# THE EFFECT OF LEXICAL STRATEGIES AND THE VOCABULARY MASTERY ON THE STUDENTS' VOCABULARY ACHIEVEMENT 

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#### Abstract

The objectives of the study are to describe whether : 1). Students' vocabulary mastery taught by inferencing strategies (IS) higher than taught by Lexical Processing Strategies (LPSs) in students' vocabulary achievement.2) Students' who have high vocabulary mastery is significantly higher than students' who have low vocabulary mastery in students' vocabulary achievement. 3) The effect of simultaneously applying both Lexical Strategies and Vocabulary mastery on the students' vocabulary achievement. An experimental research with factorial design $2 \times 2$ was used in this study. There was 80 students from grade X of 2017/2018 academic years of MAN 1 Takengon as sample of this study. The students divided in two groups. Each group consists of 40 students. The first group was treated by using Lexical Inferencing Strategies and the second group was treated by Lexical Processing Strategies. Vocabulary of the two groups was measured by giving questionnaire to classify the students having high and low vocabulary mastery, and achievement test measure by giving multiple choice test to know students' achievement in vocabulary mastery. The data are analyzed by applying two-way ANOVA at the level significance $a=0.05$. The findings of the data shows that. 1) The students' vocabulary mastery taught by using Lexical Inferencing Strategies was higher than that taught by using Lexical Processing Strategies, with $\mathrm{F}_{\text {obs }}(19.72)>\mathrm{F}_{\text {tab }}(3.25)$. 2) The Vocabulary Achievement of the students who have high vocabulary mastery was higher than students who have low vocabulary mastery, with $\mathrm{F}_{\mathrm{obs}}(2691.93)>\mathrm{F}_{\text {tab }}$ (3.25). 3) There was significance interaction between teaching Lexical Strategies and Vocabulary Mastery on the students' vocabulary achievement, with $\mathrm{F}_{\text {obs }}(3.27)>\mathrm{F}_{\text {table }}(3.25)$.


## Keywords:

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## INTRODUCTION

Vocabulary is the total stock of words in a given language (Jackson, 2000:11). Vocabulary as one of the important elements should be well mastered. It has a very important role in learning a language including English because vocabulary is the total number of words that make up a language. Vocabulary experts agree that adequatereading comprehension depends on a person already knowing between 90 and 95 percent of the words in a text (Hirsch, 2003). Knowing at least 90 percent of the words enables the reader to get the main idea from the readingand guess correctly what many of the unfamiliar words mean, which will help them learn new words.

In the ESL context, vocabulary not only supports the four language skills,listening, speaking, reading, and writing, but also mediates between ESLstudents and content-area classes in that these students often find that lack ofvocabulary knowledge is an obstacle to learning. Lexical competence is a central part of communicative competenceand is regarded as a key concept in teaching vocabulary Decarrico (2001). Richards and Renandya (2002) hold that vocabulary is a corecomponent of language proficiency and much of the basis for how welllearners speak, listen, read, and write is provided by vocabulary. The high correlation in the research literature ofword knowledge with reading comprehension indicates that if students do not adequately and steadily grow theirvocabulary knowledge, reading comprehension will be affected (Chall \& Jacobs, 2003).Comprehension is far more thanrecognizing words and remembering their meanings. However, if a student does not know the meanings of asufficient proportion of the words in the text, comprehension is impossible.

At present, many students especially at great ten in Senior High School are still unable or difficult to understand the meaning of words in the text, they have limited vocabulary to comprehend the meaning and do not know the context of words which used in the text.

Considering the important of vocabulary in mastering English communicatively, the researcher is interested in discusses this study in the effort of increasing students' vocabulary mastery by applying some appropriate strategies such as Lexical Strategies. In this research the researcher will applied two lexical strategies, Inferensing Strategies and Lexical Processing Strategies to increase students' vocabulary mastery. Haastrups (1991) The present study focused on lexical inferencing,that is, making "informed guesses" about themeaning of unknown words based on the availablelinguistic and nonlinguistic cues in the text. Lexical inferencing alsobeen found to be closely associated with incidentalvocabulary learning, that is, learningvocabularythrough reading natural texts (Huckin \& Coady, 1999; Nagy, 1997). Readers use a variety of Lexical Processing Strategies (LPSs) to deal with unknown words when reading, includingignoring and continuing to read, consulting a dictionary or another individual, andinferring their meaning from linguistic and contextual cues (Fraser, 1999).

Based on these facts, the research is interested in conducting a research on the effect of Lexical Strategies and the vocabulary mastery on the students' vocabulary achievement. It means that the effect of implementing the two strategies in teaching vocabulary mastery should be proven whether they were effective or not on students' vocabulary achievement.

## REVIEW OF RLEATED LITERATURE

## Lexical Inferencing/ Guessing Strategies in Vocabulary

Lexical inferencing is a process that "involves making informed guesses as to themeaning of a word in the light of all available linguistic cues in combination with thelearner's general knowledge
of the world, her awareness of the co-text and her relevantlinguistic knowledge" (Haastrup, 1991, p. 13). Inferencing is defined as a cognitive process that utilizes "familiar attributes and contexts" to recognizesomething unfamiliar in reading (Paribarht, \& Wesche, 1999, p. 198). Haastrup (1991) claim that guessing is a cognitive strategy since cognitive strategies are the steps or operations used in learning or problem solving that require directanalysis, transformation or synthesis of learning materials and it does not automatically lead to learning, although it has the potential for doing so.

As Oxford (1990) states guessing (inferencing) strategies involve using a wide variety of clues -linguistic or nonlinguistic- to guess the meaning when the learner does not know all the words. She adds that good language learners, when confronted with unknown expressions, make educated guesses. Many factors have been shown to affect successin lexical inferencing, including the nature of theword and the text that contains the word (Paribakht\& Wesche, 1999; Parry, 1993); the degree oftextual information available in the surroundingcontext (Dubin \& Olshtain, 1993); the learner'sability to make use of extratextual cues (de Bot etal., 1997; Haastrup, 1991); the importance of theword to comprehension of the text (C. M. Brown, 1993); the degree of cognitive and mental effortinvolved in the task (Fraser, 1999; Joe, 1995); andthe learner's attention to the details in the textas well as his or her preconceptions about thepossible meaning of the word (Frantzen, 2003).In a discussion of the factors involved in lexicalinferencing, Nagy (1997) considers the role oflearners' pre-existing knowledge bases and howthese knowledge bases influence learners' strategyuse and success.

Lexical inferencing has been found to be widely used by L2 learners when dealing with unknown words (Paribakht and Wesche , 1997; Paribakht and Wesche, 1999; Nassaji, 2006), and it has been closely associated with incidental vocabulary learning. For Paribakht and Wesche (1999 ).Research to date has shown that many factors affect success in lexical inferencing: the nature of the word and the text (Paribakht and Wesche, 1999; Parry, 1993); the learner's attention to the details in the text and his/her preconceptions about the possible meaning of the word (Frantzen, 2003); learners' pre-existing knowledge bases (Nagy, 1997; cited in Nassaji, 2006).

It has been claimed by some researchers that guessing vocabulary from context is the most frequently used strategy in discovering the meaning of words, and new words can best be learned when presented in texts and when their meaning is inferred from context by learners (Nattinger, 1988; Nation, 1982; Bialystok, 1983; cited in Lawson \& Hogben, 1996:105). But some researchers claim that context does not always provide enough information, and learners can make wrong inferences; the inferencing method works well with learners who have good problem-solving skills (Bensoussan and Laufer, 1984; Carnine, Kameenui and Coyle, 1984; Kelly, 1989; Koster, 1985; cited in Hulstijn, 1992:114). In addition, having carried out a study with intermediate ESL learners, Huckin and Bloch (1993) put forward a lexical inferencing model, which includes a knowledge module component and a metalinguistic strategic component. They claim that these strategies help the learner decide when and how to proceed and seek help from context and various sources of knowledge available.

## RESEARCH METHOD

This study was carried out by applying quasi experimental research, it was used due to the treatment class, in this study is a formerly formed class or without changing the class situation and condition which had been formed previously. The research design used in this study was a 2 x 2 factorial. The students who participated as the population for the study were the students in the grade X of MAN 1 Takengon 2017/2018 academic year because they had got enough knowledge about reading and vocabulary. The total populations of the research were 252 from 7 classes namely class:
$\mathrm{X}-1, \mathrm{X}-2, \mathrm{X}-3, \mathrm{X}-4, \mathrm{X}-5, \mathrm{X}-6$ and $\mathrm{X}-7$. The students were randomly assigned to a survey by using cluster random sampling technique. The samples of this research are 80 students which were divided into two groups, The first group was consist of 40 students treated using IS (Inferencing Strategies) and second group was consist of 40 students treated using LPSs (Lexical Processing Strategies).It has relevant to what Arikunto (2008:107) said that "if the subject of population consists of large number, the sample could be taken from $10 \%-15 \%$ or $20 \%-25 \%$, or more". The instruments used to collect the data were achievement test and questionnaire.

## FINDINGS AND DISCUSSION

## 1. Vocabulary Achievement of Students Taught by Using Lexical Inferencing Strategies

Based on the research conducted on 40 students in MAN 1 Takengon, the learning outcomes of group of students taught by Lexical Inferencing Strategies can be explained as the following: The highest scores was 90 and the lowest scores was 60 . The calculation indicates that mean was 75.78, median was 77.00 , mode was 76 and standard deviation was 8,556 and variance was 73.204 .

Table 4.2 Frequency Distribution of Students' Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| ---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $60-64$ | 6 | 15.00 |
| $\mathbf{2}$ | $65-69$ | 5 | 12.50 |
| $\mathbf{3}$ | $70-74$ | 3 | 7.50 |
| $\mathbf{4}$ | $75-79$ | 11 | 27.50 |
| $\mathbf{5}$ | $80-84$ | 8 | 20.00 |
| $\mathbf{6}$ | $85-89$ | 6 | 15.00 |
| $\mathbf{7}$ | $90-94$ | 1 | 2.50 |
|  | Total | 40 | $100 \%$ |

Table $\overline{4.2 \text { indicates that the average scores of students taught by using Lexical Inferencing Strategies }}$ was in interval $75-79$ with 11 students or $27.50 \%$. Students who got scores below the average was 14 students or $35 \%$ and students who got above the average was 15 students or $37.50 \%$. Clear description of the scores distribution on students taught by using Lexical Inferencing Strategies was summarized in figure 4.1.

Figure 4.1 The histogram of students' score taught by using Inferencing Strategies

2. Vocabulary Achievement of Students Taught by using Lexical Processing Strategies

Based on the research conducted on 40 students in MAN 1 Takengon, the learning outcomes of group of students taught by Lexical Processing Strategies can be explained as the following: The highest score was 88 and the lowest score was 60 . The calculation indicates that mean was 74.60 , median was 75.50 , mode was 77 standard deviation was 7.692 and variance was 59.169

Table 4.3Frequency Distribution of Students' Scores

| $\mathbf{N o}$ | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $60-64$ | 5 | 12.50 |
| $\mathbf{2}$ | $65-69$ | 5 | 12.50 |
| $\mathbf{3}$ | $70-74$ | 8 | 20.00 |
| $\mathbf{4}$ | $75-79$ | 10 | 25.00 |
| $\mathbf{5}$ | $80-84$ | 8 | 20.00 |
| $\mathbf{6}$ | $85-89$ | 4 | 10.00 |
|  | Total | 40 | $100 \%$ |

Table 4.3 indicates that the average scores of students taught by using Lexical Processing Strategies was in interval $70-74$ with 8 students or $20.00 \%$. Students who got scores below the average was 10 students or $25 \%$ and students who got above the average was 22 students or $55.00 \%$. Clear description of the scores distribution on students taught by using Lexical Processing Strategies was summarized in figure 4.2 below.

Figure 4.2 The histogram of students' score taught by using Processing Strategies


## 3. Vocabulary Achievement of Students that have High Vocabulary Mastery

Based on the research conducted, the learning outcomes of group of students who have high vocabulary mastery can be explained as the following: The highest score was 90 and the lowest score was 75 . The calculation indicates that mean was 80.79 , median was 80.00 , mode was 76 and standard deviation was 4.172 and variance was 17.402

Table 4.3 Frequency Distributions of Students' achievement Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $75-76$ | 9 | 18.75 |
| $\mathbf{2}$ | $77-78$ | 8 | 16.67 |
| $\mathbf{3}$ | $79-80$ | 8 | 16.67 |
| $\mathbf{4}$ | $81-82$ | 7 | 14.59 |
| $\mathbf{5}$ | $83-84$ | 5 | 10.41 |
| $\mathbf{6}$ | $85-86$ | 5 | 10.41 |
| $\mathbf{7}$ | $87-88$ | 5 | 10.41 |
| $\mathbf{8}$ | $89-90$ | 1 | 2.09 |
|  | Total | 48 | 100 |

Table 4.4 indicates that the average scores of students' vocabulary achievementthat have high vocabulary was in interval $81-83$ with 9 students or $18.75 \%$. Students who got scores below the average was 25 students or $52.08 \%$ and students who got above the average was 14 students or 29.17 $\%$. Clear description of the frequency distribution of students' that have high vocabulary masterywas summarized in figure 4.3 below.

Figure 4.3 The Histogram of Students' Score That Have High Vocabulary Mastery


## 4. Vocabulary Achievement of Students that have Low Vocabulary Mastery

Based on the research conducted, the learning outcomes of group of students who have low vocabulary mastery can be explained as the following: The highest score was 74 and the lowest score was 60 . The calculation indicates that mean was 66.78 , median was 65.50 , mode was 61 , standard deviation was 4.412 and variance was 19.467

Table 4.5 Frequency Distributions of Students' Achievement Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $60-62$ | 8 | 25.00 |
| $\mathbf{2}$ | $63-65$ | 6 | 18.75 |
| $\mathbf{3}$ | $66-68$ | 5 | 15.625 |
| $\mathbf{4}$ | $69-71$ | 7 | 21.875 |
| $\mathbf{5}$ | $72-74$ | 6 | 18.75 |
|  | Total | 32 | $100 \%$ |

Table 4.5 indicates that the average scores of students' vocabulary achievement that have low vocabulary was in interval $66-68$ with 5 students or $15.625 \%$. Students who got scores below the average was 14 students or $43.75 \%$ and students who got above the average was 13 students or $40.625 \%$. Clear description of the frequency distribution of students' that have low vocabulary mastery was summarized in figure 4.4 below.

Figure 4.4 TheHistogram of Students' Score That Have Low Vocabulary Mastery
Histogram


## 5. Vocabulary Achievement of Students Taught by Using Lexical Inferencing Strategies that have High Vocabulary Mastery

Based on the research conducted, the learning outcomes of group of students taught by Lexical Inferencing Strategies that have high vocabulary mastery can be explained as the following: The highest score was 90 and the lowest score was 75 . The calculation indicates that mean was 81.15 , median was 80.50 , mode was 76 , standard deviation was 4,424 and variance was 19,575

Table 4.6Frequency Distribution of Students' Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $75-76$ | 5 | 19.23 |
| $\mathbf{2}$ | $77-78$ | 4 | 15.39 |
| $\mathbf{3}$ | $79-80$ | 4 | 15.39 |
| $\mathbf{4}$ | $81-82$ | 3 | 11.54 |
| $\mathbf{5}$ | $83-84$ | 3 | 11.54 |
| $\mathbf{6}$ | $85-86$ | 3 | 11.54 |
| $\mathbf{7}$ | $87-88$ | 3 | 11.54 |
| $\mathbf{8}$ | $89-90$ | 1 | 3.83 |
|  | Total | 26 | $100 \%$ |

Table 4.6 indicates that the average scores of students taught by using Lexical Inferencing Strategies was in interval $75-79$ with 11 students or $27.50 \%$. Students who got scores below the average was 14 students or $35 \%$ and students who got above the average was 15 students or $37.50 \%$. Clear description of students' scores taught by using Lexical Inferencing Strategies that have high vocabulary masterywas summarized in figure 4.5 below

Figure 4.5 The Histogram of Students' Vocabulary Achievement


## 6. Vocabulary Achievement of Students Taught by Using Lexical Inferencing Strategies That Have Low Vocabulary Mastery

Based on the research conducted, the learning outcomes of group of students taught by Lexical Inferencing Strategies that have low vocabulary mastery can be explained as the following: The highest score was 73 and the lowest score was 60 . The calculation indicates that mean was 65,79 median was 65.50 , mode was 62 and standard deviation was 4.080 and variance was 16,643 .

Table 4.7 Frequency Distribution of Students' Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $60-62$ | 4 | 28.58 |
| $\mathbf{2}$ | $63-65$ | 3 | 21.42 |
| $\mathbf{3}$ | $66-68$ | 4 | 28.58 |
| $\mathbf{4}$ | $69-71$ | 1 | 7.14 |
| $\mathbf{5}$ | $72-74$ | 2 | 14.28 |
|  | Total | 14 | $100 \%$ |

Table 4.7 indicates that the average scores of students taught by using Lexical Inferencing Strategies that have high vocabulary mastery was in interval $66-68$ with 4 students or $28.58 \%$. Students who got scores below the average was 7 students or $50 \%$ and students who got above the average was 3 students or $21.28 \%$. Clear description of students' scores taught by using Lexical Inferencing Strategies that have low vocabulary masterywas summarized in figure 4.6 below

Figure 4.6 The Histogram of Students' Vocabulary Achievement


## 7. Vocabulary Achievement of Students Taught by Using Lexical Processing Strategies that have high vocabulary mastery

Based on the research conducted, the learning outcomes of group of students taught by Lexical Processing Strategies that have high vocabulary mastery can be explained as the following: The highest score was 88 and the lowest score was 75 . The calculation indicates that mean was 80.36 median was 80.00 , mode was 77 and standard deviation was 3.910 and variance was 15.290

Table 4.8 Frequency Distribution of Students' Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $75-77$ | 7 | 31.818 |
| $\mathbf{2}$ | $78-80$ | 5 | 22.727 |
| $\mathbf{3}$ | $81-83$ | 5 | 22.727 |
| $\mathbf{4}$ | $84-86$ | 3 | 13.636 |
| $\mathbf{5}$ | $87-89$ | 2 | 9.090 |
|  | Total | 22 | $100 \%$ |

Table 4.8 indicates that the average scores of students taught by using Lexical Processing Strategies that have high vocabulary mastery was in interval $81-83$ with 5 students or $22.727 \%$. Students who got scores below the average was 12 students or $54.545 \%$ and students who got above the average was 5 students or $22.276 \%$. Clear description of students' scores taught by using Lexical Processing Strategies that have high vocabulary mastery was summarized in figure 4.7 below.

Figure 4.7 The Histogram of Students' Vocabulary Achievement

8. Vocabulary Achievement of Students Taught by Using Lexical Processing
Strategies that have Low Vocabulary Mastery

Based on the research conducted, the learning outcomes of group of students taught by Lexical Processing Strategies that have low vocabulary mastery can be explained as the following:

The highest score was 74 and the lowest score was 60 . The calculation indicates that mean was 67.56 median was 69.00 , mode was 61 , standard deviation was 4.614 and variance was 21.320 .

Table 4.9 Frequency Distribution of Students' Scores

| No | Interval | Absolute Frequency | Relative Frequency (\%) |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | $60-62$ | 4 | 22.22 |
| $\mathbf{2}$ | $63-65$ | 3 | 16.67 |
| $\mathbf{3}$ | $66-68$ | 1 | 5.56 |
| $\mathbf{4}$ | $69-71$ | 6 | 33.33 |
| $\mathbf{5}$ | $72-74$ | 4 | 22.22 |
|  | Total | 18 | $100 \%$ |

Table 4.9 indicates that the average scores of students taught by using Lexical Processing Strategies that have low vocabulary mastery was in interval $66-68$ with 1 student or $5.56 \%$. Students who got scores below the average was 7 students or $38.89 \%$ and students who got above the average was 10 students or $55.55 \%$. Clear description of students' scores taught by using Lexical Processing Strategies that have low vocabulary masterywas summarized in figure 4.8 below.

Figure 4.8 The Histogram of Students' Vocabulary Achievement


## CONCLUSIONS

This research was conducted in the attempt to discover the result of the data analysis. Based on the data analyses, some valuable conclusions are stated as the following

1) The students' vocabulary mastery taught by using Lexical Inferencing Strategies wassignificantly higher than taught by using Lexical Processing Strategies in students' vocabulary achievement
2) The Students' who have high vocabulary mastery is significantly higher than students' who have low vocabulary mastery in students' vocabulary achievement
3) There was a significant effect of applying both Lexical Strategies and vocabulary mastery simultaneously on the students' vocabulary achievement

## REFERENCES

