**Chapter 4**

**Findings and Discussion**

This chapter presents the findings and discussion of the research. The researcher reports the findings to answer the research questions on how the students' TOEFL score and what the effect of joining TOEFL Preparation course toward students TOEFL score. Then, in the discussion, the researcher presents further information and relates the findings to the theories reviewed in chapter two.

**Findings**

This research was conducted at the Language Training Center (LTC) of Universitas Muhammadiyah Yogyakarta (UMY). The researcher employed a cause effect design using secondary data collection method and documentation instrument. This part discussed how the students' TOEFL score achievement in the pre-test and post-test after they joined TOEFL preparation course. The analysis of the effectiveness of joining TOEFL preparation course was measured by comparing the students' pre-test and post test scores. The researcher checked the hypothesis by using T-test. Moreover, in analyzing the effectiveness of joining the TOEFL preparation course, the researcher calculated the effect size of joining TOEFL preparation course.

**The students' TOEFL score achievement.** The researcher conducted descriptive statistic to categorize students' TOEFL score by using the "Level of Proficiency" by Sabarun (2012). The scores of pre-test and post-test were measured as a reflection of the students' score achievement.

**Table 4.1**

*TOEFL Proficiency Level*

| Score | Grade |
|---|---|
| > 550 | Advance |
| 501- 550 | Pre-Advanced |
| 426- 500 | Post-intermediate |
| 351- 425 | Intermediate |
| 200- 350 | Pre-intermediate |
| < 200 | Elementary |
| *Source: Sabarun (2012)* | |

**Pre-test.** The researcher presented the students' TOEFL pre-test to know their score achievement before they joined TOEFL preparation course. The pre-test was done in the first meeting to measure the students' proficiency before they got treatment in the TOEFL preparation course. The result can be seen in Table 4.2 below:

**Table 4.2**

*Descriptive Statistics of Students' Pre-test Score*

| | N | Minimum | Maximum | Mean | | Std. Deviation |
|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic |
| PreTest | 170 | 293 | 510 | 386.61 | 3.511 | 45.783 |
| Valid N (listwise) | 170 | | | | | |

The mean of pre-test score showed that students achieved 386.62 (Table 4.2). According to Sabarun (2012) in the rubric (Table 4.1), the score was categorized in the intermediate level. The Maximum score of pre-test score was 510 while the lowest score was 293.

The students' level of achievement in the pre-test was interpreted in the figure 4.1 below:



*Figure 4.1.* **Students' level achievement of pre-test score**
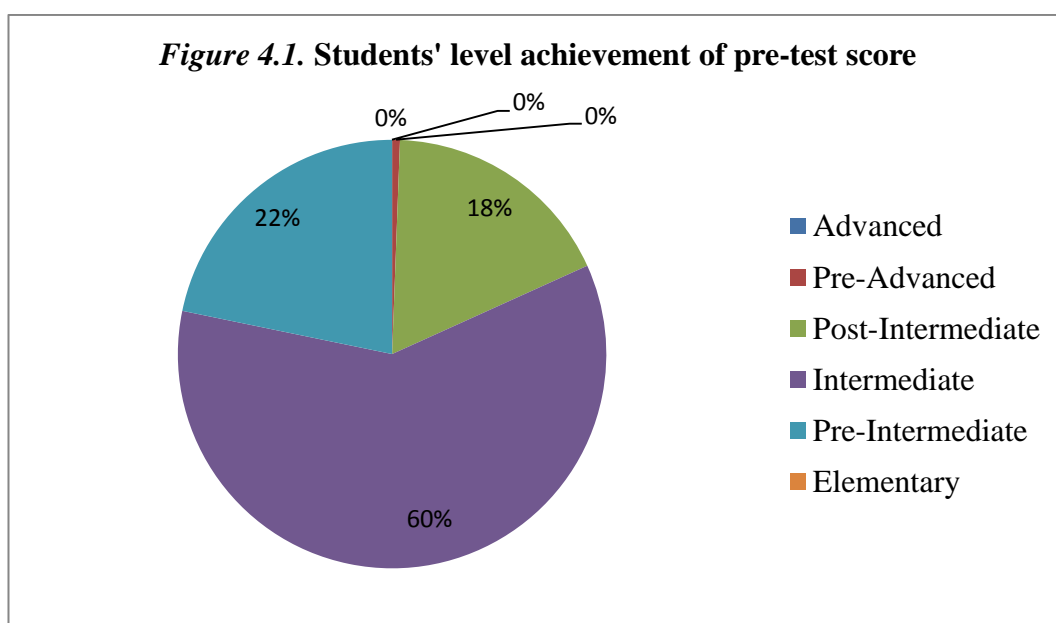
Based on figure 4.1, it was found that the majority of students' level achievement was in the intermediate level. Of 170 students, 60% of students were categorized in intermediate level, 22% of students were in pre-intermediate, 18% of students were in post-intermediate, and no student was categorized in pre-advance and advanced.

**Post-test.** Post-test was done after the students got treatments of the TOEFL preparation course for 14 meetings. The questions in post-test were the same as the questions in the pre-test. The treatments were familiarizing students

with TOEFL requirements and formats, giving students test-taking strategy,

teaching basic skills of English, giving students TOEFL preparation book, and

supplying students with correct answers of TOEFL test exercise. The result of the

post-test revealed that the students' TOEFL score increased. The following table

described the students' TOEFL score result in the post-test.

**Table 4.3**

*Descriptive Statistics of Students' Post-test Score*

| | N | Minimum | Maximum | Mean | | Std. Deviation |
|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic |
| PostTest | 170 | 310 | 553 | 415.45 | 3.442 | 44.873 |
| Valid N (listwise) | 170 | | | | | |

The descriptive statistic of the post-test score showed that the mean of the

post-test increased to 415.45. According to Sabarun (2012) in the rubric (Table

4.1), the students' TOEFL proficiency level was in the intermediate. Even though

the level of TOEFL proficiency was still the same as the pre-test but most of the

students achieved a better score in the post-test. It can be seen from the table 4.3

that the highest score of TOEFL in the post-test was 553, while the lowest score

was 310. There was increasing score between the mean of the pre-test and post-

test. The increasing was 28.83 points.

The students' level of achievement in the post-test was interpreted in the figure 4.2 below:

**Figure 4.2. Students' level achievemnt of post-test score**
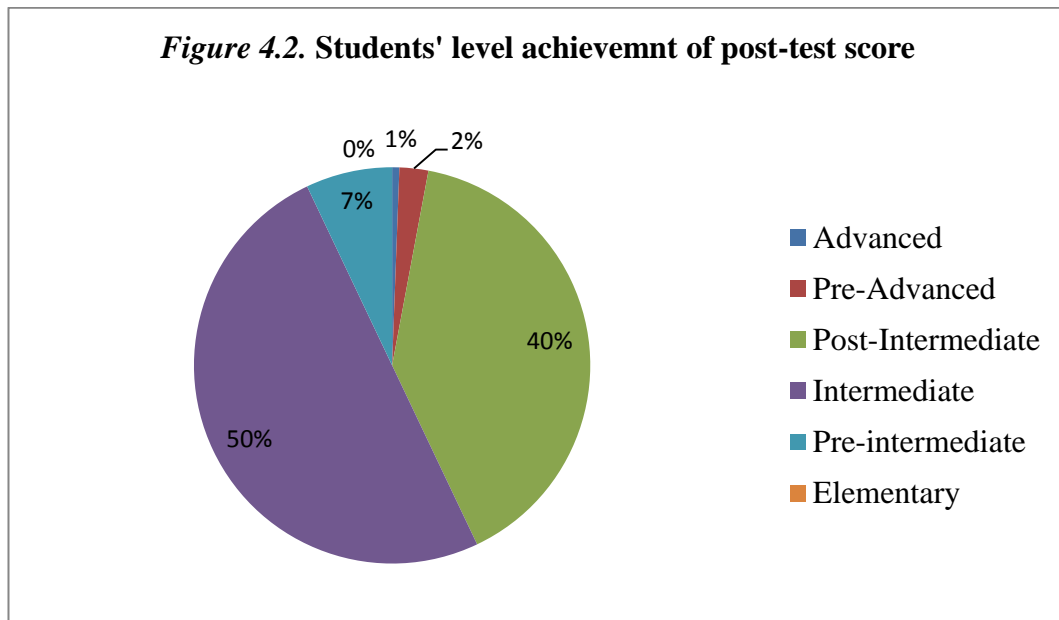


Based on the figure 4.2, the students' level achievement also revealed good improvement. Of 170 students, 50% students were categorized in intermediate level, 40% students were in post-intermediate, 7% students were in pre-intermediate, 2% students were in pre-advanced and 1% students were in advanced. Compared to the students' level achievement in pre-test, the diagram showed better change of score achieved by students. It can be concluded that joining the TOEFL preparation course had helped the students increase their TOEFL score.

To know more clearly, the change of scores achieved by students in the pre-test and post-test can be seen in the following table:

**Table 4.4**

*The change of students' TOEFL score achievement*

| Grade | Pre-test | Post-Test |
|---|---|---|
| Advance (> 550 ) | 0% | 1% |
| Pre-Advanced  (501- 550) | 0% | 2% |
| Post-intermediate (426- 500) | 18% | 40% |
| Intermediate (351- 425) | 60% | 50% |
| Pre-intermediate (200- 350) | 22% | 7% |
| Elementary (< 200 ) | 0% | 0% |

**The effect of joining a TOEFL preparation course on students'**

**TOEFL score**

To know the effect of joining a TOEFL preparation course on students'

TOEFL score, first, the researcher have to know type of data by using normality

and homogeneity. Those were checked in order to be determined whether the data

used parametric or non-parametric test.

**The normality.** The normality of pretest and posttest were checked to

ensure that the distribution of data was normal. Cohen (2011) stated that the data

is normal if the variable significance ($\alpha$) is > 0,05.

**Table 4.5**

*One-Sample Kolmogorov-Smirnov Test*

|  |  | PreTest | PostTest |
|---|---|---|---|
| N |  | 170 | 170 |
| Normal Parameters[a,,b] | Mean | 386.61 | 415.45 |
|  | Std. Deviation | 45.783 | 44.873 |
| Most Extreme Differences | Absolute | .067 | .065 |
|  | Positive | .067 | .065 |
|  | Negative | -.035 | -.043 |
| Kolmogorov-Smirnov Z |  | .869 | .850 |
| Asymp. Sig. (2-tailed) |  | .436 | .465 |

Based on Table 4.5, the researcher found that the data of pre-test and post-test were considered normal. The table above showed that the significance value of pre-test was 0.436 while the significance value of post-test was 0.465. The result of pre-test and post-test showed that the values of the significance were up to 0.05. Therefore, the researcher can conclude that the distribution of pre-test and post-test data were normal.

**The homogeneity**. The homogeneity of the data was checked to ensure that the data has the same variance. Cohen (2011) stated that the data is homogeneous if the variable significance ($\alpha$) is > 0.05.

**Table 4.6**

*Test of Homogeneity of Variance*

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Score | Based on Mean | .026 | 1 | 338 | .872 |
| | Based on Median | .055 | 1 | 338 | .816 |
| | Based on Median and with adjusted df | .055 | 1 | 333.995 | .816 |
| | Based on trimmed mean | .041 | 1 | 338 | .840 |

Based on the table above, the researcher found that the data were homogeneous. The interpretation of the output above was that the significant value of Based on Mean was 0.872, the significant value of Based on Median was 0.816, and the significant value of Based on Median and with adjusted df was 0.816, the significant value of Based on trimmed mean was 0.840. All of the results showed that the significance of a value was more than 0.05. Therefore, the researcher concluded that the data has the same variance.

From the result of normality and homogeneity, the researcher concluded that the data were indicated normal and homogeneous. Therefore, the data can be measured by using parametric test. The parametric test used in this study is T-test to test hypothesis

.

**The testing of hypothesis**. The researcher used T-test analysis to measure the hypothesis of this research. The researcher revealed that there was a significant difference between the score of pre-test and post-test. The mean of pre-test was 386.61 and the mean of post-test increased to become 415.45 (Table 4.1), with an increase of 28.84. It showed that the students got a higher score after joining the TOEFL preparation course.

The hypothesis in this research:

*Alternative Hypothesis (H1).* There is a significant effect of joining TOEFL preparation course toward students' TOEFL score.

The hypothesis was measured by using T-test Paired sample. The analysis that reported the result of paired T-test can be seen in the table below:

**Table 4.7**

*Paired Sample Statistic*

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Pre-Test | 386.61 | 170 | 45.783 | 3.511 |
| | Post-Test | 415.45 | 170 | 44.873 | 3.442 |

**Table 4.8**

*Paired Sample Test*

| | | | | | 95% Confidence Interval of the Difference | | | | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Std. Deviation | Std. Error Mean | | | | | |
| | | Mean | | | Lower | Upper | T | df | |
| Pair 1 | PreTest - Post Test | -28.841 | 27.665 | 2.122 | -33.030 | -24.653 | -13.593 | 169 | .000 |

       The testing of the hypothesis was checked by comparing the means of pre-test and post-test, the significant level, as well as T-value and T-table. Based on the T-test analysis, the research showed that there were significant differences of the means. The significant value statistic showed 0.00. Based on Cohen et al. (2011), when the significant level is < 0.05, the H1 is accepted. Because the significant value statistic showed 0.00 which means < 0.05, H1 is accepted. Moreover, the result also showed that T-value was -13.593 and it was higher than the T-table which was 1.984. For the calculation, it can be seen on figure 4.3.

**Figure 4.3 T-test analyses**

T-value = 13.593          T-table = 1.984

       T-value          >          T-table

       13.593          >          1.984

= alternative hypothesis (H1) √

The results of T-test analyses indicated that joining a TOEFL preparation course had a significant effect on students TOEFL score. To analyze the effect of joining TOEFL preparation course on students' TOEFL score, the effect size formula was used to measure the size effect of the effect. The result of the effect size showed how high joining the TOEFL preparation course affects the students' TOEFL score. The table below shows a complement dimension of effect size according to Cohen (1992).

| **Table 4.9** | | |
|---|---|---|
| ***The Criterion of Effect Size by Cohen (1992)*** | | |
| **Effect size (r)** | **Level** | **Criterion** |
| 0,10 | Small effect | The effect explains 1% of the total variance |
| 0,30 | Medium effect | The effect accounts for 9% of the total variance |
| 0,50 | Large effect | The effect accounts for 25% of the variance |

The effect size of this research can be calculated:

$$r = \sqrt{\frac{t^2}{t^2 + df}}$$

$$= \sqrt{\frac{13.593^2}{13.593^2 + 169}}$$

$$= \sqrt{\frac{184.77}{353.77}}$$

$$= \sqrt{0.522} = 0.72$$

Notes: r = effect size, t = t-value, df = degree of freedom

The effect size of the research was 0.72. According to Cohen (1992), the result was categorized as a large effect (table 4.9). It means that joining a TOEFL preparation course had a significant effect toward students' TOEFL score achievement.

**Discussion**

This research is aims at knowing how the students TOEFL-Like score achievement and knowing what the effect of joining TOEFL preparation course on students' TOEFL-Like score achievement at the LTC of UMY. The research questions of this study are "How is the students' TOEFL-Like score achievement?" and "What is the effect of joining TOEFL preparation course toward students' TOEFL-Like score achievement at Language Training Center of UMY?" Based on the findings, the researcher found that even though the mean of students' TOEFL level of proficiency was in the same level which is in the intermediate level, most students increased their score and there was a significant effect of joining TOEFL preparation course on students' TOEFL score.

**Discussion of students' TOEFL-Like score achievement in the pre-test and post-test.** Before joining the TOEFL preparation course, students were in the intermediate level of TOEFL proficiency. It can be seen that 18% students were categorized in post-intermediate, 60% students were in intermediate level, and 22% students were in pre-intermediate. After joining the TOEFL preparation course, students were also in the intermediate level but most of them improved their TOEFL score. It can be seen that 1% students were categorized in advanced,

2% students were in pre-advanced, 40% students were in post-intermediate, 50% students were in intermediate level, and 7% students were in pre-intermediate.

There was a significant effect of the students TOEFL-Like score achievement after they joined the TOEFL preparation course. It can be seen from the findings which showed the mean of the pre-test scores was 386.62, and it increased in the post-test to become 415.45 after the students joined the TOEFL preparation course. The gap of score between the students' pre-test score and post-test score was 28.84 points. Another fact that showed in the findings was that the lowest score in the pre-test was 293 while in the post-test was 310. The higher score of pre-test was 510 while in the post test was 553. Therefore, the researcher concluded that TOEFL preparation course could improve students' TOEFL score.

The findings above were supported by the previous studies showing that TOEFL preparation course was effective to increase students' TOEFL score. Dewi, et al. (2015) stated that the students joining a TOEFL preparation course at BINUS University for one year could increase their TOEFL score. Habiby (2013) who investigated TOEFL preparation course at RAM English course also stated that, after giving treatments to the students, the instructor was successful to increase the students' TOEFL score. Heffernan (2006) had the same result when he investigated the students of Japanese university joining a TOEFL preparation course. He stated that the students felt satisfied with the given courses, and the teaching methods in the TOEFL preparation course could help the students increase their TOEFL score. Al-Rawashdeh (2009) said that the program in a TOEFL preparation course could magnify the students' testing aptitude while they

were learning English and terms prove that the TOEFL preparation course was certainly helpful in increasing students' TOEFL score. Even though those various studies had proved that the students increased their TOEFL score, they did not mention about the size of improvement or the size of effect after joining the TOEFL preparation course. Therefore, it made the previous studies different with this study because it investigated the effect size of joining TOEFL preparation course toward students' TOEFL score.

**Discussion of hypothesis**. The alternative hypothesis was accepted in this research because the research findings showed that the T-value was higher than the T-table, which the T-value score was 13.593 while T-table score was 1.984. In the other words, there is a significant effect of joining the TOEFL preparation course on students' TOEFL score achievement.

Joining the TOEFL preparation course had a large effect to the students' TOEFL score achievement. The effect size of this study was 0.72. It means that it was a large effect. Therefore, the TOEFL preparation course was effective in improving students' TOEFL score. Based on the result, joining the TOEFL preparation course can be an effective way to improve students' TOEFL score. This finding is supported the previous study by Dewi, et al. (2015) who mentioned that, after joining TOEFL preparation course, students have a significant different score from pre-test to the post-test, and the correlation is strong.

This research proved that the TOEFL preparation course the LTC of UMY was effective in improving students' TOEFL score. The probability factors that

lead students to achieve a better score were because it provided some activities such as familiarizing students with TOEFL requirements and formats, giving students test-taking strategies, teaching basic skills of English, giving student TOEFL preparation book, and giving students' feedback of TOEFL test exercise.

The probability factors that lead students to achieve a better score after attending the TOEFL preparation course, firstly, students always practiced and became familiar with the TOEFL format during joining the TOEFL preparation course. This is supported by previous study by Al-Rawashdeh (2009). He mentioned that a good TOEFL preparation course which could improve students' TOEFL score was a course that gave them a lot of TOEFL practices and familiarized them with the TOEFL test format.

Secondly, students were given test-taking strategies to answer the TOEFL test during the TOEFL preparation course. Damankesh and Babaii (2015) mentioned that test-taking strategies were good strategies to improve TOEFL score. They stated that there was a significant positive effect between students' test-taking strategy use and their achievements on the high school final examinations. The more students employed test-taking strategies during the exams, the higher their scores were. Doe and Fox (2011) also stated that giving test-taking was a good strategy that students can learn and practice to prepare them for their TOEFL test.

Thirdly, students learned a TOEFL Preparation book which consisted of basic skills of English and some materials tested in TOEFL during the TOEFL preparation course. Habiby (2013) said that a TOEFL preparation book was

effective to help students increase their TOEFL score because it comprised of materials related to the TOEFL test. Sadeghi and Zarei (2013) also mentioned that the use of materials which were a combination of exam-related, practice-oriented, and some authentic was designed for the course interpreted as an indication of positive wash back in teaching TOEFL.

Fourthly, the teacher giving students' feedback of TOEFL test exercise. Al-Rawashdeh (2009) believed that giving feedback to the students after they practice to identify the weaknesses in each section and following it up with regular study to rectify their mistakes could help them increase their TOEFL score. Cole (1982), Ferman (2004) ,and Gan, (2009) also mentioned that a TOEFL preparation course supplied students with correct answers to increase students' TOEFL score.