APPENDIX B

Achievement test

1. My brother gets _____ .
He uses an inhaler when he can't
breathe well.
      a. fever   b. insomnia
      c. asthma   d. sore throat

2. Food energy is measured in _____
      a. essential   b. lymph
      c. calories   d. absorption

3. She's got a high _____
and a headache.
      a. temperature b. body heat
      c. feverish   d. fever

4. I can't stop scratching my feet -
they're so _____ .
      a. sore   b. itchy
      c. pain   d. heard

5. I'm allergic to prawns. If I eat them,
I get a red _____ on my neck.
      a. rash   b. scratch
      c. itch   d. pimples

6. The children had
_____ . It must be
something they ate.
      a. diarrhea   b. diagnosis
      c. antibiotics d. headache

7. I've had _____ since I
was a child. I get these awful
headaches and feel nauseous.
      a. fevers   b. migraines
      c. blotches   d. sore throat

8. I can't feel anything in my big toe.
It's gone _____ .
      a. faint   b. painless
      c. numb   d. painkiller

9. Look at my poor toe! It's
so_____ I can't put my shoe on.
      a. broken   b. hurt
      c. swollen   d. switch

10.'I've got a _____ nose. I think
I've got a cold.
      a. swollen   b. runny
      c. itchy   d. big

11. What is he like?

      a.shy   b. talkative
      c. intelligent d. selfish

12. What is she like?

      a.shy   b. talkative
      c. intelligent d. selfish

13. What is she like?

    a.shy   b. talkative
    c. intelligent   d. selfish

14. He's kind and ……………………
He cares about others.
    a. Aggressive   b. Shy
    c. Bossy   d. careful

15. She always tells the truth. She's the most ……………………… person I know.
    a. Selfish   b. Spoilt
    c. Reliable   d. Self-confident

16. Don't be ……………………….
You can't leave without saying goodbye
    a. Intelligent   b. Mean
    c. rude   d. Stupid

17. Which of the following is NOT a nutrient, but provides the body with empty calories?
   a. Fats
   b. Alcohol
   c Vitamins
   d. Minerals

18. Tom is not only helpful, but he's also ……………………… . He often gives us presents.
    a. Selfish   b. Spoilt
    c. Reliable   d. generous

19. How is glass made?
    a. By heating sand
    b. By mashing up wood from trees
    c. By weaving fibres together
    d. By heating metal

20. I'm always ………………………
before a test. I feel worried no matter how hard I have studied.
    a. nervous   b. Spoilt

    c. Reliable   d. Self-confident

21. Someone whose job is to make fires stop burning and help people to escape from other dangerous situations is:
    a. fire fighter b. policeman
    c. doctor   d. DR. Smith

22. The metal rings that a police officer puts round a prisoner's wrists to stop them from using their hands or arms are:
    a. ring   b. uniform
    c. handcuffs   d. mask

23. A vehicle with special equipment, used for taking sick or injured people to a hospital is:
    a. emerge car
    b. death truck
    c. fire truck/ fire engine
    d. ambulance

24. Which one identifies the 6 nutrients?
    a. carbohydrates, fats, protein, vitamins, minerals and water
    b. Cho - 4 protein - 4 lipids - 9 alcohol - 7
    c. 1. CHO2. Protein 3. Lipids (fat)
    d. Non-nutrients the body makes in sufficient amounts.

25. The special set of clothes worn by all members of an organization or a group at work, or by children at school is:
    a. ring   b. uniform
    c. handcuffs   d. mask

26. Who is he?

a. ambulance driver
b. paramedic
c. fire fighter
d. policeman

27. What is it?

a. handcuffs   b. uniform
c. helmet   d. mask

28. What does helmet mean?
a. a hard hat that you wear to protect your head
b. a hard hat that you wear to be beautiful
c. a soft hat that you wear to protect your head
d. a soft hat that you wear to be beautiful

29. What does mask mean?
a. something that you wear to cover part or all of your lags in order to protect it from something harmful
b. something that you wear to cover part or all of your body in order to protect it from something harmful
c. something that you wear to cover part or all of your face in order to protect it from something harmful
d. something that you wear to cover part or all of your face in order to be beautiful

30. Which one are not Ambulance services?
a. paramedic   b. nurse
c. siren   d. handcuffs

31. The word that more polite word for describing someone who is 'fat'.
a. over-weight   b. skinny
c. plump   d. thin

32. What kind of her hair is?

a. straight   c. curly
b. wavy   d. spiky

33. What kind of her hair is?
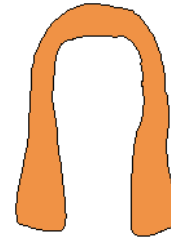
a. Straight   c. curly
b. Wavy   d. spiky

34. Which of these phrases correctly describes a plump person someone who is
a. fat person
b. thin and good looking person
c. Someone who is a little bit fat
d. Very direct

35. Cornflakes and other breakfast cereals come in……………boxes.
a. glass   b. cardboard
c. wood   d. plastic

36. A level headed person is someone who
a. Stays calm and doesn't get nervous
b. Has a flat head
c. Is good at judging people
d. Thinks they are better than other people

37. Which phrase best describes someone who is likable
a. Someone who gets on well with other people
b. A person who other people tend to like
c. A person who can easily be persuaded
d. Plain looking

38. What promotes growth and repair of tissue?
a. Protein   b. Xylitol
c. Sugar   d. Fat

39. A person who is idealistic can be said to be a person who
    a. Has a lot of ideas.
    b. is well educated
    c. Believes that the world should be better
    d. is very intelligent

40. Which phrase best describes a funny person someone
    a. Fun and interesting to be with someone
    b. Who is interesting?
    c. Who is good at making people laugh
    d. Who always forgets things?

41. Which phrase best describes a person with good judgment the kind of person
    a. An intelligent person
    b. Someone who is good at deciding whether something is good or bad
    c. Someone who is calm and steady
    d. Who always makes the right decision.

42. Which nutrient provides for muscle building and enzyme utilization?
    a. Fiber   b. Protein
    c. Sugar   d. Minerals

43. The opposite of 'fat' is 'thin'. This is another word meaning 'thin'.
    a. over-weight   b. skinny
    c. plump   d. thin

44. Another word meaning 'old'.
    a. elderly   b. young
    c. child   d. teenage

45. If someone is muscular we say they are…..
    a. over-weight b. skinny
    c. healthy   d. well-built

46. He/She has blond, short and wavy hair. He wears well- dressed. Who is he/she?
    a.

    b.

    c.

    d.

47. Most wine bottles are made of green, brown or clear…………………
    a. glass   b. cardboard
    c. wood   d. plastic

48. What is the word for the "health emergency car"?
    a. emerge car   b. death truck
    c. fire truck   d. ambulance

49. In the Thailand, the emergency phone number is:
    a.000   b.111
    c.911   d.191

50. The children had _____ on holiday. It must have been the food at the hotel.
    a. diarrhea   b. nauseous
    c. indigestion   d. nervures

Table B.1

The result of the efficiency of the achievement test checked by five experts

Achievement test item	Opinion of the experts					Total	IOC	Translation
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5			
1	+1	+1	+1	+1	+1	5	1	usable
2	+1	+1	+1	+1	+1	5	1	usable
3	+1	+1	0	+1	0	3	0.6	usable
4	+1	+1	0	+1	0	3	0.6	usable
5	+1	+1	+1	+1	+1	5	1	usable
6	+1	+1	+1	+1	+1	5	1	usable
7	+1	+1	+1	+1	+1	5	1	usable
8	+1	+1	+1	+1	+1	5	1	usable
9	+1	0	+1	+1	0	3	0.6	usable
10	+1	0	+1	+1	0	3	0.6	usable
11	+1	+1	+1	+1	+1	5	1	usable
12	+1	+1	+1	+1	+1	5	1	usable
13	+1	+1	+1	+1	+1	5	1	usable
14	+1	+1	+1	+1	0	4	0.8	usable
15	0	+1	+1	+1	+1	4	0.8	usable
16	0	+1	0	+1	+1	3	0.6	usable
17	+1	+1	0	0	+1	3	0.6	usable
18	+1	+1	+1	+1	0	4	0.8	usable
19	+1	+1	+1	+1	+1	5	1	usable
20	+1	+1	+1	+1	+1	5	1	usable
21	+1	+1	+1	+1	+1	5	1	usable
22	+1	+1	0	+1	+1	4	0.8	usable
23	0	+1	+1	+1	+1	4	0.8	usable
24	+1	+1	+1	+1	0	4	0.8	usable
25	0	+1	+1	+1	0	3	0.6	usable
26	+1	0	+1	+1	+1	4	0.8	usable
27	+1	+1	+1	+1	+1	5	1	usable
28	+1	+1	+1	+1	+1	5	1	usable
29	+1	+1	+1	0	+1	4	0.8	usable
30	+1	+1	0	+1	+1	4	0.8	usable
31	+1	+1	0	0	+1	3	0.6	usable
32	+1	+1	+1	+1	0	4	0.8	usable
33	+1	+1	+1	+1	+1	5	1	usable
34	+1	+1	+1	+1	+1	5	1	usable
35	+1	+1	+1	+1	+1	5	1	usable
36	+1	+1	0	+1	+1	4	0.8	usable
37	+1	+1	0	+1	+1	4	0.8	usable
38	+1	+1	+1	+1	+1	5	1	usable
39	+1	+1	+1	+1	+1	5	1	usable
40	+1	+1	0	+1	+1	4	0.8	usable
41	+1	+1	0	+1	+1	4	0.8	usable
42	+1	+1	+1	+1	+1	5	1	usable
43	+1	+1	+1	0	+1	4	0.8	usable
44	+1	+1	0	+1	+1	4	0.8	usable
45	+1	+1	0	0	+1	3	0.6	usable
46	+1	+1	+1	+1	0	4	0.8	usable
47	+1	+1	+1	+1	+1	5	1	usable
48	+1	+1	+1	+1	+1	5	1	usable
49	+1	+1	+1	+1	+1	5	1	usable
50	+1	+1	+1	+1	+1	5	1	usable

Table B.2

Difficulty and Discriminate analysis of the achievement test items. Reliability = 0.965

Items	P	R	Result	Items	P	R	Result
1	0.33	0.20	usable	26	0.28	0.23	usable
2	0.27	0.20	usable	27	0.20	0.33	usable
3	0.33	0.33	usable	28	0.30	0.27	usable
4	0.22	0.23	usable	29	0.35	0.30	usable
5	0.33	0.33	usable	30	0.38	0.23	usable
6	0.38	0.23	usable	31	0.30	0.27	usable
7	0.33	0.20	usable	32	0.25	0.23	usable
8	0.28	0.23	usable	33	0.27	0.27	usable
9	0.22	0.30	usable	34	0.30	0.23	usable
10	0.35	0.30	usable	35	0.23	0.20	usable
11	0.22	0.30	usable	36	0.23	0.27	usable
12	0.20	0.20	usable	37	0.30	0.27	usable
13	0.23	0.20	usable	38	0.25	0.40	usable
14	0.27	0.40	usable	39	0.23	0.20	usable
15	0.28	0.23	usable	40	0.27	0.23	usable
16	0.38	0.23	usable	41	0.37	0.33	usable
17	0.35	0.23	usable	42	0.37	0.20	usable
18	0.37	0.27	usable	43	0.22	0.20	usable
19	0.20	0.27	usable	44	0.27	0.23	usable
20	0.23	0.20	usable	45	0.27	0.40	usable
21	0.27	0.20	usable	46	0.30	0.33	usable
22	0.20	0.27	usable	47	0.23	0.20	usable
23	0.27	0.27	usable	48	0.23	0.20	usable
24	0.35	0.23	usable	49	0.23	0.20	usable
25	0.30	0.20	usable	50	0.27	0.33	usable

Table B.3

The students' score of pretest and posttest in each lesson and mixed test

Student (number)	Family Relationships (20)		Where's the fire? (20)		Let's call an ambulance! (20)		A ransom or a reward? (20)		Eating the rainbow (20)		What's it made of? (20)		Mixed test (50)	
	Pre	post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	post
1	11	16	8	13	7	17	10	14	8	15	9	12	14	41
2	11	15	6	16	9	17	7	13	11	15	10	16	14	34
3	9	12	10	19	13	15	7	16	11	13	10	14	7	33
4	7	15	6	13	7	15	9	13	3	17	5	12	9	29
5	15	19	6	18	10	17	15	19	8	18	9	17	37	43
6	8	11	7	19	6	17	11	14	8	11	8	17	14	25
7	13	18	9	15	8	17	7	18	7	14	9	15	21	46
8	4	12	5	16	6	19	7	19	11	13	10	15	11	31
9	4	11	6	11	10	16	12	15	11	13	11	17	13	30
10	7	15	10	13	6	12	10	16	6	12	8	17	15	39
11	6	17	9	14	9	15	9	11	9	18	7	12	12	42
12	6	12	9	16	6	19	7	13	11	18	7	14	9	21
13	10	13	7	17	11	18	8	9	15	17	8	13	22	44
14	8	10	9	16	7	17	8	14	8	11	9	15	21	22
15	12	18	6	17	11	16	6	16	7	10	10	16	25	46
16	11	19	6	18	5	15	7	17	7	16	6	11	19	44
17	9	17	9	15	10	17	9	16	10	14	10	15	20	36
18	9	15	11	16	8	15	9	17	10	16	7	13	18	38
19	12	16	5	13	10	16	9	16	10	16	7	13	13	43
20	10	18	9	16	9	13	11	14	9	12	10	18	15	41
21	5	11	10	13	5	17	10	16	5	10	7	15	15	40
22	9	11	8	15	7	16	9	13	6	17	4	12	11	40
23	3	9	7	16	8	11	3	9	2	8	6	16	7	36
24	12	17	8	16	9	11	12	16	10	16	11	17	23	41
25	5	12	6	14	8	13	6	13	7	11	4	8	18	38
26	5	10	4	10	7	15	5	11	6	11	4	8	21	29
27	4	7	8	13	6	15	14	16	6	13	3	11	12	32
28	8	14	10	13	6	14	10	13	5	9	6	10	17	30
29	7	12	11	16	3	11	3	15	5	12	3	8	18	32
30	3	8	3	9	2	13	3	9	6	10	4	8	11	32
$\sum x$	243	410	228	446	229	459	253	431	238	406	222	405	482	1,078
$\bar{x}$	8.1	13.7	7.6	14.9	7.6	15.3	8.4	14.4	7.9	13.5	7.4	13.5	16.1	35.9
S.D	3.20	3.39	2.08	2.45	2.40	2.23	2.93	2.71	2.78	2.92	2.46	3.04	6.21	6.91

Table B.4

The students' score of pretest and posttest

Student number	Score		difference	Squared difference
	Pretest (50)	Posttest (50)		
1	14	41	27	729
2	14	34	20	400
3	7	33	26	676
4	9	29	20	400
5	37	43	6	36
6	14	25	11	121
7	21	46	25	625
8	11	31	20	400
9	13	30	17	289
10	15	39	24	576
11	12	42	30	900
12	9	21	12	144
13	22	44	22	484
14	21	22	1	1
15	25	46	21	441
16	19	44	25	625
17	20	36	16	256
18	18	38	20	400
19	13	43	30	900
20	15	41	26	676
21	15	40	25	625
22	11	40	29	841
23	7	36	29	841
24	23	41	18	324
25	18	38	20	400
26	21	29	8	64
27	12	32	20	400
28	17	30	13	169
29	18	32	14	196
30	11	32	21	441
$\sum x$	482	1,078	596	13,380

Table B.5

The comparison of the achievement between pretest and posttest scores

Paired Samples Test

| | | | | Std. | 95% Confidence Interval of the Difference | | | | Sig. (2- |
		Mean	Std. Deviation	Error Mean	Lower	Upper	t	df	tailed)
Pair	premixed - postmixed	15.76667	7.10358	1.29693	18.41919	13.11414	12.157	29	.000

Table B.6

The achievement scores between pretest and posttest in each instructional plan

Descriptive Statistics

Test	N	Minimum	Maximum	Mean	Std. Deviation
Family relationships pretest	30	3.00	15.00	8.1000	3.19860
Family relationships posttest	30	7.00	19.00	13.6667	3.38693
Where's the fire? Pretest	30	3.00	11.00	7.6000	2.07780
Where's the fire? Posttest	30	9.00	19.00	14.8667	2.44573
let's call an ambulance! Pretest	30	2.00	13.00	7.6333	2.39947
let's call an ambulance! Posttest	30	11.00	19.00	15.3000	2.23066
A ransom or a reward? Pretest	30	3.00	15.00	8.4333	2.93238
A ransom or a reward? Posttest	30	9.00	19.00	14.3667	2.70992
Eating the rainbow pretest	30	2.00	15.00	7.9333	2.77841
Eating the rainbow posttest	30	8.00	18.00	13.5333	2.92119
What's it made of? Pretest	30	3.00	11.00	7.4000	2.45792
What's it made of? Posttest	30	8.00	18.00	13.5000	3.03713
Mixed pretest	30	7.00	37.00	16.0667	6.21418
Mixed posttest	30	21.00	46.00	35.9333	6.90793

Table B.7

Comparison of mean score between pretest and posttest in each instructional plan

| | | Paired Differences | | | | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
					Lower	Upper			
Pair 1	family relationships pre & family relationships post	5.56667	2.12835	.38858	4.77193	6.36141	14.326	29	.000
Pair 2	Where's the fire? Pre & where's the fire? post	7.26667	2.69013	.49115	6.26216	8.27118	14.795	29	.000
Pair 3	let's call an ambulance! Pre & let's call an ambulance! post	7.66667	2.91646	.53247	6.57764	8.75569	14.398	29	.000
Pair 4	A ransom or a reward? Pre & A ransom or a reward? post	5.93333	2.98194	.54442	4.81986	7.04681	10.898	29	.000
Pair 5	Eating the rainbow pre & Eating the rainbow post	5.60000	2.90778	.53089	4.51422	6.68578	10.548	29	.000
Pair 6	What's it made of? Pre & What's it made of? post	6.10000	1.76850	.32288	5.43963	6.76037	18.892	29	.000
Pair 7	mixed pre & mixed post	15.76667	7.10358	1.29693	18.41919	13.11414	12.157	29	.000