

No	Pertanyaan	Ya	Tidak
1.	Apakah kamu suka membuat mainan dari <i>dough</i> ?		
2.	Apakah kamu suka menggambar dan mewarnai?		
3.	Apakah kamu suka dibacakan cerita oleh papa/mama?		
4.	Apakah kamu lebih bisa mengerti pelajaran kalau ibu/bapak guru menuliskannya di papan?		
5.	Apakah kamu lebih bisa mengerti pelajaran kalau ibu/bapak guru memberikan games?		
6.	Apakah kamu lebih bisa mengerti pelajaran kalau ibu/bapak guru menjelaskannya tanpa menuliskan di papan?		
7.	Apakah kamu suka berolahraga?		
8.	Apakah kamu suka mendengarkan lagu?		
9.	Apakah kamu suka menonton TV?		
10.	Apakah kamu tidak suka kalau di kelas teman-teman jalan-jalan atau berlari-lari?		
11.	Apakah kamu tidak suka kalau teman-teman ramai waktu pelajaran?		
12.	Apakah kamu tidak suka kalau kursi dan meja di kelas tidak rapi.		
13.	Apakah kamu lebih suka membaca buku pelajaran ketika menghafal ?		
14.	Apakah kamu lebih suka membaca buku keras-keras ketika menghafal?		
15.	Apakah kamu mengerjakan soal-soal latihan agar cepat menghafal pelajaran?		
16.	Apakah kamu tidak suka duduk berlama-lama?		
17.	Apakah kamu lebih suka bercerita daripada menulis?		
18.	Apakah kamu suka membaca buku?		

## -QUESTIONNAIRE-

Additional question:

Ketika belajar "preposition" kamu paling suka kalau:

- a. Bu Guru menunjukkan gambar-gambar
- b. Bu Guru menjelaskan arti preposition saja
- c. Bu Guru menyuruh kamu bergerak sesuai preposition yang disebutkan Bu Guru

APPENDIX 2

Students' Numbers	Question Number:(Visual)							Total	Question Number : (Auditory)							Total	Question Number : (Kinesthetic)							Total	Classification
	1	2	3	4	5	6	7		8	9	10	11	12	13	14		15	16	17	18	19	20	21		
1.	√		√		√			3	√		√	√	√		√		√		√		√		3	Auditory	
2.	√	√	√	√	√	√	√	7		√							√	√	√	√			5	Visual	
3.	√	√		√		√	√	5	√	√	√	√		√			√					√		2	Visual*
4.	√	√	√		√	√	√	6	√		√		√		√						√			3	Visual
5.	√		√	√		√		4	√			√	√		√			√	√					3	Visual*
6.	√	√	√			√		4		√				√			√	√				√		6	Kinesthetic
7.	√	√	√	√	√	√	√	7	√		√		√		√			√	√			√		4	Visual
8.		√	√	√	√	√	√	6		√		√	√	√			√	√	√					3	Visual
9.	√	√	√	√	√	√	√	7	√		√		√		√		√	√	√	√	√	√	√	7	Kinesthetic*
10.	√	√	√	√		√	√	6	√	√		√	√	√			√			√	√			5	Visual
11.		√	√		√	√	√	5	√				√					√	√					4	Visual
12.	√	√	√	√	√	√		6		√	√	√	√		√			√						3	Visual
13.		√	√	√	√		√	5	√	√	√	√	√	√							√			2	Auditory
14.	√		√			√	√	4		√		√	√				√	√	√	√				6	Kinesthetic
15.	√	√	√	√	√	√	√	7	√		√		√	√	√			√	√	√				4	Visual
16.	√	√	√	√	√	√	√	7		√	√	√	√		√			√	√	√	√			6	Visual
17.	√	√	√	√			√	6	√		√	√					√		√	√				3	Visual
18.		√	√		√	√		4	√			√					√	√	√	√		√	√	6	Kinesthetic
19.	√		√	√		√	√	5		√	√	√	√	√			√		√					3	Auditory

*\*) Those students had 2 dominant learning styles. Therefore, their one most dominant learning style was determined by the additional question.*

Students'	Question Number:(Visual)	Total	Question Number : (Auditory)	Total	Question Number : (Kinesthetic)	Total	Classification
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**Table 2.2**

**The Result of Questionnaire of Experimental Group**

	1	2	3	4	5	6	7		8	9	10	11	12	13	14		15	16	17	18	19	20	21		
<b>1.</b>	√	√	√	√	√	√	√	7		√	√		√	√	√	5	√	√		√			√	4	Visual
<b>2.</b>		√	√	√		√	√	5	√			√	√			3	√		√		√	√		4	Visual
<b>3.</b>	√	√		√		√		4	√	√	√	√	√	√		6			√	√		√		3	Auditory
<b>4.</b>	√	√	√	√	√		√	6	√	√		√			√	4	√	√	√	√			√	5	Visual
<b>5.</b>	√		√			√		3	√		√		√			3		√	√	√	√	√	√	6	Kinesthetic
<b>6.</b>	√	√	√		√			4	√		√	√		√	√	5		√			√	√		3	Auditory
<b>7.</b>	√	√	√	√	√	√	√	7		√		√	√		√	4	√	√	√		√		√	5	Visual
<b>8.</b>			√		√		√	3	√		√	√		√		4	√	√	√	√	√	√	√	7	Kinesthetic
<b>9.</b>	√		√		√	√	√	5	√	√		√	√	√	√	6		√	√	√				3	Auditory
<b>10.</b>		√		√	√	√	√	5			√	√	√			3	√		√	√	√	√		5	Kinesthetic*
<b>11.</b>	√	√	√	√	√	√	√	7	√	√		√		√	√	5	√	√		√	√	√		5	Visual
<b>12.</b>	√	√	√	√	√	√	√	7			√		√	√	√	5			√	√	√	√		4	Visual
<b>13.</b>	√		√	√	√	√	√	6			√	√				2	√		√		√	√	√	5	Visual
<b>14.</b>	√	√	√	√		√	√	6	√	√			√	√		4		√			√	√		3	Visual
<b>15.</b>	√	√	√	√		√	√	6			√	√	√		√	4		√		√	√		√	4	Visual
<b>16.</b>	√			√		√		3		√	√	√	√	√	√	6		√			√			2	Auditory
<b>17.</b>	√	√	√	√	√	√	√	7	√		√				√	3	√	√	√	√	√	√		6	Visual
<b>18.</b>	√		√	√			√	4	√	√	√	√	√	√	√	7	√		√		√	√	√	5	Auditory

*\*) Those students had 2 dominant learning styles. Therefore, their one most dominant learning style was determined by the additional question.*

Students' Numbers	Question Number:(Visual)							Total	Question Number : (Auditory)							Total	Question Number : (Kinesthetic)							Total	Classification
	1	2	3	4	5	6	7		8	9	10	11	12	13	14		15	16	17	18	19	20	21		
1.	√	√	√	√	√	√	√	7	√		√		√	√		4	√					√		2	Visual
2.	√	√	√	√		√		5	√	√		√	√	√	√	6		√		√	√	√		4	Auditory

3.	√		√		√	√	√	5			√	√			√	3		√	√	√	√	√	√	6	Kinesthetic	
4.	√	√	√	√		√	√	6	√	√	√	√	√	√	Table 2.3	√	√		√		√		√	4	Visual*	
5.	√	√	√	√	√	√	√	7			√		√		√	3		√	√		√	√	√	5	Visual	
6.	√	√	√	√	√			5	√						The Result of Questionnaire of Control Group	√				√		√		4	Visual	
7.		√	√	√		√	√	5		√			√	√		3	√	√	√	√	√	√	√	7	Kinesthetic	
8.	√		√	√	√		√	5	√		√	√		√	√	5	√		√		√		√	4	Auditory*	
9.	√	√		√	√		√	5		√		√	√			3		√	√	√	√	√	√	5	Kinesthetic *	
10.	√	√	√	√	√	√	√	7	√		√	√	√	√		5	√		√	√	√	√		√	5	Visual
11.	√		√			√		3		√	√		√		√	4	√	√	√		√	√		5	Kinesthetic	
12.	√	√	√	√		√		5	√	√	√	√	√	√		6	√		√	√	√	√		4	Auditory	
13.	√	√	√	√	√	√	√	7	√		√		√	√		4		√		√		√	√	4	Visual	
14.		√	√	√	√		√	5	√	√		√			√	4	√	√			√	√		4	Visual	
15.	√		√	√	√	√	√	6	√		√		√		√	4			√	√	√	√	√	5	Visual	
16.		√	√	√				3	√	√	√	√	√	√		7	√	√		√	√	√		5	Auditory	
17.	√	√	√	√	√	√	√	7		√		√				2			√		√	√		3	Visual	
18.	√		√	√	√		√	5	√		√		√		√	4		√			√	√	√	4	Visual	

\*) Those students had 2 dominant learning styles. Therefore, their one most dominant learning style was determined by the additional question.

APPENDIX 3

Name: .....

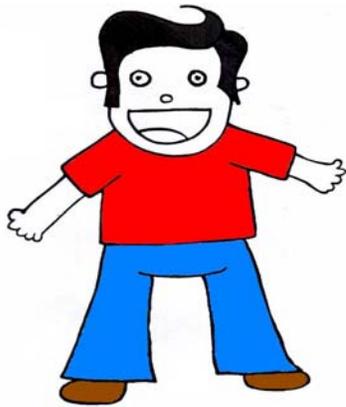
Class: I - ..... no.....

I. Look at the pictures and fill in the blanks the color of Peter's clothes!

Monday and Tuesday

Wednesday and Thursday

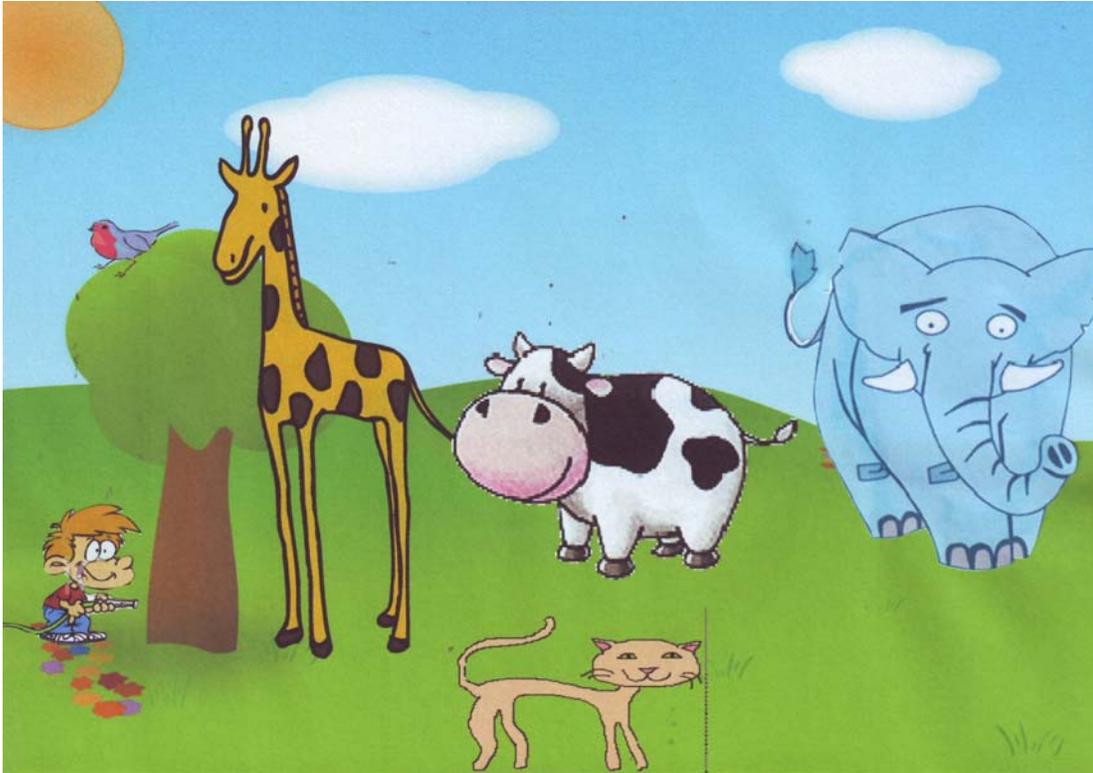
Friday and Saturday



Peter is my friend. He studies at Sunshine Elementary School. He wears uniform when he goes to school. On Mondays and Tuesdays, he wears a (1)..... shirt, (2)..... pants, and ..... shoes.

On Wednesdays and Thursdays, he wears a (4)..... shirt, (5) ..... pants, and (6) ..... shoes.

He has a sport time on Fridays and Saturdays. He



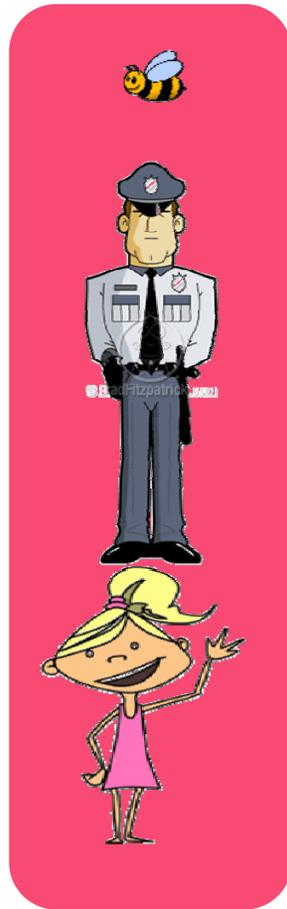
likes playing football very much. When he plays a football, he wears a (7).....shirt, (8).....shorts, and (9) .....socks, and (10) .....shoes.

All of Peter's uniforms are so great!

red	yellow	green	blue	brown
purple	pink	black	gray	orange

iii. Choose the size of these things.

True or false? Tick the correct box!

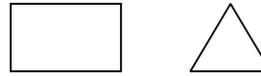


11. The girl is fat
12. The caterpillar is small.
13. The boy is tall.
14. The giraffe is short.
15. The cat is thin.
16. The cow is fat.
17. The elephant is small.

18. The bird is big.



19. The policeman is short.



20. The bee is small.

-61-

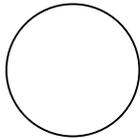
### III. What shape it is?

21.



It is a \_\_\_\_\_

22.



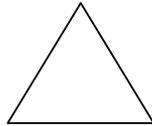
It is a \_\_\_\_\_

23.



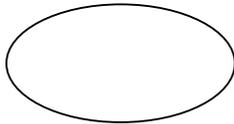
It is a \_\_\_\_\_

24.



It is a \_\_\_\_\_

25.



It is an \_\_\_\_\_

triangle

oval

rectangle

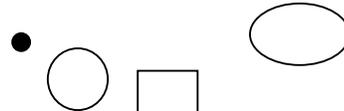
square

circle

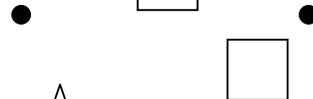
IV. I It is an \_\_\_\_\_

ture!

26. I have a triangle and a star.



27. These are a circle and an oval.



28. Victor draws an oval and a square.



29. There are two squares.



30. Jack has a rectangle and a triangle. ●







APPENDIX 5

THE TABLE OF STUDENTS' REGULAR TEST SCORE

Table 5.1 The Regular Test Score of Visual Learners

Pilot Group			Experimental Group			Control Group		
ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>
2	7.8	60.84	1	7.8	60.84	1	6.5	42.25
3	9.7	94.09	2	10	100	4	7	49
4	7.2	51.84	4	10	100	5	8.5	72.25
5	10	100	7	6.5	42.25	6	10	100
7	8.0	64	11	6.5	42.25	10	6.5	42.25
8	8.7	75.69	12	7.4	54.76	13	6.5	42.25
10	10	100	13	8.6	73.96	14	10	10
11	8.1	65.61	14	9.8	96.04	15	9	81
12	7.8	60.84	15	7	49	17	10	100
15	6.5	42.25	17	10	100	18	7.8	60.84
16	9.5	90.25						
17	7.6	57.76						
∑x	100.9	863.17	∑x	83.6	719.1	∑x	81.8	689.84
x	8.41		x	8.36		x	8.18	

Table 5.2 The The Regular Test Score of Auditory Learners

Pilot Group			Experimental Group			Control Group		
ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>
1	10	100	3	10	100	2	9.2	84.64
13	10	100	6	8	64	8	7.2	51.84
19	8.1	65.61	9	7	49	12	9.5	90.25
			16	9.3	86.49	16	7.8	60.84
			18	7	49			
∑x	28.1	265.61	∑x	41.3	384.49	∑x	33.7	287.57
x	9.37		x	8.26		x	8.425	

*Table 5.3 The The Regular Test Score of Kinesthetic Learners*

Pilot Group			Experimental Group			Control Group		
ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>	ID	Mark (x)	x <sup>2</sup>
6	7.8	60.84	5	9	81	3	8	64
9	6.5	42.25	7	7.8	60.84	7	7	49
14	8.6	73.96	10	6.8	46.24	9	10	100
18	8.8	77.44				11	8.2	67.24
$\sum x$	31.7	254.49	$\sum x$	23.6	188.08	$\sum x$	33.2	280.24
$\bar{x}$	7.925		$\bar{x}$	7.87		$\bar{x}$	8.3	

*Table 5.4 The The Regular Test Score of the Students in general*

Learning Style	Pilot Group	Experimental Group	Control Group
	Score (x)	Score (x)	Score (x)
Visual	100.9	83.6	81.8
Auditory	28.1	41.3	33.7
Kinesthetic	31.7	23.6	33.2
TOTAL ( $\sum x$ )	160.7	148.5	148.7
$\bar{x}$	8.46	8.25	8.26

**TEST OF HYPOTHESIS OF THE REGULAR TEST SCORE OF THE STUDENTS IN GENERAL**

**I. PILOT GROUP – EXPERIMENTAL GROUP**

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the students in pilot group and experimental group in general.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the students in pilot group and experimental group in general.

T-test where  $df = n_A + n_B - 2 = 19 + 18 - 2 = 35$

$t(5\%) = 1.684$

2. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 8.46$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.157$$

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.25$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.34$$

3. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 0.51$$

4. Conclusion

Because | t-observation | is  $0.51 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the students in pilot group and experimental group in general.

## II. PILOT GROUP – CONTROL GROUP

1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners in pilot group and experimental group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners in pilot group and experimental group.

2. T-test where  $df = n_A + n_B - 2 = 19 + 18 - 2 = 35$

$$t(5\%) = 1.684$$

3. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 8.46$$

$$s.d. = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.159$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.26$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.311 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned} t_o &= \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ &= 0.488 \end{aligned}$$

5. Conclusion

Because | t-observation | is 0.488 < t(5%) , Ho is accepted and Ha is rejected. It means that there is no significant difference between the visual learners in pilot group and experimental group.

### III. EXPERIMENTAL – CONTROL GROUP

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners in pilot group and experimental group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners in pilot group and experimental group.

2. T-test where  $df = n_A + n_B - 2 = 18 + 18 - 2 = 34$

$$t(5\%) = 1.684$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.25$$

$$\text{s.d.} = \sqrt{\frac{n \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.34$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.26$$

$$\text{s.d.} = \sqrt{\frac{n \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.311$$

4. Calculating the standard scores (to) using the formula as follows:

$$\text{to} = \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 0.023$$

5. Conclusion

Because | t-observation | is 0.023 < t(5%) , Ho is accepted and Ha is rejected. It means that there is no significant difference between the visual learners in pilot group and experimental group.

## TEST OF HYPOTHESIS OF THE REGULAR TEST SCORE OF VISUAL LEARNERS

### PILOT GROUP – EXPERIMENTAL GROUP

9. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners in pilot group and experimental group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners in pilot group and experimental group.

10. T-test where  $df = n_A + n_B - 2 = 12 + 10 - 2 = 20$

$$t(5\%) = 1.725$$

11. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 8.41$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.159$$

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.36$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.498$$

12. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned}
\text{to} &= \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\
&= 0.088
\end{aligned}$$

### 13. Conclusion

Because  $|t\text{-observation}|$  is  $0.088 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the visual learners in pilot group and experimental group.

## I. PILOT GROUP – CONTROL GROUP

### 1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners in pilot group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners in pilot group and control group.

### 2. T-test where $df = n_A + n_B - 2 = 12 + 10 - 2 = 20$

$$t(5\%/2) = 1.725$$

### 3. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 8.41$$

s.d. =

$$\sqrt{\frac{n \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.159$$

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.18$$

$$\begin{aligned} \text{s.d.} &= \\ &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.517 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned} \text{to} &= \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ &= 0.404 \end{aligned}$$

5. Conclusion

Because  $|t\text{-observation}|$  is  $0.404 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected.

It means that there is no significant difference between the visual learners in pilot group and control group.

## II. EXPERIMENTAL GROUP – CONTROL GROUP

1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners in experimental group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners in experimental group and control group.

2. T-test where  $df = n_A + n_B - 2 = 10 + 10 - 2 = 18$

$$t(5\%) = 1.734$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.36$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.498$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.18$$

$$\begin{aligned} \text{s.d.} &= \\ &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.517 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned} t_o &= \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ &= 0.267 \end{aligned}$$

5. Conclusion

Because | t-observation | is  $0.267 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected.

It means that there is no significant difference between the visual learners in experimental group and control group.

**TEST OF HYPOTHESIS OF THE REGULAR TEST SCORE OF AUDITORY LEARNERS**

**I. PILOT GROUP – EXPERIMENTAL GROUP**

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners in pilot group and experimental group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the auditory learners in pilot group and experimental group.

2. T-test where  $df = n_A + n_B - 2 = 3 + 5 - 2 = 6$

$$t(5\%) = 1.943$$

3. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 9.37$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.097 \end{aligned}$$

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.26$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.356 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} = 1.191$$

## 5. Conclusion

Because  $|t\text{-observation}|$  is  $1.191 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the auditory learners in pilot group and experimental group.

## II. PILOT GROUP – CONTROL GROUP

### 1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners in pilot group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the auditory learners in pilot group and control group.

### 2. T-test where $df = n_A + n_B - 2 = 3 + 4 - 2 = 5$

$$t(5\%) = 2.015$$

### 3. Calculation for t-observation ( $t_o$ ):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 9.37$$

$$s.d. = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.097$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.425$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.105 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned} t_o &= \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ &= 1.123 \end{aligned}$$

5. Conclusion

Because | t-observation | is  $1.123 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the auditory learners in pilot group and control group.

### III. EXPERIMENTAL GROUP – CONTROL GROUP

1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners in pilot group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is significant difference between the auditory learners in pilot group and control group.

2. t-test where  $df = n_A + n_B - 2 = 5 + 4 - 2 = 7$

$$t(5\%) = 1.895$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.26$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ = 1.356$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.425$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ = 1.105$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ = 0.196$$

5. Conclusion

Because | t-observation | is 0.196 < t(5%), Ho is accepted and Ha is rejected. It means that there is no significant difference between the auditory learners in pilot group and control group.

## TEST OF HYPOTHESIS OF THE REGULAR TEST SCORE OF KINESTHETIC LEARNERS

### I. PILOT GROUP – EXPERIMENTAL GROUP

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the kinesthetic learners in pilot group and experimental group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the kinesthetic learners in pilot group and experimental group.

2. T-test where  $df = n_A + n_B - 2 = 4 + 3 - 2 = 5$

$$t(5\%) = 2.015$$

3. Calculation for t-observation (to):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 7.925$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.044 \end{aligned}$$

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 7.87$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.101 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} = 0.068$$

## 5. Conclusion

Because  $|t\text{-observation}|$  is  $0.068 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the kinesthetic learners in pilot group and experimental group.

## II. PILOT GROUP – CONTROL GROUP

### 1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the kinesthetic learners in pilot group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the kinesthetic learners in pilot group and control group.

### 2. T-test where $df = n_A + n_B - 2 = 4 + 4 - 2 = 6$

$$t(5\%) = 1.943$$

### 3. Calculation for t-observation ( $t_o$ ):

Pilot Group

$$\bar{x} = \frac{\sum x}{n} = 7.925$$

$$s.d. = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.044$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.3$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.248 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$\begin{aligned} t_o &= \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A-1)S_A^2 + (n_B-1)S_B^2}{n_A+n_B-2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} \\ &= 0.461 \end{aligned}$$

5. Conclusion

Because | t-observation | is  $0.461 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the kinesthetic learners in pilot group and control group.

### III. EXPERIMENTAL GROUP – CONTROL GROUP

1. Formulating the hypothesis of analyzing the data:

$H_0$  :  $\mu_A = \mu_B$ , there is no significant difference between the kinesthetic learners in experimental group and control group.

$H_a$  :  $\mu_A > \mu_B$ , there is a significant difference between the kinesthetic learners in experimental group and control group.

2. T-test where  $df = n_A + n_B - 2 = 4 + 4 - 2 = 6$

$$t(5\%) = 1.943$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 7.87$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.101$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 8.3$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.248$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}} = 0.473$$

5. Conclusion

Because  $|t\text{-observation}|$  is  $0.473 < t(5\%)$ , so  $H_0$  is accepted and  $H_a$  is rejected.

It means that there is no significant difference between the kinesthetic learners in experimental group and the control group.

## APPENDIX 6

### THE RESULT OF THE PRE-TEST

*Table 6.1 The Result of the Pre-test of Visual Learners*

Students' ID	Experimental Group		Students' ID	Control Group	
	Correct Answers (x)	x <sup>2</sup>		Correct Answers (x)	x <sup>2</sup>
1	18	324	1	8	64
2	23	529	4	13	169
4	21	441	5	19	361
7	7	49	6	22	484
11	10	100	10	8	64
12	11	121	13	10	100
13	18	324	14	26	676
14	19	361	15	20	400
15	14	196	17	21	441
17	20	400	18	15	225
$\sum x$	161	2845	$\sum x$	162	2984
$\bar{x}$	16.1		$\bar{x}$	16.2	

*Table 6.2 The Result of the Pre-test of Auditory Learners*

Students' ID	Experimental Group		Students' ID	Control Group	
	Correct Answers (x)	x <sup>2</sup>		Correct Answers (x)	x <sup>2</sup>
3	19	361	2	21	441
6	17	289	8	15	225
9	10	100	12	21	441
16	21	441	16	11	121
18	12	144			
$\sum x$	79	1335	$\sum x$	68	1228
$\bar{x}$	15.8		$\bar{x}$	17	

**Table 6.3 The Result of the Pre-test of Kinesthetic Learners**

Students' ID	Experimental Group		Students' ID	Control Group	
	Correct Answers (x)	x <sup>2</sup>		Correct Answers (x)	x <sup>2</sup>
5	19	361	3	16	256
8	12	144	7	14	196
10	10	100	9	24	576
			11	19	361
$\sum x$	41		$\sum x$	73	1389
$\bar{x}$	13.67		$\bar{x}$	18.25	

**Table 6.4 The Result of the Pre-test of in general**

Learning Style	Experimental Group	Learning Style	Control Group
	Correct Answer (x)		Correct Answer (x)
Visual	161	Visual	162
Auditory	79	Auditory	68
Kinesthetic	41	Kinesthetic	73
TOTAL ( $\sum x$ )	281	TOTAL ( $\sum x$ )	303
$\bar{x}$	15.61	$\bar{x}$	16.83

## TEST OF HYPOTHESIS OF PRE-TEST OF THE STUDENTS IN GENERAL

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the students' pre-test score in experimental group and the control group in general.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the students' pre-test score in experimental group and the control group in general.

2. T-test where  $df = n_A + n_B - 2 = 18 + 18 - 2 = 34$

$$t(5\%) = 1.684$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 15.61$$

s.d. =

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 4.84$$

Control Group

$$\bar{x} = \quad = 16.83$$

$$\text{s.d.} = \frac{\sum x}{n}$$

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 5.43$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_0 = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 0.72$$

## 5. Conclusion

Because | t-observation | is  $0.728 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the kinesthetic learners in pilot group and experimental group.

## TEST OF HYPOTHESIS OF PRE-TEST OF VISUAL LEARNERS

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners' pre-test score in experimental group and the control group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners' pre-test score in experimental group and the control group.

T-test where  $df = n_A + n_B - 2 = 10 + 10 - 2 = 18$

$$t(5\%) = 1.734$$

2. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 16.1$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 5.3 \end{aligned}$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 16.2$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 6.32 \end{aligned}$$

3. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{x}_A - \bar{x}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2}} \cdot \sqrt{\frac{1}{n_A} + \frac{1}{n_B}}}$$

$$= 0.038$$

#### 4. Conclusion

Because  $|t\text{-observation}|$  is  $0.038 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the visual learners' pre-test score in experimental group and the control group.

## THE TEST OF HYPOTHESIS OF PRE-TEST OF AUDITORY

### LEARNERS

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners' pre-test score in experimental group and the control group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the auditory learners' pre-test score in experimental group and the control group.

2. T-test where  $df = n_A + n_B - 2 = 5 + 4 - 2 = 7$

$$t(5\%) = 1.895$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 15.8$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 4.658 \end{aligned}$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 17$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 4.90 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 0.375$$

#### 5. Conclusion

Because | t-observation | is  $0.375 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant difference between the auditory learners' pre-test score in experimental group and the control group.

**THE TEST OF HYPOTHESIS OF PRE-TEST OF KINESTHETIC LEARNERS**

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the kinesthetic learners' pre-test score in experimental group and the control group.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the kinesthetic learners' pre-test score in experimental group and the control group.

2. T-test where  $df = n_A + n_B - 2 = 3 + 4 - 2 = 5$

$$t(5\%) = 2.015$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 13.67$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ = 4.726$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 18.25$$

$$\text{s.d.} = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ = 4.349$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 1.331$$

#### 5. Conclusion

Because | t-observation | is 1.331 < t(5%) , Ho is accepted and Ha is rejected. It means that there is no significant difference between the auditory learners' pre-test score in experimental group and the control group.

APPENDIX 7

THE RESULT OF THE POST TEST AND THE GAIN SCORE

Table 7.1 The Result of the Post-test of Visual Learners

Students' ID	Experimental Group			$x^2$	Students' ID	Control Group			$x^2$
	Pre-test	Post-test	Gain Score (x)			Pre-test	Post-test	Gain Score (x)	
1	18	24	6	36	1	8	18	10	100
2	23	30	7	49	4	13	19	6	36
4	21	30	9	81	5	19	26	7	49
7	7	19	12	144	6	22	30	8	64
11	10	20	10	100	10	8	17	9	81
12	11	20	9	81	13	10	18	8	64
13	18	26	8	64	14	26	30	4	16
14	19	30	11	121	15	20	27	7	49
15	14	22	8	64	17	21	27	6	36
17	20	28	8	64	18	15	21	6	36
$\sum x$			88	804	$\sum x$			71	531
$\bar{x}$			8.8		$\bar{x}$			7.1	

Table 7.2 The Result of the Post-test of Auditory Learners

Students' ID	Experimental Group			$x^2$	Students' ID	Control Group			$x^2$
	Pre-test	Post-test	Gain Score (x)			Pre-test	Post-test	Gain Score (x)	
3	19	26	7	49	2	21	28	7	49
6	17	26	9	81	8	15	22	7	49
9	10	21	11	121	12	21	26	5	25
16	21	28	7	49	16	11	16	5	25
18	12	20	8	64					
$\sum x$			42	364	$\sum x$			24	148
$\bar{x}$			8.4		$\bar{x}$			6	

**Table 7.3 The Result of the Post-test of Kinesthetic Learners**

Students' ID	Experimental Group			$x^2$	Students' ID	Control Group			$x^2$
	Pre-test	Post-test	Gain Score (x)			Pre-test	Post-test	Gain Score (x)	
5	19	27	8	64	3	16	22	6	36
8	12	22	10	100	7	14	23	9	81
10	10	17	7	49	9	24	30	6	36
					11	19	26	7	49
$\sum x$			25	213	$\sum x$			28	202
$\bar{x}$			8.3		$\bar{x}$			7	

**Table 7.4 The Result of the Post-test of the Students in general**

Learning Style	Experimental Group			Learning Style	Control Group		
	Pre-test	Post-test	Gain Score (x)		Pre-test	Post-test	Gain Score (x)
Visual	161	249	88	Visual	162	233	71
Auditory	79	121	42	Auditory	68	92	24
Kinesthetic	41	66	25	Kinesthetic	73	101	28
TOTAL ( $\sum x$ )	281	436	155	TOTAL ( $\sum x$ )			123
$\bar{x}$			8.61	$\bar{x}$			6.83

## TEST OF HYPOTHESIS OF THE POST TEST OF THE STUDENTS IN GENERAL

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the auditory learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

2. T-test where  $df = n_A + n_B - 2 = 18 + 18 - 2 = 34$

$$t(5\%) = 1.684$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.61$$

$$s.d. = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.649$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 6.83$$

$$s.d. = \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}}$$

$$= 1.543$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$
$$= 2.428$$

5. Conclusion

Because | t-observation | is  $3.358 > t(5\%)$ ,  $H_a$  is accepted  $H_o$  is rejected. Therefore, there is a significant difference between the students who are taught vocabulary by using "Dora the Explorer" video series and those who are taught vocabulary by using pictures in general.

## TEST OF HYPOTHESIS OF THE POST TEST OF VISUAL LEARNERS

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the visual learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the visual learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

2. T-test where  $df = n_A + n_B - 2 = 10 + 10 = 18$

$$t(5\%) = 1.734$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.8$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.814 \end{aligned}$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 7.1$$

$$\begin{aligned} \text{s.d.} &= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} \\ &= 1.729 \end{aligned}$$

4. Calculating the standard scores (to) using the formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 2.145$$

#### 5. Conclusion

Because | t-observation | is  $2.145 > t(5\%)$ ,  $H_a$  is accepted and  $H_o$  is rejected. Therefore, there is a significant difference between the visual learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

### TEST OF HYPOTHESIS OF THE POST TEST OF AUDITORY LEARNERS

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the auditory learners who are taught vocabulary by using "Dora the Explorer" video series and the visual learners who are taught vocabulary by using pictures.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the auditory learners who are taught vocabulary by using "Dora the Explorer" video series and the visual learners who are taught vocabulary by using pictures.

2. T-test where  $df = n_A + n_B - 2 = 5 + 4 - 2 = 7$

$$t(5\%) = 1.895$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.4$$

s.d. =

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.673$$

Control Group

$$\bar{x} = \frac{\sum x}{n} = 6$$

s.d. =

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.155$$

4. Calculating the standard scores (to) using the

formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 2.428$$

#### 5. Conclusion

Because | t-observation | is  $2.428 > t(5\%)$ ,  $H_a$  is accepted and  $H_o$  is rejected. Therefore, there is a significant difference between the auditory learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

### TEST OF HYPOTHESIS OF THE POST TEST OF KINESTHETIC LEARNERS

1. Formulating the hypothesis of analyzing the data:

Ho :  $\mu_A = \mu_B$ , there is no significant difference between the kinesthetic learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

Ha :  $\mu_A > \mu_B$ , there is a significant difference between the kinesthetic learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

2. T-test where  $df = n_A + n_B - 2 = 3 + 4 - 2 = 5$

$$t(5\%) = 2.015$$

3. Calculation for t-observation (to):

Experimental Group

$$\bar{x} = \frac{\sum x}{n} = 8.3$$

s.d. =

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.528$$

Control Group

$$\bar{x} = 7$$

s.d.  $\frac{\sum x}{n} =$

$$= \sqrt{\frac{n \cdot \sum x^2 - (\sum x)^2}{n(n-1)}} = 1.41$$

4. Calculating the standard scores (to) using the

formula as follows:

$$t_o = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(n_A - 1)S_A^2 + (n_B - 1)S_B^2}{n_A + n_B - 2} \left( \frac{1}{n_A} + \frac{1}{n_B} \right)}}$$

$$= 1.167$$

## 5. Conclusion

Because | t-observation | is  $1.167 < t(5\%)$ ,  $H_0$  is accepted and  $H_a$  is rejected. Therefore, there is no significant difference between the kinesthetic learners who are taught vocabulary by using “Dora the Explorer” video series and the visual learners who are taught vocabulary by using pictures.

## APPENDIX 8

### LESSON PLAN EXPERIMENTAL GROUP

#### TREATMENT I

Subject	: English
Skills	: Listening, Speaking, Reading, Writing
Language Components	: Vocabulary, Pronunciation
Topic	: Color
Education level	: Elementary School
Class/Semester	: I/ 1
Time Allocation	: 1x 30 minutes

#### A. BASIC COMPETENCE

Students are able to know the vocabulary of the colors.

#### B. ACHIEVEMENT INDICATORS

- Listening : Students are able to understand the color uttered in the video.
- Speaking : Students are able to answer the teacher's question orally.
- Reading : Students are able to read the instruction.
- Writing : Students are able to write the vocabularies in the correct spelling.
- Pronunciation : Students are able to pronounce the vocabularies correctly.
- Vocabulary : Students are able to identify the color.

#### C. LEARNING MATERIAL

- video
- student's worksheet

#### D. TECHNIQUE

- repetition drill
- question and answer

### E. CLASS ACTIVITY

No.	Procedures	Skill / Sub Skill	Activities	Time
1.	Pre-Instructional Activities	Listening , Speaking	The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	The students are asked to watch “Dora the Explorer” video series twice.	17'
3.		Listening, Speaking, Vocabulary	(The students are asked to guess the meaning of the vocabulary in the video and discuss it with the teacher)	
4.		Pronunciation	(The students are asked to repeat the pronunciation after the teacher.)	
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing, vocabulary.	The students are asked to do the worksheet.	5'

8	Post-Instructional Activities	Speaking, pronunciation, vocabulary, listening.	<b><i>Post Instructional Activities</i></b> The students are asked to pronounce, spell and give the meaning of the vocabulary given	3'
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## **TEACHER'S NOTE**

### **I. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - a. Have you ever seen the rainbow?
  - b. What colors of the rainbow that you know?

### **II. WHILST-INSTRUCTIONAL ACTIVITIES**

The teacher:

- a. plays the video while pausing it when the vocabularies taught appear.  
(The teacher asks the students to guess the meaning of the vocabulary in the video and discuss it with the teacher).
- b. The students are asked to repeat the pronunciation after the teacher.
- c. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- d. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- e. The students are asked to do the worksheet.

### **III. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabularies given.

## **TREATMENT II**

Subject	: English
Skills	: Listening, Speaking, Reading, Writing
Language Components	: Vocabulary, Pronunciation
Topic	: Shape
Education level	: Elementary School
Class/Semester	: I/ 1
Time Allocation	: 1x 30 minutes

### **A. BASIC COMPETENCE**

Students are able to know the vocabulary of the shapes.

### **B. ACHIEVEMENT INDICATORS**

Listening : Students are able to understand the shapes uttered in the video.

Speaking : Students are able to answer the teacher's question orally.

Reading : Students are able to read the instruction.

Writing : Students are able to write the vocabularies in the correct spelling.

Pronunciation : Students are able to pronounce the vocabularies correctly.

Vocabulary : Students are able to identify the shape.

### **C. LEARNING MATERIAL**

- a. video
- b. student's worksheet

### **D. TECHNIQUE**

- a. repetition drill
- b. question and answer

### **E. CLASS ACTIVITY**

No.	Procedures	Skill / Sub Skill	Activities	Time
1.	Pre-Instructional Activities	Listening , Speaking	The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	The students are asked to watch “Dora the Explorer” video series twice.	17'
3.		Listening, Speaking, Vocabulary	(The students are asked to guess the meaning of the vocabulary in the video and discuss it with the teacher)	
4.		Pronunciation	(The students are asked to repeat the pronunciation after the teacher.)	
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing, vocabulary.	The students are asked to do the worksheet.	5'
8	Post-Instructional	Speaking, pronunciation,	<b>Post Instructional Activities</b> The students are asked to	3'

	Activities	vocabulary, listening.	pronounce, spell and give the meaning of the vocabulary given	
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**TEACHER'S NOTE**

**I. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - Do you know the meaning of the shape?
  - Look at this shape! (the teacher draws the picture of circle).  
Can anyone mention things in the classroom that have the same shape like this?
  - How about this? (the teacher draws the picture of rectangle).  
Can you find things that have the same shape like it?

## **II. WHILST-INSTRUCTIONAL ACTIVITIES**

The teacher:

- a. plays the video while pausing it when the vocabularies taught appear.  
(The teacher asks the students to guess the meaning of the vocabulary in the video and discuss it with the teacher).
- b. The students are asked to repeat the pronunciation after the teacher.
- c. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- d. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- e. The students are asked to do the worksheet.

## **III. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabularies given.

Subject : English  
 Skills : Listening, Speaking, Reading, Writing  
 Language Components : Vocabulary, Pronunciation  
 Topic : Size  
 Education level : Elementary School  
 Class/Semester : I/ 1  
 Time Allocation : 1x 30 minutes

**A. BASIC COMPETENCE**

Students are able to know the vocabulary of the size.

**B. ACHIEVEMENT INDICATORS**

Listening : Students are able to understand the size uttered in the video.

Speaking : Students are able to answer the teacher’s question orally.

Reading : Students are able to read the instruction.

Writing : Students are able to write the vocabularies in the correct spelling.

Pronunciation : Students are able to pronounce the vocabularies correctly.

Vocabulary : Students are able to identify the size.

**C. LEARNING MATERIAL**

- a. video
- b. student’s worksheet

**D. TECHNIQUE**

- a. repetition drill
- b. question and answer

**E. CLASS ACTIVITY**

No.	Procedures	Skill / Sub	Activities	Time
-----	------------	-------------	------------	------

		<b>Skill</b>		
1.	Pre-Instructional Activities	Listening , Speaking	The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	The students are asked to watch "Dora the Explorer" video series twice.	17'
3.		Listening, Speaking, Vocabulary	(The students are asked to guess the meaning of the vocabulary in the video and discuss it with the teacher)	
4.		Pronunciation	(The students are asked to repeat the pronunciation after the teacher.)	
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing, vocabulary.	The students are asked to do the worksheet.	5'
8	Post-Instructional	Speaking, pronunciation, vocabulary,	<b><i>Post Instructional Activities</i></b> The students are asked to pronounce, spell and give the	3'

	Activities	listening.	meaning of the vocabulary given	
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**TEACHER'S NOTE**

**I. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - Do you know the meaning of the size?
  - Can anyone mention the size of an elephant?
  - Can anyone mention the size of an ant?

## **II. WHILST-INSTRUCTIONAL ACTIVITIES**

The teacher:

- a. plays the video while pausing it when the vocabularies taught appear.  
(The teacher asks the students to guess the meaning of the vocabulary in the video and discuss it with the teacher).
- b. The students are asked to repeat the pronunciation after the teacher.
- c. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- d. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- e. The students are asked to do the worksheet.

## **III. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabularies given.

## APPENDIX 9

### LESSON PLAN CONTROL GROUP

#### TREATMENT I

Subject	: English
Skills	: Listening, Speaking, Reading, Writing
Language Components	: Vocabulary, Pronunciation
Topic	: Color
Education level	: Elementary School
Class/Semester	: I/ 1
Time Allocation	: 1x 30 minutes

#### F. BASIC COMPETENCE

Students are able to know the vocabulary of the colors.

#### G. ACHIEVEMENT INDICATORS

Listening : Students are able to get the teacher's explanation.

Speaking : Students are able to answer the teacher's question orally.

Reading : Students are able to read the instruction.

Writing : Students are able to write the vocabularies in the correct spelling.

Pronunciation : Students are able to pronounce the vocabularies correctly.

Vocabulary : Students are able to identify the color.

#### H. LEARNING MATERIAL

- Picture
- student's worksheet

#### I. TECHNIQUE

- repetition drill
- question and answer

## J. CLASS ACTIVITY

No.	Procedures	Skill / Sub Skill	Activities	Time
1.	Pre-Instructional Activities	Listening , Speaking	<i>Pre Instructional Activities</i> The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	<i>Whilst Instructional Activities</i> The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.  The students are asked to read the hand-out silently.  The students are asked to repeat the pronunciation after the teacher.	17'
3.		Listening, Speaking, Vocabulary		
4.		Pronunciation		
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing,	The students are asked to do the worksheet.	5'

		vocabulary.		
8	Post-Instructional Activities	Speaking, pronunciation, vocabulary, listening.	The students are asked to pronounce, spell and give the meaning of the vocabulary given	3'

## **TEACHER'S NOTE**

### **IV. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - c. Do you like balloons?
  - d. What colors of balloons that you like?

### **V. WHILST-INSTRUCTIONAL ACTIVITIES**

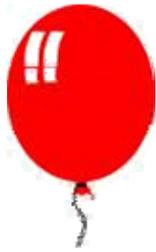
The teacher:

- a. The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.
- b. The students are asked to read the hand out silently.
- e. The students are asked to repeat the pronunciation after the teacher.
- f. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- g. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- h. The students are asked to do the worksheet.

### **VI. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabulary given.

LEARNING MATERIAL



red



green



yellow



purple



blue



pink



**black**



**grey**



**orange**



**brown**

## **LESSON PLAN CONTROL GROUP**

### **TREATMENT II**

Subject	: English
Skills	: Listening, Speaking, Reading, Writing
Language Components	: Vocabulary, Pronunciation
Topic	: Shape
Education level	: Elementary School
Class/Semester	: I/ 1
Time Allocation	: 1x 30 minutes

#### **K. BASIC COMPETENCE**

Students are able to know the vocabulary of the colors.

#### **L. ACHIEVEMENT INDICATORS**

Listening : Students are able to get the teacher's explanation.

Speaking : Students are able to answer the teacher's question orally.

Reading : Students are able to read the instruction.

Writing : Students are able to write the vocabularies in the correct spelling.

Pronunciation : Students are able to pronounce the vocabularies correctly.

Vocabulary : Students are able to identify the shape.

#### **M. LEARNING MATERIAL**

- Picture
- student's worksheet

#### **N. TECHNIQUE**

- repetition drill
- question and answer

### O. CLASS ACTIVITY

No.	Procedures	Skill / Sub Skill	Activities	Time
1.	Pre-Instructional Activities	Listening , Speaking	<b><i>Pre Instructional Activities</i></b> The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	<b><i>Whilst Instructional Activities</i></b> The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.  The students are asked to read the hand-out silently.  The students are asked to repeat the pronunciation after the teacher.	17'
3.		Listening, Speaking, Vocabulary		
4.		Pronunciation		
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing,	The students are asked to do the worksheet.	5'

		vocabulary.		
8	Post-Instructional Activities	Speaking, pronunciation, vocabulary, listening.	The students are asked to pronounce, spell and give the meaning of the vocabulary given	3'

## **TEACHER'S NOTE**

### **I. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - Do you know the meaning of the shape?
  - Look at this shape! (the teacher draws the picture of circle).  
Can anyone mention things in the classroom that have the same shape like this?
  - How about this? (the teacher draws the picture of rectangle).  
Can you find things that have the same shape like it?

### **II. WHILST-INSTRUCTIONAL ACTIVITIES**

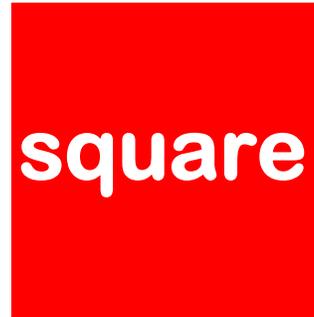
The teacher:

- a. The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.
- b. The students are asked to read the hand out silently.
- c. The students are asked to repeat the pronunciation after the teacher.
- d. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- e. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- f. The students are asked to do the worksheet.

### **VII. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabulary given.

LEARNING MATERIAL



### **TREATMENT III**

Subject	: English
Skills	: Listening, Speaking, Reading, Writing
Language Components	: Vocabulary, Pronunciation
Topic	: Size
Education level	: Elementary School
Class/Semester	: I/ 1
Time Allocation	: 1x 30 minutes

#### **A. BASIC COMPETENCE**

Students are able to know the vocabulary of the size.

#### **B. ACHIEVEMENT INDICATORS**

Listening : Students are able to get the teacher's explanation.

Speaking : Students are able to answer the teacher's question orally.

Reading : Students are able to read the instruction.

Writing : Students are able to write the vocabularies in the correct spelling.

Pronunciation : Students are able to pronounce the vocabularies correctly.

Vocabulary : Students are able to identify the size.

#### **C. LEARNING MATERIAL**

- a. Picture
- b. student's worksheet

#### **D. TECHNIQUE**

- a. repetition drill
- b. question and answer

### E. CLASS ACTIVITY

No.	Procedures	Skill / Sub Skill	Activities	Time
1.	Pre-Instructional Activities	Listening , Speaking	<b><i>Pre Instructional Activities</i></b> The students are asked to answer the triggering questions orally.	1'
2.	Whilst Instructional Activities	Listening, Vocabulary	<b><i>Whilst Instructional Activities</i></b> The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.  The students are asked to read the hand-out silently.  The students are asked to repeat the pronunciation after the teacher.	17'
3.		Listening, Speaking, Vocabulary		
4.		Pronunciation		
5.		Vocabulary, Writing	The students are asked to spell and pronounce the vocabulary in the handout loudly.	2'
6.		Vocabulary and Pronunciation	The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.	2'
7.		Reading, writing,	The students are asked to do the worksheet.	5'

		vocabulary.		
8	Post- Instructional Activities	Speaking, pronunciation, vocabulary, listening.	The students are asked to pronounce, spell and give the meaning of the vocabulary given	3'

**TEACHER'S NOTE**

## **I. PRE-INSTRUCTIONAL ACTIVITIES**

- The teacher asks the students to answer the triggering questions:
  - Do you know the meaning of the size?
  - Can anyone mention the size of an elephant?
  - Can anyone mention the size of an ant?

## **II. WHILST-INSTRUCTIONAL ACTIVITIES**

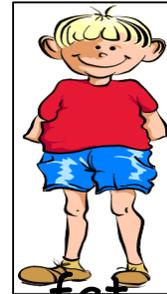
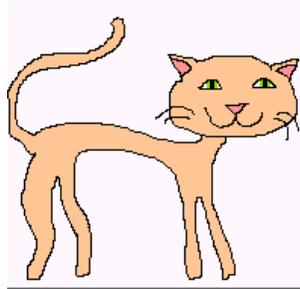
The teacher:

- a. The students are asked to listen to the teacher's explanation about the lesson. The teacher uses picture.
- b. The students are asked to read the hand out silently.
- c. The students are asked to repeat the pronunciation after the teacher.
- d. The students are asked to spell and pronounce the vocabulary in the handout loudly.
- e. The teacher asks the students to read aloud the handout given by the teacher and give the meaning in Indonesian.
- f. The students are asked to do the worksheet.

## **III. POST INSTRUCTIONAL ACTIVITIES**

The teacher asks the students to pronounce and give the meaning of the vocabulary given.

LEARNING MATERIAL



fat



short



small



big

APPENDIX 10

WORKSHEET

What are the colors of the clown's balls?



- a. ....
- b. ....
- c. ....
- d. ....
- e. ....
- f. ....
- g. ....
- h. ....
- i. ....
- j. ....

black yellow

purple green red

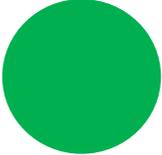
brown orange grey

blue pink

# WORKSHEET

What shape are these?

1.  \_\_\_\_\_  
\_\_\_\_\_

2.  \_\_\_\_\_  
\_\_\_\_\_

3.  \_\_\_\_\_  
\_\_\_\_\_

4.  \_\_\_\_\_  
\_\_\_\_\_

5.  \_\_\_\_\_  
\_\_\_\_\_

6.  \_\_\_\_\_  
\_\_\_\_\_

- oval
- triangle
- circle
- square
- rectangle
- star

# WORKSHEET

Unscramble the letters!



1. f-t-  
a = .....



2. b-  
g-i = .....



3. t-n-i-h = .....

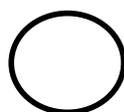
4. s-o-h-t-r = .....



5. t-l-a-l = .....



6.



s-a-m-l-l = .....

- |          |          |         |
|----------|----------|---------|
| a. big   | b. small | c. tall |
| d. short | e. thin  | f. fat  |

