APPENDICES

Appendix 1 (The Summative Scores)

		MALING SCO		N/I IDC 4	MI IDC 5
no.	XI IPS 1	XI IPS 2	XI IPS 3	XI IPS 4	XI IPS 5
1	45	58	54	45	39
2	50	47	68	65	38
3	68	31	77	40	50
4	34	37	83	55	37
5	38	48	65	58	41
6	50	41	65	47	82
7	65	28	58	65	71
8	38	30	57	46	42
9	49	27	51	48	38
10	53	28	54	49	39
11	40	34	84	50	43
12	56	44	69	45	56
13	49	34	72	65	54
14	48	28	70	45	46
15	43	33	56	67	57
16	35	24	91	45	71
17	49	59	67	52	48
18	42	47	56	66	32
19	35	34	45	59	72
20	36	38	52	39	47
21	65	33	65	41	46
22	42	46	55	56	58
23	49	47	65	50	46
24	50	27	53	65	39
25	38	29	68	57	70
26	35	64	72	60	38
27	32	39	66	46	47
28	37	36	79	47	33
29	31	31	54	40	58
30	51	35	68	41	38
31	60	25	65	49	33
32	33	39	49	52	49
33	33	25	69	37	37
34	52	63	79	55	62
35	31	26	52	34	23
36	65	40	46		
37		37	53		

Appendix 2 (The Calculation of the Summative Test Using ANOVA)

Oneway

Descriptives

SCORE

					95% Confiden Me			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
IPS1	36	45.19	10.66	1.78	41.59	48.80	31	68
IPS2	37	37.62	10.76	1.77	34.03	41.21	24	64
IPS3	37	63.54	11.33	1.86	59.76	67.32	45	91
IPS4	35	50.89	9.19	1.55	47.73	54.04	34	67
IPS5	35	48.00	13.50	2.28	43.36	52.64	23	82
Total	180	49.06	14.01	1.04	47.00	51.12	23	91

Test of Homogeneity of Variances

SCORE

Levene Statistic	df1	df2	Sig.
1.070	4	175	.373

ANOVA

SCORE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13293.254	4	3323.314	26.633	.000
Within Groups	21837.074	175	124.783		
Total	35130.328	179			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: SCORE

Dependent V	anable: SC	UKE					
			Mean				
			Difference			95% Confide	ence Interval
	(I) Kelas	(J) Kelas	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Tukey HSD	IPS1	IPS2	7.57*	2.62	.031	.44	14.71
		IPS3	-18.35*	2.62	.000	-25.48	-11.21
		IPS4	-5.69	2.65	.201	-12.92	1.54
	IDOO	IPS5	-2.81	2.65	.828	-10.04	4.43
	IPS2	IPS1	-7.57*	2.62	.031	-14.71	44
		IPS3	-25.92*	2.60	.000	-33.00	-18.83
		IPS4	-13.26*	2.63	.000	-20.45	-6.08
	IPS3	IPS5	-10.38*	2.63	.001	-17.56	-3.19
	IP53	IPS1	18.35*	2.62	.000	11.21	25.48
		IPS2 IPS4	25.92*	2.60	.000	18.83	33.00
		IPS5	12.65*	2.63	.000	5.47	19.84
	IPS4	IPS1	15.54*	2.63	.000	8.36	22.73
	11754	IPS2	5.69	2.65	.201	-1.54	12.92
		IPS2	13.26* -12.65*	2.63	.000	6.08 -19.84	20.45 -5.47
		IPS5		2.63	.000		1
	IPS5	IPS1	2.89 2.81	2.67	.817	-4.40	10.17
	11-33	IPS2	10.38*	2.65 2.63	.828 .001	-4.43 3.19	10.04 17.56
		IPS3					
		IPS4	-15.54* -2.89	2.63 2.67	.000 .817	-22.73 -10.17	-8.36
Bonferroni	IPS1	IPS2	7.57*	2.62	.043	.14	4.40 15.01
Bornerrom	IFOI	IPS3	-18.35*	2.62	.000	-25.78	-10.91
		IPS4	-16.35 -5.69	2.62	.332	-25.76 -13.23	1.85
		IPS5	-2.81	2.65	1.000	-10.34	4.73
	IPS2	IPS1	-7.57*	2.62	.043	-15.01	14
	11 02	IPS3	-7.57 -25.92*	2.60	.000	-33.30	-18.54
		IPS4	-23.92 -13.26*	2.63	.000	-20.75	-5.78
		IPS5	-10.38*	2.63	.001	-17.87	-2.89
	IPS3	IPS1	18.35*	2.62	.000	10.91	25.78
		IPS2	25.92*	2.60	.000	18.54	33.30
		IPS4	12.65*	2.63	.000	5.17	20.14
		IPS5	15.54*	2.63	.000	8.05	23.03
	IPS4	IPS1	5.69	2.65	.332	-1.85	13.23
	-	IPS2	13.26*	2.63	.000	5.78	20.75
		IPS3	-12.65*	2.63	.000	-20.14	-5.17
		IPS5	2.89	2.67	1.000	-4.71	10.48
	IPS5	IPS1	2.81	2.65	1.000	-4.73	10.34
	•	IPS2	10.38*	2.63	.001	2.89	17.87
		IPS3	-15.54*	2.63	.000	-23.03	-8.05
		IPS4	-2.89	2.67	1.000	-10.48	4.71

^{*-} The mean difference is significant at the .05 level.

sig > 0.05, H0 accepted, there is no significant difference between the mean of the summative scores.

sig < 0.05, HA accepted, there is a significance difference between the mean of the summative scores.

Appendix 3 (The Calculation of Summative Test Using ANOVA among the Three Groups)

Oneway

Descriptives

SCORE

					95% Confiden Me			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
IPS1	36	45.19	10.66	1.78	41.59	48.80	31	68
4	35	50.89	9.19	1.55	47.73	54.04	34	67
5	35	48.00	13.50	2.28	43.36	52.64	23	82
Total	106	48.00	11.39	1.11	45.81	50.19	23	82

Test of Homogeneity of Variances

SCORE

Levene Statistic	df1	df2	Sig.
1.938	2	103	.149

ANOVA

SCORE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	574.818	2	287.409	2.269	.109
Within Groups	13045.182	103	126.652		
Total	13620.000	105			

F-table > F count

3.08 > 2.269

(No significance difference between the means of the three classes)

Appendix 4 (Try Out and the Pretest Posttest)

TRY OUT

It is often said that British people love to complain about the weather. Well, whether this is true or not, the weather can have a tremendous effect on people's lives. It can affect the crops that we grow for food. It can affect our travel plans and sports games. It can even affect people's moods and general health.

The weather that people get depends on where they live. For people who live outside the Tropics of Cancer and Capricorn, weather patterns are divided into four seasons. These seasons are summer, autumn, winter and spring. For people who live inside the Tropics of Cancer and Capricorn, there are usually only two seasons. These are a wet season and a dry season.

The seasons are caused by the tilt of the earth's axis. The earth tilts at approximately 23.5 degrees in relation to the sun. As the earth travels around the sun during its yearly cycle, the amount of sun that each area of the world receives changes.

For part of the year, the northern hemisphere points towards the sun. This is the time that countries such as Canada, Britain and Japan receive their strongest rays from the sun. For these countries, this season is summer. When it is summer in the northern hemisphere, countries in the southern hemisphere such as Argentina, Australia, and New Zealand are pointing away from the sun. This is the time when southern hemisphere countries experience winter.

Six months later the opposite occurs. The southern hemisphere points towards the sun and countries in this area experience summer. Countries in the northern hemisphere experience winter at this time.

Countries near to the equator, such as Indonesia, Malaysia, and Thailand, receive roughly the same amount of sunlight throughout the year. In these tropical countries, daily temperatures vary very little. The only real difference is the amount of rain that countries receive. For part of the year, countries inside the tropic of Cancer receive a tremendous amount of rain while countries inside the

tropic of Capricorn are dry. Then approximately six months later the opposite occurs.

1. What is the suitable title of the passage?

	a.	the seasons
	b.	the cause of the seasons
	c.	the weather
	d.	different weather in every part of the earth
2	. What i	is the main idea of paragraph 1?
	a.	British people complain about the weather
	b.	Weather affects people's life
	c.	The weather is harmful for people's life
	d.	British people don't like the weather
3	. Based	on the reading passage weather can affect except:
	a.	our health
	b.	our plan to travel
	c.	our food
	d.	our moods
4	. What	seasons do the people inside the Tropics of Cancer receive?
	a.	summer and winter
	b.	wet and dry
	c.	summer and rainy
	d.	wet and rainy
5	The se	easons are caused by
	a.	the tilts of the sun
	b.	the Tropics of Cancer and Capricorn
	c.	the tilts of the earth's axis
	d.	the amount of the sunlight
6	. There	are four seasons for people who live
	a.	inside tropics of Cancer
	b.	inside tropics of Capricorn

- c. a & b are correct
- d. a & b are wrong
- 7. In paragraph 4 "these countries" refers to.....
 - a. Japan, Argentina, Australia
 - b. Britain, Canada, Japan
 - c. Britain, Japan, Australia
 - d. New Zealand, Australia, Argentina
- 8. When it is winter in Canada, the Northern hemisphere is pointing the sun.
 - a. away of
 - b. towards
 - c. away from
 - d. forwards
- 9. the statements below are true, except:
 - a. all tropical countries have rain at the same time
 - b. in tropical countries the daily temperature not vary a great deal
 - c. in summer, the countries are extremely hot
 - d. the weather is important for people's daily life
- 10. Summer in Canada happens at the same time as summer in
 - a. Japan and Argentina
 - b. New Zealand and Argentina
 - c. Britain and Japan
 - d. Britain and New Zealand

Of the many great problems which face the world today, pollution is one which may truly be called man-made. Although increasing technology may have brought mankind many benefits, by the same token we are in danger of destroying all that makes life worth living.

As factories pour smoke into the sky, engine exhausts belch out fumes and chemical processes pollute the atmosphere with fouls smells, we are endangering our sense of smell as we grope our way through the pall of smoke which

overhangs all our great industrial cities and extends in an arc of noxious gases over our congested motorways. Governments protest that pollution of this kind is diminished by 'clean air' campaigns, but for how long must housewives continue to take in their washing covered in sooty particles from being hung out to dry in 'fresh' air? How many historic building must crumble and decay under the attack of chemicals, before some really effective form of control of pollution of the atmosphere is implemented? Or must we wait until we dare not let our children play outside for fear of an overdose of gaseous pollution?

Must we also wait to be deafened, or at least our hearing diminished, by the increasing noise of a 'civilized' society? While supersonic jets scream overhead, and heavy traffic grinds along the roads with a continuous roar and rumble, who can still hear the whisper of the wind through the grasses, or the song of the birds at dawn? Indeed, we are told that many of the young of today already require hearing-aids, a consequence of hours of listening to their favorite 'pop' idols performing with a maximum amplification of noise. Is this to be the fate of us all, as our ears are assaulted by the sounds of technology?

And must we also wait for the desecration of our countryside, until our eyes can only see the mounds of plastic rubbish occasioned by our throw-away civilization? All around us open fields are being replaced with concrete structures, a walk through a wood means a wade through the litter of our society, and a country stream is no longer alive and sparkling in its course, but its sluggish and evil-smelling waters are colored with chemical effluent, as they wind slowly through piles of cans, broken bottles and rotting vegetation. Fish are few, as few can survive in these waters, and we no longer have the pleasure of seeing kingfishers skimming the water as they catch their food, but are faced instead with the bleary eye and bloated corpse of some unfortunate trout, a victim of progress and pollution.

- 11. Which paragraph is talking about noise pollution?
 - a. first paragraph
 - b. second paragraph

d.	noise pollution has no effects for people's life
13. the wh	nole passage talking about pollution includingexcept:
a.	air and land pollution
b.	water and air pollution
c.	air and sea pollution
d.	noise and water pollution
14. what i	s the closest meaning of the word "sluggish"
a.	dirty
b.	not flowing
c.	clean
d.	slow moving
15. here a	re the source of noise pollution except:
a.	the sound of music
b.	roar and rumble of the traffic
c.	grinds of traffic
d.	supersonic jet scream
16. The la	st paragraph talking about
a.	water and sea pollution
b.	air and water pollution
c.	noise and water pollution
d.	land and water pollution
17. What	is the best title for the passage?
a.	kinds of pollution
b.	pollution
c.	the effects of pollution

c. third paragraph

d. fourth paragraph

12. The statements below are not true, except......

a. modern technology doesn't produce negative effects

b. loud music makes many of the young need hearing aids

c. people can see kingfisher skimming the water nowadays

- d. the bad sides of pollution
- 18. The statements below are true except.......
 - a. noise pollution diminishes people's hearing
 - b. a country stream still free from pollution
 - c. loud music makes people need hearing aids
 - d. smoke from factories endangered our sense of smell

We all know that we cannot rely too much on oil supporting our economic life nowadays. Many countries produce oil every year, so the price of oil sometimes gets lower and lower because of higher supply. Besides, the oil deposits which lie deep beneath the surface of the earth won't last forever. After a certain period of time, which may be not much longer, we will run out of oil, so our government thought of other possible alternatives, and decided that tourism would be a good one.

Indonesia has good potential for tourism. It has many beautiful places, many different customs, languages, dances, traditional dresses, and songs. We even have one of the Seven Wonders of the World, Borobudur. So it is not impossible for Indonesia to exploit these through tourism. It is not only that Indonesia is good for tourism, but tourism is also good for Indonesia. To attract people, we have to make our country look nice and clean. We need to build more hotels and more public transportation, more restaurants, entertainment buildings, etc. especially at tourist destinations. Then the world of business and technology will grow and later it will alter the whole country. This is the good side of tourism.

But we must bear in mind that there are some bad aspects of tourist. The way of life of people will change. Many bad influences from outside will come and ruin the people mentally, especially, youngsters. This is the most dangerous and serious matter. The beautiful places in Indonesia could be ruined as well because of the careless tourists and careless businessmen who only want to gain profit without considering the environment.

So, what should we do? I think here the government has a solution. They must give their people enough information about tourism and become guards to lead and to protect their people and we, as good citizens, must obey them and remember that we are Indonesians who have our own cultures and principles.

- 19. One of the bad sides of tourism is......
 - a. we have to study more about tourism
 - b. the world of technology will grow
 - c. the world business will grow late
 - d. a lot of youngsters are mentally ruined
- 20. one of the seven wonders of the world that Indonesia has is
 - a. Lake Toba
 - b. Borobudur temple
 - c. Mount Bromo
 - d. Krakatau mountain
- - a. people
 - b. guards
 - c. government
 - d. principles
- 22.so it is not impossible for Indonesia to <u>exploit</u> these in tourism (par.2) the underlined word means.......
 - a. design
 - b. neglect
 - c. make full use of
 - d. make less use of
- 23. All statements here are not true except......
 - a. tourism is the only thing we can rely on
 - b. Indonesia will never run out of oil
 - c. Besides oil we can rely on tourism
 - d. It is impossible for Indonesia to attract people through tourism

24.	Based of	on the	text,	these	are	things	that	we	need	to c	lo to	attract	peop!	le to
	visit ou	r coun	try, e	xcept.										

- a. ask as many people to come
- b. clean our environment
- c. make our country look nice
- d. add entertainment buildings
- 25. The word "it" in line 1 paragraph 2 refers to..........
 - a. Indonesia
 - b. potential
 - c. tourism
 - d. cultures
- 26. Who will get the advantages if our tourism can attract many people?
 - a. the citizens and the government
 - b. the businessmen and the government
 - c. a and b are correct
 - d. a and b are wrong

PRETEST & POSTTEST

It is often said that British people love to complain about the weather. Well, whether this is true or not, the weather can have a tremendous effect on people's lives. It can affect the crops that we grow for food. It can affect our travel plans and sports games. It can even affect people's moods and general health.

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	b.	Weather affects people's life
	c.	The weather is harmful for people's life
	d.	British people don't like the weather
2.	Based	on the reading passage weather can affect except:
	a.	our health
	b.	our plan to travel
	c.	our food
	d.	our moods
3.	What	seasons do the people inside the Tropics of Cancer receive?
	a.	summer and winter
	b.	wet and dry
	c.	summer and rainy
	d.	wet and rainy
4.	There	are four seasons for people who live
	a.	inside tropics of Cancer
	b.	inside tropics of Capricorn
	c.	a & b are correct
	d.	a & b are wrong
5.	In para	agraph 4 "these countries" refers to
	a.	Japan, Argentina, Australia
	b.	Britain, Canada, Japan
	c.	Britain, Japan, Australia
	d.	New Zealand, Australia, Argentina
6.	When	it is winter in Canada, the Northern hemisphere is pointing
	the sur	1.
	a.	away of
	b.	towards
	c.	away from
	d.	forwards

Of the many great problems which face the world today, pollution is one which may truly be called man-made. Although increasing technology may have brought mankind many benefits, by the same token we are in danger of destroying all that makes life worth living.

As factories pour smoke into the sky, engine exhausts belch out fumes and chemical processes pollute the atmosphere with fouls smells, we are endangering our sense of smell as we grope our way through the pall of smoke which overhangs all our great industrial cities and extends in an arc of noxious gases over our congested motorways. Governments protest that pollution of this kind is diminished by 'clean air' campaigns, but for how long must housewives continue to take in their washing covered in sooty particles from being hung out to dry in 'fresh' air? How many historic building must crumble and decay under the attack of chemicals, before some really effective form of control of pollution of the atmosphere is implemented? Or must we wait until we dare not let our children play outside for fear of an overdose of gaseous pollution?

Must we also wait to be deafened, or at least our hearing diminished, by the increasing noise of a 'civilized' society? While supersonic jets scream overhead, and heavy traffic grinds along the roads with a continuous roar and rumble, who can still hear the whisper of the wind through the grasses, or the song of the birds at dawn? Indeed, we are told that many of the young of today already require hearing-aids, a consequence of hours of listening to their favorite 'pop' idols performing with a maximum amplification of noise. Is this to be the fate of us all, as our ears are assaulted by the sounds of technology?

And must we also wait for the desecration of our countryside, until our eyes can only see the mounds of plastic rubbish occasioned by our throw-away civilization? All around us open fields are being replaced with concrete structures, a walk through a wood means a wade through the litter of our society, and a country stream is no longer alive and sparkling in its course, but its sluggish and evil-smelling waters are colored with chemical effluent, as they wind slowly through piles of cans, broken bottles and rotting vegetation. Fish are few, as few can survive in these waters, and we no longer have the pleasure of seeing

kingfishers skimming the water as they catch their food, but are faced instead with the bleary eye and bloated corpse of some unfortunate trout, a victim of progress and pollution.

- 7. Which paragraph is talking about noise pollution?
 - a. first paragraph
 - b. second paragraph
 - c. third paragraph
 - d. fourth paragraph
- 8. The statements below are not true, except......
 - a. modern technology doesn't produce negative effects
 - b. loud music makes many of the young need hearing aids
 - c. people can see kingfisher skimming the water nowadays
 - d. noise pollution has no effects for people's life
- 9. the whole passage talking about pollution including.....except:
 - a. air and land pollution
 - b. water and air pollution
 - c. air and sea pollution
 - d. noise and water pollution
- 10. The last paragraph talking about......
 - a. water and sea pollution
 - b. air and water pollution
 - c. noise and water pollution
 - d. land and water pollution

We all know that we cannot rely too much on oil supporting our economic life nowadays. Many countries produce oil every year, so the price of oil sometimes gets lower and lower because of higher supply. Besides, the oil deposits which lie deep beneath the surface of the earth won't last forever. After a certain period of time, which may be not much longer, we will run out of oil, so

our government thought of other possible alternatives, and decided that tourism would be a good one.

Indonesia has good potential for tourism. It has many beautiful places, many different customs, languages, dances, traditional dresses, and songs. We even have one of the Seven Wonders of the World, Borobudur. So it is not impossible for Indonesia to exploit these through tourism. It is not only that Indonesia is good for tourism, but tourism is also good for Indonesia. To attract people, we have to make our country look nice and clean. We need to build more hotels and more public transportation, more restaurants, entertainment buildings, etc. especially at tourist destinations. Then the world of business and technology will grow and later it will alter the whole country. This is the good side of tourism.

But we must bear in mind that there are some bad aspects of tourist. The way of life of people will change. Many bad influences from outside will come and ruin the people mentally, especially, youngsters. This is the most dangerous and serious matter. The beautiful places in Indonesia could be ruined as well because of the careless tourists and careless businessmen who only want to gain profit without considering the environment.

So, what should we do? I think here the government has a solution. They must give their people enough information about tourism and become guards to lead and to protect their people and we, as good citizens, must obey them and remember that we are Indonesians who have our own cultures and principles.

- 11. One of the bad sides of tourism is......
 - a. we have to study more about tourism
 - b. the world of technology will grow
 - c. the world business will grow late
 - d. a lot of youngsters are mentally ruined
- 12.and we, as good citizens, must obey them and (par.4) the underlined word here refers to.....
 - a. people
 - b. guards

- c. government
- d. principles
- 13.so it is not impossible for Indonesia to <u>exploit</u> these in tourism (par.2) the underlined word means.......
 - a. design
 - b. neglect
 - c. make full use of
 - d. make less use of
- 14. All statements here are not true except......
 - a. tourism is the only thing we can rely on
 - b. Indonesia will never run out of oil
 - c. Besides oil we can rely on tourism
 - d. It is impossible for Indonesia to attract people through tourism
- 15. Based on the text, these are things that we need to do to attract people to visit our country, except......
 - a. ask as many people to come
 - b. clean our environment
 - c. make our country look nice
 - d. add entertainment buildings
- 16. Who will get the advantages if our tourism can attract many people?
 - a. the citizens and the government
 - b. the businessmen and the government
 - c. a and b are correct
 - d. a and b are wrong

Appendix 5 (The Calculation of the Reliability)

		Square	(Raw
scores	deviations	deviations	scores)2
24	9	81	576
21	6	36	441
21	6	36	441
20	5	25	400
20	5	25	400
19	4	16	361
17	2	4	289
17	2	4	289
17	2	4	289
17	2	4	289
17	2	4	289
16	1	1	256
16	1	1	256
16	1	1	256
15	0	0	225
15	0	0	225
14	-1	1	196
14	-1	1	196
14	-1	1	196
14	-1	1	196
14	-1	1	196
14	-1	1	196
13	-2	4	169
13	-2	4	169
13	-2	4	169
12	-3	9	144
11	-4	16	121
10	-5 -5	25	100
10		25	100
10	-5	25	100
10	-5	25	100
10	-5	25	100
10	-5	25	100
8	-7	49	64
8	-7	49	64
$\Sigma X = 510$	$\sum (X-m) = -15$	$\sum (X-m)^2 = 533$	$\sum X^2 = 7985$

No test item = 26

Mean = 15

Standard deviation = 15.2

$$r = \frac{N}{N-1} (1 - N \frac{(N-M)}{NX^2})$$

Where:

r =the test reliability

N = the number of test items

M =the mean of the test score

 X^2 = the standard deviation of the test

$$r = \frac{26}{26 - 1} \left(1 - \frac{15(26 - 15)}{26 \cdot 15.2} \right)$$

$$r = 1.04(1 - 0.4175)$$

$$r = 0.6058$$

Appendix 6 (The Calculation of Difficulty Index and Discrimination Power)

item		Dificulty		
no.	FV	index	D	Discrimination Index
1	0.86	very easy	0.18	low
2	0.34	acceptable	0.24	satisfactory
3	0.54	acceptable	0.29	satisfactory
4	0.77	easy	0.29	satisfactory
5	1	very easy	0	low
6	0.63	acceptable	0.35	satisfactory
7	0.83	easy	0.24	satisfactory
8	0.29	difficult	0.24	satisfactory
9	0.49	acceptable	0,12	low
10	0.86	very easy	0.18	low
11	0.6	acceptable	0.41	very effective
12	0.34	acceptable	0.47	very effective
13	0.58	acceptable	0.29	satisfactory
14	0	very difficult	0	low
15	0.49	acceptable	0.12	low
16	0.43	acceptable	0.41	very effective
17	0.34	acceptable	0.06	low
18	0.54	acceptable	0.06	low
19	0.58	acceptable	0.35	satisfactory
20	1	very easy	0	low
21	0.37	acceptable	0.29	satisfactory
22	0.71	easy	0.35	satisfactory
23	0.26	difficult	0.29	satisfactory
24	0.49	acceptable	0.59	very effective
25	0.8	easy	0.06	low
26	0.46	acceptable	0.41	very effective

$$FV = \frac{R}{N}$$

Where FV = the index of difficulty; R = the number of correct answers;

N = number of students taking the test

$$D = \frac{Correct \, U - Correct \, L}{n}$$

Where D = the index of discrimination; n = 50% of the testes; U = upper group (U17); L = lower group (U17)

Appendix 7 (Lesson Plan for Treatments in Experimental and Control Groups)

Treatment 1

Lesson Plan (for experimental group)

Subject : English
Theme : Season
Language Skill : Reading

Education Level : Senior High School

Grade/ Semester : XI/ II

Time Allocation : 1 x 40 minutes

A. COMPETENCE:

1. Basic Competence:

Students are able to comprehend the reading passage about season

2. Achievement Indicators:

Students are able to find the main idea

Students are able to answer the factual questions

Students are able to answer the inference questions

- B. LEARNING MATERIALS: (See Student's Worksheet)
- C. TECHNIQUES:

Jigsaw

Group Work

- D. TEACHING AND LEARNING ACTIVITIES: (see the following page)
- E. ASSESSMENT:

Students are asked to find the main idea, answer the factual questions and answer the inference questions.

F. REFERENCES:

www.wikipedia.com, Wikipedia, the free encyclopedia.2006

Teaching and learning activities

Stages	activities			
	Teacher	students	allocation	
Pre teaching activities	 Greet the students Asks triggering questions related with the passage	Respond the greetingAnswer the triggering questions	1' 2'	
Whilst teaching activities	Divides the class into 9 groups to form home teams @ 4 students	• Form the home teams		
	 (in home teams session) distributes the students' worksheets tells the students to read the passage silently ask the students to form expert teams 	 (in home teams session) get the students' worksheets read the passage silently form expert teams 	} 7'	
	 (in expert team session) asks the students to discuss the passage based on the questions given asks the students to go back to their home teams 	 (in expert teams session) discuss and share the answer go back to their home teams 	} ₁₁ ,	
	 (in home teams session) asks the students to share what they have got from the expert teams' discussion 	(in home teams session)share the expert teams' discussion	11'	
D	Discusses the answer	discuss the answer	5'	
Post teaching activities	 Ask the students to do reading quiz individually 	 Do the reading quiz individually 	3'	

Lesson Plan (for control group)

Subject : English Theme : Season Language Skill : Reading

Education Level: Senior High School

Grade/ Semester: XI/ II

Time Allocation: 1 x 40 minutes

A. COMPETENCE:

1. Basic Competence:

Students are able to comprehend the reading passage about season

2. Achievement Indicators:

Students are able to find the main idea

Students are able to answer the factual questions

Students are able to answer the inference questions

B. LEARNING MATERIALS: (See Student's Worksheet)

C. TECHNIQUES:

GTM

- Translation of a literary passage
- Reading comprehension questions

Individual work

D. TEACHING AND LEARNING ACTIVITIES: (see the following page)

E. ASSESSMENT:

Students are asked to find the main idea, answer the factual questions and answer the inference questions.

F. REFERENCES:

www.wikipedia.com, Wikipedia, the free encyclopedia.2006

Teaching and learning activities

Stages	activitie	es	Time
	teacher	students	allocation
Pre teaching activities	 Greet the students Asks triggering questions related with the passage 	Respond the greetingAnswer the triggering questions	1' 2'
Whilst teaching activities	 distributes the students' worksheets asks the students to read the passage silently Asks some students to read the text per line and translate it. Asks the students to find the difficult words in each paragraph Explains the difficult words Asks the students to do the exercises Discusses the answers 	 get the students' worksheets read the passage silently Some students read the text per line and translate it. find the difficult words in each paragraph listen to the teacher do the exercises Discuss the answers 	1' 6' 10' 6' 6' 5'
Post teaching activities	Ask the students to do reading quiz individually	Do the reading quiz individually	3'

Winter is one of the four seasons of temperate zones. It is the season with the shortest days and the lowest temperatures. In areas farther from the equator, winter is often marked by snow. Depending on place and culture, what is considered to be the start and end of winter vary. Contemporary meteorology takes winter to be the months of December, January, and February in the Northern Hemisphere and June, July, and August in the Southern Hemisphere. However, many cultures in Europe and East Asia consider winter to begin in November. In many parts of the world, winter is associated with snow and ice. In reality, the three-month period associated with the coldest average temperatures typically begins somewhere in late November or early December in the Northern Hemisphere. If "winter" is defined as the statistically coldest quarter of the year, then the astronomical definition is too late by almost all local climate standards, and the traditional English/Irish definition of November 1 (May 1 in the Southern Hemisphere) is almost always too early to fit this standard. Winter is the only season that spans two calendar years in the northern hemisphere.

Summer is a season that is astronomically defined as beginning around June 21, and ending around September 23 in the Northern Hemisphere. In the Southern Hemisphere, summer begins around December 21 and ends around March 21. Summer is defined by convention in meteorology as the whole months of June, July, and August, in the Northern Hemisphere, and the whole months of December, January, and February, in the Southern Hemisphere. The unofficial start of summer is a matter of convention: in Ireland it is as early as May 1, in many countries it is considered to be June 1, while in others it is as late as July 1. In general, seasonal changes occur earlier in coastal regions, so countries close to the oceans go for an earlier start to summer than inland ones. Summer is commonly viewed as the season with the longest (and warmest) days of the year, in which the daylight predominates, through varying degrees. Summer is also the season in which many fruits, vegetables, and other plants are in full growth.

Autumn (also known as **fall** in North American English) is one of the four temperate seasons, the transition from summer into winter. In the temperate zones, autumn is the season during which most crops are harvested, and deciduous trees lose their leaves. It is also the season where days rapidly get shorter and cooler, the nights rapidly get longer, and of gradually increasing precipitation in some parts of the world. Astronomically, some Western countries consider autumn to begin around September 23 in the Northern hemisphere, and in March 21 in the southern hemisphere, ending around December 21 in the Northern hemisphere and in June 21 in the Southern hemisphere. Such conventions are by no means universal, however. An exception to these definitions is found in the Irish Calendar which still follows the Celtic cycle, where autumn is counted as the whole months of August, September and October. Autumn is often defined as the start of the school year, since they usually begin in early September or early March. Either definition, as with those of the seasons generally, is somewhat flawed because it assumes that the seasons are all of the same length, and begin and end at the same time throughout the temperate zone of each hemisphere.

Spring is one of the four seasons of temperate zones, the transition from winter into summer. Astronomically, some Western countries consider spring to begin around March 20 in the Northern Hemisphere, and September 23 in the Southern Hemisphere, and ends around June 21 in the Northern Hemisphere and December 21 in the Southern Hemisphere. In the Irish Calendar it is counted as the whole months of February, March and April. In meteorology, it is instead counted as the whole months of March, April, and May in the Northern Hemisphere and September, October, and November in the Southern Hemisphere. Springtime is seen as a time of growth, renewal, of new life (both plant and animal) being born, and of the cycle of life once again starting. It is also used more generally as the start of better times, as in Prague Spring.

Answer the questions below!

- 1. What does the whole passage tell us about?
- 2. When does winter happen as defined by convention in meteorology?
 - a. in the southern hemisphere
 - b. in the northern hemisphere
- 3. When does summer happen as defined by convention in meteorology?
 - a. in the southern hemisphere
 - b. in the northern hemisphere
- 4. What season is often defined as the start of the school year? Usually it begins in early September or early March.
- 5. What can you find as mark of spring?

QUIZ

Choose the best answer!

1.	Which	season	that	has a	shortest	day	based	on	the	text'	?

- a. winter
- b. summer
- c. autumn
- d. spring
- 2. In what season do the flowers bloom?
 - a. in winter
 - b. in summer
 - c. in autumn
 - d. in spring
- 3. Below is what you usually find in winter time, except......
 - a. Cold weather
 - b. Low temperature
 - c. high temperature
 - d. snowflakes
- 4. the statements below are true, except:
 - a. spring is the transition from winter into summer
 - b. the start of the school year is autumn
 - c. autumn is the transition from winter into summer
 - d. the season that has the lowest temperature is Winter
- 5. Which paragraphs tell us about the transition seasons?
 - a. Par. 1 and 2
 - b. Par. 1 and 3
 - c. Par. 2 and 4
 - d. Par. 3and 4

Answer key

Exercise

- 1. The whole passage tells us about the four seasons (winter, autumn, summer, spring) and their period of time.
- 2. a. June, July, August
 - b. December, January, February
- 3. a. December, January, February
 - b. June, July, August
- 4. Autumn
- 5. flowers bloom, newly born animal, etc

QUIZ

- 1. A
- 2. D
- 3. C
- 4. C
- 5. D

Treatment 2

Lesson Plan (for experimental group)

Subject : English
Theme : Pollution
Language Skill : Reading

Education Level : Senior High School

Grade/ Semester : XI/ II

Time Allocation : 1 x 40 minutes

A. COMPETENCE:

3. Basic Competence:

Students are able to comprehend the reading passage about pollution

4. Achievement Indicators:

Students are able to find the main idea Students are able to answer the factual questions Students are able to answer the inference questions

- B. LEARNING MATERIALS: (See Student's Worksheet)
- C. TECHNIQUES:

Jigsaw

Group Work

- D. TEACHING AND LEARNING ACTIVITIES: (see the following page)
- E. ASSESSMENT:

Students are asked to find the main idea, answer the factual questions and answer the inference questions.

F. REFERENCES:

Gusnidar. et al. 2001. Window on the World. Jakarta: Erlangga

www.wikipedia.com, Wikipedia, the free encyclopedia.2006

Teaching and learning activities

Stages	activities			
	teacher	students	allocation	
Pre	 Greet the students 	 Respond the greeting 	1'	
teaching	 Asks triggering questions 	 Answer the triggering 	2'	
activities	related with the passage	questions		
Whilst teaching activities	Divides the class into 13 groups to form home teams @ 3 students	• Form the home teams		
	(in home teams session)	(in home teams session)		
	distributes the students'	• get the students'	7'	
	worksheets	worksheets		
	 tells the students to read the 	• read the passage silently		
	passage silently			
	ask the students to form expert	form expert teams		
	teams			
	(in expert team session)	(in expert teams session)		
	asks the students to discuss the	discuss and share the	\ , ,	
	passage based on the questions	answer	11'	
	given	a go hook to their home		
	 asks the students to go back to their home teams 	go back to their home teams]	
	then nome teams	teams		
	(in home teams session)	(in home teams session)		
	 asks the students to share what 	• share the expert teams'	11'	
	they have got from the expert	discussion		
	teams' discussion			
	 Discusses the answer 	discuss the answer	5'	
Post	 Ask the students to do reading 	 Do the reading quiz 	3'	
teaching	quiz individually	individually		
activities				

Water pollution

The plants and animals in the sea, including fish, are now in great danger. So too are the birds which live on the shore or catch their food in the sea. The danger comes from pollution. Pollution means making things dirty.

One way in which the sea becomes polluted is by oil. If a ship is damaged, oil from it may spill into the sea. Oil tankers are very big. Many of them weigh more than 200.000 tons. An oil tanker cannot stop quickly. If one has an accident, it can spill huge quantities of oil. Oil from ship can pollute the beaches and kill plants and animals. Millions of sea birds, fish, seaweed, plankton, and many small animals have all died from oil pollution in recent years.

Some ships carry poisonous substances. If one of these ships had an accident, the poison could get into the sea. Again wildlife would be destroyed. Industrial waste and rubbish which have been dumped into rivers also finish up in the sea. This pollution has made the sea dirtier and killed off the fish and wildlife. These waste materials might poison the fish we eat.

We shall have to be much more careful in the future how we use the sea if we want it to stay clean and interesting.

Air pollution

Wherever and whenever you go you are always surrounded by a sea of gases which is called the air or the atmosphere. We seldom realize this fact because the gases of the atmosphere are invisible nevertheles the gases are of importance. Without the atmosphere all living things are unable to live.

The atmosphere consists of the gases oxygen and nitrogen, water vapourand smaller amounts of carbondioxide and other gases. The air is polluted when it contains enough harmful impuruties which affect the health, safety, or comfort of living things. Because of this reason, our air supply should be closely watched and managed to assure its good quality.

The air can be polluted naturally. Volcanic eruptions spread ash into the air covering a large area. The forest fire produces thick smoke which pollutes the air. This naturally pollution cannot easily be avoided.

People may pollute the air. Such a kind of pollution is produced by industries and vehicles. The condition is getting worse because society becomes more industialized. Nowadays people build more factories, expand existing factories, and drive more vehicles. Whereas factories and vehicles are responsible for providing pollutants in the air.

The air is absolutely vital. It is our duty to prevent the air from being polluted. Natural pollution is difficult to overcome. Thus we are only ableto minimize the air pollution caused by man.

Noise pollution

Noise pollution, usually called environmental noise in technical venues, is displeasing human - or machine - created sound that disrupts the environment. The dominant form of noise pollution is from transportation sources, principally motor vehicles.

The overarching cause of most noise worldwide is generated by transportation systems, principally motor vehicle noise, but also including aircraft noise and rail noise. Hybrid vehicles for road use are the first widely sold automobiles in 100 years to achieve significant noise source reduction. Besides transportation noise, other prominent sources are office equipment, factory machinery, appliances, power tools, lighting hum and audio entertainment systems. With the popularity of digital audio player devices, individuals in a noisy area might increase the volume in order to drown out ambient sounds. Construction equipment also produces noise pollution.

Answer the questions based on the text!

- 1. Which paragraph tells us about the importance of atmosphere? Mention the supporting sentence!
- 2. Can nature pollute the air? How?
- 3. What would destroy wildlife in the sea?
- 4. What will happens when oil tankers damaged?
- 5. What is the other name of the noise pollution?
- 6. What is the purpose of hybrid vehicles?
- 7. Mention some pollution that you know!

QUIZ

Choose the best answer based on the text you've been discussed!

- 1. What is the main idea of the first paragraph?
 - a. chemical waste makes the sea dirty
 - b. the causes of sea pollution
 - c. oil tankers endangered our sea
- 2. What kind of pollution threatens the life in the sea?
 - a. oil
 - b. acid rain
 - c. tankers
- 3. These are the air pollution that caused by the human, except:
 - a. vehicles smoke
 - b. smoke from burnt forests
 - c. smoke from cigar
- 4. Smoke a cigar also one cause of the air pollution which affect:
 - a. the health of living things
 - b. the age of the living things
 - c. the breath of the living things
- 5. Here are the sources of noise pollution, except?
 - a. construction equipment
 - b. motor vehicle noise
 - c. hybrid vehicles
- 6. These are kinds of pollution that we talk about in the passages:
 - a. air pollution, noise pollution, land pollution
 - b. air pollution, noise pollution, water pollution
 - c. land pollution, air pollution, noise pollution
 - d. water pollution, noise pollution, land pollution

Answer Key

Exercise

- 1. Paragraph 1. The gases of the atmosphere are invisible nevertheles the gases are of importance. Without the atmosphere all living things are unable to live.
- 2. Yes, it can. From the smoke of the burnt forest and the ashes from the volcanic eruption.
- 3. The pollution, especially from oil, industrial waste, and rubbish.
- 4. It can pollute the beaches and kill plants and animals in the sea.
- 5. Environment noise
- 6. To reduce the noise pollution.
- 7. air pollution, water pollution, noise pollution, land pollution and sea pollution

QUIZ

- 1. B
- 2. A
- 3. B
- 4. A
- 5. C
- 6. B

Treatment 3

Lesson Plan (for experimental group)

Subject : English
Theme : Tourism
Language Skill : Reading

Education Level : Senior High School

Grade/ Semester : XI/ II

Time Allocation : 1 x 40 minutes

A. COMPETENCE:

1. Basic Competence:

Students are able to comprehend the reading passage about tourism

2. Achievement Indicators:

Students are able to find the main idea

Students are able to answer the factual questions

Students are able to answer the inference questions

B. LEARNING MATERIALS: (See Student's Worksheet)

C. TECHNIQUES:

Jigsaw

Group Work

D. TEACHING AND LEARNING ACTIVITIES: (see the following page)

E. ASSESSMENT:

Students are asked to find the main idea, answer the factual questions and answer the inference questions.

F. REFERENCES:

Gusnidar. et al. 2001. Window on the World. Jakarta: Erlangga

Teaching and learning activities

Stages	Activitie	Time	
_	teacher	students	allocation
Pre	• Greet the students	 Respond the greeting 	1'
teaching	Asks triggering questions	 Answer the triggering 	2'
activities	related with the passage	questions	
Whilst teaching activities	• Divides the class into 13 groups to form home teams @ 3 students	• Form the home teams	
	(in home teams session)	(in home teams session)	
	distributes the students'	get the students'	> 7'
	worksheets	worksheets	
	• tells the students to read the	read the passage silently	
	passage silently		
	ask the students to form expert teams	• form expert teams]
	(in expert team session)	(in expert teams session)	
	 asks the students to discuss the 	discuss and share the	
	passage based on the questions	answer	
	given	11-4-411-1	11'
	 asks the students to go back to their home teams 	go back to their home teams	
	then nome teams	teams	
	(in home teams session)	(in home teams session)	
	asks the students to share what	share the expert teams'	11'
	they have got from the expert	discussion	
	teams' discussion	- 1:41	
Dood	Discusses the answer	discuss the answer	5' 3'
Post	• Ask the students to do reading	Do the reading quiz individually.	5
teaching activities	quiz individually	individually	
activities			

Lesson Plan (for control group)

Subject : English
Theme : Tourism
Language Skill : Reading

Education Level : Senior High School

Grade/ Semester : XI/ II

Time Allocation : 1 x 40 minutes

A. COMPETENCE:

1. Basic Competence:

Students are able to comprehend the reading passage about tourism

2. Achievement Indicators:

Students are able to find the main idea

Students are able to answer the factual questions

Students are able to answer the inference questions

B. LEARNING MATERIALS: (See Student's Worksheet)

C. TECHNIQUES:

GTM

- Translation of a literary passage
- Reading comprehension questions

Individual work

D. TEACHING AND LEARNING ACTIVITIES: (see the following page)

E. ASSESSMENT:

Students are asked to find the main idea, answer the factual questions and answer the inference questions.

F. REFERENCES:

Gusnidar. et al. 2001. Window on the World. Jakarta: Erlangga

Teaching and learning activities

Stages	activitie	S	Time
_	teacher	students	allocation
Pre teaching activities	 Greet the students Asks triggering questions related with the passage	Respond the greetingAnswer the triggering questions	1' 2'
Whilst teaching activities	 distributes the students' worksheets asks the students to read the passage silently Asks some students to read the text per line and translate it. Asks the students to find the difficult words in each paragraph Explains the difficult words Asks the students to do the exercises Discusses the answers 	 get the students' worksheets read the passage silently Some students read the text per line and translate it. find the difficult words in each paragraph listen to the teacher do the exercises Discuss the answers 	1' 6' 10' 6' 6' 5'
Post teaching activities	Ask the students to do reading quiz individually	Do the reading quiz individually	3'

Hotel Sanur Beach

Situated in beautiful, tropical gardens right by the sea, the Sanur Beach Hotel offers a friendly atmosphere so typical of the Balinese themselves.

The accommodation comprises tastefully furnished air conditions rooms with mini bar, bath, shower, WC, and balcony or patio. For those who prefer extraprivacy, there are some elegant Balinese style bungalows around the gardens.

Other facilities include 3 restaurants, a 24 hours coffee shop, swimming pool, tennis and badminton courts, and shopping arcade.

Water sports including windsurfing and sailing can be arranged from the beach.

Prices are based on room only (no meals), twin bed standard room with bath, shower, WC, and balcony or patio.

Supplements per person per night; peak season 24 Dec - 10 Jan \$2. Bungalow \$4, single room \$19 (11 Jan - 15 Jul NIL), full breakfast \$7.

Children under 10 discount 50%

Bali Hyatt Hotel

Set in beautiful tropical gardens leading straight on to Sanur Beach, the Bali Hyatt offers Balinese charm and character whilst providing international standards.

Standard rooms overlook the hotel grounds and air conditioned with mini bar, bath, shower, WC and balcony or patio. Superior rooms have been tastefully redecorated and are ocean front. The Regency Club offers exclusive accommodation with club lounge, complimentary continental breakfast in the morning and cocktail and canapés every evening.

Facilities include a choice of restaurants, bars, 24 hours coffee shop, discotheque, shopping arcade, swimming pool and tennis court. Water sports including windsurfing, sailing, etc are available from the beach.

Prices are based on room only (no meals), standard twin bed room with bath, shower, WC and balcony or patio.

Supplements per person per night; Regency Club \$14, Superior room \$7. Standard single room \$22, full breakfast \$7

Children under 10 discount 50%

Nusa Dua Beach Hotel

Delightfully situated on a beautiful beach, the deluxe Nusa Dua Hotel is set in 23 acres of lush tropical gardens. Graceful coconut palms, brilliantly blossoming foliage, reflecting pools and fountains create an atmosphere of complete tranquility and relaxation.

The elegantly furnished bedrooms are specious and air conditioned with mini bar, television, bath, shower, WC, and balcony.

Facilities include a variety of restaurants, bars, coffee shop, discotheque, swimming pool, games rooms, health centre and sauna. In the landscaped gardens there are tennis and squash courts, and also a jogging track. Water sports including windsurfing, sailing, and scuba diving are available from the beach.

Prices are based on room only (no meals), twin bed room with bath, shower, WC, and balcony.

Supplements per person per night; peak season 21 Dec - 11 Jan \$2, single room \$18, full breakfast \$7.

Children under 10 discount 50%

Answer the following questions based on the text!

- 1. What do the whole passage talks about?
- 2. What facilities does the Hotel Sanur Beach offer?
- 3. What facilities does the Bali Hyatt Hotel offer?
- 4. What facilities does the Nusa Dua Beach Hotel offer?
- 5. Which hotels do you prefer, the one sited near the beach or far from the beach? Why?

QUIZ

Choose the best answer!

- 1. What is mainly discussed in each paragraph?
 - a. Hotel's facilities
 - b. Hotel's accommodation
 - c. A and B are correct
- 2. Which of these hotels cost the cheapest for the single room during the peak season?
 - a. Hotel Sanur Beach
 - b. Bali Hyatt Hotel
 - c. Nusa Dua Beach Hotel
- 3. Here is the court that all of the three hotels have
 - a. Tennis court
 - b. Badminton court
 - c. Squash court
- 4. What is peak season?
 - a. A very busy season
 - b. A season when the greatest number of people having holiday
 - c. A season when the lowest number of people having holiday
- 5. There are two hotels that near the Sanur Beach, they are:
 - a. Hotel Sanur Beach & Bali Hyatt Hotel
 - b. Bali Hyatt Hotel & Nusa Dua Beach Hotel
 - c. Hotel Sanur Beach & Nusa Dua Beach Hotel

Answer Key

Exercise

- 1. The whole passage talks about the hotels' accommodations and the facilities they have
- 2. 3 restaurants, a 24 hours coffee shop, swimming pool, tennis and badminton courts, and shopping arcade.
- 3. A choice of restaurant, bars, 24 hours coffee shop, discotheque, shopping arcade, swimming pool and tennis court.
- 4. A variety of restaurants, bars, coffee shop, discotheque, swimming pool, games rooms, health centre and sauna, tennis and squash courts, and also a jogging track.
- 5. (optional) I prefer the one near the beach because I can see the beach from the hotel, and can play in the beach whenever I want.

Quiz

- 1. C
- 2. C
- 3. A
- 4. B
- 5. A

Appendix 8 (Pretest, Posttest and Gain Scores)

	Experimental Group			Control Group			
no.	pretest	posttest	gain	pretest	posttest	gain	
1	7	12	5	5	6	1	
2	7	3	-4	13	11	-2	
3	11	15	4	7	9	2	
4	8	13	5	13	12	-1	
5	14	14	0	13	11	-2	
6	16	15	-1	13	14	-1	
7	14	15	1	9	8	-1	
8	9	6	-3	11	14	3	
9	10	11	1	13	12	-1	
10	5	11	6	10	10	0	
11	4	10	6	14	13	-1	
12	12	15	3	5	4	-1	
13	5	12	7	10	14	4	
14	10	11	1	12	14	2	
15	13	10	-3	12	11	-1	
16	10	14	4	11	15	4	
17	9	12	3	15	15	0	
18	16	13	-3	14	15	1	
19	6	12	6	9	12	3	
20	9	12	3	8	6	-2	
21	8	10	2	5	11	6	
22	13	11	-2	10	12	2 -2	
23	10	14	4	7	5	-2	
24	15	13	-2	6	7	1	
25	14	13	-1	11	13	2	
26	5	12	7	12	13	1	
27	8	9	1	9	8	-1	
28	11	9	-2	7	8	1	
29	11	11	0	5	8	3	
30	10	13	3	9	13	4	
31	12	13	1	12	13	1	
	312	364	52	310	337	25	
	10.0645	11.74194	1.677	10	10.87097	0.81	

Appendix 9 (The Calculation of Gain Score)

Group Statistics

	CLASS	N	Mean	Std. Deviation	Std. Error Mean
SCORE	е	31	1.68	3.26	.59
	С	31	.81	2.14	.38

Independent Samples Test

		Levene's Equality of	Test for Variances	t-test for Equality of Means						
							Mean	Std. Error	95% Cor Interva Differ	l of the
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
SCORE	Equal variances assumed	7.626	.008	1.244	60	.218	.87	.70	53	2.27
	Equal variances not assumed			1.244	51.748	.219	.87	.70	53	2.28

Note:

t-observation is 1.244

t-table is 1.671

Since t observation < t-table, H0 is accepted. There is no significant difference between the mean of the gain scores.