CHAPTER IV

RESEARCH FINDING AND ANALYSIS

A. Research Finding

The results of hypothesis data of this research showed that there was significant effect between the students' achievement in writing narrative paragraph by using SWELL method and the students' achievement in writing narrative paragraph without using SWELL method. SWELL method was a nice method on the students' achievement in writing narrative paragraph. It can be seen from the result of the students' score who were taught by using SWELL method. SWELL method had strength in teaching writing narrative paragraph. This method help students to understand important components such as character, setting, problem, and solution in writing, SWELL style help the students' ensure that their sentence are clearly written in their final draft, using SWELL the students more active and creative in learning, using SWELL, the students' are able to transfer their ideas easily, get motivated, get activated, and they could avoid the boredom of the conventional teaching method, besides this method can lead the students' to write better. However, this method also had weakness such as, sometimes, the teachers find it difficult to divided the students into a pairs because the students still fell not confident to be a helper.

B. Data Description

This study was conducted by applying an experimental research. There were two groups in this research, namely experimental and control group. This research applied a writing text which the total scores 100. The pre test was given before the treatment and the post test was

given after the treatment. The write gave the treatment to students' in the experimental group by using SWELL method while control group without using SWELL method.

After conducting the research, the research got the data of students' scores in pre test and post test from both experimental and control group.

Table: 4.1

The Score of Pre Test and Post Test of Experimental Group

NO	Students Initial	Pre-Test	Post-Test
1	PIP	60	90
2	FP	55	65
3	FA	55	75
4	NB	60	85
5	R	45	65
6	S	45	65
7	UK	45	65
8	YP	45	70
9	YY	45	75
10	SKB	60	90
11	FY	60	85
12	PN	50	75
13	FA	50	85
14	SA	50	75
15	SW	55	75
16	ZJ	55	85
17	NSA	45	70

18	SFSN	45	85
19	JR	60	90
20	FAS	55	75
21	F	50	85
22	FAS	50	65
23	DHPG	50	90
24	SD	45	65
25	SH	45	75
26	SNH	40	85
27	RA	40	70
28	DA	40	65
29	PR	55	90
30	IL	55	85
31	RN	55	85
32	YY	50	85
33	SA	50	70
34	JP	40	75
35	H	40	65
36	DH	55	75
37	AH	55	70
38	AGM	45	75
Total		1900	2920
Mean		50	76.84211

Based on the table above, the students' achievement in writing text in experimental group showed the lowest score pre test was 40, and the highest score of pre test was 60 and the

mean of pre test was 50. On the other hand the lowest score of post test was 60, and the highest score of post test was 90 and the mean of post test was 76.84.

Table: 4.2

The score of Pre Test and Post Test of Control Group

No	Student Initial	Pre-test	Post-test
1	AAN	30	60
2	DS	30	60
3	KH	30	65
4	KU	30	65
5	MS	50	78
6	RS	45	60
7	R	40	65
8	UK	40	65
9	NSP	40	65
10	R	40	65
11	MI	45	78
12	MKN	45	60
13	MS	55	72
14	WS	50	78
15	ILTL	50	72
16	PR	30	60
17	NSA	30	60
18	JR	55	78

19	SW	55	80
20	RP	55	80
21	FY	45	72
22	Z	45	72
23	SA	40	60
24	AS	40	60
25	MP	30	60
26	HP	30	72
27	BL	55	80
28	LY	30	65
29	L	40	72
30	P	40	72
31	KP	45	72
32	TP	40	72
33	RH	45	72
34	PW	50	78
35	DS	45	65
36	WG	40	60
37	DH	50	60
38	HH	30	60
Total		1585	2590
Mean		41.7105	68.1579

From the table above, the students' score in writing text in control group showed the lowest score of pre test was 30, and the highest score of pre test was 55 and the mean of pre

test 41.71. On the other hand the lowest score of post test was 60, and the highest score of post test was 80 and the mean of post test 68.15.

Based on the explanation above, it shows that the students' score in experimental group was higher than students' score in control group, where in pre test (50) and the score in post test (76.84). The total score of the mean score in experimental and control group showed that there was significant effect in improvement of students' score between pre test and post test.

C. Analysis Requirement Testing

C.1 Normality Testing

Normality testing used to determine if a data set is well-modeled by normal distribution and to compare how likely it is for a random variable underlying the data set to be normally distributed.

1.1 Normality Testing of Experimental Group

Table: 4.3

Frequency Distribution of Pre Test in Experimental Group

NO	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	40	5	200	1600	8000
2	45	10	450	2025	20250
3	50	8	400	2500	20000
4	55	10	550	3025	30250
5	60	5	300	3600	18000
Total		38	1900	12750	96500

Based on the data above, the result of $FiXi^2$ is 96500 and FiXi is 1900.

Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum fi\, Xi}{\sum fi}$$

Where: $\bar{x}$ = Mean of Variable x
$\sum$FiXi = Total number of score
$\sum$Fi = Number of sample

So,

$$\bar{x} = \frac{\sum fi\, Xi}{\sum fi}$$
$$= \frac{1900}{38}$$
$$= 50$$

b. Variant

Where :

S^2 = variant
N = Number of sample

So'

$$S^2 = \frac{N\sum FiXi^2 - (\sum FiXi)^2}{N(N-1)}$$

$$= \frac{38\ x\ 96500 - (1900)^2}{38(38-1)}$$

$$= \frac{3667000 - 3610.000}{38(37)}$$

$$= \frac{57000}{1406}$$

$$= 40.54$$

c. Standard Deviation

$$S = \sqrt{S^2}$$
$$= \sqrt{40,54}$$

= 6.367

After getting the calculation of mean, variant and standard deviation, then the next step is to found out the normality of the test. It means that the test was given to the students is observed by Liliefors test. The calculation of normality writing text can be seen in the following table:

Table: 4.4

Normality Testing of Pre Test in Experimental Group

No	Score (Zi)	F	Fkum	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)
1	40	5	5	-1.57	0.0582	0.1315	-0.0733
2	40	5	5	-1.57	0.0582	0.1315	-0.0733
3	40	5	5	-1.57	0.0582	0.1315	-0.0733
4	40	5	5	-1.57	0.0582	0.1315	-0.0733
5	40	5	5	-1.57	0.0582	0.1315	-0.0733
6	45	10	15	-0.78	0.2177	0.3947	-0.177
7	45	10	15	-0.78	0.2177	0.3947	-0.177
8	45	10	15	-0.78	0.2177	0.3947	-0.177
9	45	10	15	-0.78	0.2177	0.3947	-0.177
10	45	10	15	-0.78	0.2177	0.3947	-0.177
11	45	10	15	-0.78	0.2177	0.3947	-0.177
12	45	10	15	-0.78	0.2177	0.3947	-0.177
13	45	10	15	-0.78	0.2177	0.3947	-0.177
14	45	10	15	-0.78	0.2177	0.3947	-0.177
15	45	10	15	-0.78	0.2177	0.3947	-0.177

16	50	8	23	0	0.5	0.6052	-0.1052
17	50	8	23	0	0.5	0.6052	-0.1052
18	50	8	23	0	0.5	0.6052	-0.1052
19	50	8	23	0	0.5	0.6052	-0.1052
20	50	8	23	0	0.5	0.6052	-0.1052
21	50	8	23	0	0.5	0.6052	-0.1052
22	50	8	23	0	0.5	0.6052	-0.1052
23	50	8	23	0	0.5	0.6052	-0.1052
24	55	10	33	0.78	0.7823	0.8684	-0.0861
25	55	10	33	0.78	0.7823	0.8684	-0.0861
26	55	10	33	0.78	0.7823	0.8684	-0.0861
27	55	10	33	0.78	0.7823	0.8684	-0.0861
28	55	10	33	0.78	0.7823	0.8684	-0.0861
29	55	10	33	0.78	0.7823	0.8684	-0.0861
30	55	10	33	0.78	0.7823	0.8684	-0.0861
31	55	10	33	0.78	0.7823	0.8684	-0.0861
32	55	10	33	0.78	0.7823	0.8684	-0.0861
33	55	10	33	0.78	0.7823	0.8684	-0.0861
34	60	5	38	1.57	1.1317	1	0.1317
35	60	5	38	1.57	1.1317	1	0.1317
36	60	5	38	1.57	1.1317	1	0.1317
37	60	5	38	1.57	1.1317	1	0.1317
38	60	5	38	1.57	1.1317	1	0.1317
TOTAL	1900	Lo = 0.1317					
MEAN	50	Lt = 0.14					

a. Finding Z score

Formula: Zi 1 = $\frac{xi - \bar{x}}{s}$

Zi 1 = $\frac{40-50}{6,36}$ = -1.57

Zi 2 = $\frac{45-50}{6,36}$ = -0.78

Zi 3 = $\frac{50-50}{6,36}$ = 0

Zi 4 = $\frac{55-50}{6,36}$ = 0.78

Zi 5 = $\frac{60-50}{6,36}$ = 1.57

B. Finding S(Zi)

S(Zi) = $\frac{F\ kum}{N}$

S(Zi) = $\frac{5}{38}$ = 0.1315

S(Zi) = $\frac{15}{38}$ = 0.3947

S(Zi) = $\frac{23}{38}$ = 0.6052

S(Zi) = $\frac{33}{38}$ = 0.8684

S(Zi) = $\frac{38}{38}$ = 1

From the table above, it can be seen that Liliefors observation or Lo = - 0.1317 with n = 38 and at real level α = 0.05 from the list of critical value of Liliefors table Lt = 0.14. It is known that the coeficient of Lo (0.1317) < Lt (0.14). So it can concluded that the data distribution of the students' ability in writing paragraph text normal.

Table: 4.5

Frequency Distribution of Post Test in Experimental Group

No	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	65	8	520	4225	33800
2	70	5	350	4900	24500
3	75	10	750	5625	56250
4	85	10	850	7225	72250
5	90	5	450	8100	40500
Total		38	2920	30075	227300

from the data above, the result of $FiXi^2$ is 227300 and FiXi 2920. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\overline{x} = \frac{\sum fi\, Xi}{\sum fi}$$

Where:

$$\overline{x} = \frac{\sum fi\, Xi}{\sum fi}$$

Where: $\overline{x}$ = Mean of Variable x
$\sum$FiXi = Total number of score
$\sum$Fi = Number of sample

So,

$$\overline{x} = \frac{\sum fi\, Xi}{\sum fi}$$
$$= \frac{2920}{38}$$
= 76.84

b. Variant

Where :

S^2 = variant
N = Number of sample

So'

$$S^2 = \frac{N\sum FiXi^2 - (\sum FiXi)^2}{N(N-1)}$$

$$= \frac{38x\ 227300 - (2920)^2}{38(38-1)}$$

$$= \frac{8637400 - 8526400}{38(37)}$$

$$= \frac{111000}{1406}$$

= 78.94

c. Standard Deviation

$S = \sqrt{S^2}$

$= \sqrt{78,94} = 8.88$

After getting the calculation of mean, variant and deviation standard, then the next step is to found out the normality of the test. It means that the test was given to the students' is observed by Liliefors test. The calculation of normality writing text can be seen in the following table:

Table: 4.6

Normality Testing of Post Test in Exprimental Group

NO	SCORE	F	Fkum	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)

1	65	8	8	-1.33	0.0918	0.2105	-0.1187
2	65	8	8	-1.33	0.0918	0.2105	-0.1187
3	65	8	8	-1.33	0.0918	0.2105	-0.1187
4	65	8	8	-1.33	0.0918	0.2105	-0.1187
5	65	8	8	-1.33	0.0918	0.2105	-0.1187
6	65	8	8	-1.33	0.0918	0.2105	-0.1187
7	65	8	8	-1.33	0.0918	0.2105	-0.1187
8	65	8	8	-1.33	0.0918	0.2105	-0.1187
9	70	5	13	-0.77	0.2206	0.3421	-0.1215
10	70	5	13	-0.77	0.2206	0.3421	-0.1215
11	70	5	13	-0.77	0.2206	0.3421	-0.1215
12	70	5	13	-0.77	0.2206	0.3421	-0.1215
13	70	5	13	-0.77	0.2206	0.3421	-0.1215
14	75	10	23	-0.2	0.4207	0.6052	-0.1845
15	75	10	23	-0.2	0.4207	0.6052	-0.1845
16	75	10	23	-0.2	0.4207	0.6052	-0.1845
17	75	10	23	-0.2	0.4207	0.6052	-0.1845
18	75	10	23	-0.2	0.4207	0.6052	-0.1845
19	75	10	23	-0.2	0.4207	0.6052	-0.1845
20	75	10	23	-0.2	0.4207	0.6052	-0.1845
21	75	10	23	-0.2	0.4207	0.6052	-0.1845
22	75	10	23	-0.2	0.4207	0.6052	-0.1845
23	75	10	23	-0.2	0.4207	0.6052	-0.1845
24	85	10	33	0.91	0.8186	0.8684	-0.0498
25	85	10	33	0.91	0.8186	0.8684	-0.0498
26	85	10	33	0.91	0.8186	0.8684	-0.0498

27	85	10	33	0.91	0.8186	0.8684	-0.0498
28	85	10	33	0.91	0.8186	0.8684	-0.0498
29	85	10	33	0.91	0.8186	0.8684	-0.0498
30	85	10	33	0.91	0.8186	0.8684	-0.0498
31	85	10	33	0.91	0.8186	0.8684	-0.0498
32	85	10	33	0.91	0.8186	0.8684	-0.0498
33	85	10	33	0.91	0.8186	0.8684	-0.0498
34	90	5	38	1.48	0.9306	1	-0.0694
35	90	5	38	1.48	0.9306	1	-0.0694
36	90	5	38	1.48	0.9306	1	-0.0694
37	90	5	38	1.48	0.9306	1	-0.0694
38	90	5	38	1.48	0.9306	1	-0.0694
TOTAL	2920	Lo= -0.1845					
MEANT	76.84211	Lt= 0.14					

a. Finding Z Score

Formula: Zi 1 $= \frac{xi - \bar{x}}{s}$

Zi 1 $= \frac{65-76,84}{8,88}$ = -1.33

Zi 2 $= \frac{70-76,84}{8,88}$ = -0.77

Zi 3 $= \frac{75-76,84}{8,88}$ = -0.20

Zi 4 $= \frac{85-76,84}{8,88}$ = 0.91

Zi 5 $= \frac{90-76,84}{8,88}$ = 1.48

b. Finding S(Zi)

S(Zi) $= \frac{F\ kum}{N}$

S(Zi) $= \frac{8}{38}$ = 0.2105

S(Zi) $= \frac{13}{38}$ =0.3421

S(Zi) $= \frac{23}{38}$ =0.6052

S(Zi) $= \frac{33}{38}$ = 0.8684

S(Zi) $= \frac{38}{38}$ = 1

From the table above, it can be seen that Liliefors observationor Lo= -0.1845 with n = 38 and at real level α= 0.05 from the list of critical value of Liliefors table Lt = 0.14. It is known that the coeficient of Lo (-0.1845) < Lt (0.14). So it can be concluded that the data distribution of the students' ability in writing text normal.

1.2 Normality Testing of Control Group

Table: 4.7

Frequency Distribution of Pre Test in Control Group

No	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	30	10	300	900	9000
2	40	10	400	1600	16000
3	45	8	360	2025	16200
4	50	5	250	2500	12500
5	55	5	275	3025	15125
Total		38	1585	10050	68825

from the data above, the result $FiXi^2$ is 68825 and FiXi is 1585. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum fi\,Xi}{\sum fi}$$

Where:

$$\bar{x} = \frac{\sum fi\,Xi}{\sum fi}$$

Where: $\bar{x}$ = Mean of Variable x

$\sum$FiXi = Total number of score

$\sum$Fi = Number of sample

So,

$$\bar{x} = \frac{\sum fi\,Xi}{\sum fi}$$

$$= \frac{1585}{38}$$

= 41.71

b. Variant

Where :

S^2 = variant

N = Number of sample

So'

$$S^2 = \frac{N\sum FiXi^2 - (\sum FiXi)^2}{N(N-1)}$$

$$= \frac{38x68825 - (1585)^2}{38(38-1)}$$

$$= \frac{2615350 - 2512225}{38(37)}$$

$$= \frac{103125}{1406}$$

=73.34

c. **Standard Deviation**

$$S = \sqrt{S^2}$$

$$= \sqrt{73{,}34} = 8.56.$$

After getting the calculation of mean, variant and standard deviation, then the next step is to find out the normality of the test. It means that the test was given to the students' is observed by Liliefots test. The calculation of normality writing paragraph can be seen in the following table:

Table: 4.8

Normality Testing of Pre Test in Control Group

NO	SCORE	F	Fkum	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)
1	30	10	10	-1.36	0.0869	0.2631	-0.1762
2	30	10	10	-1.36	0.0869	0.2631	-0.1762
3	30	10	10	-1.36	0.0869	0.2631	-0.1762
4	30	10	10	-1.36	0.0869	0.2631	-0.1762
5	30	10	10	-1.36	0.0869	0.2631	-0.1762
6	30	10	10	-1.36	0.0869	0.2631	-0.1762
7	30	10	10	-1.36	0.0869	0.2631	-0.1762
8	30	10	10	-1.36	0.0869	0.2631	-0.1762
9	30	10	10	-1.36	0.0869	0.2631	-0.1762
10	30	10	10	-1.36	0.0869	0.2631	-0.1762
11	40	10	20	-0.19	0.4247	0.5263	-0.1016
12	40	10	20	-0.19	0.4247	0.5263	-0.1016
13	40	10	20	-0.19	0.4247	0.5263	-0.1016
14	40	10	20	-0.19	0.4247	0.5263	-0.1016
15	40	10	20	-0.19	0.4247	0.5263	-0.1016
16	40	10	20	-0.19	0.4247	0.5263	-0.1016
17	40	10	20	-0.19	0.4247	0.5263	-0.1016

18	40	10	20	-0.19	0.4247	0.5263	-0.1016
19	40	10	20	-0.19	0.4247	0.5263	-0.1016
20	40	10	20	-0.19	0.4247	0.5263	-0.1016
21	45	8	28	0.38	0.648	0.7368	-0.0888
22	45	8	28	0.38	0.648	0.7368	-0.0888
23	45	8	28	0.38	0.648	0.7368	-0.0888
24	45	8	28	0.38	0.648	0.7368	-0.0888
25	45	8	28	0.38	0.648	0.7368	-0.0888
26	45	8	28	0.38	0.648	0.7368	-0.0888
27	45	8	28	0.38	0.648	0.7368	-0.0888
28	45	8	28	0.38	0.648	0.7368	-0.0888
29	50	5	33	0.96	0.8315	0.8684	-0.0369
30	50	5	33	0.96	0.8315	0.8684	-0.0369
31	50	5	33	0.96	0.8315	0.8684	-0.0369
32	50	5	33	0.96	0.8315	0.8684	-0.0369
33	50	5	33	0.96	0.8315	0.8684	-0.0369
34	55	5	38	1.55	0.9394	1	-0.0606
35	55	5	38	1.55	0.9394	1	-0.0606
36	55	5	38	1.55	0.9394	1	-0.0606
37	55	5	38	1.55	0.9394	1	-0.0606
38	55	5	38	1.55	0.9394	1	-0.0606
TOTAL	1585	Lo= -0.1762					
MEAN	41.71053	Lt= 0.14					

a. Finding Z Score

Formula: Zi 1 $= \frac{xi - \bar{x}}{s}$

Zi 1 $= \frac{30-41,71}{8,56}$ = -1.36

Zi 2 $= \frac{40-41,71}{8,56}$ = -0.19

Zi 3 $= \frac{45-41,71}{8,56}$ = 0.38

Zi 4 $= \frac{50-41,71}{8,56}$ = 0.96

Zi 5 $= \frac{55-41,71}{8,56}$ = 1.55

b. Finding S(Zi)

S(Zi) $= \frac{F\ kum}{N}$

S(Zi) $= \frac{10}{38}$ = 0.2631

S(Zi) $= \frac{20}{38}$ = 0.5263

S(Zi) $= \frac{28}{38}$ = 0.7368

S(Zi) $= \frac{33}{38}$ = 0.8684

S(Zi) $= \frac{38}{38}$ = 1

From the table above, it can be seen that Liliefors observation or Lo= -0.1762 with n= 38 and at real level α = 0.05 from the list of crtical value of Liliefors table Lt = 0.14. It is known that the coefficient of Lo (-0.1762) < Lt (0.14). So it can be concluded that the data distribution of the students' ability in writing paragraph normal.

Table 4.9

Frequency Distribution of Post Test in Control Group

No	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	60	12	720	3600	43200
2	65	8	520	4225	33800
3	72	10	720	5184	51840
4	78	5	390	6084	30420
5	80	3	240	6400	19200
Total		38	2590	25493	178460

Based on the data above, the result of $FiXi^2$ is 178460 and FiXi is 2590. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum fi\, Xi}{\sum fi}$$

Where:

$$\bar{x} = \frac{\sum fi\, Xi}{\sum fi}$$

Where: $\bar{x}$ = Mean of Variable x
$\sum$FiXi = Total number of score
$\sum$Fi = Number of sample

So,

$$\bar{x} = \frac{\sum fi\, Xi}{\sum fi}$$
$$= \frac{2590}{38}$$
$$= 68.15$$

b. Variant

Where :

S^2 = variant

N = Number of sample

So'

$$S^2 = \frac{N\sum FiXi^2 - (\sum FiXi)^2}{N(N-1)}$$

$$= \frac{38(178460) - (2590)^2}{38(38-1)}$$

$$= \frac{678140 - 6708100}{38(37)}$$

$$= \frac{73,380}{1406}$$

$$= 52.19$$

c. Standard Deviation

$$S = \sqrt{S^2}$$

$$= \sqrt{52,19} = 7.22$$

After getting the calculation of mean, variant and standard deviation then the next step is to find out the normality of the test. It means that the test was given to the students' is observed by Liliefors test. The calculation of normality writing text can be seen in the following table:

Table 4.10

Normality Testing of Post Test in Control Group

NO	SCORE	F	Fkum	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)
1	60	12	12	-1.12	0.1314	0.3157	-0.1843
2	60	12	12	-1.12	0.1314	0.3157	-0.1843
3	60	12	12	-1.12	0.1314	0.3157	-0.1843
4	60	12	12	-1.12	0.1314	0.3157	-0.1843
5	60	12	12	-1.12	0.1314	0.3157	-0.1843
6	60	12	12	-1.12	0.1314	0.3157	-0.1843
7	60	12	12	-1.12	0.1314	0.3157	-0.1843
8	60	12	12	-1.12	0.1314	0.3157	-0.1843
9	60	12	12	-1.12	0.1314	0.3157	-0.1843
10	60	12	12	-1.12	0.1314	0.3157	-0.1843
11	60	12	12	-1.12	0.1314	0.3157	-0.1843
12	60	12	12	-1.12	0.1314	0.3157	-0.1843
13	65	8	20	-0.43	0.3336	0.5263	-0.1927
14	65	8	20	-0.43	0.3336	0.5263	-0.1927
15	65	8	20	-0.43	0.3336	0.5263	-0.1927
16	65	8	20	-0.43	0.3336	0.5263	-0.1927
17	65	8	20	-0.43	0.3336	0.5263	-0.1927
18	65	8	20	-0.43	0.3336	0.5263	-0.1927
19	65	8	20	-0.43	0.3336	0.5263	-0.1927
20	65	8	20	-0.43	0.3336	0.5263	-0.1927
21	72	10	30	0.53	0.7019	0.7894	-0.0875

22	72	10	30	0.53	0.7019	0.7894	-0.0875
23	72	10	30	0.53	0.7019	0.7894	-0.0875
24	72	10	30	0.53	0.7019	0.7894	-0.0875
25	72	10	30	0.53	0.7019	0.7894	-0.0875
26	72	10	30	0.53	0.7019	0.7894	-0.0875
27	72	10	30	0.53	0.7019	0.7894	-0.0875
28	72	10	30	0.53	0.7019	0.7894	-0.0875
29	72	10	30	0.53	0.7019	0.7894	-0.0875
30	72	10	30	0.53	0.7019	0.7894	-0.0875
31	78	5	35	1.36	0.9131	0.921	-0.0079
32	78	5	35	1.36	0.9131	0.921	-0.0079
33	78	5	35	1.36	0.9131	0.921	-0.0079
34	78	5	35	1.36	0.9131	0.921	-0.0079
35	78	5	35	1.36	0.9131	0.921	-0.0079
36	80	3	38	1.64	0.9495	1	-0.0505
37	80	3	38	1.64	0.9495	1	-0.0505
38	80	3	38	1.64	0.9495	1	-0.0505
TOTAL	2590	Lo= -0.1927					
MEAN	68.15789	Lt= 0.14					

a. Finding Z Score

Formula: Zi 1 $= \frac{xi - \bar{x}}{s}$

Zi 1 $= \frac{60-68,15}{7,22}$ = -1.12

Zi 2 $= \frac{65-68,15}{7,22}$ = -0.43

Zi 2 $= \frac{72-68,15}{7,22}$ = 0.53

Zi 2 $= \frac{78-68,15}{7,22}$ = 1.36

Zi 2 $= \frac{80-68,15}{7,22}$ = 1.64

Finding S(Zi)

S(Zi) $= \frac{F\ kum}{N}$

S(Zi) $= \frac{12}{38}$ = 0.3157

S(Zi) $= \frac{20}{38}$ = 0.5263

S(Zi) $= \frac{30}{38}$ = 0.7894

S(Zi) $= \frac{35}{38}$ = 0.9210

S(Zi) $= \frac{38}{38}$ =1

From the table above, it can be seen that Liliefors observation or Lo= -0.1927 with n= 38 and at real α = 0.05 from the list of critical value of Liliefors table Lt= 0.14. It is known that the coefficient of Lo (-0.1927) < Lt (0.14). So it can be concluded that the data distribution of the students' ability in writing text is normal.

C.2. Homogenity Testing

2.1 Homogenity Testing of Pre Test

$F_{obs} = \frac{S1^2}{s2^2}$

Where: $S1^2$ = the biggest variant

$S2^2$ = the smallest variant

Based on the variants of both samples of pre test found that:

S^2_{ex} = 40.54 N = 38

S^2_{co} = 73.94 N = 38

So :

$F_{obs} = \frac{40,54}{73,94} = 0.55$

Then the coefficient of $F_{obs} = 0.55$ is compared with F_{table}, where F_{table} is determined at real $\alpha = 0,05$ and the same numerator dk = 38-1 = 38-1 that was exist dk numerator 37, the denominator dk = 38-1 (38-1= 37). Then F_{table} can be calculated $F_{0,05(38;38)} = 1.72$

So $F_{obs} < F_{table}$ or (0.55 < 1.72) so it can be concluded that the variant is homogenous.

2.2 Homogenity Testing of Post Test

$F_{obs} = \frac{S1^2}{s2^2}$

Where: $S1^2$ = the biggest variant

$S2^2$ = the smallest variant

Based on the variants of both samples of pre test found that:

$S^2_{ex} = 78.94$ N = 38
$S^2_{co} = 52.19$ N = 38

So :

$F_{obs} = \frac{78,94}{52,19} = 1.51$

Then the coefficient of $F_{obs} = 1.51$ is compared with F_{table}, where F_{table} is determined at real $\alpha = 0.05$ and the same numerator dk =38-1 = 37 that was exist dk numerator 37, the denominator dk = 38-1 (38-1= 37). Then F_{table} can be calculated $F_{0,05(38;38)} = 1.72$

So $F_{obs} < F_{table}$ or (1.51 < 1.72) so it can be concluded that the variant is homogeneous.

C.3. Hyphothesis Testing

Table 4.11

Mean of Post Test- Pre Test in Exprimental Group

NO	SCORE POST TEST	SCORE PRE TEST	GAIN SCORE
1	90	60	30
2	65	55	10
3	75	55	20
4	85	60	25
5	65	45	20
6	65	45	20
7	65	45	20
8	70	45	25
9	75	45	30
10	90	60	30
11	85	60	25
12	75	50	25
13	85	50	35
14	75	50	25
15	75	55	20
16	85	55	30
17	70	45	25
18	85	45	40

19	90	60	30
20	75	55	20
21	85	50	35
22	65	50	15
23	90	50	40
24	65	45	20
25	75	45	30
26	85	40	45
27	70	40	30
28	65	40	25
29	90	55	35
30	85	55	30
31	85	55	30
32	85	50	35
33	70	50	20
34	75	40	35
35	65	40	25
36	75	55	20
37	70	55	15
38	75	45	30
			1020
			26.84210526

Table: 4.12

Mean of Post Test- Pre Test in Control Group

N0	SCORE POST TEST	SCORE PRE TEST	GAIN SCORE
1	60	30	30
2	60	30	30
3	65	30	35
4	65	30	35
5	78	50	28
6	60	45	15
7	65	40	25
8	65	40	25
9	65	40	25
10	65	40	25
11	78	45	33
12	60	45	15
13	72	55	17
14	78	50	28
15	72	50	22
16	60	30	30
17	60	30	30
18	78	55	23
19	80	55	25
20	80	55	25

21	72	45	27
22	72	45	27
23	60	40	20
24	60	40	20
25	60	30	30
26	72	30	42
27	80	55	25
28	65	30	35
29	72	40	32
30	72	40	32
31	72	45	27
32	72	40	32
33	72	45	27
34	78	50	28
35	65	45	20
36	60	40	20
37	60	50	10
38	60	30	30
			1005
			26.44736842

Before doing hypothesis testing by using t-test, in this case is done by taken post-test score in experimental class and post test score in control class. The post test score is taken because the score that have gotten after teaching learning process.

The formula t-test used as follows :

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1}\ \frac{S_2^2}{n_2}}}$$

$$= \frac{26.84 - 14.30}{\sqrt{\frac{8.88^2}{38}\ \frac{7.22^2}{38}}}$$

$$= \frac{26.84 - 14.30}{\sqrt{\frac{78.84}{38}\ \frac{52.13}{38}}}$$

$$= \frac{12.54}{1.85}$$

$$= 6.77$$

The coefficient of t_{count} was 6.77 that was compared with t_{table} , where the coefficient of t_{table} at real level $\propto$ 0.05 with df = 38 + 38 -2 = 74 gained the coefficient of $t_{(0,05)(74)}$ = 1.99 In fact , the coefficient of t_{count} (6.77) > t_{table} (1.99). It shows that t_{count} is in zero hypothesis rejection (H_0) is accepted. It means that the alternative hypothesis which is proposed by the researcher that there is significant effect of SWELL method to students' Achievement in writing narrative paragraph is accepted.