesis of *Anggi Meika Pratamasari* has been approved by the Board of Supervisors

Malang, 6 July 2011
Supervisor

Fatimah, M.Appl.Ling.
NIP. 19751125 200212 2 002

Malang, 6 July 2011
Co-supervisor

Ida Puji Lestari, S.Pd

This is to certify that the *Sarjana* thesis of *Anggi Meika Pratamasari* has been approved by the Board of Examiners as one of the requirements for the degree of *Sarjana Sastra*

Syariful Muttaqin, M.A., Chair
NIP. 19751101 200312 1 001

Sahiruddin, M.A., Member
NIP. 19790116 200912 1 001

Fatimah, M.Appl.Ling, Member
NIP. 19751125 200212 2 002

Ida Puji Lestari, S.Pd, Member

Acknowledged by,
Head of English Study Program

Fatimah, M.Appl.Ling.
NIP. 19751125 200212 2 002

Sighted by,
Head of Language and Literature Department

Syariful Muttaqin, M.A.
NIP. 19751101 200312 1 001

ABSTRACT

Pratamasari, A.M. (2011). **Word Association Responses and their Relationship with Lexical Storage (A Case Study of Word Association Test on Japanese Study Program Students University of Brawijaya).** Supervisor: Fatimah; Co- supervisor: Ida Puji Lestari

Keywords: word association responses, lexical storage, Japanese Study Program students

Lexical storage deals with how words are stored in mind. There have been some studies about this topic which investigate the lexical storage of native speakers and second language learners in the areas of lexical development and gender influences. However, the study about lexical development dealing with language proficiency in Japanese Study Program students has not been discussed yet. This study is aimed to find out: (1) the Word Association Types (WAT), (2) the extent to which the language proficiency influences the responses, and (3) the reasons of choosing the responses by Japanese Study Program students.

The research design employed in this study is case study. The participants of this study are 24 students of Japanese Study Program, who are nine students in elementary level, nine students in intermediate level, and six students in basic working proficiency level determined by using TOEIC score as the parameter of the level. The data of this study were collected through simple Word Association Test based on McCharty's work construction (1990).

This study reveals that all Word Association Types which are clang, syntagmatic, paradigmatic, encyclopedic, and other type have been found in the responses. The participants in those three levels have a similarity in the occurrence of encyclopedic response, as the most frequent type with the percentages of elementary: 50%, intermediate: 38,8%, and basic working proficiency: 47,9%. However, they have differences in organizing the words in their minds. Thus, it is known that lower level students have more responses which are the sequence of the stimulus words, while higher level students produce more complex responses. It can be said that students in higher level have larger mental lexicon. Meanwhile, the reason of choosing the responses is mostly caused by knowledge about Japan and experience.

It can be concluded that language proficiency plays significant role in lexical storage. This study is expected to give contribution in psycholinguistics field, especially on how Japanese Study Program students who have different levels of proficiency store and manage English words in their mind. The writer suggests that future researchers could conduct Word Association Test in different groups and discuss lexical storage more deeply.

ABSTRAK

Pratamasari, A.M. (2011). **Respon Asosiasi Kata dan Hubungannya dengan Penyimpanan Kata (Sebuah Studi Kasus dari Tes Asosiasi Kata pada Mahasiswa Sastra Jepang Universitas Brawijaya).** Pembimbing: (I) Fatimah; (II) Ida Puji Lestari

Kata Kunci: respon asosiasi kata, penyimpanan kata, mahasiswa Sastra Jepang

Penyimpanan kata membahas mengenai bagaimana suatu kata disimpan di dalam otak. Ada beberapa penelitian mengenai penyimpanan kata pada penutur asli dan pembelajar bahasa asing dalam hal perkembangan leksikal dan pengaruh *gender*. Namun, penelitian mengenai penyimpanan kata pada mahasiswa Sastra Jepang dengan perbedaan tingkat kemahiran berbahasa belum pernah diulas. Penelitian ini bertujuan untuk mengetahui: (1) tipe asosiasi kata, (2) sejauh mana perbedaan tingkat kemahiran mempengaruhi respon, dan (3) alasan pemilihan respon oleh mahasiswa Program Studi Sastra Jepang.

Jenis penelitian yang digunakan adalah studi kasus. Jumlah subyek penelitian ini sebanyak 24 orang dengan rincian sembilan orang dari tingkat dasar, sembilan orang dari tingkat menengah, dan enam orang dari tingkat kemahiran kerja dasar yang dipilih berdasarkan skor TOEIC sebagai parameter tingkat kemahiran. Adapun data penelitian ini diambil melalui tes asosiasi kata berdasarkan pola konstruksi McCharty (1990).

Hasil penelitian menunjukkan bahwa semua tipe asosiasi kata yaitu clang, sintagmatik, paradigmatik, ensiklopedis, dan jenis lain dapat ditemukan pada respon yang diberikan. Respon yang diberikan para mahasiswa pada tiga tingkat kemahiran tersebut menunjukkan kesamaan yaitu munculnya respon ensiklopedi sebagai tipe yang paling banyak muncul dengan persentase dari tingkat dasar: 50%, tingkat menengah: 38,8%, dan kemahiran kerja dasar: 47,9%. Namun, mereka mempunyai cara yang berbeda dalam mengatur penyimpanan kata di otak mereka. Mahasiswa pada tingkat rendah cenderung memberikan respon yang merupakan rangkaian dari kata perangsangnya, sedangkan mahasiswa pada tingkat yang lebih tinggi memberikan respon dengan cara yang lebih kompleks. Sehingga, mahasiswa dengan kemahiran lebih tinggi mempunyai penyimpanan kata yang lebih luas. Sementara alasan pemilihan respon adalah berdasarkan pengetahuan tentang Jepang dan pengalaman.

Dapat disimpulkan bahwa tingkat kemahiran berbahasa berperan dalam penyimpanan kata. Penelitian ini diharapkan bisa memberi sumbangsih dalam kajian psikolinguistik, khususnya pada bagaimana mahasiswa Sastra Jepang dengan perbedaan tingkat kemahiran menyimpan dan mengatur kata Bahasa Inggris di dalam otak mereka. Peneliti menyarankan peneliti selanjutnya untuk membuat penelitian serupa pada kelompok yang berbeda dan membahas tentang penyimpanan kata secara lebih mendalam.

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Malang, 28 July 2011

The writer

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CHAPTER I
INTRODUCTION

In this chapter, the writer describes the background of the study, problems of the study, objectives of the study, and definition of key terms.

1.1. Background of the Study

Communication is an essential thing in human's life. People communicate to share some ideas, information, knowledge, and entertainment. Moreover, the main tool for communication is language. According to Gleason and Ratner (1998, p. 2), "language is the basic of our existence because life without words is difficult to envision." From that point of view, we know that people need to master language to achieve successful communication. First step in mastering the language is the understanding of words. Words are powerful units in expressing language. We try to recognize and understand words, then we arrange them into sentences, and finally we are able to deliver our ideas or to communicate. This condition appears not only when we learn our first language, but also when we learn other languages.

Dealing with this, McCarthy and O'Dell (2001, p. viii) state, "No matter how well the student learns grammar, no matter how successfully the sounds of L2 are mastered, without words to express a wide range of meanings, communication in an L2 just cannot happen in any meaningful way". So, words do play a vital role in language. Another term of word in linguistics is lexical

item. Field (2003, p.10) explains that lexical item is word or some units of meaning that consists of more than one word. In addition, Atkins and Rundells (2008, p. 163) provide the definition of lexical item as "any word, abbreviation, partial word, or phrase which can figure in a dictionary..." We can also say that lexical item is vocabulary.

The discussion about lexical item belongs to some studies and one of them is psycholinguistics. Psycholinguistics itself is "the study of the mental mechanism that makes it possible for people to use language" (Graham,1985, p.1). Furthermore, Field (2003) states that the discussion of lexical item in psycholinguistics is divided into three areas: lexical entries, lexical storage and lexical access. Lexical entries are the information about lexical items which are stored in human's mind. Lexical access or lexical retrieval is about reaching a word when we need it. While lexical storage is about the way how words are organized and stored in human's mind.

In human's mind, the place where human stores words is called mental lexicon. Dardjowidjojo (2005) explains that mental lexicon can be said as storage where we can save our stuffs. Nevertheless, it is a special storage since the thing we save is unique and how we arrange it is complicated. Moreover, it is possible to investigate lexical storage in mental lexicon by psycholinguistics experiment. There are many kinds of psycholinguistics experiments. Some of them are lexical decision task, experiment of slip of tongue, and Word Association Test (WAT). This study uses WAT since it is an interesting test that investigates how words are stored in the mental lexicon. Moreover, this test is also feasible to do because

there will be no complicated tool needed. In this test, the subjects are given some words and they are asked to say the first word which comes to their mind.

To the best of writer's knowledge, there are few studies that have been conducted about this test in Indonesia. One of them was conducted by a student of Faculty of Culture Studies, Wardani (2010) entitled *Lexical Storage through Word Association Test in Male and Female Students of English Study Program of University of Brawijaya.* This study investigated how words are stored or organized in mind of male and female students of English Study Program. It is an interesting research and it makes the writer curious to conduct a similar research to different subject.

The subject employed for this study is students of Japanese Study Program academic year 2007. The writer is eager to conduct a research to non- English Study Program students since the writer would like to develop the previous research. Nevertheless, the subject are students who are major in language since it is assumed that students from language major have more drilled storage in receiving new vocabularies from different languages. Moreover, the students recently took TOEIC and the result of this test is the up- to-date result that shows their English proficiency. Test of English for International Communication (TOEIC) itself is a proficiency test for non- English native speakers (ETS, 2006). TOEIC is chosen as the parameter rather than TOEFL since TOEIC is the recent test and it also has clear level of TOEIC score while TOEFL does not have clear classification.

Then, to the best of the writer's knowledge, WAT has never been conducted in this Study Program. Furthermore, the writer had a preliminary test. In the test, there were five people involved. They were given some words and they were asked to say the first word that comes to their mind. The result of the preliminary test revealed that the students gave various responses but there are some Indonesian words in it. For instance, the stimulus word given is "war". Their responses are various such as "damaged", "*korban perang*", "scary", and "*perang dunia"*. This phenomenon makes the writer curious to investigate more.

In this study, the writer is eager to examine the different level of TOEIC score. According to ETS (2006), TOEIC score can be categorized into six levels. Meanwhile, in the Japanese Study Program academic year 2007, there are four levels of TOEIC score can be found. They are novice, elementary, intermediate, and basic working proficiency level. Therefore, the writer would like to analyze the types of response which appear in the students with different levels of TOEIC score and also the reasons in choosing the responses.

This study is expected to give theoretical contribution in psycholinguistics field, especially in the study of lexical storage for students who have different level of English proficiency. For practical contribution, this study is expected to give description on how Japanese Study Program students store and manage English words in their mind. By knowing how to make a strong connection among the words, it can be an alternative on how to make the students remember and understand English vocabulary easier.

1.2. Problems of the Study

Based on the background of the study, the problems of the study can be elaborated as follows:

1. What types of word association are produced by Japanese Study Program students University of Brawijaya?
2. To what extent does level of TOEIC score influence the responses produced by Japanese Study Program students University of Brawijaya?
3. What are the reasons given by Japanese Study Program students in choosing the responses?

1.3. Objectives of the Study

In line with the research problems, the objectives of this study are:

1. To find out types of word association produced by Japanese Study Program students University of Brawijaya**.**
2. To find out to what extent the level of TOEIC score influences the responses produced by Japanese Study Program students University of Brawijaya.
3. To find out the reasons given by Japanese Study Program students in choosing the responses.

1.4. Definition of Key Terms

1. **Psycholinguistics** is "the study of the mental mechanism that make it possible for people to use language" (Graham, 1985, p. 1)

2. **Lexical storage** is "how words are stored in our mind in relation to other words" (Field, 2003, p. 15)
3. **Word Association Test (WAT)** is "one of the earliest experiments in language psychology where subjects read or heard a word then said the first word which came to mind" (Field, 2003, p. 60)
4. **TOEIC** (Test of English for International Communication) is a language proficiency test for non- English native speakers to measure English proficiency for people who work in international surrounding or for communication (ETS, 2006)
5. **Japanese Study Program** is a Study Program in Faculty of Culture Studies which studies Japanese, Japan literature and culture (http://fib.ub.ac.id/index.php?pg=jepang)

CHAPTER II
REVIEW OF RELATED LITERATURE

In this chapter, the writer explains review of related literature which will be used to investigate the problem. They are theoretical frameworks and the previous study.

2.1 Theoretical Framework

Theoretical framework includes theories that are related to this study such as psycholinguistics, mental lexicon, lexical storage, factors influencing lexical storage, the relationship between L1 and L2, language proficiency, Word Association Test, and Word Association Types.

2.1.1 Psycholinguistics

Field (2004, p. ix) states, "Psycholinguistics provides insights into how we assemble our own speech and writing and how we understand that of others; into how we store and use vocabulary; into how we manage to acquire a language in the first place; and into how language can fail us". According to Dardjowidjojo (2003), psycholinguistics is a study about mental processes experienced by human beings when they communicate. Furthermore, Slobin (cited in Chaer 2003, p.5) asserts that psycholinguistics tries to explain psychological process happened when people utter sentences or when they communicate and how that abilities are acquired. Another definition is proposed by Gleason (1998). He says that

psycholinguistics, or the psychology of language, is concerned with discovering the psychological processes by which human acquire and use language. In line with that definition, Graham (1985) says that psycholinguistics is the study of the mental mechanism that make it possible for people to use language. From those definitions, it can be said that psycholinguistics concerns with the relationship between human mind and language including the perception, storage, and retrieval of the knowledge of language. Then, the goal of this study is to know the way language is understood and produced.

2.1.2 Mental Lexicon

One of the important aspects of words study is their organization in the mind. According to Aitchison (1994, p.5), "words are organized into an intricate, interlocking system whose underlying principles can be discovered." In the same respect, the mental lexicon according to Richards and Schmidt (cited in Peppard, 2007, p.1) is "a person's mental store of words, their meaning and associations". So, words are systematically stored in the mind then it makes people able to retrieve any words in short time.

Moreover, McCarthy (1990, p.34) gives the following examples, "The mental lexicon is like a dictionary, a thesaurus, an encyclopaedia, a library, a computer and a net." It offers a more modern metaphor since it compares the mental lexicon to the Internet and World Wide Web. Words' sound structure plays a role in the mental lexicon organization along with meaning. The content of the mental lexicon is not fixed. We always add, remove or change the words,

meanings and pronunciations, and we often coin new words. The mental lexicon does not contain meaning, but more information related to that thing. Based on that understanding, we know that the mental lexicon is not fixed as a dictionary, but it is modifiable.

Nation (2005) has a more comprehensive list of the types of knowledge which a person requires in order to truly know a word:

1. the form of the word which includes the spoken, the written, and the word parts
2. the meaning of the word which includes the meaning itself, the concept-referents, and the association
3. the use of the word which includes grammatical function, collocation, and constraints of use (register, frequency)

This notion of the mental lexicon is highly complex. In order to cover the complexity, McCarthy (1990, p. 34) suggests a simple idea "the mind must organise words in some way". By organizing the words well, people can retrieve them fast when they need it.

2.1.3 Lexical Storage

If we want to discuss lexical storage, it means that we discuss about how words are stored and organized in mental lexicon so that it can ease us to retrieve those words. As it is stated by Field (2003, p. 15), "lexical storage is about how words are stored in our mind in relation to each other." Words are not stored in the mind independently; words are indeed stored in human mind in relation to other

words. So, there must be connections between a word and others. Moreover, Aitchison (1994) assumes, "words are linked in the form of cobweb where every word is attached to mark other words. It is then called as network theories."

Since lexical storage can be considered as a network, there are several notions of how words are stored. Post (2007) suggests that words seem to be stored in relation to their syntagmatic and paradigmatic associations, and that the pattern can be categorized by the semantic principles the mind employ to organize words for storage and retrieval within the mental lexicon.

Field (2004) states that the notion of words, as linked by a network of forms and meanings, is an important thing when we consider language acquisition. It means that when we learn a new lexical item is not only mastering the form of the item but we also have to connect it to the whole network of the words. Furthermore, Field (2003, p. 64) in his book entitled *Psycholinguistics: a resource book for students*, states that words are connected to other words when:

1. One word is derivation of the other (HAPPY and UNHAPPY)
2. They frequently occur together (FISH and CHIPS)
3. They are similar in meaning (AFRAID and SCARED)
4. They are similar in the form (LEGIBLE and ELIGIBLE)

In line with Field's notion, Dardjowidjojo (2003) in his book entitled *Psikolinguistik: Pengantar Pemahaman Bahasa Manusia* proposes almost the same idea. He states that words are stored closely when:

a. They are concrete words. Concrete words such as "house" are stored closer to the other words, rather than to abstract words such as "freedom".

b. They come from the same semantic field. For example orange, apple, grape, strawberry comes from the semantic field "fruit".

c. They come from the same syntactic structure. When the stimulus words are verb, the response tends to be verb or if it is noun, the response tends to be noun, etc.

d. They have similar form. For example the word "monkey" and "money" or Indonesian word *"getek"* and *"getuk"*. The phenomenon slip of tongue may have relationship with this idea. They tend to state something which is similar with the word they intend to say. It shows that in our mental lexicon, words with similar form are stored closely.

Furthermore, Aitchison (1994) also suggests some notions which are more detail about how words are stored in human's mental lexicon. They are summarized as follows:

a. Words from the same word class are closely connected in the storage, while those from different word classes are more loosely attached. It can be seen from words with the same semantic fields are clustered together. For example "white" emerges as the co-ordination of "black" which all are from the same word class which is noun.

b. Word classes involve content words are mostly "open". It means that they allow someone to make up any number of new nouns, verbs, and adjective without any problem. In contrast, function words seem mostly to be "closed". For example the word "book" is "open" stronger than the word "upside".

c. Words are stored primarily as wholes but speakers are able to split the words up if necessary. For example there is a word "Dartmouth" which means town at the mouth of the Dart and "Exmouth" which means town at the mouth of "Exe". If later there is a word "Plymouth", people can split the word into two parts which is "Ply" and "mouth". Then they can conclude that it is a town at the mouth of the Ply.

d. Words can be connected to other words with "bathtub effect". People remember the beginnings and ends of words better than the middles, as if the words were a person lying in a bathtub, with their head out of the water one end and their feet out the other. For example "translation" and "transformation".

e. Words which have similar beginnings, similar endings, and similar rhythm are likely to be bonded. For example antidote- anecdote, musician- magician, thermometer- barometer, etc.

f. Words seem to be organized in semantic fields. For example, in the word association test where responses of the word "car" are "bicycle" and "bus", so that they are from the same semantic field which is a kind of vehicle.

g. The phonological components are organized together with the needs of recognition. The example is when someone wants to say "masticate" for their food but he says "masturbate". Those two words are far in the semantic field, yet they are close in sound. In recognizing those words, we know that there is similar sound.

h. Words are stored correctly. It can be seen from the fact that speakers often correct themselves when they mispronounce the words. For example when we say "moggy barsh" we usually realize that is incorrect then we correct it into "boggy marsh".

In brief, there are some notions about lexical storage. Field and Dardjowidjojo tend to describe lexical storage in general way while Aitchison gives more detail explanation. In this study, the writer will use Aitchison's notion as the main theory. Nevertheless, Field's and Dardjowidjojo's notions will also be used to support the analysis.

2.1.4 Factors Influencing Lexical Storage

There is some information about the variables that may influence lexical storage. Gairns and Redman (1990) propose that there are some factors that influence lexical storage. First of all is the word frequency. Words which occur most frequently are easily recognized and retrieved. The next factor is the recent use. The words recently used are easier to be retrieved than those which are used long time ago. The last factor proposed here is the items that were first learnt. For example, there is a compilation of words organized chronologically; the words learnt in the first time will be remembered well than the words come after that.

Moreover, according to Aitchison (cited in Sripada, 2008, p.182), on the relationship between language and memory reveal that memory is affected by a number of factors. They are the frequency of the word and the image arousing capacity of the word." Dealing with the frequency, it is known that the high

frequency words are easily retrieved compared to low frequency words. Furthermore, imagery is also considered as something that influences the memory. It has been observed that high- imagery words are easier to be remembered than the abstract word.

In addition, Dardjowidjojo (2003) states that basically a word will be easily retrieved when the words are high frequency words. For example the word "predict" is more frequently used than the word "portend". Although those two words have similar meaning, the word "predict" will be easily retrieved when we need it since we rarely use "portend".

Moreover, there are other factors that may influence the response in the WAT. It deals with individual differences. Merten (cited in Evers, 2008, p.12) conducted word-association tests and looked at various variables that could influence the results. Merten mentioned age, personality variables, intelligence, self-reflected thoughts and speech disorders as the variables. His research mainly dealt with schizophrenics. Then, the subjects chosen were varied in terms of age and intelligence He also conducted a control test on normal subjects. The result shows that when healthy people are involved, age and intelligent lead to different results in word association tests.

In short, there are some factors that can affect the lexical storage. But it can be seen clearly that the frequency takes big part in the lexical storage. Dealing with the word frequency factors, there are some tools that can be used to determine the word frequency, such as The Bank of English (BOE), Collins Birmingham University International Language Database (COBUILD), Corpus of

Contemporary American English (COCA), and British National Corpus. Moreover, there are individual differences that might influence the lexical storage of the person such as the age and intelligence.

2.1.5 The Relationship between L1 and L2

English is not the first language in Indonesia. English is the foreign language for most of Indonesian. Because of that, there is a possibility that Indonesian influences English. For example, when we speak in English, we intend to say "then", it is often found that there is slip of tongue that makes us say "kemudian" instead of "then". It is one example of how L1 influence L2. Moreover, we tend to translate something into our L1 first in order to form the L2. Some people say that it is useful and quite helpful for them. Language fluency is also believed to have impact on the storage in bilingualism. People with dual store will try to find similarity in L1 and L2 words while people with single store will directly connect it.

According to Cook (cited in Singleton, 2007, p.3-4), the relationship between L1 and L2 is about the frequency of the words, the morphemic similarities, and the meaning similarities of those two languages. Furthermore, the model of the relationship between the L1 and the L2 mental lexicon is Weinreich's (1953) account in terms of 'subordinative', 'compound' and 'co-ordinate' categories. In subordinative bilingualism, L2 word forms are represented as connected to L1 meanings via primary connections to L1 forms. In compound bilingualism the L1 and L2 forms are seen as connected at the meaning level. In

co-ordinate bilingualism separate systems of form-meaning links are assumed to exist for each language. He states further that those categories may occur together. So, there are some differences in the relationship between L1 and L2. Everyone has her/ his own strategy to make them easier to access the L2.

2.1.6 Language Proficiency

In Indonesia, English is the foreign language so it is a must for people to master English. Then it can be said that Indonesian are second language learners. Dealing with Word Association Test, Greidanus (cited in Evers, 2008) asserts that second language learners produce associations that are much more diverse and unstable. Their responses are based on purely phonological, rather than semantic, links with the stimulus words. He states further that the associations made in the second language are not similar to those made in the first language in regard to the proficiency level. Non-native speakers tend to produce more syntagmatic responses, whereas native-speaking adults tend toward paradigmatic responses. However, people keep on learning in their whole lives so their knowledge may change. With increasing proficiency in the language, the responses seem to become more like those of native speakers.

Greidanus (cited in Evers, 2008) further states that a beginner language learner will not see many connections between words and knowledge to make more concrete associations. Different from the beginner, advanced learners will give more abstract and paradigmatic responses since they have more word knowledge and be able to make various connections. Advanced learners will also

tend to give an answer that is in the same part of speech as the stimulus word while beginners would come up with words from another category. It is the same as native speakers do.

Fitzpatrick (2009) states the same idea as Greidanus. He states that the more proficient a learner became, the more her/his associations would resemble those of a native speaker. The L2 mental lexicon will become more native-speaker-like with the increasing of proficiency since he/ she pervades much of the L2 word association literature. Furthermore, there is some indication that clang responses occur more frequently in less proficient non-native speakers and that paradigmatic responses occur more frequently in more proficient non-native speakers (Meara, cited in Evers, 2008).

Söderman (cited in Aguirre, 2009) found that the mean number of paradigmatic responses was positively related to proficiency. In addition, the mean number of clang responses tended to decrease with proficiency. Then, when a non-native speaker of high proficiency has more paradigmatic responses, it can be concluded that this is due to the simple fact of a larger mental lexicon. Another idea proposed by Wolter (2001) informs that both native speakers of English (when presented with low-frequency prompt words) and learners of various levels of proficiency produce clang responses, mediated responses, and responses that seem completely unrelated to the prompt word.

Furthermore, Lawson (2007, p. 16- 20) states some opinions about the relationship between language proficiency and word association response. They are:

a. more proficient language learners are less likely to make clang associations
b. lower level learners give more syntagmatic responses than advanced learners and native speaking adults
c. advanced and native adult speakers give a higher ratio of paradigmatic responses than elementary and intermediate L2 learners
d. synonymy is relatively rare in elementary level respondents' answers
e. the lowest level of learners are least likely to readily think of an alternative word with the same or similar meaning to that of the stimulus

In line with Lawson, Peppard also asserts that the lower level learners may produce more *clang* responses based on phonological similarities. From that explanation we know that there are variations in the word association response. There are many factors that may cause it and one of them is the language proficiency.

2.1.7 Word Association Test

The first word association test was introduced by one of the British psychologist, Sir Francis Galton in the early 1884. According to Istifci (2005), it is a technique in order to identify the response that people make and it was widely used in psychology by psychiatrists. It was focused on the nature of the response words and their relationship to the stimulus words. Galton's only subject was himself, but then other psychologists quickly expanded the test by employing 500 subjects (Schmitt, 2008, p.18). It employed quite large of subjects. Later, that test was modified by other researchers and it is still continued until nowadays.

Then, it was adapted by Wundt and also Jung (1990). As stated by Champion and Auriol (2003, para. 2), Jungian word association test provides 100 stimulus words chosen at random. He invited the subject to react to each stimulus word as quickly as possible by pronouncing only the first word which is elicited in his mind. For example, the researcher said "water", the subject will answer wet, or

green, or H_2O, and washing. Then he measured the reaction time with a stopwatch which indicates how long the subject react the stimulus words. The test was used to diagnose psychological typology and psychopathology. So, it was the kind of psychology task. After analysing the data, they claimed that there was uniformity in the organization of association and people shared stable networks of connections among words. Furthermore, the function of this test develops. Psycholinguistics researchers also use this test to explore the mental lexicon.

Wharton (2011, p.1-6) explains, "word associations are usually obtained through a simple stimulus- response procedure, whereby researcher provides a prompt word and the participant utters the first word that comes to mind." Moreover he stated that responses from word association test can provide valuable information about how well L2 learners know certain words and how those words are organized in the L2 mental lexicon. It can also be used to see insight into the acquisition of new words. Furthermore, it can be a useful insight of how words related to each other in human mind.

According to Bahar and Hansell (cited in Istifci, 2005, p.361), "word association test is one of the commonest and oldest methods for investigating cognitive structure and has been used by several researchers." Moreover, word association test is modified for different purposes of the study. But actually the basic principle is the same, which is mainly to ask the respondent to write the first word they have in mind after hearing or reading stimulus words. McCarthy (1990, p. 152) suggests the way of constructing simple word association test by making a list of six to eight words to be used as stimuli. The stimuli words should include:

a. at least one grammar or function word
b. one or two items from the everyday environment
c. a relatively uncommon or low-frequency words
d. mix of word classes

There is another way in determining the stimulus or prompt words. According to Wharton (2011), stimulus words can be selected from West's General Service List (GSL). It is a set of 2,000 words which are the greatest "general service" to learners of English. There are no exact numbers on how many words must be selected, but he took thirty words as the stimulus words in his research. Besides, Aguirre (2009) says that Nation's *Vocabulary Size Test* can also be used as the way in choosing stimulus words. This test allows participant to select a word which is related to the stimulus word given. The number of how many stimulus words must be chosen are not suggested either. In this study, the writer will use the criteria of stimulus words based on McCarthy's idea because it gives clear suggestion on how many words must be used in the test and there will be various kinds of words dealing with the criteria.

2.1.8 Word Association Types

Word association types are types which show the way how words are linked for storage in mind. There are several ideas of the word association types. Aitchison (1994) classifies words association into coordination, collocation, superordination, and synonymy. Coordination is word that cluster together on the same level of detail such as "salt" and "pepper". Collocation involves words

which are likely to be collocated such as “salt water”. Superordination is kind of cover term which includes the stimulus words such as “insect” was a response to “butterfly”, this association is less often occur. The last is synonymy which is the synonym of word such as “starve” to “hungry”.

Another idea comes from Wolter (2001, para. 1). There are three categories of word associations that can be identified which are paradigmatic, syntagmatic, and phonological or clang response. Paradigmatic responses have the same grammatical function as the prompt word and can be of four types: coordinated, superordinates, subordinates, and synonyms. Syntagmatic responses have a collocational or sequential relationship with the prompt word, and are not from the same word class. Phonological or clang associations are semantically unrelated but similar- sounding words.

Moreover, there are other types proposed by other linguists. One of them is Pigott (2006, p. 4-8) who classifies the word relations into five types. They are:

1. Syntagmatic- paradigmatic relation
   a. Syntagmatic response is response that related sequentially to the stimulus word. For example, tail and lazy- dog.
   b. Paradigmatic response is response that is drawn from the paradigm of alternative choices for a word. For example, cat- feline/ pet/ animal.
2. Sense relation

It is the relationships of a lexical item with other lexical items that range from the general (semantic/ lexical fields) to the specific (synonym, antonym, hyponym)

a. Semantic/ lexical fields; refer to a group of related concepts that can be linked together under a single superordinate concepts. For example, car- bicycle, and bus are in the same semantic field which is a kind of vehicle.

b. More specific sense relation:

i. Synonym; relationship between words which have more or less the same meaning. For example, hit- strike.

ii. Antonym; relationship between words which have more or less the opposite meaning. For example, slow- fast.

iii. Hyponym; a relationship that involves a hyponym and superordinate. For example, vehicle is the superodinate of car- bicycle- bus, etc.

3. Encyclopedic relations

It refers to links between words and the experience of the individual. For example, someone may respond a word “disaster” with the word “fire” since she remembers her house was burned in a fire.

4. Collocation

It is a relationship that is strong between words that frequently appear together. For example, blonde- hair.

5. Clang association

It is phonological relations between words. For example, butter- batter, hit- sit.

In addition, Aguirre et al. (2009, p.44) state that responses of word association test can be classified into five categories. They are paradigmatic category, syntagmatic category, phonological category, other category, and no response. In detail, the type is discussed below.

1. Paradigmatic category

   It refers to words which show a clear semantic relation to the stimulus word and are substitutable for one another in a well-formed syntactic structure. This connection may occur in: synonymy (e.g. *small/little*), antonymy (e.g. *buy/sell*), hyponymy, including co-hyponymy (e.g *bitter/sweet/sour*) and hyperonymy (*animal/rabbit*), and meronymy (e.g. *petal/rose*).

2. Syntagmatic category

   It refers to word responses related syntactically and/ or sequentially to the stimulus word. So, they can occur in grammatically well- formed expressions. They can also be compounds including the prompt word or its derivatives (e.g. *dinner/table, devil/hell*).

3. Phonological category

   It refers to word responses that are not semantically related to the stimulus word but only similar in the it phonology (e.g. *mock/cock, limp/pimp*).

4. Other category

   This category includes some types of responses such as: (a) words without semantic connections to the prompt word; (b) answers in which the subjects express personal attitudes; (c) indefinite pronouns (such as *anything, somebody, something, everybody, etc*.); (d) reflexive pronouns (like *oneself, yourself,*

himself, etc.); (e) general pronouns (for instance *people, thing, person, etc.*); (f) exclamations; and (g) responses clearly chained to the previous ones.

5. No response

It refers to the absence of response to the stimulus word.

Quite similar to those ideas, Lawson (2007, p. 6-9) proposes that words association types can be divided into four types which are clang associations, syntagmatic associations, paradigmatic associations, and encyclopaedic responses.

Further, he classifies those relations as follows:

1. Clang Associations

They are associations which are similar in form to the stimulus word and phonologically related. They have no semantic similarities, and are rarely seen in the responses of adult native speakers. It is the same as what Schmitt (2000) proposed.

e.g. monkey – money, blink- blank

2. Syntagmatic Associations

They are responses which have a sequential relationship and tend to have different word classes. For example cheeky- monkey, wild- monkey, swing- like a monkey, etc. Carter and Schmitt (2000) had the same idea. Furthermore, this association is divided into two subcategories:

a. Collocation; is the tendency of some words to occur together. It can be lexical collocation which involves syntactic structure and grammatical collocation as in preposition "stand up" or "sit down".

b. Multi word items refer to the phrases or group of words that function as one single lexical item such as “once upon a time”, “day by day”, etc.

3. Paradigmatic Associations

Paradigmatic associations are association which responses come from the same grammatical class as the stimulus word. They are categorized as paradigmatic. They may or may not be alternative words that provide the same or similar meaning. For example monkey- animal, monkey- primate, etc. Paradigmatic responses can be categorized further according to the semantic relation between the stimulus and the response.

a. Coordination; it involves words which have a tendency to cluster together. For example cashew- walnut. Coordination also includes antonymy.

   - Antonymy refers to the words of the same level of detail for example “dog” and “cat”. Antonymy can be divided into two categories which are ungraded antonym and graded antonym. Ungraded antonym contains exclusive oppositeness such as alive- dead. Moreover, graded antonym is opposite on a continuum such as big- little.

b. Synonymy is classified into strict synonym where they can be used interchangeably in all contexts and loose synonymy where there is relationship but not necessarily in all contexts. For example begin- start, watch- see.

c. Hyponymy covers the relationship of superordination (hypernymy) and subordination (hyponymy). The example is "pet" is hypernym of "dog", while "dog" is hyponym of "pet".

d. Meronymy covers the more specific category and can be the relationship between whole- part. For example bicycle- wheels, handle, seat.

In addition, Aitchison (1994) states that coordination is the most common link that occur in Word Association Test.

4. Encyclopaedic Responses

One more category is encyclopaedic responses. It is association that involves all memories and experiences of a word, and it will vary greatly from person to person. In line with Lawson's idea, McCarthy states that encyclopaedic knowledge is the relation between words to the world, for example the word 'war' as an example (Figure 2.1).

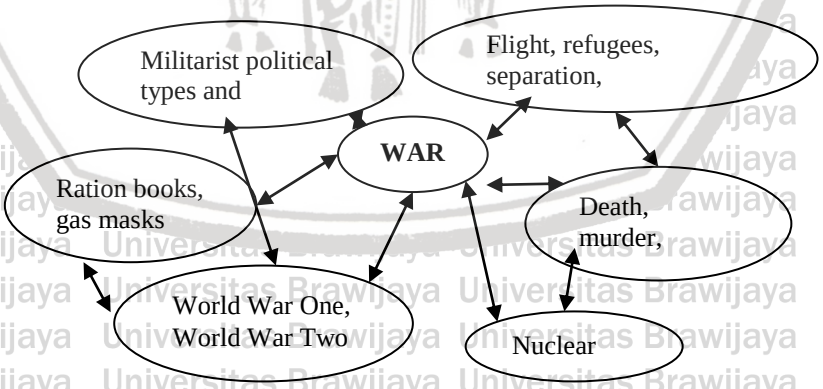

Figure 2.1 Example of Encyclopedic Response
(Lawson, 2007, p.9)

There are five experts who propose ideas about the classification of Word Association Types. There are some similarities and also differences. The writer simplifies those categories into Table 2.1 that can be seen as follow.

Table 2.1 Summary of Word Association Types

Aitchison	Wolter	Pigott
a. Coordination b. Collocation c. Superordination d. Synonymy	a. Paradigmatic b. Syntagmatic c. Clang response	a. Syntagmatic- paradigmatic relation b. Sense relation - Semantic/ lexical field - More specifis sence relation (synonym, antonym, hyponym) c. Encyclopaedic response d. Collocation e. Clang association
Aguirre	**Lawson**	**In this research**
a. Paradigmatic - Synonym - Antonym - Hyponym - Hyperonym - Meronym b. Syntagmatic c. Phonological d. Other category - Attitude - Pronouns e. No response	a. Clang association b. Syntagmatic - Collocation - Multi word items c. Paradigmatic - coordination • antonym - synonym - hyponym • superordination • subordination - meronym d. Encyclopaedic response	a. Clang association b. Syntagmatic - Collocation - Multi word items d. Paradigmatic - Coordination • Antonym - Synonym - Hyponym • Superordination • Subordination - Meronym e. Encyclopaedic Response f. Other Category - Attitude - Pronouns

In short, there are some word association types. This study uses Lawson's idea for the base theory of word association types since it gives more complete and well organized aspect compared to other categorization. However, this idea will be supported by Aguirre's idea instead of others' idea of word association types since Aguirre's provides "other category" which does not exist in other scholars' idea. Then, it is hoped to give more complete aspects in classifying word association types. So, there will be five types of word association responses

employed in this study. They are clang association, syntagmatic association, paradigmatic association, and encyclopaedic responses which are taken from Lawson's idea and other category which comes from Aguirre's idea.

2.2 Previous Studies

Dealing with this study, there are some previous studies with similar topics which are related to this study. Wardani, A.K. (2010) conducted a research entitled *Lexical Storage through Word Association Test in Male and Female Students of English Study Program of University of Brawijaya.* The study aimed at discovering the type of word association which emerges in male and female students of English Study Program. The research design employed in this study was case study. The participants of this study are 42 students of English Study Program with 21 male and 21 female students. The participants in this study were chosen based on their TOEFL equivalent scores of 453-503. In collecting the data, four stimulus words were given orally and the rest is in the written form. This study revealed that male and female students of English Study Program had similar pattern of word association in general. However, they showed some differences in the way they stored words in their mind. The conclusion of this study showed that gender plays role in lexical storage.

Another research is conducted by Post, M. (2007) entitled *Word Association Responses, Lexical Development and the Relationship within the Mental Lexicon of Second Language Learners.* The aim of this paper was to illustrate the ability of word association tests to examine the mental links between words in second language learners' developing mental lexicon. The word association test was

given verbally to low- level Japanese learners of English. In this study, 50 female Japanese 3rd year junior high school students were employed as the participant with the age range of 14- 15 years old. The overall results of this paper's word association have demonstrated that the phonological links does not appear and both the L1 and L2 and that context seems to have an influence upon word association responses.

This present study is similar to the study conducted by Wardani (2010) since it uses WAT to examine how words are stored in non English native speakers. It is also similar to Post' since it employs interview after the test in order to know the background information about the respondents. Nevertheless, this study is different from Wardani's in terms of the subjects. She took students of English Study Program as the respondents. In this study, the students of Japanese Study Program become the respondents to make the research varied. In the classification of the word association type, Lawson's idea (2007) and Aguirre's idea (2009) are used here. It is different from the previous studies since Wardani used Peppard's idea (2007) to classify the type of the responses and Post used his own classification. It is also different from Wardani's and Post's since they conducted the research to one level of English proficiency. Yet, the respondents employed here belong to 3 levels of TOEIC score. So, this study is important to be conducted since it investigates the phenomenon on how words are stored in the students of Japanese Study Program students' mental lexicon within the different levels of English proficiency. By knowing how they make strong connection of

the words in their mind, hopefully they can remember and understand English words easier.

CHAPTER III
RESEARCH METHOD

This chapter covers the explanation about the research methods of this study. It consists of type of research, data sources, data collection, and data analysis.

3.1 Research Design

This study is classified as a qualitative research. According to Ary et al. (2002, p. 425), "the descriptive data in qualitative research deals with data that are in the form of words rather than numbers or statistics." The type of qualitative research employed in this study is case study in one group of people. There are some definitions of a case study. Ary, Jacobs, and Razavieh (2002) state that a case study is a way in which the researcher attempts to discover a detail description and understanding of the entity. According to Creswell (1998, p. 61), case study is "an exploration of a bounded system or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context".

In addition, Morra and Friedlander (2009, para. 3) propose an idea that a case study is a method for learning about a complex instance, based on a comprehensive understanding of that instance obtained through extensive description and analysis of that instance taken as a whole and in its context. Furthermore, a case study is an empirical inquiry that "investigates a

contemporary phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2003, p.13).

In conclusion, case study is a depth study that investigates individual, one group, one organization, about the phenomenon in the real life. It tries to examine the behavior of the subjects. Furthermore, in this study the researcher attempts to make a deep analysis especially in the lexical storage of students of Japanese Study Program's mental lexicon. It will cover the phenomenon of how words are stored in their mind.

3.2 Data Source

The data source of this study was students of Japanese Study Program academic year 2007. Moreover, the data for this research is the responses of the students which are gotten from Word Association Test answer sheets. There are various sampling principles to select the sites to study, such as maximum variation sampling, critical case sampling, snowball sampling, purposive sampling or convenience sampling (Miles and Huberman, 1994, p.27). Then, qualitative samples tend to be purposive rather than random. According to Maxwell (1996, p. 70), purposeful sampling is "a strategy in which particular settings, persons, or events are selected deliberately in order to provide important information that cannot be gotten as well from other choices".

In selecting the participants, there were some criteria that must be fulfilled. First, the respondents are students of Japanese Study Program. They

were chosen instead of other Study Programs because Word Association Test has never been conducted in this Study Program and the writer wanted to develop the previous study. Second of all, they had taken TOEIC recently or not more than two years since TOEIC score is only valid for two years. The next criterion is they had passed three levels of English subject. From that criteria, Japanese Study Program students class of 2007 were chosen as the subject of this research.

In this study, TOEIC was selected as the parameter instead of TOEFL since TOEIC has clear level of score. According to Educational Testing Service (ETS), TOEIC score can be categorized into six levels. The range score 10- 250 is categorized as novice level, the score 255- 400 belongs to elementary level, the score 405- 600 is said as intermediate level, the score 605- 780 is considered as basic working proficiency, the score 785- 900 belongs to advanced working proficiency, and the score 905- 990 is considered as general professional proficiency. In addition, based on the observation, there were four levels of TOEIC score appeared in the students of Japanese Study Program students result. They were novice, elementary, intermediate, and basic working proficiency. The researcher analyzed the Word Association Responses produced by the students with different level of TOEIC score. Nevertheless, students with novice scores were not employed since it was assumed that they did not have sufficient knowledge of vocabulary.

Then, the number of population of students of Japanese Study Program class of 2007 are 60 students who consist of 24 students of Japanese Study

Program and 16 students SAP (*Seleksi Alih Program)* of Japanese Study Program. Nevertheless, only 27 students took TOEIC. There were four levels of TOEIC score appear. Three students belong to novice level, nine students belong to elementary level, nine students belong to intermediate level, and six students belong to basic working proficiency level. Since students with novice level were not employed in this study, then the total participants in this study were 24 students. Moreover, since this study involved participant, there was an ethical procedure applied. The participants had to sign a consent form stating that they agreed to give data needed for this study.

Meanwhile, this study had limitation. It was only focused on the lexical storage of students of Japanese Study Program class of 2007 who had elementary level, intermediate level, and basic working experience level of TOEIC. This study did not use technology model such as WEAVER++ to observe the detail process in the mental lexicon when retrieving the words.

3.3 Data Collection

The data in this study was collected through the response of word association test. The participants were given eight stimulus words which are developed from McCarthy's (1990) design. The reason for choosing McCarthy's rather than others is because McCarthy's design concern with lexical storage in human mind. Furthermore, the writer provided eight stimulus words. In addition, the eight stimulus words which were involved belong to low and high frequency words that were useful to provide wider perspective. High and low frequency

was based on the frequency of the usage of those words in spoken activities, magazines, and other sources. Furthermore, in this study low frequency word were represented with the number of frequency less than 10.000, while high frequency words were represented with the number of frequency more than 10.000. To manage the frequency, the writer consulted it with one of English corpus. It is a kind of tool to measure the frequency of the word.

There are many English Corpus, some of them are The Bank of English (BOE), Collins Birmingham University International Language Database (COBUILD), Corpus of Contemporary American English (COCA), British National Corpus, etc. The writer preferred COCA instead of other corpus since it provides 400 millions words and it has the biggest number compared to the others. COCA exists since 1990 up to now and it is also updated once or twice a year. So, the lists of words in COCA is said to be up- to- date. In addition, the researcher created stimulus words which make the students are possible to response in various types of responses.

Then, the writer provided Table 3.1 to explain the stimulus words chosen. The table consists of the stimulus words, the part of speech, the frequency based on COCA, and also the reasons of choosing those eight stimulus words. In choosing the eight words, it was based on McCarthy's design. Moreover, they were chosen as the stimulus words since the writer assumed that they would stimulate the participants to give various responses.

Table 3.1 Stimulus Words and the Reason

STIMULUS	PART OF SPEECH	FREQUENCY BASED ON COCA	REASON
Green	Adj, N, V	65193	A colour which is found both naturally and artificially in the environment, may have various types of response
In	Prep, Adv, Adj, N	7661877	An extremely common preposition, very high frequency, mix of word classes.
Ouch	Exclamation	732	Very low frequency, relatively uncommon, high possibility in L1 interference based on the writer's experience. There is possibility that Indonesian word such as "aduh" and "sakit" occur as the spontaneous response.
Japan	N	29282	Extremely well known noun with high frequency, may have various response since this word exists in the participants' everyday environment.
Black	N, Adj	165163	High frequency noun, may have collocation response
Tsunami	N	1770	A borrowed word from Japanese with relatively low frequency in COCA. Yet, it is well understood by Japanese students and may create encyclopedic response.
Baby	N, Adj, V	56877	Very well known word, may create various type of response.
Family	N, Adj	201326	High frequency noun and the participants must have strong storage since there is discussion about this topic in their handbook.

In the test, the stimulus words were given both orally and in written form. It was done because based on one of the notions in lexical storage that words were somehow connected for having similar orthographical or phonological forms. Then, the students were asked to write responses which come up first in their mind. It could be a word or a phrase. Nevertheless, if they could not find the English words, they were allowed to give response in Indonesian words. It helped them to give response quickly. Moreover, the participants were given some space to write the reason why they choose those

responses. Besides WAT answer sheet, there was an interview. It was aimed to get more detail information about the WAT responses or made a clarification. In addition, not all of the participants were interviewed. Only those who have not given clear answer in the questionnaire or those who had confusing statements were interviewed. The writer interviewed four participants. Then, from the interview the writer got useful information.

3.4 Data Analysis

In the data analysis, the writer used three steps which are proposed by Ary et al. (2002, p. 465). They are discussed further as follows:

1. Organizing data

   The first step in organizing the data is called coding. In this process, the data were categorized into some criteria. First, the data were classified based on the words association types. The data were classified into clang responses, collocation, multi word item, coordination, synonym, hyponym, meronym, encyclopedic knowledge, and other. In addition, the researcher used this table to ease in organizing the data.

Table 3.2 Classification of the Responses

Stimulus Words	Type			Responses
	C	-		
	S	COL		
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		
	Other	-		

C= Clang
S= Syntagmatic → COL= Collocation, MWI= Multi Word Item.
P= Paradigmatic → COO= coordinate, ANT= antonym, SYN= synonym, HYP= hyponym, SUP= superordinate, SUB=subordinate
EK= encyclopaedic knowledge

2. Summarizing the data

In summarizing the data, the pattern emerges in the response were examined. The data showed the phenomenon appears. Then, the researcher investigated the relation of those responses to the notion of how words are stored in mental lexicon.

3. Interpreting the data

In this step, the researcher went beyond the descriptive data to extract meaning and insights from the data. Then, the researcher explained the important things found, why it was important, and what could be learnt from it. So, in interpreting the data, the researcher confirmed what has already known, eliminated misconception, and illuminated new insights and important things that have never been known before. The last, the writer also drew conclusion of the findings.

CHAPTER IV
FINDING AND DISCUSSION

In this chapter, the writer presents the detail explanation related to the main topic. The problems of the study are answered in the findings. Then, in the discussion session, there is further discussion about the finding related to the theories.

4.1. Finding

In the finding section, the research problems are answered. The first problem deals with the Word Association Types, the second problem is to find out to what extent the proficiency influences the responses produced by Japanese Study Program Students, and the third problem is to find out the students' reasons of choosing the responses. From 24 students, there are 192 responses produced. In the elementary level, there are 72 responses. Intermediate level has the same number of responses as the elementary. While basic working proficiency level has 48 responses. The difference is based on the number of students who belong to this level is less than the number of students with the other levels. In presenting the data, table will be used to show the number and the percentage. It is aimed to see the data more easily. Moreover, the detail data obtained from the participants can be seen in the Appendix 4, 5, and 6.

4.1.1. Word Association Types Found in Japanese Study Program Students with Elementary Level

The finding of the research shows that all types of responses appear. There are clang, syntagmatic, paradigmatic, encyclopedic response and other responses. From those types, encyclopedic response is the highest type used then followed by syntagmatic, paradigmatic, clang and other response. Clang response has the same number as other types do. For detail, this is the number of type occurs.

Table 4.1 Number of Response in Elementary Level

Type	Number	Percentage
1. Clang	1	1,4 %
2. Syntagmatic	25	36,1 %
a. Collocation	(14)	(19,4 %)
b. Multi Word Items	(11)	(15,2 %)
3. Paradigmatic	9	12,3 %
a. Coordination (Antonym)	(2)	(2,7 %)
b. Synonym	(1)	(1,4 %)
c. Hyponym		
– Superordinate	(4)	(5,5 %)
– Subordinate	(1)	(1,4 %)
d. Meronym	(1)	(1,4 %)
4. Encyclopedic	36	50 %
5. Other response (pronoun)	1	1,4%
TOTAL	72	100%

There are five types of responses which two of them have sub-types. Syntagmatic is divided into two sub-types which are collocation and multi word items. While paradigmatic has sub-types such as coordination (includes antonym), synonym, hyponym (covers superordinate and subordinate), and meronym. Moreover, it can be seen from the table that encyclopedic response is the highest type of response that occur. It has 50% of the total number of responses. The

second highest type is syntagmatic with 36,1% followed by paradigmatic with 12,3%. The other two types which are clang and other response has the lowest number which is 1,4% each. So it can be said that all types of response appear here.

In addition, in the syntagmatic response itself, the number of responses that belong to collocation and multi word items are not significantly different. There are fourteen collocation responses and eleven multi word items responses. The same thing happens in paradigmatic response where the number of each sub-type that occurs is almost the same. Only superordinate has four responses while coordination has two and others only have one response each.

Encyclopedic response has the highest number of responses compared to the other four types. The responses are various between one participant and another. For example the stimulus word "black", participants associate it with "technology", "sakura", "Iizuka", "kanji", and "Japan Foundation". They are very familiar with the word "Japan" so they are able to produce various kind of responses based on their knowledge about Japan. Another example of encyclopedic response is in the stimulus word "ouch". Compared to other Word Association Types, participants tend to give encyclopedic response that shows "ouch" is usually said when someone feels pain. Yet, in expressing the pain, they use different word such as "pain", "ill", "sick", "shock", and "*kejedot pintu*". When the writer confirm to the participants, they said that whenever they hear the word "ouch", they remember the word "*aduh*" so they directly remember that it shows something painful.

Next type that occurs quite high is syntagmatic response. As it is explained before that this type is divided into two sub- types which are collocation and multi word items. One example, the stimulus "green" makes the participants tend to give collocation response. Most of the participants relate this word with "grass" and "leaf". The reason is that they are very familiar with "green grass" which is located in the campus and they often gather with their friends in this place. Besides, they also remember "leaf" when they hear the word "green" because it is general truth that leaf is green. Another sub- type of response in syntagmatic is multi word items. In this group, the word "in" creates the highest number of multi word items responses such as "in the house", "in the hotel", and "in the campus".

The next type of response occurs is paradigmatic. The numbers of responses belong to this type is quite a little. There are only nine out of total 72 responses. Furthermore, superordinate is the sub- type that has the biggest number. For example, word "country" emerges as the response of stimulus word "Japan", "colour" as the association of "green" and also "black", and "disaster" as the response of the word "tsunami". It shows that some of the participant remember the general term of the stimulus word.

Moreover, clang and other responses can be said as the least type occur. Only one response is made for each of the type. For stimulus word "ouch", the clang response is "touch". The participant needs to think for a while then she produce this word since she think it is similar to the stimulus word. As the response of "in", a participant associate it with "something". It is a kind of other responses. She said this because she is confused how to give association.

It can be concluded that in elementary level, encyclopedic response has the highest percentage which is 50%. Then, syntagmatic response is in the second place. The difference between them is 13,9%. The percentge of paradigmatic response is in the third place with the percentage 12,3%. The difference is quite high. The types occur as the least is clang and other response. Each of them only has 1,38% or one response only.

4.1.2. Word Association Types Found in Japanese Study Program Students with Intermediate Level

The data reveals that all types of association occur in this group. The highest numbers of responses belong to encyclopedic response, then syntagmatic, paradigmatic, clang, and other. Although the sequence from the biggest number into the lowest level is the same as the previous group, but there are some differences. The number and percentage of each type and sub- type can be seen on the table 4.2 below.

Table 4.2 Number of Response in Intermediate Level

Type	Number	Percentage
1. Clang	1	1,4 %
2. Syntagmatic	27	37,5 %
a. Collocation	(17)	(23,6 %)
b. Multi Word Items	(9)	(13,8 %)
3. Paradigmatic	15	20,8 %
a. Coordination (Antonym)	(4)	(5,5 %)
b. Synonym	(2)	(1,4 %)
c. Hyponym		
– Superordinate	(5)	(6,9 %)
– Subordinate	(4)	(5,5 %)
d. Meronym	(1)	(1,4 %)
4. Encyclopedic	28	38,8 %
5. Other response (pronoun)	1	1,4 %
TOTAL	72	100%

From the table it is known that encyclopedic response has the highest number of others. It takes 38,8 % of all the response. The second type appear most is the syntagmatic with 37,5 %. Then it is followed by paradigmatic with 20,8 %. Finally, clang and other response has the same percentage which is 1,4 %. From those numbers the writer conclude that there is no significant different between encyclopedic and syntagmatic response.

As the most type occurs, there are many variations made by the participants. For instance, the word "ouch" stimulate the participants to produce words which show pain. The response produced are "stomachache", "*bisul*", "sick", and "pain". The participants who answered "stomachache" and "*bisul*" were interviewed to know why they associate the stimulus with such kind of response. From their answers, it is known that they produce such kind of response since one of them often has stomachache and he feels that it is so painful. Another one said that the worst illness she ever had in her life is *bisul*. She felt that it hurts her so much. That is why they directly remember those words when the word "ouch" is given.

The second type occurs most is syntagmatic response. There are 23,6% collocation and 13,8 % multi word items produced. The biggest response containing collocation happens in the stimulus word "tsunami". The responses are "Aceh", "Japan", "earthquake", "*gempa*", and "victims". The writer has predicted that word "Aceh" and "Japan" will occur as the collocation of "tsunami". Meanwhile, the word "earthquake" and "victim", which are not considered as collocation by the writer, they belong to high collocates according to COCA.

The next type produced most is paradigmatic. Here, the coordination and sub- type of hyponym which are superordinate and subordinate almost have the same number. There are four coordination, five superordinate, and four subordinate. The most famous type of coordination is "out" as the response of stimulus word "in". Some participants say that those two word frequently occur together and they are very familiar with the words. Moreover, in the case of superordinate, the stimulus word "green" and "black" stimulate response which is "colour"s. The response "disaster" appear as the result of stimulus word "tsunami". There are some participants who give this response. Their reasons are tsunami is a kind of disaster that it is one of the biggest disaster they know. Furthermore, in the stimulus word "family", they tend to give subordinative response. They produce response such as "*ayah*", "sister", and "mother".

Moreover, clang, synonym, and other response has the smallest number compared to the other types. Only one response is made for each of the type. For stimulus word "ouch", the clang response is "voucher". One of the participants said that she just got it the day before and she thought the spelling of the two words are similar. There is only one response produced by the participant which is "*aduh"* as the response of "ouch". Moreover, as the response of "family", the participant associates it with "everything" which is categorized as other response. The reason is because she thought that everything exists in a family such as happiness, sadness, warm, love, and other things.

It can be concluded that in intermediate level, encyclopedic response has the highest percentage which id 38,8%. Then, syntagmatic response is in the

second place. The difference between them is 1,3%. So the difference is not significant. It may be caused by the similarity between encyclopedic knowledge and syntagmatic. In the writer's opinion, some of encyclopedic response can be part of syntagmatic because the response produced can be the sequence of the stimulus word. The idea is the same as syntagmatic response where the response is the chain or sequence of the stimulus word. The percentage of paradigmatic response is in the third place with the percentage 20,8%. The difference is quite high. The types occur as the least is clang and other response. Each of them only has 1,4% or one response only.

4.1.3. Word Association Types Found in Japanese Study Program Students with Basic Working Proficiency Level

In this group, there are various types of responses that belong to syntagmatic, paradigmatic, encyclopedic response, and other type. Yet, there is no response belongs to clang response. It can be seen from the table below.

Table 4.3 Number of Response in Basic Working Proficiency Level

Type	Number	Percentage
1. Clang	0	0 %
2. Syntagmatic	9	18,7 %
a. Collocation	(8)	(16,6 %)
b. Multi Word Items	(1)	(2,1 %)
3. Paradigmatic	15	31,3 %
a. Coordination (Antonym)	(5)	(10,4 %)
b. Synonym	(1)	(2,1 %)
c. Hyponym		
– Superordinate	(3)	(6,3 %)
– Subordinate	(2)	(4,2 %)
d. Meronym	(4)	(8,3 %)
4. Encyclopedic	23	47,9 %
5. Other response (pronoun)	1	2,1%
TOTAL	48	100%

The table shows that encyclopedic response still takes the biggest number in the Word Association Types. There are 47,9 % of the responses belong to encyclopedic. Then, the next type that occurs is paradigmatic with 31,3 %. Syntagmatic comes after this with 18,7 % and other response has 2,1%. Nevertheless, there is no one give clang response.

Since it is the type that occurs most, there are various kind of responses produced by the participants. For instance, for the stimulus word "green" is associated with "tree" and "*Persebaya*". The response "tree" occurs because in her mind, surrounding is fresh if it has green tree. Then, "*Persebaya*" is produced because it is her favourite football team in Indonesia. Moreover, there are also various kind of encyclopedic response appear as the response of stimulus word "family" such as "love", "united", and "warm". All of the responses are produced because the participants relate it to the condition of their families.

The next type that occurs most is paradigmatic. In paradigmatic, there are four types with three sub- types. From all of those types, coordination (include antonym) has the biggest number. For word "in", three participants relate it to "out". They say that those two words are often together. The word in and out is also famous pair of antonym they often hear. Then, meronym is the second most type occur in paradigmatic responses, for example in the stimulus word "tsunami" and "baby". For the word "tsunami", the participants answer "waves" and "water" as the association. They say that they give such kind of response because they know that tsunami consists water and it has big waves (tsunami is derived from Japanese and the meaning is big wave). Superordination comes after this type

such as the occurrence of “colour” as the response of “black” and “disaster” as the association of “tsunami”. They tend to give general term for the stimulus word given.

Moreover, two of the participants relate the word “family” with “parents”. The reason is family consists of parents and children. Moreover, one of them remember in her lesson when she talked about family. Then, association of stimulus word “in” which is produced by the participant is “preposition”. She said that “in” is one of preposition because she remembered the general term of the stimulus word. In addition, there is no clang association appear.

It can be concluded that in basic working proficiency level, encyclopedic response still has the highest percentage which is 47,9%. Then, paradigmatic response is in the second place with the percentage 31,3%. The difference between them is 16,7%. The difference is quite high. Then, the percentage of syntagmatic response is in the third place with the percentage 18,8%. The difference is quite high which is 12,5%. The types occur with little percentage is other response which has 2,1%. And the type that occurs the least is clang response. It has no response.

4.1.4. The Comparison of Word Association Types Found in Japanese Study Program Students with Different Proficiency Level

The finding from each group has been stated previously. It shows some differences in the type of response given. To give the clear comparison among the three different groups, see the Table 4.4. Moreover, this finding is used to answer

the second problem of the study which deals with to what extent the level of proficiency influences the responses produced by the participants.

Table 4.4 Comparison of Types in Different Proficiency Level

Type	Level		
	Elementary	**Intermediate**	**Basic Working Proficiency**
1. Clang	1,4 %	1,4 %	0 %
2. Syntagmatic	36,1 %	37,5 %	18,7 %
a. Collocation	(19,4 %)	(23,6 %)	(16,6 %)
b. Multi Word Items	(15,2 %)	(13,8 %)	(2,1 %)
3. Paradigmatic	12,3 %	20,8 %	31,3 %
a. Coordination (Antonym)	(2,7 %)	(5,5 %)	(10,4 %)
b. Synonym	(1,4 %)	(1,4 %)	(2,1 %)
c. Hyponym			
– Superordinate	(5,5 %)	(6,9 %)	(6,3 %)
– Subordinate	(1,4 %)	(5,5 %)	(4,2 %)
d. Meronym	(1,4 %)	(1,4 %)	(8,3 %)
4. Encyclopedic	50 %	38,8 %	47,9 %
5. Other response (pronoun)	1,4%	1,4 %	2,1%
TOTAL	100%	100%	100%

It can be seen from the table that there are differences in the type occurs. In terms of clang, elementary and intermediate levels have exactly the same number while no one give clang response in basic working proficiency level. Out of all the type of responses, clang can be said as type that has the least occurrence. The participants do not give such kind of response since they do not look at the written form of the word. They tend to see a word from the meaning and relate it to their knowledge.

Then, there is also a difference in syntagmatic response. Elementary level produce 36,1 %, intermediate level produce 37,5 %, and basic working proficiency level produce 18,7 %. Between elementary and intermediate levels, the difference is not too high. It contradicts to the theory. But the basic working

proficiency level produces quite far different from the other two groups. It shows that somehow the participants' responses are unstable. However, if we see from the sub- types of syntagmatic in the three levels, it is known that most of them decreased along with the increase of the proficiency.

The next type discussed here is paradigmatic response. There is increasing number from elementary level to basic working proficiency. Paradigmatic response in elementary level is quite low which is 12,3 %. It increases in the intermediate level which have 20,8 %. Moreover, basic working proficiency level shows the biggest number of paradigmatic responses compared to the other two groups. It has 31,3 % paradigmatic response. As it has been stated previously that paradigmatic response is about the choice. It means that it deals with vertical relationship and the response may come from the same grammatical classes. From that data it is known that paradigmatic response increase, as well as the increasing of the proficiency.

The type occurs most in all levels of proficiency is encyclopedic knowledge. Although the number is varied but it is still has the biggest percentage compared to other types. Elementary level produces 50 % encyclopedic response and it is the highest among the other two levels. Then, the number decrease in intermediate level which have 38,8 %. Yet, basic working proficiency produces higher number of encyclopedic response than intermediate level. It has 47,9 %. Form the eight stimulus words, the stimulus word "ouch", "Japan", "black", and "family" create many encyclopedic responses. Moreover, the stimulus word "Japan" stimulates the participants to produce various things about this country. It

shows that they know various information about Japan since they are Japanese Study Program students who have learnt Japanese, the culture, and the life. In addition, each participant has her own association. Moreover, from the percentage of the three proficiency levels, it can be seen that the percentage decreased and then increased. Yet, the difference is not significant. It is because the participants associate the stimulus words to the responses with the same way. Most of them connect the stimulus words to their experience, general knowledge, or admiration and knowledge about Japan. The possible reason why they do that way is because they have been learned Japan for almost or more than four years so that there are many things related to Japan sticks in their mind. Another possible reason deals with the connection of the stimulus to the experience is based on their memory. Something they have experienced influences the storage. The other reason about the occurrence of general knowledge is because general knowledge is something that has been widely known, so it is stored strongly in the mental lexicon.

The last type of word association response is other response which covers participant attitude and pronouns. Compared to other types, this type has a little number. It is almost the same as what happen in clang response. Elementary level and intermediate levels produce 1,4 % other response for each level and basic working proficiency has 2,1 %. The participants are very rare to give association about pronouns. Some of them say that they do not remember what prepositions are used in English.

In short, language proficiency plays significant role in the responses given by the participants. Although the type which occurs most in those three levels are

encyclopedic knowledge, but if we look at each sub-types it is known that there are significant differences. The more proficient the students, the more paradigmatic responses are produced. Moreover, syntagmatic responses and clang responses decreased in the participants with higher proficiency level.

4.1.5. The Reason of Choosing the Responses by Japanese Study Program Students

As we know that words are not stored independently in human's mental lexicon. It means that there must be connections between a word and others. From the test, it is found that the responses given by the participants are various. In this section, the writer presents the reason of the participants in choosing the responses of word association test given. By knowing the reason, we know how they store words in their mind.

The first stimulus word is "green". This word belongs to high frequency in COCA and it is very familiar for the entire participant. Responses produced by the participants are syntagmatic, paradigmatic, and encyclopedic response. The participants who give syntagmatic responses, associate the stimulus word with "grass", "leaf", and "tea" which belong to collocation. They answer "grass" since Faculty of Culture Studies, the place where they study, have a beautiful green grass in front of the building. They often gather with their friends in this place. Moreover, there are also many plants around it which have green leaves and it makes some of them remember the green "leaf". One of the participants also remembers that in Japan, there are still many plants although it is widely known

as industrial country. Another collocation response is "tea". It is produced because one of the participants often drinks green tea and the other participants remember the tea ceremony in Japan. After having an interview, it is known that there is a tradition called *"cha no yu"* which uses green tea. Moreover, there is a paradigmatic response occurs which is "colour". The reason is because green is a kind of colours. There is also some encyclopedic response such as "*lampu lalu-lintas"* or "traffic light", "nature", and "*Persebaya"*. One of the participant associate the stimulus word with "traffic light" since she knows that one of the colour in traffic light is green. Another participant associates the word with "nature" since she thinks that green nature will make the life fresher and better. Then "*Persebaya"* also occurs since it becomes one of the participants' favourite football team. From those answers, we know that the knowledge about the surroundings, experience and knowledge about Japan influence them in giving responses.

The second stimulus word is "in" which is categorized as extremely high frequency in COCA, and it is very famous in everyday life communication. There are four types occur. In the syntagmatic response, multi word items occur most compared to collocation. The responses occur such as "in my room" and "in the campus". It is because they often hear the pair of words in their English lesson. In paradigmatic response, coordination (include antonym) is the only type that is produced. So "out" comes as the response of the word "in". The reason is "in" and "out" is very popular pair and they often occur together. Besides, they know that they are antonym. There is also some encyclopedic knowledge such as "bedroom"

because when she answered the test she was sleepy and she wanted to be inside her bedroom to sleep. Another response in this type is "inbox" since he imagined the empty space inside the box. Other participants also gave a response in other type which is preposition. So, the reason of choosing such kind of responses for this stimulus word is because of the experience, the knowledge, and the desire.

The third stimulus word is "ouch" which belongs to very low frequency word. Based on the writer's own experience, this stimulus word has high possibility in creating L1 interference such as "*aduh*" since it shows pain. There are some participants associate it with the word *"aduh"*. Besides, many participants associate it with encyclopedic response such as "pain", "shock", "*bisul*", "stomachache", and "*kejedot pintu"*. Basically they give such kind of responses because they directly remember about something painful when they hear the word "ouch". Some of them also give responses based on their experiences. For example, one of the participants often has stomachache then she automatically remembers the pain when she experiences it. Another participant says that few days ago there was "*bisul*" (such kind of disease) in her bottom. In conclusion, the responses are produced based on the participants' experience and the general knowledge that "ouch" shows something painful.

The fourth stimulus word is "Japan". The writer assumes that there must be various kinds of response since the participants are very familiar with this word. It is true because there are syntagmatic, paradigmatic, and encyclopedic responses. Syntagmatic responses are "Japanese" and "Japanese Study Program". They are familiar with those words since the English of *Bahasa Jepang* which

they study is “Japanese” and they study in “Japanese Study Program”. Moreover, paradigmatic response that occurs is “country” because Japan is one of the countries in the world. Interesting things happen in encyclopedic response. Some of the responses are “technology”, “sakura”, “sushi”, “discipline”, “kanji”, “flag”, and “harajuku”. All of them are related to their knowledge about Japan. Since they are Japanese Study Program students, they get lesson about Japan study that covers everything deals with Japan. Besides, they also try to look for any information about the country. All of the responses describe how Japan attracts them.

The fifth stimulus word is “black”. This word belongs to high frequency word in COCA. The type that occurs most in this stimulus word is the encyclopedic response. Yet, there are also syntagmatic and paradigmatic response. “hair” occurs as the only collocation that occur in the responses. It is based on the general truth that Indonesian hair is black. There are also multi word items such as “I am” and “my eye liner”. Then, general term for “black” which is “colour” occurs as the superordinate response. This stimulus word also creates “white” as the response and it belongs to coordination. Those two words often occur together. Moreover, encyclopedic responses which occur more than other types creates responses such as “mysterious”, “dark”, “gothic”. They say that black is very identical with those things and some of them remember magician or participant with harajuku style. After having an interview, the participants say that harajuku is their favourite style. It comes from Japan and one of harajuku style’s

identities is the existence of black. So it can be concluded that the knowledge still have big influence to the response produced.

The sixth stimulus word is "tsunami". This word belongs to low frequency word. Yet, it comes from Japanese so the participants are very familiar with this word. Collocation responses occur such as "Aceh" and "Japan". It is because they know that there have been tsunami in Aceh and Japan has killed so many people and make them scary. So, whenever they hear the word "tsunami", they are automatically connected with the two places. The response "disaster" occurs since it is the general term of "tsunami". In meronym type, the answers that occur such as "water" and "wave". The reason of choosing the words is because "tsunami" brings a huge volume of water and it also contains huge wave. In Japanese, tsunami means huge waves so they directly remember it. Moreover, "scary" and "damage" are produced as the response because the peoples know the effect of tsunami is very scary and it causes damage everywhere. In conclusion, the participants' reason to give responses to this stimulus word is based on their background knowledge about the word.

The next stimulus word is "baby". The writer assumes there are various types of responses and they are found here. The example of collocation responses which occur are "cute", "crying", and "born". They give such kind of answers because they often hear those three words come after the word "baby". Multi words item such as "my love" and "my honey" occur when they remember their special person because it is how they call each other. Moreover, one of the participants responses it with the antonym of the stimulus word such as "adult".

The reason is that, the antonym of young is old so she associate "baby" with "adult". There are also meronym responses occur here such as "nose" and "hand". Another participant says that the reason of choosing "nose" as the response is because a baby has little nose which is cute. The other participant says the same thing. She says that the baby's hand is so small, cute, and soft. Besides, there are also some encyclopedic responses occur such as "Yu Shirota", "parents", and "weak". Based on the interview, it is known that "Yu Shirota" is a Japanese artist and he is one of the participant's favourite artists. For the response "parents", another participant says that parents get married then they have baby. She says that without parents, there will be no baby. Then "weak" is produced by the other participants as the response because there is no baby who can take care of themselves. From the reason of the answers, it is known that most of the participants relate the stimulus word with the sequence of the word, the experience, and the knowledge.

The last stimulus word is "family". This word is high frequency word and all of the participants are familiar with this word since there is a material about it in their handbook of English lesson. Some of them produce subordinate responses such as "mother", "*ayah",* and "parents". All of the responses are the members of the family. Other participants say that they remember the lesson they get from the lecturer about this, so they remember it easily. Moreover, there are various kinds of encyclopedic responses produced. Some of them are "home", "protect", "love", "warm", and "happiness". Those are associations that participants made and they are based on their ideas about how a family should be. In their mind, a family is a

place where the family members can share the love and happiness. They will build a happy family, there will be a warm situation, they will take care or protect each other, and they will gather in their lovely house. Those are the concept of family in their mind.

The writer categorized the reasons into some points and provide table 4.5 to show the number and the percentage of the reasons of choosing the responses. First of all, the writer categorized the reasons given by the participants based on their proficiency level. Then, the pattern was observed whether the proficiency level plays role or not in when the participants state the reasons.

Table 4.5 Reasons of Choosing the Responses

Reason	Elementary		Intermediate		Basic working proficiency	
	Number	Percentage	Number	Percentage	Number	Percentage
Experience	17	23,6%	14	19,4%	10	20,8%
Sequence of the stimulus word	9	12,5%	7	9,7%	3	6,3%
General knowledge	23	31,9%	21	29,2%	15	31,3%
Admiration or knowledge about Japan	15	20,8%	23	31,9%	15	31,3%
Same semantic field	7	9,7%	6	8,3%	5	10,4%
Orthographic similarity	1	1,4%	1	1,4%	0	0%
TOTAL	72	100%	72	100%	48	100%

Those are the responses given by the participants. From that table, it is known that there is no significant different among those three levels in stating the reason of choosing the responses. Many of them give encyclopedic responses based on the general knowledge, the admiration or knowledge about Japan, the experience, the sequence of the stimulus words, the same semantic field, and the orthographic similarity. The reasons are diverse.

The interesting thing is that the knowledge about Japan that influences the responses. It is understandable because the participants have known and learnt many things about Japan for some years. Nevertheless, most of the responses do not concern the form of the word. When they hear or read a word, they connect it with their knowledge. They concerned more on the meaning rather than to the form of the words. It means that the meaning storage in the mental lexicon is stronger than those based on pronunciation or spelling. Moreover, there are also many of them connect the stimulus words with the general knowledge or based on the experience. No matter in what level they are, they produce such kind of reason. It is because general knowledge and experience are something that is stick in their mind.

The other reasons in connecting the stimulus words to the responses are because the response is the sequence of the word, the response comes from the same semantic field, or the response has orthographic similarity to the stimulus word occurs in the response given, although there is only a few. The percentage is varied but they do not show significant different. From one level to another, there is increase percentage and decrease percentage. So, it can be concluded that level of proficiency does not play role when the participants state the reasons of choosing the responses. It is because they concerned more on the meaning. Furthermore, the background of their study, which is Japanese Study Program, has big influence to the participants in giving responses. It shows that context does influence the responses.

4.2. Discussion

In this section, the writer would like to explain further about interesting things found in the previous section and compare it to the related theory. This research is about Word Association Test which according to Warton (2001), it is a test where researcher provides a prompt word and the participant utters the first word that comes to mind. Then, the responses from word association test can provide valuable information about how well L2 learners know certain words and how those words are organized in the L2 mental lexicon. It can also be used to see insight of how words related to each other in human mind. In this research, the participants employed are Japanese Study Program students who do not talk or deal with English in their everyday communication. Yet, since it is a research about English word, then they are expected to give response in English.

From the finding, it is known that almost all of the participants are able to give response in English. Only some of them write it in Indonesian since they do not know how to say it in English. The words written in Indonesian are found such as "*bisul*", "*kejedot pintu*", "*gempa*", "*ayah*", and "*Jepang"*. When the participants give those responses, the writer assumed that their lexical storage is influenced by the L1 which is Indonesian. So, they do not have lexical storage in English, but the storage is in Indonesia. The response "*bisul*" or ulcere is rarely used by them so they do not know what the English word of this word is. It supports what Cook (2007) says that the frequency influences in the L1 interference to the L2. Then, one of the participants also does not know how to say "*kejedot pintu*" or "hit the door" in English because it consists of more than

one word and she was confused how to arrange the English word for this. Next, the word which is written in Indonesian is "*gempa*" or "earthquake". Another participant failed to produce English word for it because she forgot. After thinking for a while, she remembered that the English word for it was "earthquake". The same thing happens in "*ayah*" and "*Jepang"*. Actually, they know the English word but they need some time to think for a while. Dealing with the production of Indonesian word rather than English, proficiency level does not play a role. It is because the Indonesian words were found in the three levels. The possible reasons of this phenomenon may be caused of the limited reaction time and the difficulty in translating Indonesian word into English since they are not in the process of studying English and they do not use English actively in the communication. From this thing it can be said that Indonesian is highly correlate to English in their lexical storage.

The finding reveals that encyclopedic responses as the type that occurs most. It supports the previous finding of Wardani (2010) but it contradicts to Post (2007) since he states collocation as the type occurs most. It also contradicts to the previous finding by Aguirre et al. (2009) who state that syntagmatic as the type occurs most. The difference between this present study and Aguirre's may be caused by the different classification of Word Association responses and the lexical storage of the participants employed in each study. Moreover, the occurrence of the encyclopedic knowledge which is high in those three levels is influenced by deep knowledge, understanding, and experience of the word. The influence of Japan they know lead them to give responses which are related to

anything about this country. It shows that their lexical storage is influenced by this knowledge. It can also be said that context does influences the participants in giving responses.

On the other hand, there are three types which have very low number. They are clang, synonym, and other types. Moreover, the least type occurs is clang. It is interesting to be discussed since the participants do not make many clang responses. Although they are non- native speakers, they only produce two clang responses out of 192 responses. It supports the idea proposed by Lawson (2007) that clang responses are rare in non- native speakers. Yet, it opposes the finding of Wardani (2010) that found synonym as the least type occurs. This phenomenon happens maybe caused by the behavior of the participants who mostly paid more attention to the meaning of the stimulus words rather than to the form or the pronunciation. It shows that meaning associations in mental lexicon are stronger than those based on similarity of pronunciation or spelling.

The writer provided Figure 4.1 below to give a glance at the types found in the research. This is the general comparison of the types found as what has been stated in the previous section. The horizontal axis represents Word Association Types, the vertical axis represents the percentage, while the three different colours show the proficiency level.

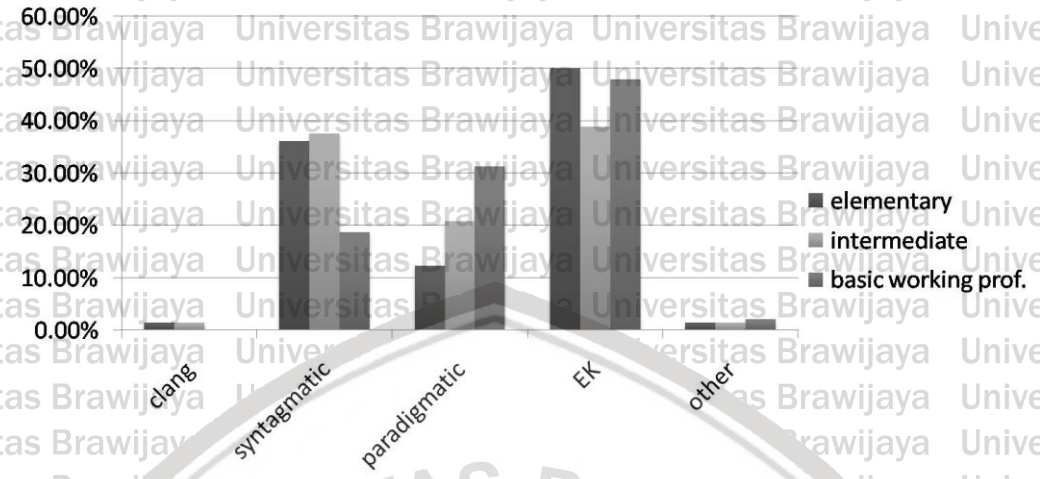

Figure 4.1 The Comparison of Word Association Types

This study concerns about lexical storage in Japanese Study Program students with different level of English proficiency based on TOEIC. The result of the test reveals that there are differences among those three groups although there is a similarity. Overall, the result of the test is stable. It contradicts what Greidanus (2008) states that second language learners produce associations that are much more diverse and unstable. One of the aspect of the stability is in the occurrence of encyclopedic responses as the type occurs most in every level of proficiency. The number of this type is not the same. It decreased in intermediate level and it increased in basic working proficiency level. It is because the participants associate the stimulus words to the responses with the same way. Most of them connect the stimulus words to their experience or knowledge. Yet, it still becomes the type occurs most in every level of group. In terms of clang association, the number of occurrence in elementary and intermediate levels is the

same then it becomes zero in basic working proficiency level. It supports the idea of Meara (2008) who suggests that clang responses occur more frequently in less proficient non-native speakers. It also supports the notion of Söderman (2009) that the mean number of clang responses tended to decrease with proficiency and Lawson (2007) that more proficient language learners are less likely to make clang associations.

Interesting things happen in syntagmatic response since the syntagmatic responses occur in elementary and intermediate levels are quite high. It supports the idea of Greidanus (2008) that non-native speakers tend to produce more syntagmatic responses. He states further that the increased proficiency of the language, the responses seem to become more like those of native speakers. Yet, in a case, the result of the test contradicts the idea. Elementary level has 36,1 % syntagmatic response and intermediate level has 37,5%. So there is increasing number of syntagmatic responses. It can be based on some of the participants do not have quite large lexical storage. Nevertheless, the result in basic working proficiency level has little amount of syntagmatic responses if it is compared to the other two groups. It supports Lawson's idea (2007) that lower level learners give more syntagmatic responses than advanced learners and native speaking adults. One more idea comes up deals with syntagmatic response is that collocations are closely related to the responses. It supports the finding of Post (2007) that collocation bonds were strong enough.

Furthermore, the result of the test classified as paradigmatic responses increased from one group to another. It support the idea of Greidanus (2008) and

Meara (2008) that paradigmatic responses occur more frequently in more proficient non-native speakers since they have more word knowledge and be able to make various connections. It also can be happened because of the large lexical storage. Moreover, in the finding that reveals synonym as the least type occurs prove the notion state by Lawson (2007) that synonymy is relatively rare in elementary level respondents' answers.

The topic about lexical storage in Japanese Study Program students makes the writer eager to discuss it further. From the responses given and the writer related it to the theory, the participants' storage are closely connected to words which often occur together such as "green- tea", "black- white", "cute- baby", and "Aceh- tsunami". It is the same as what Aitchison (1993) proposes. Moreover, Gairns and Redman (1986) also have the same idea that word which are frequently occurred or associated together are closely stored. They are also able to connect the stimulus word with the semantic field such as "green- colour", "Japan- country", and "tsunami "disaster". From their storage, it is found that the words are stored correctly. It can be seen from the occurrence of "*dammage", "*pein", and "*borth". When the stimulus words are given, in some seconds they realize that the spelling is incorrect then they revise the response into "damage", "pain", and "born". From the examples above it is known that not all notions can be found in the responses. It may be caused by the lexical storage of the participants or the choice of stimuli in this study which cannot facilitate such responses well.

Moreover, many of the responses belong to encyclopedic response. In the writer's opinion, encyclopedic response in some cases can be classified into syntagmatic since the response given in encyclopedic response can be the sequence of the stimulus word, for example "black- helmet", "scary- tsunami", "funny- baby" and "family tour". Some of them, indeed, cannot be matched with the stimulus word since it will create weird and meaningless combination such as "family- home" or "home- family" and "Japan- Iizuka" or "Iizuka- Japan".

Other different things are found in the responses such as the responses the writer assumed as the one which has no relation to the stimulus such as "Girls Generation" as the response of stimulus word "baby". The writer guessed that "Girls Generation" is one of the artists she knows. Yet, to the best of the writer's knowledge, it is not Japan artist. After having interview, it is known that it is a Korean girl band. Another question comes up what the relation of "baby" and "Girls Generation" is. Then it is found that in Girls Generation's first album, there is a song entitled "baby baby" and she likes the song.

Another interesting thing deals with the responses of the WAT is the influence of Japan that the participants have. Since there are many encyclopedic responses occur, the writer is interested in knowing what the relationship between the responses and the stimulus words are. Then, the writer found this uniqueness that many of the responses are connected to the stimulus word through their knowledge about Japan. First example is the response "tea" to the stimulus word "green". Here some of the participants remember the time they drink green tea and the green tea ceremony in Japan. They know that there is such kind of

ceremony in Japan which uses green tea. Next example is in the stimulus word "Japan" creates responses such as "flag", "sushi" "discipline", "harajuku" and "tsunami". Since the participants are Japanese Study Program students, they have adequate knowledge about the word from the lecturers or their own desire to look for anything about the country. Moreover, the stimulus word "black" which is associated to words such as "mysterious", "dark", and "gothic". Based on the interview, it is known that some of them are influenced by harajuku. They say that harajuku is famous style in Japan and one of the characteristics of it is the colour. Harajuku usually mix and match some colours and they say that one of the colour always appear in harajuku is black. It is said by the participants that black is a dark colour, gothic, and mysterious. It symbolizes the self identity of the participant who wear it. Then, the stimulus word "tsunami" makes the participant remember that the word comes from Japanese. They say that the meaning of "tsunami" is big wave, then they write "wave" as the response.

By employing high and low frequency words as stimulus, there is a difference happens in the process of giving responses. In this study, low frequency words based on COCA require much time to make a response. It happens in the stimulus word "ouch" which has very low frequency. The low frequency words make the participants are confused, and participants try to know the meaning first and find the response of stimulus word later. However, the low level frequency word based on COCA which is "tsunami" is very well known by the participants. It is because although this word is considered as low frequency based on COCA, this word is derived from Japan so the participants know this word very well. So,

although it is said as the low frequency word based on COCA, but it is high frequency based on the participants' understanding since they know the history of this word. Then, they do not need more time to make association. After they heard and read the stimulus word, they could directly state their responses.

The finding of this study supports some theories regarding the different responses that come from different levels of proficiency. For non- native speakers, there is a tendency to make syntagmatic responses. Yet, through the process of learning and they become more proficient, the tendency changes. The more proficient the participant, the more paradigmatic responses are made. Nevertheless, it is found that clang association is very rare in the responses given. It contradicts to some notions that argue clang response may occur frequently in non- native speakers.

In terms of participants' reasons in choosing the responses, there are various reasons which were stated. The reasons are based on the general knowledge (30,8%), the admiration or knowledge about Japan (28%), the personal experience (21,3%), the sequence of the stimulus words (12,8%), the same semantic field (9,5%), and the orthographic similarity (1%). So, it can be summarized that general knowledge plays role in the reasons of giving the responses. Nevertheless, the proficiency levels do not play role in the reason of choosing the responses. They have various reasons which do not depend on the proficiency levels.

CHAPTER V
CONCLUSION AND SUGGESTION

In this chapter, the writer presents the conclusion dealing with the result of the research discussed in the previous chapter. This part also contributes to give suggestions that can be used to gain better insight of this topic for the next researchers.

5.1. Conclusion

Word Association Test is a test administered by giving simple stimulus word and the participants are asked to utter the first word that comes to their mind. The result of the test can give valuable information about how well they know certain words and how those words are organized in their mental lexicon. In this study, it is aimed to find out the lexical storage of Japanese Study Program students with different level of proficiency based on TOEIC score. The levels appear in Japanese Study Program students are elementary, intermediate, and basic working proficiency levels.

Based on the analysis in the previous chapter, the writer summarizes that all of Word Association Types can be found in the finding of the research. They are clang, syntagmatic, paradigmatic, encyclopedic, and other responses. From all of the five types, encyclopedic response is the type which occurs the most frequently. It happens in all level of proficiency. Yet, the second type that occurs most in the level is different.

The writer also finds out that level of proficiency influence the responses produced by the participants. Although encyclopedic response becomes the type occurs the most in all group, the second type occurs is different. Elementary and intermediate levels produce syntagmatic response as the second type occurs the most, yet there is an increasing number of paradigmatic responses. Moreover, in basic working proficiency level, the number of syntagmatic response decrease while paradigmatic response increased. In term of clang response, the number of the occurrence in elementary and intermediate levels are the same but no one produce such kind of response in basic working proficiency level. So, it can be concluded that proficiency level influences the response produced by Japanese Study Program students. It means that the participants of each group have different way in organizing words in their mind.

As the answer of the third research problem, the writer identify that there are some reasons of choosing the responses. The reasons of choosing the responses stated by the participants are based on the general knowledge, the admiration or knowledge about Japan, the personal experience, the sequence of the stimulus words, the same semantic field, and the orthographic similarity. Although there are many reasons of choosing the response, yet there is a big influence of their knowledge about Japan. It is because the participants are Japanese Study Program students so they get much information about the country, the life, the culture, and everything about Japan. Moreover, they are interested in it and they try to look for any information about it.

All in all, the writer concludes that all levels of proficiency can produce all Word Association Types. Yet, the types of the response occur are different from one group to another. It proves that language proficiency plays significant role in the lexical storage. Moreover, the reasons of giving the responses are based on the personal experience and the knowledge about Japan.

5.2. Suggestion

The writer realizes that this research is not perfect since there are still many items are not taken into account in the analysis of this study. Therefore, some suggestions are needed to make it better. Regarded to the conclusions of the research, there are some suggestions for English Study Program and future researchers as follows:

1. English Study Program

   Since the topic of this study is rare to be discussed in this study program, there is no sufficient informations or textbooks about it. The writer feels difficult in finding references. Sources from internet such as journals may also be useful sources to give more information. Hopefully English Study Program can provide more references to enrich the related literature so the students will be interested in having research in this field. For psycholinguistics study, by knowing the lexical storage of the students, lecturers who teach English in Japanese Study program are suggested to have suitable method on how to maximize the students' lexical storage. In the writer's opinion, it will help them comprehending English words easier.

2. Future researchers

Psycholinguistics researches are very interesting things to be done. Yet, there are still few people are interested in conducting research in this area. It is suggested for the next researchers to conduct similar topic with this research by using richer theories and extended point of view. If future researchers are interested in conducting similar research, they could apply Word Association Test in other groups of participants. Moreover, they could set more various stimulus words which can stimulate the participants to produce more various responses. Involving more participants in the study may help the researcher to get richer data.

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Appendix 1: Consent Form

LEMBAR PERSETUJUAN

Word Association Test (tes asosiasi kata) adalah suatu tes yang bertujuan untuk mengetahui bagaimana suatu kata disimpan dalam otak manusia. Tes dilakukan dengan memberikan stimulus kata dan responden diharapkan mengutarakan satu kata pertama yang terlintas di otak mereka ketika mendengar stimulus tersebut. Dengan tes ini, bisa diketahui bahwa kata bisa disimpan di otak dengan berbagai cara dan tiap orang mungkin memiliki cara sendiri bagaimana menghubungkan satu kata dengan kata lain agar kata itu mudah untuk diutarakan.

Saya yang bertanda tangan di bawah ini menyatakan bersedia untuk menjadi partisipan dalam penelitian tentang *Word Association Test* dalam skripsi:

Judul	:	Word Association Responses and The Relationship within the Lexical Storage of Students of Japanese Study Program University of Brawijaya
Oleh	:	Anggi Meika Pratamasari
NIM	:	0710330014
Jurusan	:	Sastra Inggris

Dan saya menyatakan bersedia memberikan data yang diperlukan untuk kepentingan:*

1. Skripsi
2. Jurnal (dipublikasikan)
3. Skripsi dan Jurnal

**Lingkari poin yang disetujui*

Mahasiswa

Candy

.....

LEMBAR PERSETUJUAN

Word Association Test (tes asosiasi kata) adalah suatu tes yang bertujuan untuk mengetahui bagaimana suatu kata disimpan dalam otak manusia. Tes dilakukan dengan memberikan stimulus kata dan responden diharapkan mengutarakan satu kata pertama yang terlintas di otak mereka ketika mendengar stimulus tersebut. Dengan tes ini, bisa diketahui bahwa kata bisa disimpan di otak dengan berbagai cara dan tiap orang mungkin memiliki cara sendiri bagaimana menghubungkan satu kata dengan kata lain agar kata itu mudah untuk diutarakan.

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NIM : 0710330014
Jurusan : Sastra Inggris

Dan saya menyatakan bersedia memberikan data yang diperlukan untuk kepentingan:*

1. Skripsi
2. Jurnal (dipublikasikan)
3. Skripsi dan Jurnal

**Lingkari poin yang disetujui*

Mahasiswa

Khoe Ika Noviyanti

LEMBAR PERSETUJUAN

Word Association Test (tes asosiasi kata) adalah suatu tes yang bertujuan untuk mengetahui bagaimana suatu kata disimpan dalam otak manusia. Tes dilakukan dengan memberikan stimulus kata dan responden diharapkan mengutarakan satu kata pertama yang terlintas di otak mereka ketika mendengar stimulus tersebut. Dengan tes ini, bisa diketahui bahwa kata bisa disimpan di otak dengan berbagai cara dan tiap orang mungkin memiliki cara sendiri bagaimana menghubungkan satu kata dengan kata lain agar kata itu mudah untuk diutarakan.

Saya yang bertanda tangan di bawah ini menyatakan bersedia untuk menjadi partisipan dalam penelitian tentang *Word Association Test* dalam skripsi:

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Oleh	:	Anggi Meika Pratamasari
NIM	:	0710330014
Jurusan	:	Sastra Inggris

Dan saya menyatakan bersedia memberikan data yang diperlukan untuk kepentingan:*

1. Skripsi
2. Jurnal (dipublikasikan)
3. Skripsi dan Jurnal

**Lingkari poin yang disetujui*

Mahasiswa

Rishana Sari

Appendix 2: Word Association Questionnaire

Word Association Questionnaire

Name: _____

TOEIC score: _____

Please write down the first word or phrase that you think of after hearing or reading each stimulus word and state your reason!

1. Green
   Response : _____
   Reason : _____

2. In
   Response : _____
   Reason : _____

3. Ouch
   Response : _____
   Reason : _____

4. Japan
   Response : _____
   Reason : _____

5. Black
   Response : _____
   Reason : _____

6. Tsunami
   Response : _____
   Reason : _____

7. Baby
   Response : _____
   Reason : _____

8. Family
   Response : _____
   Reason : _____

Appendix 3: Examples of Word Association Questionnaire Result

Word Association Questionnaire

Name: Candy

TOEIC score: 765

Please write down the first word or phrase that you think of after hearing or reading each stimulus word and state your reason!

1. Green
   Response : tree
   Reason : I like trees. It makes me feel fresh.

2. In
   Response : room
   Reason : Entering a room (? haha)

3. Ouch
   Response : pain
   Reason : When I hit a wall. Atau tersandung batu >.<

4. Japan
   Response : Flag
   Reason : red round in the middle of white

5. Black
   Response : coffee
   Reason : I love coffee ☺

6. Tsunami
   Response : waves
   Reason : Very very big. enormous waves

7. Baby
   Response : red
   Reason : It skin is red ^^

8. Family
   Response : love
   Reason : family loves is never ends.

Word Association Questionnaire

Name: Ika

TOEIC score: 430

Please write down the first word or phrase that you think of after hearing or reading each stimulus word and state your reason!

1. Green
   Response : tree
   Reason : warna pohon hijau → daunnya sih
2. In
   Response : room
   Reason : didalam→ruangan
3. Ouch
   Response : sick
   Reason : kalau org sakit biasanya mengaduh
4. Japan
   Response : Style
   Reason : Japan style - harajuku terkenal
5. Black
   Response : cool
   Reason : warna hitam keren
6. Tsunami
   Response : Die & water
   Reason : Tsunami menyangkut air & membawa kematian
7. Baby
   Response : cute
   Reason : Bayi biasanya lucu, imut
8. Family
   Response : important
   Reason : keluarga no 1 !

Word Association Questionnaire

Name: Ristiana Sari

TOEIC score: 290

Please write down the first word or phrase that you think of after hearing or reading each stimulus word and state your reason!

1. Green
   Response : Grass
   Reason : karena aku sering nyumpul di Green Grass jadi sering melontarkan kata tersebut
2. In
   Response : the House
   Reason : asik aja.
3. Ouch
   Response : Pain
   Reason : aku sering spontan ngomong itu saat sakit, maksudnya kesakitan
4. Japan
   Response : Technology
   Reason : di dunia Technology paling Hebat adalah Jepang
5. Black
   Response : I am
   Reason : aku suka Hitam
6. Tsunami
   Response : Aceh
   Reason : Peristiwa tsunami di aceh sangat Dahsyat dan Peristiwa tsunami pertama yang aku tau
7. Baby
   Response : Yuu Shirota
   Reason : Baby ku Yuu shirota, aku suka YouShirota
8. Family
   Response : Home
   Reason : tempat kumpul keluargaku

Appendix 4: Responses of Japanese Study Program Students in Elementary Level

Stimulus Words	Type			Responses
Green (Adj, N, V)	C	-		
	S	COL		3 Grass (N, V), 2 Leaf (N, V)
		MWI		It is cool
	P	COO	ANT	
		SYN		
		HYP	SUP	Colour (N, V)
			SUB	
		MER		
	EK	-		*Lampu lalu- lintas* (N), nature (N)
	Other	-		
In (Prep, Adv, Adj, N)	C	-		
	S	COL		Inside (prep, adv, N, adj)
		MWI		In the house, in the hotel, in the campus
	P	COO	ANT	Out (adv, prep, N, V)
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		*Pintu* (N), indoor (adj), door (N)
	Other	-		Something (pron)
Ouch (Exclamation)	C	-		Touch (V)
	S	COL		
		MWI		Oh my God
	P	COO	ANT	
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		Pain (N, V), ill (adj, adv, N), 2 *sakit* (adj, adv, N), sick (adj, N, V), shock (N, V), *kejedot pintu*
	Other	-		
Japan (N)	C	-		
	S	COL		Japanese (N)
		MWI		Japanese Study Program (N), my future
	P	COO	ANT	
		SYN		
		HYP	SUP	Country (N)
			SUB	
		MER		
	EK	-		Japan Foundation (N), Technology (N), sakura (N), Iizuka (N), kanji (N)
	Other	-		
Black (N, Adj)	C	-		
	S	COL		Hair (N)
		MWI		I am, my eye liner
	P	COO	ANT	White (adj, N)
		SYN		
		HYP	SUP	Colour (N, V)
			SUB	
		MER		

Table continued…

Stimulus Words	Type			Responses
	EK	-		Mysterious (adj), dark (adj, N), helmet (N), scary (adj)
	Other	-		
Tsunami (N)	C	-		
	S	COL		Aceh (N), Japan (N), *Jepang* (N)
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	Disaster (N)
			SUB	
		MER		Water (N, V)
	EK	-		2 Scary (adj), damage (N, V)
	Other	-		
Baby (N, Adj, V)	C	-		
	S	COL		2 Cute (adj), crying (adj, N)
		MWI		My love, my honey
	P	COO	ANT	
		SYN		Child (N)
		HYP	SUP	
			SUB	
		MER		
	EK	-		Yu Shirota (N), funny (adj), cry (V)
	Other	-		
Family (N, Adj)	C	-		
	S	COL		
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	
			SUB	Mother (N)
		MER		
	EK	-		2 Home (N, adj, adv, V), protect (V), 2 love (N, V), tour (N, V), recreation (N), live (adj, V)
	Other	-		

C= Clang, S= Syntagmatic, P= Paradigmatic, EK= Encyclopedic Responses, COL= Collocation, MWI= Multi Word Items, COO= Coordination, ANT= Antonym, SYN= Synonym, HYP= Hyponymy, SUP= Superordinate, SUB= Subordinate, MER= Meronym

Appendix 5: Responses of Japanese Study Program Students in Intermediate Level

Stimulus Words	Type			Responses
Green (Adj, N, V)	C	-		
	S	COL		Leaf (N, V), *leav (N, V) 2 tea (N)
		MWI		My room
	P	COO	ANT	
		SYN		
		HYP	SUP	Colour (N)
			SUB	
		MER		
	EK	-		3 Tree (N)
	Other	-		
In (Prep, Adv, Adj, N)	C	-		
	S	COL		2 Room (N)
		MWI		In my room, my house
	P	COO	ANT	3 Out (adv, prep, N, V)
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		Bedroom (N), inbox (N)
	Other	-		
Ouch (Exclamation)	C	-		Voucher (N)
	S	COL		Hurt (V, adj, N), scream (V, N)
		MWI		
	P	COO	ANT	
		SYN		*Aduh* (excl)
		HYP	SUP	
			SUB	
		MER		
	EK	-		Stomachache (N), 2 sick (adj, N, V), *bisul* (N), pain (N, V)
	Other	-		
Japan (N)	C	-		
	S	COL		
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	Country (N)
			SUB	
		MER		
	EK	-		Wonderful (adj), discipline (N, V), 2 harajuku (N), Tsunami (N), sakura (N), sushi (N), Miyabi (N)
	Other	-		
Black (N, Adj)	C	-		
	S	COL		
		MWI		My pen, black market
	P	COO	ANT	White (N)
		SYN		
		HYP	SUP	Colour (N)
			SUB	
		MER		

Table continued….

Stimulus Words	Type			Responses
	EK	-		2 Dark (adj, N), cool (adj, V, N), gothic (adj, N), skin (N)
	Other	-		
Tsunami (N)	C	-		
	S	COL		Victims (N), Aceh (N), earthquake (N), *gempa* (N), Japan (N)
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	2 Disaster (N)
			SUB	
		MER		2 Water (N, V)
	EK	-		
	Other	-		
Baby (N, Adj, V)	C	-		
	S	COL		*Borth (V, adj), crying (adj, N), 2 Cute (adj)
		MWI		Father- mother (N)
	P	COO	ANT	
		SYN		child (N)
		HYP	SUP	
			SUB	
		MER		
	EK	-		Parents (N), Girls' Generation (N), funny (adj)
	Other	-		
Family (N, Adj)	C	-		
	S	COL		
		MWI		My soul, five people, many people
	P	COO	ANT	
		SYN		
		HYP	SUP	
			SUB	*Ayah* (N), sister (N), mother (N)
		MER		
	EK	-		Important (adj), happiness (N)
	Other	-		Everything (pron)

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Appendix 6: Responses of Japanese Study Program Students in Basic Working Proficiency Level

Stimulus Words	Type			Responses
Green (Adj, N, V)	C	-		
	S	COL		2 Grass (N, V), Leaf (N, V)
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	Colour (N)
			SUB	
		MER		
	EK	-		Tree (N), *Persebaya* (N)
	Other	-		
In (Prep, Adv, Adj, N)	C	-		
	S	COL		Room (N)
		MWI		Come- in
	P	COO	ANT	3 Out (adv, prep, N, V)
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		
	Other	-		Preposition
Ouch (Exclamation)	C	-		
	S	COL		Hurt (V, adj, N)
		MWI		
	P	COO	ANT	
		SYN		*Aduh* (excl)
		HYP	SUP	
			SUB	
		MER		
	EK	-		3 Pain (N, V), sick (adj, N, V)
	Other	-		
Japan (N)	C	-		
	S	COL		
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	
			SUB	
		MER		
	EK	-		Flag (N), beautiful (adj), sushi (N), Tokyo (N), strong (adj), developed (adj)
	Other	-		
Black (N, Adj)	C	-		
	S	COL		Hair (N)
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	Colour (N)
			SUB	

Table continued….

Stimulus Words	Type			Responses
		MER		
	EK	-		2 Coffee (N), car (N), scary (adj)
	Other	-		
Tsunami (N)	C	-		
	S	COL		
		MWI		
	P	COO	ANT	
		SYN		
		HYP	SUP	Disaster (N)
			SUB	
		MER		Waves (N), water (N, V)
	EK	-		2 Scary (adj), ocean (N)
	Other	-		
Baby (N, Adj, V)	C	-		
	S	COL		2 Cute (adj)
		MWI		
	P	COO	ANT	Adult (N, adj)
		SYN		
		HYP	SUP	
			SUB	
		MER		Hand (N, V), nose (N)
	EK	-		Weak (adj)
	Other	-		
Family (N, Adj)	C	-		
	S	COL		
		MWI		
	P	COO	ANT	Enemy (N)
		SYN		
		HYP	SUP	
			SUB	2 Parents (N)
		MER		
	EK	-		Love (N, V), united (adj), warm (adj, V, adv, N)
	Other	-		

C= Clang, S= Syntagmatic, P= Paradigmatic, EK= Encyclopedic Responses, COL= Collocation, MWI= Multi Word Items, COO= Coordination, ANT= Antonym, SYN= Synonym, HYP= Hyponymy, SUP= Superordinate, SUB= Subordinate, MER= Meronym

Appendix 7: Berita Acara Bimbingan Skripsi

KEMENTERIAN PENDIDIKAN NASIONAL
UNIVERSITAS BRAWIJAYA
FAKULTAS ILMU BUDAYA
Jalan Mayjen Haryono No. 169 Malang 65145
Telp. (0341) 551611 Pes. 309 Telex. No. 31873 Fax. (0341) 565420
Telp. (0341) 575822 (direct) Fax. (0341) 575822 (direct)

BERITA ACARA BIMBINGAN SKRIPSI

1. Nama : Anggi Meika Pratamasari
2. NIM : 0710330014
3. Program Studi : Sastra Inggris
4. Topik Skripsi : Psycholinguistics
5. Judul Skripsi : Word Association Responses and their Relationship with Lexical Storage (A Case Study of Word Association Test on Japanese Study Program Students University of Brawijaya)
6. Tanggal Mengajukan : 1 Maret 2011
7. Tanggal Selesai Revisi : 26 Juli 2011
8. Nama Pembimbing : I. Fatimah, M.Appl.Ling.
   II. Ida Puji Lestari, S.Pd.
9. Keterangan Konsultasi

No.	Tanggal	Materi	Pembimbing	Paraf
1.	1 Maret 2011	Pengajuan judul	Pembimbing I	
2.	4 Maret 2011	Persetujuan judul	Pembimbing I	
3.	4 Maret 2011	Persetujuan judul	Pembimbing II	
4.	16 Maret 2011	Penyerahan dan konsultasi Bab I	Pembimbing I	
5.	17 Maret 2011	Penyerahan dan konsultasi Bab I	Pembimbing II	
6.	28 Maret 2011	Pembahasan Bab I- III	Pembimbing I	
7.	4 April 2011	Pembahasan Bab I- III dan ACC Seminar Proposal	Pembimbing I	
8.	4 April 2011	Pembahasan Bab I- III dan ACC Seminar Proposal	Pembimbing II	
9.	26 April 2011	Pembahasan revisi proposal	Pembimbing I	
10.	28 April 2011	Pembahasan revisi proposal	Pembimbing II	
11.	11 Mei 2011	Pembahasan Bab IV- V	Pembimbing I	

Lanjutan…

No.	Tanggal	Materi	Pembimbing	Paraf
12.	26 Mei 2011	Pembahasan Bab I- V dan *front pages*	Pembimbing I	
13.	16 Juni 2011	Pembahasan Bab I- V, *front pages*, *appendices*, dan ACC Seminar Hasil	Pembimbing I	
14.	16 Juni 2011	Pembahasan Bab I- V dan *front pages* dan ACC Seminar Hasil	Pembimbing II	
15.	1 Juli 2011	Revisi setelah Seminar Hasil dan ACC ujian	Penguji II	
16.	4 Juli 2011	Revisi setelah Seminar Hasil dan ACC ujian	Penguji I	
17.	6 Juli 2011	Revisi setelah Seminar Hasil dan ACC ujian	Pembimbing I	
18.	6 Juli 2011	Revisi setelah Seminar Hasil dan ACC ujian	Pembimbing II	
19.	25 Juli 2011	Revisi setelah ujian dan ACC jilid	Penguji I	
20.	26 Juli 2011	Revisi setelah ujian dan ACC jilid	Penguji II	
21.	26 Juli 2011	Revisi setelah ujian dan ACC jilid	Pembimbing I	
22.	26 Juli 2011	Revisi setelah ujian dan ACC jilid	Pembimbing II	

Telah dievaluasi dan diuji dengan nilai:

Malang, 28 Juli 2011

Dosen Pembimbing I

Fatimah, M.Appl.Ling.
NIP. 19751125 200212 2 002

Dosen Pembimbing II

Ida Puji Lestari, S.Pd

Mengetahui,
Ketua Jurusan Bahasa dan Sastra

Syariful Muttaqin, M.A.
NIP. 19751101 200312 1 001