

CHAPTER V

RESULTS AND INTERPRETATIONS

5.0 Introduction

The main purpose of this study is to investigate the attitude of administrators and Physical Education teachers towards Physical Education and also to study the implementation of Physical Education programme in secondary schools in Peninsular Malaysia.

The results of the data analysis and the interpretations are organised as follows :

- a. Response Rate
- b. Summary of responses of administrators and Physical Education teachers towards Physical Education through the Wear Physical Education Attitude Inventory (WPEAI)
- c. Descriptive Statistics (mean, standard deviation, unweighted mean and ranking) of the WPEAI.
- d. Descriptive Statistics (mean, standard deviation, pivotal score, directional score and ranking) of the WPEAI.
- e. Hypothesis Testing

5.1 Response Rate

As indicated in Table 5.1, the total population was 12450. 1245 or 10 percent were principals, another 1245 or 10 percent were senior assistants and 9960 or 80 percent were Physical Education teachers. The sample was selected using stratified random sampling which yielded a total sample size of 290 schools which is 23.3 percent of the 1245 schools in Peninsular Malaysia. The sample size of 290 schools was considered adequate based on Mitchell, M. and Jolley, J. (1996) (Appendix I).

Table 5.1

Summary of population, samples and response rates

Groups	Population	% of total population	% selected	No. of subjects selected	No. of returned questionnaires	% of return selected	% of return of total
Principal	1245	10.00	23.29	290	267	92.07	21.45
Senior Assistant	1245	10.00	23.29	290	269	92.76	21.61
P.E. Teacher	9960	80.00	25.86	2576	1637	63.55	16.44
Total	12450	100.00	24.15	3156	2173	82.79	19.83

5.2 Summary of scores of administrators and Physical Education teachers on the Wear Physical Education Attitude Inventory (WPEAI)

Table 5.2 shows the summary of scores of administrators and Physical Education teachers on the WPEAI. A maximum score of 150 points indicates a very strong favourable attitude towards Physical Education and a minimum score of 30 points would indicate the opposite. A score of 90 would indicate a neutral position.

TABLE 5.2

**Scores of subjects made by the whole sample, teachers and administrators:
Attitude towards Physical Education**

Group Score	Whole sample		P.E. Teachers		Administrators		Principals		Senior Assistants	
	f	%	f	%	F	%	f	%	f	%
140-144	/	/	/	/	/	/	/	/	/	/
135-139	1	0.0	/	/	1	0.2	/	/	1	0.3
130-134	2	0.0	2	0.1	/	/	/	/	/	/
125-129	1	0.0	1	0.1	/	/	/	/	/	/
120-124	1	0.0	1	0.1	/	/	/	/	/	/
115-119	7	0.3	6	0.3	1	0.2	/	/	1	0.3
110-114	21	0.9	18	1.0	3	0.6	/	/	3	1.1
105-109	60	2.7	44	2.6	16	3.1	5	2.0	11	4.1
100-104	196	9.1	168	10.2	28	5.5	12	4.9	16	6.0
95-99	561	26.1	420	25.6	141	27.8	64	26.4	77	29.0
90-94	821	38.2	630	38.4	191	37.6	92	38.0	99	37.3
85-89	342	15.9	253	15.4	89	17.5	50	20.6	39	14.7
80-84	94	4.3	66	4.0	28	5.5	14	5.7	14	5.2
75-79	33	1.5	24	1.4	9	1.7	5	2.0	4	1.5
70-74	2	0.1	2	0.1	/	/	/	/	/	/
65-69	1	0.0	1	0.1	/	/	/	/	/	/
60-64	1	0.0	1	0.1	/	/	/	/	/	/
N	2144		1637		507		242		265	
Mean	93.55		93.71		93.03		92.14		93.84	
S.D	6.71		6.85		6.22		5.60		6.6	
> 90	1538	71.73	1188	72.57	350	69.03	155	64.04	195	73.58

Almost 90 percent of the whole sample scored between 85 and 104 points on the Wear Attitude Inventory. Specifically, 71.7 percent of the respondents scored more than 90 points indicating that the overall attitude towards Physical Education is favourable. However, only 5 out of 2144 respondents scored 120 points.

A total of 69.0 percent of the administrators scored more than 90 points. However, a comparison between the principals and senior assistants revealed that senior assistants' attitude towards Physical Education (73.5%) is more favourable as compared to that of principals (64.0%). Even when compared to the percentage of Physical Education teachers (72.5%) who scored more than 90 points, the percentage of senior assistants is higher. This shows that the attitudes of senior assistants' toward Physical Education are more favourable than principals and the Physical Education teachers.

5.3 Descriptive Statistics (means, standard deviation, unweighted means and ranking) of Wear Inventory.

Table 5.3, Table 5.4, Table 5.5, Table 5.6 and Table 5.7 display the measures of variability for scores for the four sub-domains of the attitudes toward Physical Education of the WPEAI of the total population, administrators, principals, senior assistants and Physical Education teachers. In these tables, the means, standard deviations, number of items of the sub-domains, the unweighted means and their ranking based on the unweighted means are reported. The unweighted means was used because sub-domains contain different number of items. The unweighted means were calculated by dividing the means by the number of items in the sub-domains. A mean of 3.00 is considered

neutral; a mean above 3.00 is considered a favourable attitude towards Physical Education and a mean below 3.00 is considered as having unfavourable attitude toward Physical Education.

Table 5.3
Descriptive Statistics of the Wear Physical Education Attitude Inventory for the total population

Attitude Sub-domains	Mean	Standard Deviation	Number of items	Unweighted means	Rank
Physiological-physical	24.73	2.93	6	4.12	1
Mental-emotional	28.28	3.97	7	4.04	3
Social	32.38	3.84	8	4.05	2
General	34.66	5.13	9	3.85	4
Attitude	120.05	13.85	30	4.00	

The data from Table 5.3 indicates that the Physiological-physical, Social, Mental-emotional and General sub-domains with weighted means of 4.12, 4.05, 4.04, and 3.85 respectively show that the sample as a whole has favourable attitude toward Physical Education.

Table 5.4
Descriptive Statistics of the Wear Physical Education Attitude Inventory for administrators (Principals and Senior-Assistants)

Attitude Sub-domains	Mean	Standard Deviation	Number of items	Unweighted means	Rank
Physiological-physical	25.08	3.04	6	4.18	1
Mental-emotional	28.49	3.41	7	4.07	2
Social	32.59	3.34	8	4.07	2
General	35.03	4.69	9	3.89	4
Attitude	121.27	12.05	30	4.04	

The data from Table 5.4 indicates that the administrators showed favourable attitude towards Physical Education in all the sub-domains.

Table 5.5

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for the principals**

Attitude Sub-domains	Mean	Standard Deviation	Number of items	Unweighted means	Rank
Physiological-physical	25.04	2.49	6	4.17	2
Mental-emotional	28.63	3.29	7	4.23	1
Social	32.83	3.38	8	4.10	3
General	35.48	4.56	9	3.94	4
Attitude	122.21	12.02	30	4.07	

The data from Table 5.5 indicates that principals have favourable attitude towards Physical Education in all the sub-domains.

Table 5.6

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for the senior assistants**

Attitude Sub-domains	Mean	Standard Deviation	Number of items	Unweighted means	Rank
Physiological-physical	25.12	3.49	6	4.19	1
Mental-emotional	28.36	3.51	7	4.05	2
Social	32.36	3.29	8	4.05	2
General	34.60	4.78	9	3.84	4
Attitude	120.41	12.05	30	4.01	

Similarly Table 5.6 shows that senior assistants showed favourable attitude towards Physical Education in all the sub-domains.

Table 5.7

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for Physical Education teachers**

Attitude Sub-domains	Mean	Standard Deviation	Number of items	Unweighted means	Rank
Physiological-physical	24.62	2.89	6	4.10	1
Mental-emotional	28.21	4.14	7	4.03	3
Social	32.31	3.99	8	4.04	2
General	34.54	5.26	9	3.84	4
Attitude	119.68	14.34	30	3.99	

The data from Table 5.7 indicates that Physical Education teachers showed favourable attitudes toward Physical Education particularly in the Physiological-physical sub-domain.

In Table 5.8 it is shown that all three groups of respondents, that is the principals, senior assistants and Physical Education teachers display a favourable attitude towards Physical Education. The principals are ranked first followed by senior assistants and Physical Education teachers respectively. In terms of sub-domains of attitude toward Physical Education, the principals ranked first in all sub-domains except Physiological-physical. However, when the unweighted mean of Physiological-physical sub-domain of the principals and senior assistants were compared, the difference was only marginal that is 0.02. The senior assistants were ranked first in the Physiological-physical sub-domain and second in the other three sub-domains. The Physical Education teachers were ranked third in three sub-domains of Physiological-physical, Mental-emotional and Social.

Table 5.8

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for the principals, senior assistants and the Physical Education teachers**

Attitude Sub-domains	Group	Mean	Standard Deviation	No. of items	Unweighted means	Rank
Physiological -physical	Principals	25.04	2.49	6	4.17	2
	Senior Assistants	25.12	3.49		4.19	1
	P.E. Teachers	24.62	2.89		4.10	3
Mental- Emotional	Principals	28.63	3.29	7	4.23	1
	Senior Assistants	28.36	3.51		4.05	2
	P.E. Teacher	28.21	4.14		4.03	3
Social	Principals	32.83	3.38	8	4.10	1
	Senior Assistants	32.36	3.29		4.05	2
	P.E. Teacher	32.31	3.99		4.04	3
General	Principals	35.48	4.56	9	3.94	1
	Senior Assistants	34.60	4.78		3.84	2
	P.E. Teacher	34.54	5.26		3.84	2
Attitude	Principals	122.21	12.02	30	4.07	1
	Senior Assistants	120.41	12.05		4.01	2
	P.E. Teacher	119.68	14.34		3.99	3

5.4 Descriptive Statistics (means, standard deviation, pivotal scores, directional scores and ranking) Of the Wear Physical Education Attitude Inventory

The attitude towards Physical Education is further supported by using directional scores. The directional scores were calculated by subtracting pivotal scores from the means. Whether the direction of attitudes expressed toward Physical Education were favourable or not was determined on the basis of mean pivotal scores calculated for each of the sub-domains. Since the middle rating interval was 'undecided' and carried a numerical value of three, the mean pivotal score for each sub-domain was calculated by multiplying the number of items in the sub-domain by three.

Table 5.9

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for administrators
(mean, standard deviation, pivotal scores, directional scores)**

Attitude Sub-domains	Mean	Standard Deviation	No. of items	Pivotal Scores	Directional Scores	Rank
Physiological-physical	25.08	3.04	6	18	7.08	4
Mental-emotional	28.49	3.41	7	21	7.49	3
Social	32.59	3.34	8	24	8.59	1
General	35.03	4.69	9	27	8.03	2
Attitude	121.27	12.05	30	90	31.27	

The data for the administrators (Table 5.9) indicate that the directional scores for all the sub-domains are favourable. Hence we could infer that the attitude of administrators towards Physical Education is favourable.

Table 5.10

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for principals
(mean, standard deviation, pivotal scores, directional scores)**

Attitude Sub-domains	Mean	Standard Deviation	No. of items	Pivotal Scores	Directional Scores	Rank
Physiological-physical	25.04	2.49	6	18	7.04	4
Mental-emotional	28.63	3.29	7	21	7.63	3
Social	32.83	3.38	8	24	8.83	1
General	35.48	4.56	9	27	8.48	2
Attitude	122.21	12.02	30	90	32.21	

The data for the principals (Table 5.10) indicate that the directional scores for all the sub-domains are favourable. Hence we could say that the attitude of the principals towards Physical Education is favourable.

Table 5.11

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for senior assistants
(mean, standard deviation, pivotal scores, directional scores)**

Attitude Sub-domains	Mean	Standard Deviation	No. of items	Pivotal Scores	Directional Scores	Rank
Physiological-physical	25.12	3.49	6	18	7.12	4
Mental-emotional	28.36	3.51	7	21	7.36	3
Social	32.36	3.29	8	24	8.36	1
General	34.60	4.78	9	27	7.60	2
Attitude	120.41	12.05	30	90	30.41	

The data for the senior assistants (Table 5.11) indicate that the directional scores for all the sub-domains are favourable. Hence we could say that the attitude of the senior assistants towards Physical Education is favourable.

Table 5.12

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for the Physical Education teachers
(mean, standard deviation, pivotal scores, directional scores)**

Attitude Sub-domains	Mean	Standard Deviation	No. of items	Pivotal Scores	Directional Scores	Rank
Physiological-physical	24.62	2.89	6	18	6.62	4
Mental-emotional	28.21	4.14	7	21	7.21	3
Social	32.31	3.99	8	24	8.31	1
General	34.54	5.26	9	27	7.54	2
Attitude	119.68	14.34	30	90	29.68	

The data for the Physical Education teachers (Table 5.12) indicate that the directional scores for all the sub-domains are favourable. Hence we could say that the attitude of the Physical Education teachers towards Physical Education is favourable.

Table 5.13 shows that all the three groups of respondents that is the principals, senior assistants and Physical Education teachers have favourable attitude towards Physical Education. The principals are ranked first followed by senior assistants and Physical Education teachers respectively. In terms of sub-domains of attitude towards Physical Education, the principal group were ranked first in all sub-domains except Physiological-physical. However when the directional scores of Physiological-physical sub-domain of the principals and senior assistants were compared, the difference was only marginal that is 0.08. The senior assistants were ranked first in the Physiological-physical sub-domain and second in the other three sub-domains. The Physical Education teachers were ranked third in the three sub-domains of Physiological-physical, Mental-emotional and Social.

Table 5.13

**Descriptive Statistics of the Wear Physical Education Attitude Inventory
for the principals, senior assistants and the Physical Education teachers**

Attitude Sub-domains	Group	Mean	Std. Dev,	No. of items	Pivotal Scores	Directional Scores	Rank
Physiological -physical	Principals	25.04	2.49	6	18	7.04	2
	Senior assistants	25.12	3.49			7.12	1
	P.E. Teachers	24.62	2.89			6.62	3
Mental- emotional	Principals	28.63	3.29	7	21	7.63	1
	Senior assistants	28.36	3.51			7.36	2
	P.E. Teacher	28.21	4.14			7.21	3
Social	Principals	32.83	3.38	8	24	8.83	1
	Senior assistants	32.36	3.29			8.36	2
	P.E. Teacher	32.31	3.99			8.31	3
General	Principals	35.48	4.56	9	27	8.48	1
	Senior assistants	34.60	4.78			7.60	2
	P.E. Teacher	34.54	5.26			7.54	3
Attitude	Principals	122.21	12.02	30	90	32.21	1
	Senior assistants	120.41	12.05			30.41	2
	P.E. Teacher	119.68	14.34			29.68	3

5.5 Hypothesis Testing

Hypothesis 1

There will be no significant differences in the attitude towards Physical Education between administrators and teachers teaching Physical Education for any of the four sub-domain of Wear Physical Education Attitude Inventory.

To test for the significant differences in attitude towards Physical Education between the two groups, t-tests for Independent Samples were conducted with the scores obtained from the four sub-domains in the Wear Physical Education Attitude Inventory. The summary of the analyses are shown in the Table 5.14, 5.15, 5.16 and 5.17 for the four sub-domains of the Wear Attitude Inventory.

Table 5.14
Results obtained for the General sub-domain using the t-test
for Independent Samples

Variable	No. of cases	Mean	SD	t-value	P
Administrators	519	35.03	4.69	1.98	0.048
P.E. Teachers	1637	34.54	5.26		

Levene's Test for Equality of Variances : $F = 5.055$ $P = 0.025$

As shown in Table 5.14, the t-value of 1.98 was significant at $p < .05$. Hence the results showed that for the General sub-domain there was a significant difference between the mean attitude scores of the administrators and P.E. Teachers.

Table 5.15

Results obtained for the Physiological-physical sub-domain using the t-test for Independent Samples

Variable	No. of cases	Mean	SD	t-value	P
Administrators	523	25.08	3.04	3.07	0.002
P.E. Teachers	1637	24.62	2.89		

Levene's Test for Equality of Variances : $F = 6.876$ $P = 0.009$

In Table 5.15, the t-value of 3.07 was significant at $p < .05$. Hence the result showed that for the Physiological-physical sub-domain, there was a significant difference between the mean attitude scores of administrators and P.E. teachers

Table 5.16

Results obtained for the Mental-emotional sub-domain using the t-test for Independent Samples

Variable	No. of cases	Mean	SD	t-value	P
Administrators	521	28.49	3.41	1.58	0.115
P.E. Teachers	1637	28.21	4.14		

Levene's Test for Equality of Variances : $F = 9.812$ $P = 0.002$

As shown in Table 5.16, the t-value of 1.58 was not significant at $p < .05$. Hence the results showed that for the Mental-emotional sub-domain, there was no significant difference between the mean attitude scores of administrators and P.E. teachers.

Table 5.17

Results obtained for the Sosial sub-domain using the t-test for Independent Samples

Variable	No. of cases	Mean	SD	t-value	P
Administrators	522	32.59	2.80	1.58	0.114
P.E. Teachers	1637	32.31	3.40		

Levene's Test for Equality of Variances : $F = 1.765$ $P = 0.187$

In Table 5.17, the t-value of 1.58 was not significant at $p < .05$. Hence the results showed that for the Social sub-domain, there was no significant difference between the mean attitude scores of administrators and P.E. teachers.

Based on results shown in Table 5.14, Table 5.15, Table 5.16 and Table 5.17 Hypothesis 1 was rejected for General and Physiological-physical sub-domains and accepted for Mental-emotional and Social sub-domains.

Hypothesis 2

There will be no significant differences in the attitude towards Physical Education between teachers of different age groups for any of the four sub-domains of Wear Physical Education Attitude Inventory.

Hypothesis 2 sought to test the fact that no significant difference will be found in the mean of each attitude sub-domain of P.E. teachers in different age groups.

Three age groups were studied and one-way analyses of variance were conducted on the scores obtained from four sub-domains for the three different age groups. The

summary of these analyses are shown in Table 5.18.

Table 5.18

Anova between mean attitude scores of P.E. Teachers when compared to different age groups

Attitude sub-domains	Age Groups				F Ratio	F Probability
	< 30 yr n = 431	30 – 39 yrs n = 821	40 – 49 yrs n = 307	> 50 yrs n = 78		
Physiological-physical	24.29	24.62	24.88	25.33	4.3554	0.0046*
Mental-emotional	28.06	28.19	28.42	28.54	0.4042	0.7500
Social	32.00	32.29	32.53	32.73	2.0577	0.1039
General	34.35	34.40	34.89	35.44	2.1509	0.0920

In Table 5.18, results for the different age groups of Physical Education teachers indicated that the F-ratio was significant on the Physiological-physical sub-domain at the .05 level. Significant results of the one-way analysis of variance, that is, the F-ratio of the Physiological-physical sub-domain was subjected to a multiple comparison test to determine the significant differences between the four age groups. The Tukey-HSD test was used to test for the four differences. For the purpose of analyses, the groups were referred to as Group 1, Group 2, Group 3 and Group 4 to represent the below 30 year olds, 30-39 year olds, 40-49 year olds and above 50 year olds respectively. The results of the test were shown in Table 5.19

Table 5.19

One-way Anova and Tukey-HSD Test Of Attitude of Different Age Groups of Physical Education Teachers (Physiological-physical Sub-Domain)

<i>Source</i>	<i>D.F</i>	<i>Sum of Squares</i>	<i>Mean Squares</i>	<i>F Ratio</i>	<i>F Probability</i>
<i>Between Groups</i>	<i>3</i>	<i>108.5786</i>	<i>36.1929</i>	<i>4.3554</i>	<i>0.0046</i>
<i>Within Groups</i>	<i>1629</i>	<i>13536.7429</i>	<i>8.3098</i>		
<i>Total</i>	<i>1632</i>	<i>13645.3215</i>			

Multiple Range Test

Tukey-HSD Procedure

Range(s) for the .050 level –
3.65

() Denotes pairs of groups significantly different at the .050 level*

<i>Mean</i>	<i>Age Group</i>	<i>Group</i>			
		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>24.2884</i>	<i>1</i>				
<i>24.6239</i>	<i>2</i>				
<i>24.8856</i>	<i>3</i>		*		
<i>25.3333</i>	<i>4</i>		*		

The results of the Tukey-HSD Test in Table 5.19 indicated that the mean attitude scores of above 50 year olds was the highest, followed by 40-49 year olds, 30-39 year olds, and below 30 year olds respectively for the physiological-physical sub-domain. The results also indicated that there were significant differences in the mean scores between below 30 year olds and the 40-49 year olds; and between the below 30 year olds and 40-49 year olds and the above 50 year olds.

Hypothesis 3

There will be no significant differences in the attitude towards Physical Education between teachers trained in Physical Education and teachers not trained in Physical Education for any of the four sub-domains of Wear Physical Education Attitude Inventory.

Table 5.20

T-tests of mean differences in attitude scores of Physical Education Majors and Non-majors Results obtained for the attitude sub-domains using the t-test for Independent Samples

Attitude sub-domains	Variable	No. of cases	Mean	SD	t-value	P
Physiological-Physical	P.E. Majors	249	25.88	2.78	7.64	0.0005
	Non Majors	1388	24.39	2.85		
Mental-Emotional	P.E. Majors	249	30.14	3.59	8.18	0.0005
	Non Majors	1388	27.86	4.13		
Social	P.E. Majors	249	34.45	3.76	9.45	0.0005
	Non Majors	1388	31.93	3.90		
General	P.E. Majors	249	37.69	4.84	10.58	0.0005
	Non Majors	1388	33.98	5.13		

As shown in Table 5.20, the analyses of t-tests yielded results which were statistically significant. The results indicated that there were statistically significant differences between the attitude of P.E. Majors and Non-majors for all the sub-domains. Thus Hypothesis 3 was rejected for all the sub-domains of the Wear Physical Education Attitude Inventory.

Hypothesis 4

There will be no significant differences in the attitude towards Physical Education between college trained and university trained teachers for any of the four sub-domains of the Wear Physical Education Attitude Inventory.

Table 5.21

T-tests of mean differences in attitude scores of college trained and university trained teachers.results obtained for the attitude sub-domains using the t-test for Independent Samples

Attitude Sub-domains	Variable	No. of cases	Mean	SD	t-value	P
Physiological-Physical	Teaching Certificate	824	24.73	2.90	1.65	0.100
	Diploma in Education	810	24.50	2.88		
Mental-Emotional	Teaching Certificate	824	28.38	4.30	1.74	0.082
	Diploma in Education	810	28.03	3.96		
Social	Teaching Certificate	824	32.41	4.04	1.03	0.304
	Diploma in Education	810	32.20	3.94		
General	Teaching Certificate	824	35.03	5.39	3.74	0.0005
	Diploma in Education	810	34.06	5.09		

Results in Table 5.21 indicated that professional training showed a significant difference in only the General sub-domain with a p-value of 0.0005. Mean scores revealed that college trained Physical Education teachers (35.03) scored higher than those university trained Physical Education teachers (34.06) for the General sub-domain. Thus Hypothesis 4 was accepted for all the sub-domains of the Wear Physical Education Attitude Inventory except the General sub-domain..

Hypothesis 5

There will be no significant differences in the attitude towards Physical Education between administrators of urban schools and rural schools for any of the four sub-domains of the Wear Physical Education Attitude Inventory.

Table 5.22

T-tests of mean differences in attitude scores of administrators of urban and rural schools. Results obtained for the attitude sub-domains using the t-test for Independent Samples

Attitude sub-domains	Variable	No. of cases	Mean	SD	t-value	P
Physiological-Physical	Urban schools	213	25.23	2.56	0.93	0.351
	Rural schools	310	24.98	3.33		
Mental-Emotional	Urban schools	215	28.52	3.26	0.14	0.889
	Rural schools	306	28.47	3.51		
Social	Urban schools	214	32.72	3.27	0.78	0.438
	Rural schools	308	32.49	3.39		
General	Urban schools	214	35.29	4.28	1.10	0.273
	Rural schools	305	34.84	4.96		

As shown in Table 5.22, the analyses of t-tests yielded results which were statistically not significant in all sub-domains. There were no significant differences between the mean attitude scores of the administrators in urban and rural schools for all sub-domains. Thus Hypothesis 5 was accepted for all the sub-domains of the Wear Physical Education Attitude Inventory.

Hypothesis 6

There will be no significant differences in the attitude towards Physical Education between teachers of urban schools and rural schools for any of the four sub-domains of the Wear Physical Education Attitude Inventory.

Table 5.23

T-tests of mean differences in attitude scores of teachers of urban and rural schools. Results obtained for the attitude sub-domains using the t-test for Independent Samples

Attitude Sub-domains	Variable	No. of cases	Mean	SD	t-value	P
Physiological-Physical	Urban schools	711	24.79	2.86	2.10	0.04
	Rural schools	926	24.48	2.91		
Mental-Emotional	Urban schools	711	28.45	4.29	2.10	0.04
	Rural schools	926	28.02	4.00		
Social	Urban schools	711	32.47	4.02	1.43	0.15
	Rural schools	926	32.19	3.96		
General	Urban schools	711	34.92	5.62	2.53	0.01
	Rural schools	926	34.26	4.95		

The analyses of t-test in Table 5.23 yielded results which were statistically significant in three sub-domains. However, there were no significant differences between the mean attitude scores of the Physical Education teachers in urban and rural schools in the Social sub-domain. Physical Education teachers in urban schools had mean scores of 24.79, 28.45 and 34.96 for the Physiological-physical, Mental-emotional and General sub-domains respectively. Physical Education teachers in rural schools had mean scores of 24.48, 28.02 and 34.26 for Physiological-physical, Mental-emotional and General sub-domains respectively. The t-values of 2.10, 2.10 and 2.53 for Physiological-physical, Mental-emotional and General indicated that Physical Education teachers in urban schools had a more positive attitude towards Physical Education. Thus Hypothesis 6 was accepted for the Physiological-physical, Mental-emotional and General sub-domains.

Hypothesis 7

There will be no significant differences in the attitude towards Physical Education between teachers with less than five years experience and those with more than five years experience for any of the four sub-domains of Wear Physical Education Attitude Inventory.

The analyses of t-tests in Table 5.24 yielded results which were not statistically significant in two sub-domains. There were no significant differences between the mean attitude scores of Physical Education teachers with less than 5 years experience and more than 5 years experience in Mental-emotional and General sub-domains. The results in Table 5.24 also indicate that there were significant differences between the mean attitude scores of the Physical Education teachers in the

Table 5.24

T-tests of mean differences in attitude scores of teachers with less than five years teaching experience and more than five years experience. Results obtained for the attitude sub-domains using the t-test for Independent Samples

Attitude sub-domains	Variable	No. of cases	Mean	SD	t-value	P
Physiological-Physical	Less than 5 years	441	24.34	2.63	-2.47	0.01
	More than 5 years	1196	24.72	2.98		
Mental-Emotional	Less than 5 years	441	27.98	3.60	-1.45	0.15
	More than 5 years	1196	28.29	4.32		
Social	Less than 5 years	441	32.00	3.62	-1.99	0.05
	More than 5 years	1196	32.42	4.11		
General	Less than 5 years	441	34.19	4.68	-1.80	0.07
	More than 5 years	1196	34.68	5.46		

Physiological-physical and Social sub-domains. The t-values of -2.47 and -1.99 for Physiological-physical and Social indicated that teachers with more than 5 years experience had a more positive attitude towards Physical Education. Thus Hypothesis 7 was accepted for the Physiological-physical and Social sub-domains. The teachers with less than 5 years experience had mean scores of 28.70 and 34.78 for the Mental-emotional and General sub-domains respectively. The rural schools administrators had mean scores of 25.85 and 31.85 for Mental-emotional and General sub-domains respectively

Hypothesis 8

There will be no significant differences between urban school and rural school in the implementation of Physical Education programme.

Table 5.25

T-tests of differences in mean scores of physical education implementation of town and rural schools.

Variable	No. of cases	Mean	SD	t-value	P
Urban schools	208	15.55	2.56	-0.64	0.521
Rural schools	301	15.70	2.69		

As shown in Table 5.25, the analysis of t-test yielded results which were not statistically significant. The results in Table 5.25 indicated that there were no statistically significant differences between the mean scores of Physical Education programme implementation in urban schools and rural schools. Thus Hypothesis 8 was accepted.

Hypothesis 9

There will be no significant differences between Grade A schools and Grade B schools in the implementation of Physical Education programme.

Table 5.26

T-tests of mean differences in mean scores of Physical Education implementation of Grade A and Grade B schools.

Variable	No. of cases	Mean	SD	t-value	P
Grade A schools	187	15.55	2.73	0.40	0.689
Grade B schools	59	15.37	3.34		

As shown in Table 5.26, the analysis of t-test yielded results which were not statistically significant. The results in Table 5.26 indicated that there were no statistically significant differences between the mean scores of Physical Education programme implementation in Grade A schools and Grade B schools. Thus Hypothesis 9 was accepted.