

## CHAPTER III

### RESEARCH DESIGN

This chapter explains the research methodology. In the cover of the research design, participants and data collection.

#### 3.1 Research design

This research is conducted to identify vocabulary strategy applied in Madrasah Aliyah students.

The research of vocabulary learning strategies is done by applying a quantitative research method. According to Creswell (2012) in quantitative research, researchers use the instrument to observe, measure and collect data related subject studied. The research design is survey and uses questionnaire as the instrument. Furthermore, this study focuses on using survey whereby to collect quantitative data by distributing questionnaires and analysing statistical data to find out the results of research questions.

#### 3.2 Population and Sample

MAN 4 Sleman is a public school in Sleman Regency which is located in Kaliurang KM 16 and a bit far from the city center and also MAN 4 Sleman is great demand by teenagers there. The English language subject has been a challenge, especially for 11<sup>th</sup> grade. They have low motivation in attending English classes. The students need to more motivation in English vocabulary because they have less knowledge about vocabulary. Therefore students feel they have to learn English independently and choose the right strategy to foster their vocabulary in language learning. All students in 11th grade have different self-awareness in vocabulary learning skills.

Therefore 11th grade students were chosen as the target population of the study. According to Sugiyono (2011) the population is a target that has its own characteristics that have been determined by researchers to be studied and taken conclusions. Based on a Madrasah Aliyah students, there are 205 population of students in 7 classes (3 natural science classes and 3 social classes and 1 Religion class)

Creswell (2012) states that a survey research is conducted by selecting and taking the possibility of samples from the population. Then generalize the results from the sample to the population. To calculate total sample from population this research using Slovin's formula. The Slovin's formula below :

$$n = \frac{N}{1+Ne^2}$$

Explanation:

n = Number of Sample

N = Population

e = Error rate (5% = 0,05)

To determine the number of samples to be used, the researcher chose to use an error rate of 5%. The higher the error rate, the smaller the sample size. The estimated amount of this study is 205, with the above calculation, the estimation results are as follows:

$$n = \frac{205}{1+(205)(0,05^2)}$$

$$n = \frac{205}{1,512}$$

$n = 135,582$  or 135 students

So, the total a sample is 135,582 participants. Because in the calculation produces a fraction), then the fraction is rounded off. From the population the number of samples to be used is 135 students.

### 3.3 Data Collection Techniques

This quantitative research describes data collection techniques which are instrument, validity and reliability.

#### 3.3.1 Instruments

The instrument used in this research is questionnaire. Yunhao (2011) states researchers are facilitated with instruments to measure variables. The questionnaire uses Schmitt's (1997) taxonomy which is developed to VLS research instrument by Yeh and Wang (2004). In this research context, Yeh and Wang's (2004) VLS questionnaire is translated into Indonesia from Mandarin.

**Table 3.1 Indonesian Version of Yeh and Wang (2004)'s Questionnaire**

| Item | Statement   | Strategy Group                 |
|------|---|--------------------------------|
| 1    | Saya akan menganalisis jenis kata (kata kerja, kata benda, kata sifat atau kata keterangan.) dari sebuah kata baru untuk menentukan maknanya. |                                |
| 2    | Saya akan menganalisis bentuk kata dasar, awalan atau akhiran untuk mengetahui makna kata. Contohnya: im-possible = tidak mungkin             |                                |
| 3    | Saya akan menebak makna sebuah kata dari konteksnya.  | Determination Strategies (DET) |
| 4    | Saya akan menggunakan kamus Bahasa Inggris-Bahasa Indonesia untuk mengetahui makna sebuah kata.   |                                |

|    |  |
|----|--|
| 5  | Saya akan menggunakan kamus Bahasa Inggris-Bahasa Inggris untuk mengetahui makna sebuah kata.  |
| 6  | Saya akan menggunakan kamus Bahasa Indonesia-Bahasa Inggris, kamus Bahasa Inggris-Bahasa Indonesia untuk mengetahui makna sebuah kata.   |
| 7  | Saya akan menggunakan kamus elektronik untuk mengetahui makna sebuah kata.   |
| 8  | Saya akan meminta guru untuk menerjemahkan kata yang baru menjadi Bahasa Indonesia.  |
| 9  | Saya akan meminta guru untuk memberikan sinonim dari kata yang baru.   |
| 10 | Saya akan meminta guru untuk memberikan contoh suatu kalimat yang terdapat kata baru tersebut.   |
| 11 | Saya akan menanyakan makna sebuah kata pada teman sekelas saya.  |
| 12 | Saya akan mencari tahu makna sebuah kata itu melalui diskusi kelompok.   |
| 13 | Saya akan melatih kata yang telah saya pelajari dengan teman sekelas saya.   |
| 14 | Saya akan menggunakan kata-kata yang baru saya ketahui untuk berbicara dengan penutur asli Bahasa Inggris.   |
| 15 | Saya akan memasang kata dengan gambar yang mewakili kata itu.  |
| 16 | Saya akan memberikan suatu gambaran terkait makna dari suatu kata ke dalam pikiran saya. Contohnya, ketika Anda belajar tentang <i>cloud</i> , di pikiran saya akan muncul langit. |

Social Strategies  
(SOC)

- 
- 17 Saya akan menghubungkan kata dengan pengalaman pribadi saya. Contohnya, ketika belajar tentang *rain*, saya memikirkan pengalaman saya ketika menikmati hujan bersama teman-teman.
- 
- 18 Saya akan menghubungkan satu kata ke kata yang terkait dengannya, misalnya: ketika belajar kosakata apel, saya juga memikirkan buah-buahan lainnya, seperti pir, pisang, dan lain-lain
- 
- 19 Ketika saya belajar sebuah kata, saya memperhatikan sinonim (makna kata yang sama) dan antonim (makna kata yang berlawanan), sebagai contoh: ketika belajar kosakata *beautiful*, saya belajar maknanya dapat berarti cantik untuk sinonim, dan *ugly* (jelek) untuk antonim.
- 
- 20 Saya akan mengelompokkan kata-kata yang akan dipelajari. Contohnya: nama benda-benda di ruang kelas.
- 
- 21 Saya akan menggunakan kata yang baru saya pelajari untuk membuat kalimat.
- 
- 22 Saya akan menggabungkan beberapa kata baru dan menghubungkannya ke dalam sebuah cerita untuk membantu saya mengingat.
- 
- 23 Ketika saya mempelajari suatu kata, saya akan mengingat ejaannya.
- 
- 24 Ketika saya mempelajari suatu kata, saya akan memperhatikan pengucapan dan peruntukannya.
- 
- 25 Ketika saya mempelajari suatu kata, saya akan membacanya keras-keras.
- 

Memory Strategies  
(MEM)

- 
- 26 Saya akan menggarisbawahi kata baru untuk meningkatkan kesan saya.
- 
- 27 Saya akan mencari padanan suara homofonik bahasa Indonesia yang mirip dengan pengucapan bahasa Inggris untuk membantu menghafal kata baru.
- 
- 28 Saya akan mengingat kata dasar, awalan dan akhiran dari suatu kata.
- 
- 29 Saya akan mengingat kata baru dari cara pengucapannya.
- 
- 30 Saya akan melihat deskripsinya pada teks untuk menjelaskan makna suatu kata. Contohnya: *housekeeper* diinterpretasi sebagai orang yang merawat suatu rumah.
- 
- 31 Saya akan menuliskan seluruh frase atau idiom yang berhubungan dengan suatu kata.
- 
- 32 Saya akan menggunakan gerakan fisik untuk membantu mengingat kata baru. Contohnya: Saya melompat dan ingat kata "*jump*".
- 
- 33 Saya akan mengulang arti kata untuk mengingatnya.
- 
- 34 Saya akan menulis kata berulang-ulang untuk mengingatnya.
- 
- 35 Saya menggunakan tabel untuk mengingat (satu tabel berisi kosakata bahasa Inggris tabel lainnya arti bahasa Indonesia).
- 
- 36 Saya akan menggunakan satu kartu kosakata untuk mengingat kosakata baru (kartu ditulis dengan kosakata bahasa Inggris di satu sisi, sisi lain menulis artinya dalam bahasa Indonesia).
- 
- 37 Saya akan membuat catatan kosakata baru selama pelajaran.
-

|    |  |                            |                                |
|----|--|----------------------------|--------------------------------|
| 38 | Saya akan menggunakan konteks dalam teks untuk menjelaskan arti suatu kata.  | Cognitive Strategies (COG) |                                |
| 39 | Saya akan mendengarkan rekaman daftar kosakata.  |                            |                                |
| 40 | Saya akan meletakkan label bahasa Inggris pada objek untuk membantu saya mengingat kosakata itu, misalnya: beri label <i>vase</i> di vas bunga |                            |                                |
| 41 | Saya akan selalu membawa buku catatan untuk mencatat kosakata yang baru.   |                            |                                |
| 42 | Saya akan menggunakan lagu berbahasa Inggris untuk belajar kata baru.  |                            |                                |
| 43 | Saya akan menonton video terkait pengucapan dalam bahasa Inggris untuk belajar kosakata.   |                            |                                |
| 44 | Saya akan membaca koran berbahasa Inggris untuk belajar kosakata.  |                            |                                |
| 45 | Saya akan membaca majalah bahasa Inggris untuk belajar kosakata.   |                            |                                |
| 46 | Saya akan membaca bahan bacaan bahasa Inggris untuk mempelajari kata baru (seperti: novel, cerita pendek, dan lain-lain.)                      |                            | Metacognitive Strategies (MET) |
| 47 | Saya akan mendengarkan program radio Bahasa Inggris untuk belajar kosakata.  |                            |                                |
| 48 | Saya akan menggunakan tes kosakata untuk menguji apakah saya dapat mengingat kosakata baru.  |                            |                                |
| 49 | Saya akan selalu meninjau kosakata yang telah saya pelajari setiap saat.   |                            |                                |
| 50 | Saya akan mengabaikan kata baru yang saya temukan.   |                            |                                |

### 3.3.1.1 Questionnaire

In this study, researchers use questionnaire from Yeh and Wang (2004)'s Vocabulary Learning Strategies (VLS) as an instrument in this study. This study focuses on how students' strategies are when they learn vocabulary. This questionnaire used 5 Likert-scale, namely: 1 for never; 2 for seldom; 3 for sometimes; 4 for often; and 5 for always. This questionnaire consists of 50 statements which there are 5 strategies, namely: determination strategies (DET) for statement number 1,2,3,4,5,6, and 7; social strategies (SOC) for statement number 8,9,10,11,12,13 and 14; memory strategies (MEM) for statement number 15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31 and 32; cognitive strategies (COG) for statement number 33,34,35,36,37,38,39,40 and 41; and metacognitive strategies (MET) for statement number 42,43,44,45,46,47,48,49 and 50. Determination strategies have 7 items, Social Strategies have 7 items, Memory Strategies have 18 items, Cognitive Strategies have 9 items, and Metacognitive Strategies have 9 items.

### 3.3.2 Validity and Reliability

#### 3.3.2.1 Validity

According to Widoyoko (2013) internal validity is divided into content validity and constructs validity. Content validity is arranged based on material that students have learned or competencies developed in learning activities while construct validity defines to what extent an instrument measures the conceptual framework based on a theory. Construct validity can be tested by expert judgment and field trial. The researcher use SPSS to find the validity of each items by doing a field trial for 30 participants from population. It is recommended that a survey study have 10-30 participants as pilot study (Johanson & Brooks, 2009)

Table 3.3.2.1. Validity of per-items

| Item | Pearson correlation | R-table | Criteria |
|------|---------------------|---------|----------|
|------|---------------------|---------|----------|



|    |       |       |       |
|----|-------|-------|-------|
| 1  | 0.916 | 0.361 | Valid |
| 2  | 0.926 | 0.361 | Valid |
| 3  | 0.834 | 0.361 | Valid |
| 4  | 0.916 | 0.361 | Valid |
| 5  | 0.407 | 0.361 | Valid |
| 6  | 0.965 | 0.361 | Valid |
| 7  | 0.979 | 0.361 | Valid |
| 8  | 0.947 | 0.361 | Valid |
| 9  | 0.948 | 0.361 | Valid |
| 10 | 0.828 | 0.361 | Valid |
| 11 | 0.927 | 0.361 | Valid |
| 12 | 0.916 | 0.361 | Valid |
| 13 | 0.926 | 0.361 | Valid |
| 14 | 0.834 | 0.361 | Valid |
| 15 | 0.407 | 0.361 | Valid |
| 16 | 0.965 | 0.361 | Valid |
| 17 | 0.965 | 0.361 | Valid |
| 18 | 0.893 | 0.361 | Valid |
| 19 | 0.916 | 0.361 | Valid |
| 20 | 0.965 | 0.361 | Valid |
| 21 | 0.965 | 0.361 | Valid |
| 22 | 0.979 | 0.361 | Valid |
| 23 | 0.947 | 0.361 | Valid |
| 24 | 0.948 | 0.361 | Valid |
| 25 | 0.407 | 0.361 | Valid |
| 26 | 0.916 | 0.361 | Valid |
| 27 | 0.965 | 0.361 | Valid |
| 28 | 0.965 | 0.361 | Valid |
| 29 | 0.893 | 0.361 | Valid |
| 30 | 0.916 | 0.361 | Valid |
| 31 | 0.965 | 0.361 | Valid |
| 32 | 0.965 | 0.361 | Valid |
| 33 | 0.979 | 0.361 | Valid |
| 34 | 0.916 | 0.361 | Valid |
| 35 | 0.965 | 0.361 | Valid |
| 36 | 0.965 | 0.361 | Valid |
| 37 | 0.893 | 0.361 | Valid |
| 38 | 0.916 | 0.361 | Valid |
| 39 | 0.965 | 0.361 | Valid |
| 40 | 0.565 | 0.361 | Valid |
| 41 | 0.979 | 0.361 | Valid |
| 42 | 0.916 | 0.361 | Valid |
| 43 | 0.965 | 0.361 | Valid |
| 44 | 0.965 | 0.361 | Valid |
| 45 | 0.893 | 0.361 | Valid |

|    |       |       |       |
|----|-------|-------|-------|
| 46 | 0.916 | 0.361 | Valid |
| 47 | 0.570 | 0.361 | Valid |
| 48 | 0.965 | 0.361 | Valid |
| 49 | 0.979 | 0.361 | Valid |
| 50 | 0.407 | 0.361 | Valid |

Based on the tabel above all items are proven to be valid after being analyzed by SPSS

25 Statistics because the value of Pearson Correlation is higher than the value of r table.

### 3.3.2.2 Reliability

According to Widoyoko (2013) the test can be reliable if the results given by the test consistent despite repeated testing. It means that the questionnaire will give the same results even though it is used more than once. Based on Cronbach's Alpha for reliability from this questionnaire:

Table 3.3.2.2 Reliability of the Instruments

| <i>Cronbach's Alpha for Reliability.</i> |                                     |
|--|-------------------------------------|
| <u>N of items</u>                        | <u>Cronbach <math>\alpha</math></u> |
| 50                                       | .993                                |

The questionnaire of vocabulary learning strategies is filled individually. The time given to participants to fill out biodata ranges from 5 minutes and 20 minutes to fill out the questionnaire on vocabulary learning strategies. After explaining the purpose of this study, the researcher gave the opportunity to participants to ask things that cannot be understood in the questionnaire given. After that, the researcher guided the participants to read the vocabulary learning strategy statements that use a Likert scale where there are 5 scales to choose in each statement. Participants were guided to choose the scale that is most suitable to them that are presented on each column that already exists in the questionnaire table.

### 3.4 Data Analysis

Before doing data analysis, several steps in data collection were rechecked:

1. Reviewed literature about the questionnaire.
2. Adopted Yeh & Wang (2004)' s questionnaire on Vocabulary Learning Strategies as the instrument.
3. Translated the instrument into Bahasa Indonesia
4. Checked each item of VLS questionnaire and ensure its content and construct validity.
5. Tried out the questionnaire into 30 participants
6. Analyzed validity of each item (50 items were proven to be valid)
7. Checked the reliability of the instrument
8. Distributed the questionnaire to the sample (135 students).
9. Organized the data to Microsoft Excell data tabulation.

After the steps of data collection is done, the researcher analyzed descriptive statistics of the data by using SPSS 25 statistics and discussed the findings with relevant studies.

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

This chapter describes and discusses the findings from the data collection to answer the research question: What are student's vocabulary learning strategies to learn English at Madrasah Aliyah in Sleman Regency, Special District of Yogyakarta?

#### 4.1 Research Findings

The general characteristics of the participants shown in the Table 4 below:

| Table 4.1  |           |     |
|--|-----------|-----|
| <i>The characteristics of participants (N=135)</i> |           |     |
| Variables  | Frequency | (%) |
| Genders  |           |     |

|        |    |     |
|--------|----|-----|
| Male   | 52 | 39% |
| Female | 83 | 61% |
| Age    |    |     |
| 15     | 14 | 10% |
| 16     | 87 | 22% |
| 17     | 30 | 65% |
| 18     | 4  | 3%  |

From the table above, there are 135 participants who have followed this study. The results from this questionnaire, there are 52 male students or 39% from all sample of this study and 83 for female students or 61% with age range 15-18 years old who filled out the questionnaire. The participants who have followed this study from second grade students in Madrasah Aliyah in Sleman Regency.

Based on data found by distributing questionnaire and descriptive analysis as tool to calculate data by used SPSS and Microsoft Excel. The data can be described into the table below:

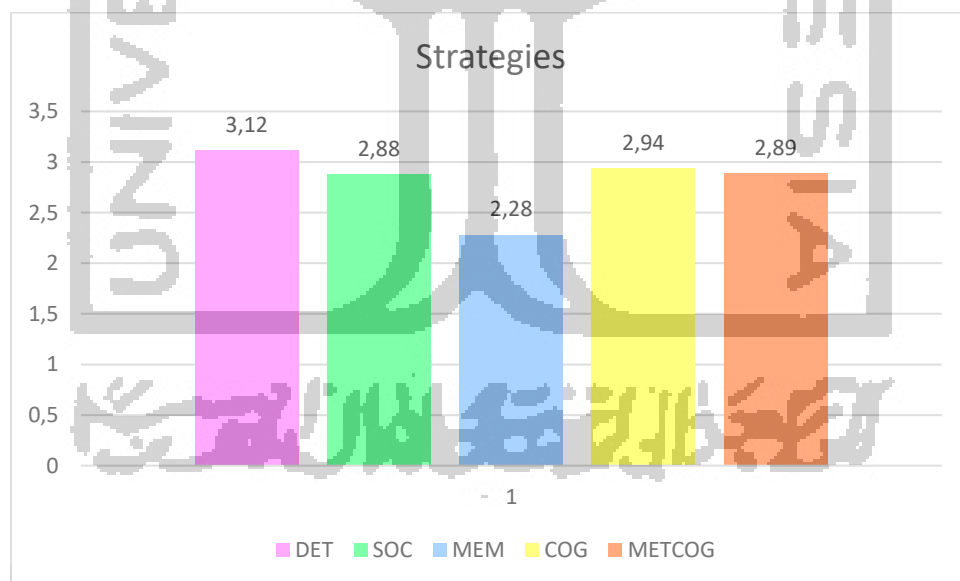


Figure 5.1 Five Domains in Vocabulary Learning Strategies

According on the data above, the survey results of 5 domains of vocabulary learning strategies based on Schmitt (1997) taxonomy are: determination strategies (M=3.12), social strategies (M=2.88), memory strategies (M=2.28), cognitive strategies (M=2.94) and metacognitive strategies (M=2.89) .Determination strategies are the most frequently used strategies (M=3.12) and the least frequently used strategies are memory strategy (M=2.28)



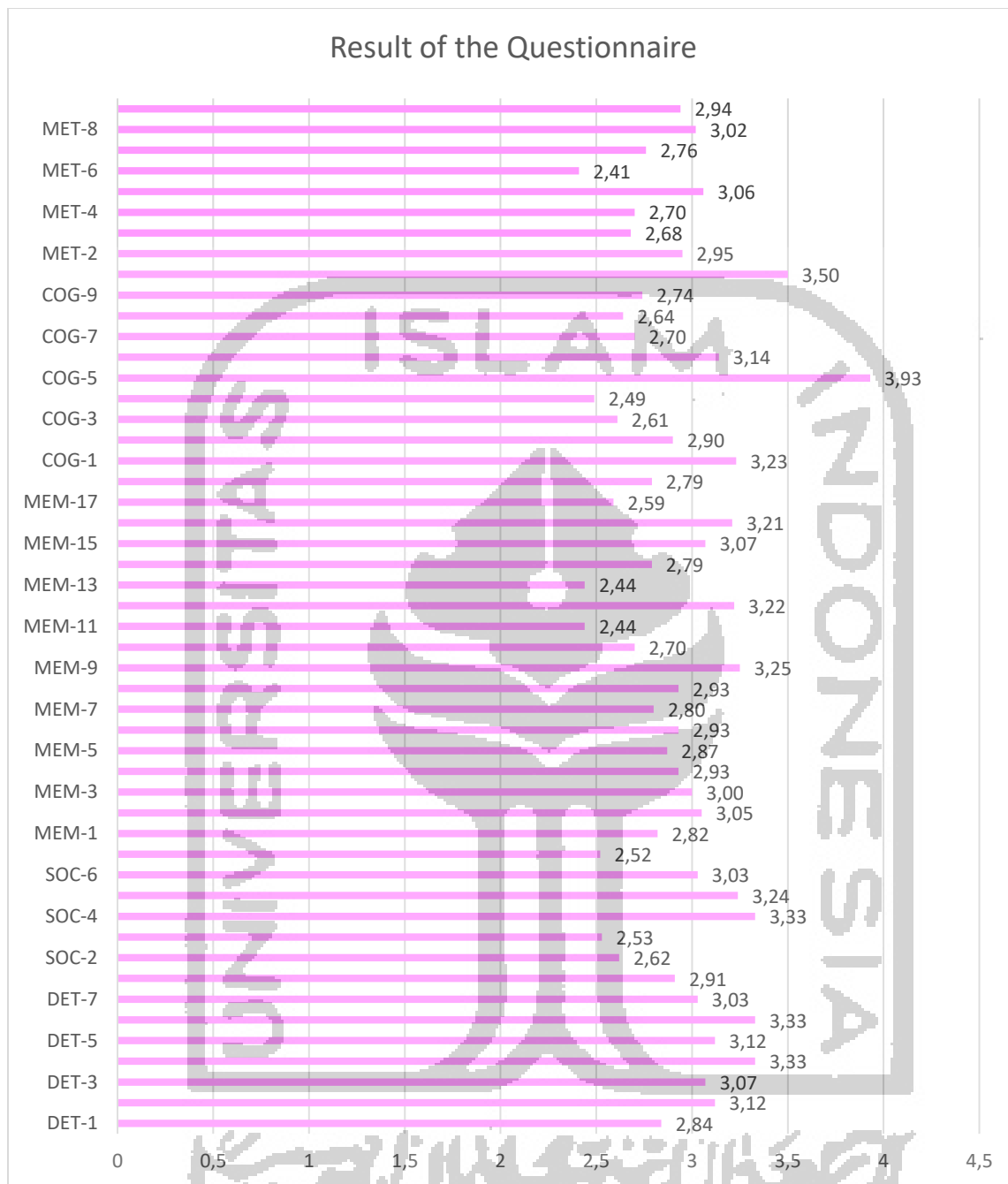


Figure 5.2 Vocabulary Learning Strategies per-Items

Based on the chart above the data obtained from 135 students, the table showed the most frequent strategy is item number 37 (Mean:3.93; SD:0.96) with statement “(Saya akan membuat catatan kosakata baru selama pelajaran)” and the least frequent strategy is item 36

(Mean:2.41;SD:1.12) with statement: “*Saya akan mendengarkan program radio bahasa Inggris untuk belajar kosakata*”.

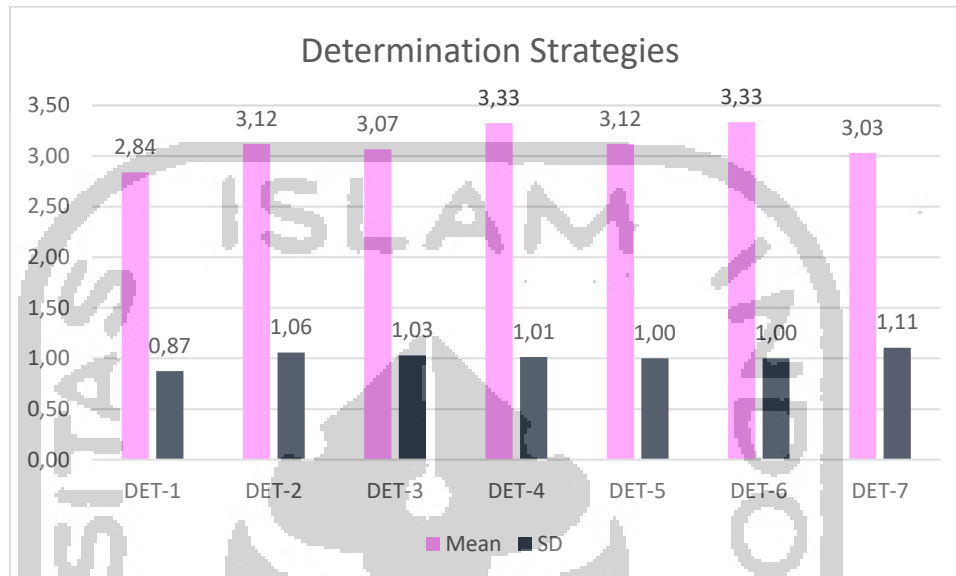


Figure 5.3 Determination Strategies

According to data on the chart above, the most frequently strategy from determination strategies is item DET-4 (*Saya akan menggunakan kamus bahasa Inggris-Indonesia untuk memeriksa arti kosakata*) (M=3.33), the least strategy is item DET-1 (*Saya akan menganalisa kelas kata (kata kerja, kata benda, dan lain-lain) untuk menentukan makna kosakata*) (M=2.84).

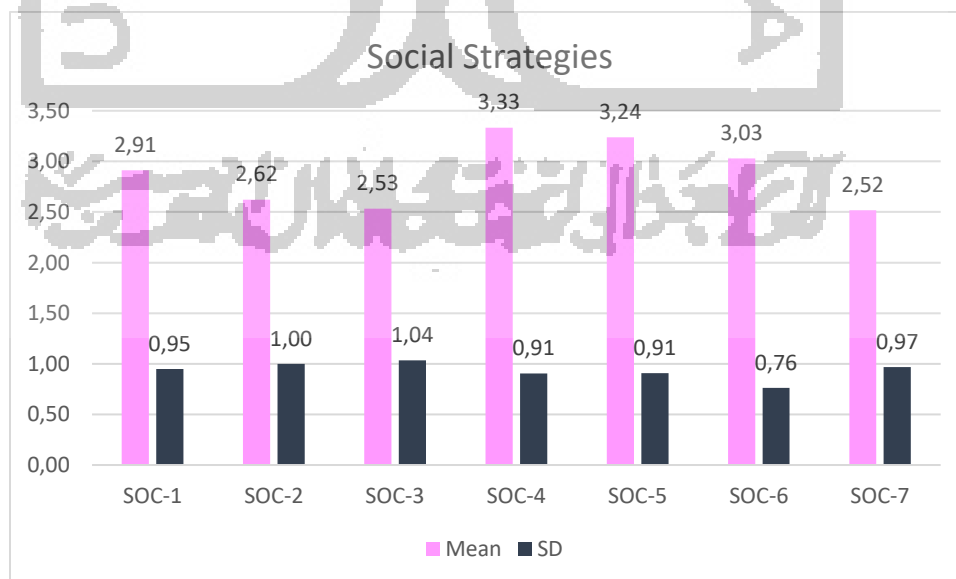


Figure 5.4 Social strategies

Based on result from the table above the most frequently strategy from social strategies is item SOC-4 (*Saya akan menanyakan arti kosakata baru ke teman sekelas saya*) (M=3.33), the least strategy is item SOC-7 (*Saya akan menggunakan kosakata baru untuk berbicara dengan orang-orang Inggris dan Amerika*) (M=2.52)

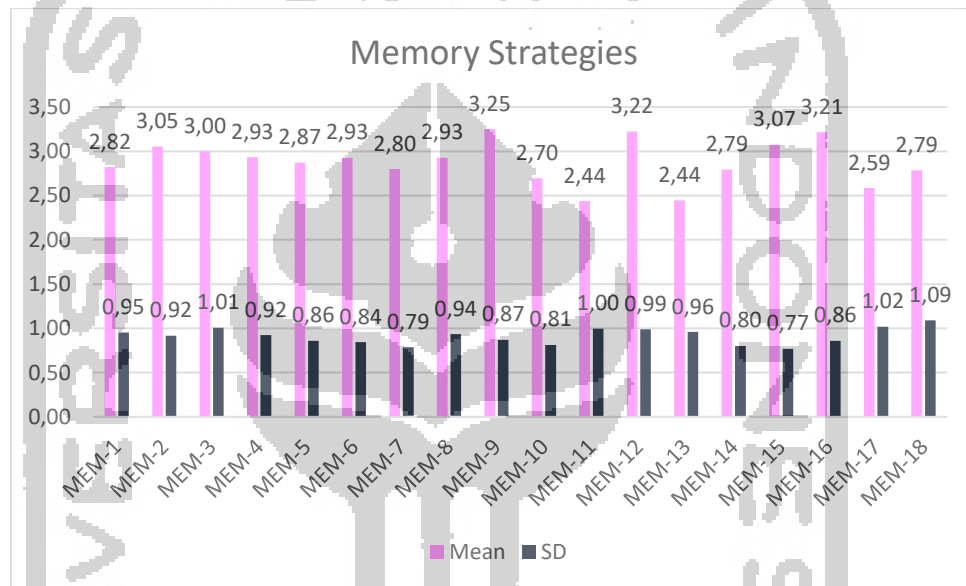


Figure 5.5 Memory strategies

According to the data shown on the chart above, the most frequently strategy is item MEM-9 (*Ketika saya mempelajari sebuah kosakata, saya akan ingat ejaannya*) (M=3.25). The least strategy is item MEM-11 (*Ketika saya belajar sebuah kosakata, saya akan membacanya dengan lantang*) (M=2.44)



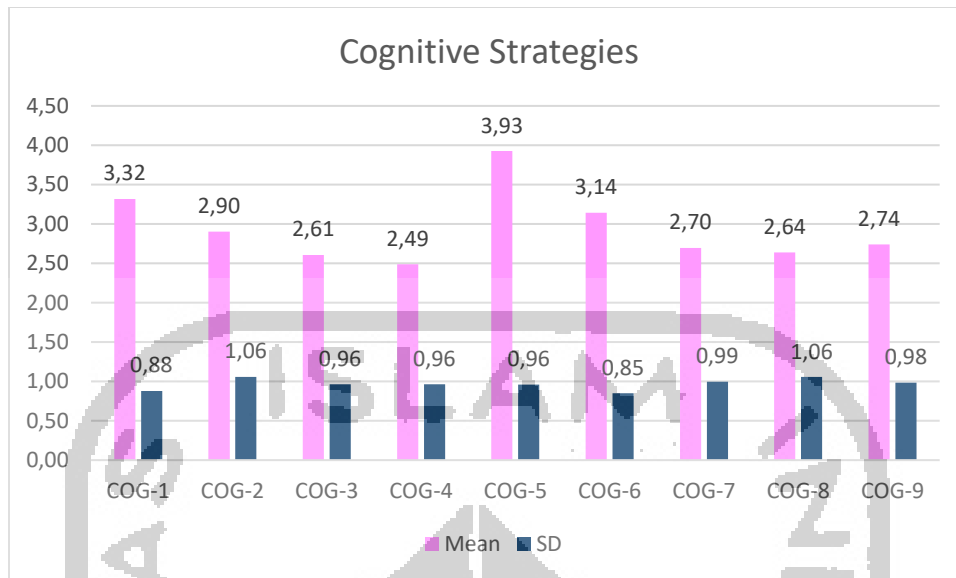


Figure 5.6 Cognitive strategies

Based on the chart shown above the most frequently used strategy is item COG-5 (*Saya akan membuat catatan kosakata baru selama pelajaran*) (M=3.93). The least strategy is item COG-4 (*Saya akan menggunakan satu kartu kosakata untuk mengingat kosakata baru (kartu ditulis kosakata bahasa Inggris di satu sisi, sisi lain menulis arti bahasa Indonesia yang sesuai)*) (M=2.49).

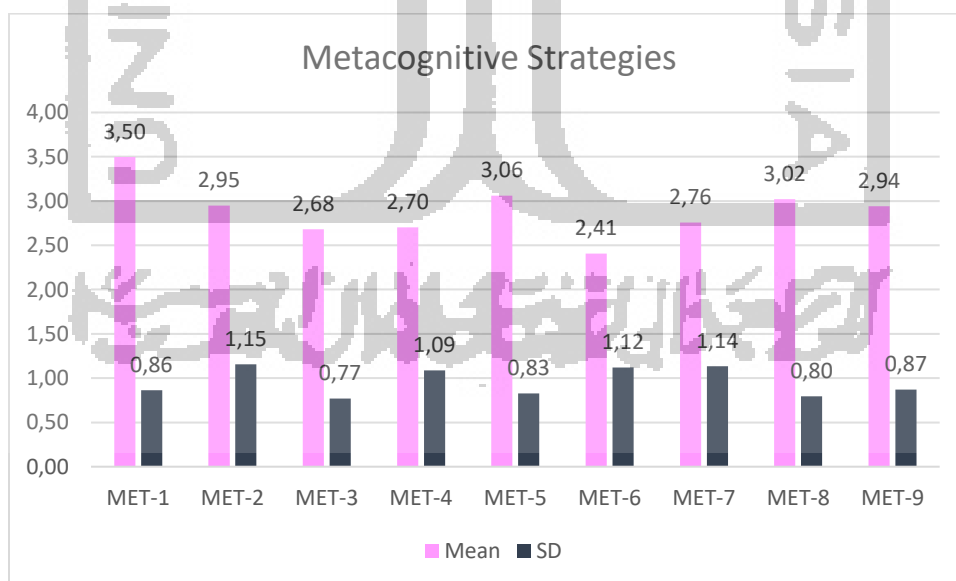


Figure 5.7 Metacognitive strategies

According to chart above, the most frequently used strategy is item MET-1 (*Saya akan menggunakan lagu bahasa Inggris untuk mempelajari kosakata baru*) (M=3.50). The least strategy is MET-6 (*Saya akan mendengarkan program radio bahasa Inggris untuk belajar kosakata*) (M=2.41)

#### **4.2 Discussion**

Based on overall data collected by using vocabulary learning strategies questionnaire, the most frequently used strategies by Madrasah Aliyah students are determination strategies (M=3.12), and then followed by cognitive strategies (M=2.94), next is metacognitive strategies (M=2.89), then is social strategies (M=2.88), and the last is memory strategies with (M=2.28).

The data analysis also shows the most and least frequently used strategy by Madrasah Aliyah students. From determination strategies, the most frequent strategy used by students' is item 4/DET-4 with statement "Saya akan menggunakan kamus bahasa Inggris-Indonesia untuk memeriksa arti kosakata" (M=3.33), followed by item 1/DET-1 with statement "Saya akan menganalisa kelas kata (kata kerja, kata benda, dan lain-lain) untuk menentukan makna kosakata" (M=2.84) as the least determination strategies. It means that students prefer to find the meaning of new word by dictionary than judge the meaning. After that, in social strategies, the most frequently used strategy by students is item 11/SOC-4 with statement "Saya akan menanyakan arti kosakata baru ke teman sekelas saya" (M=3.33), the least frequently used strategy by students is item 14/SOC-7 with statement "Saya akan menggunakan kosakata baru untuk berbicara dengan orang-orang Inggris dan Amerika" (M=2.52). It means students prefer to ask their classmate than try to speak with Native speaker. In memory strategies the most frequently used strategy is item 23/MEM-9 (Ketika saya mempelajari sebuah kosakata, saya akan ingat ejaannya) (M=3.25), and the least frequently used strategy is item number 25/MEM-11 (Ketika saya belajar sebuah

kosakata, saya akan membacanya dengan lantang) (M=2,44). It means that students prefer to save new word in their mind than speak loud. The most frequently used strategy used in cognitive strategies is item 37/COG-5 with statement “Saya akan membuat catatan kosakata baru selama pelajaran” (M=3.93) and the least frequently used strategy is item 36/COG-4 with statement “Saya akan menggunakan satu kartu kosakata untuk mengingat kosakata baru (kartu ditulis kosakata bahasa Inggris di satu sisi, sisi lain menulis arti bahasa Indonesia yang sesuai)” (M=2.49). It means that students tend to write a note during the class session than use flash card to learn new vocabulary. In metacognitive strategies showed that item 42/META-1 with statement “Saya akan menggunakan lagu bahasa Inggris untuk mempelajari kosakata baru” (M=3.50) as the most frequently used strategy by students, and item 47/META-6 with statement “Saya akan mendengarkan program radio bahasa Inggris untuk belajar kosakata” (M=2.41) as the least frequently strategy in metacognitive strategies used by students. Based on that, students used vocabulary by listening songs than listening English radio program.

The result from this study Madrasah Aliyah students use cognitive strategies as the most frequently used vocabulary learning strategies. The findings are different from Yeh and Wang (2004)’s findings - cognitive strategies as the most frequently used and social strategies as least frequently used by the students. Noprianto and Purnawarman (2019) research, the most frequently used by students are determination strategies and the least frequently strategies are cognitive strategies. The findings are also different from to Bonsa and Mariam (2014) which find that the most frequently used strategy are cognitive strategies and the least frequently used strategy by students are metacognitive strategies.