CHAPTER VI

SUMMARY AND CONCLUSIONS

6.0 Introduction

The purpose of this study was to investigate the attitude of school administrators and Physical Education teachers towards Physical Education and their perception of the implementation of the Physical Education programme in secondary school in Peninsular Malaysia.

A survey of related research in the area of attitude towards Physical Education revealed that a number of attitude scales have been published by several Physical Education teachers and exercise specialists (Adams, 1963; Carr, 1945; Edington, 1968; Kappes, 1954; Kneer, 1971; Mercer, 1971; O'Bryan & O'Bryan, 1979; Penmon, 1971; Seaman, 1970; Wear 1951, 1955). However the Wear Physical Education Attitude Inventory (WPEAI) was selected because it is a carefully prepared instrument and has been used repeatedly by many researchers to evaluate attitude towards Physical Education. To date no less than 38 researchers (Amos, 1977; Berger & Layne, 1969; Birmingham, 1972; Broer & Ind, 1954; Brumbach, 1968; Brumbach & Cross, 1965; Campbell, 1968; Cheek, 1971; Corbin & Chevrette, 1974; Cross, 1968; Davis, 1964; DeVrye, 1973; Everts, 1968; Johnson, 1972; Kee, 1995; Keogh, 1962, 1963; Layne, 1969; Lockhart, 1972; Marburger, 1966; Miller, 1974; Moyer, Mitchem & Bell, 1966; Murphy, 1973; Murray, 1969; Organ, 1973; Rainbolt, 1971; Spasott, 1971; Vincent, 1967; Wessel & Nelson, 1964; Williams & Nelson, 1983; Williams & O'Neill, 1983; Yandell, 1966; Zafra, 1971) have used this instrument. Nevertheless, no single study has used it to examine the attitudes of school administrators and Physical Education teachers towards Physical Education. Apparently, there is also no single survey which

has studied the attitudes of administrators and Physical Education teachers towards Physical Education and their perception of the implementation of the Physical Education programme.

This study utilised the survey research approach to collect empirical data. The subjects of the study comprised of 536 administrators (267 principals and 269 senior assistants) and 1637 Physical Education teachers. A total of four instruments were administered to administrators and teachers in 290 schools. The Wear Physical Education Attitude Inventory (Form A) (Wear, 1955, Appendix D) was adopted while three separate questionnaires were designed by the researcher for the study (See Appendix E, F & G). The WPEAI is for the principals, senior assistants and teachers teaching Physical Education. Each of the three questionnaires are each specifically for principals (IOPEP1, Appendix E), senior assistant (IOPEP2, Appendix F) and Physical Education teachers (IOPEP3, Appendix G).

A number of statistical analyses were employed to analyse the data gathered in the research. These included descriptive statistics, t-tests, one-way analysis of variance, the Tukey-HSD test and factor analysis. Statistical comparisons of the scores were made using the Statistical Package for the Social Science for Windows (SPSS for Windows). To test the hypotheses, t-tests, the analysis of variance of one-way classification and the Tukey-HSD test were used. All the hypotheses were tested at the 0.05 level of confidence. For ANOVA, where F-tests were significant, a post-hoc test using the Tukey-HSD test was employed.

Based on Chapters IV and V, the findings of the study are organised into the following sections for discussion:

I. The administrators perceived meaning of Physical Education

II. The Physical Education teachers perceived meaning of Physical Education

III. Relationship between attitude towards Physical Education and age

IV. Relationship between attitude towards Physical Education and training

V. Relationship between attitude towards Physical Education and location of school.

VI. Relationship between attitude towards Physical Education and teaching experience

VII. Relationship between location of school and the implementation of the Physical Education programme.

VIII. Relationship between grade of school and the implementation of the Physical Education programme.

IX. The findings of the implementation of the Physical Education programme based on the four implementation dimensions.

6.1 The administrators perceived meaning of Physical Education

The four sub-domains of Physical Education are :

i. Physiological-physical aspect of Physical Education;

ii. Mental-emotional aspect of Physical Education;

iii. Social aspect of Physical Education;

iv. General aspect of Physical Education.

The results from the Wear Physical Education Attitude Inventory (WPEAI) indicated that the Physiological-physical aspect was ranked first by the administrators, while Mental-emotional and Social aspect were ranked second followed by the General aspect (Table 5.4, p.202). The administrators perceived all the four aspects

favourably. The high unweighted means of the four aspects confirmed the fact that the administrators were supportive of Physical Education. This is supported by Thornburg (1986) in a study of selected secondary school principals' attitude towards Physical Education. He found that 168 principals believed that Physical Education is a necessary component of the students' high school experience and worthwhile for the students.

Boonchoy's study (1979 cited in MESTI, 1982) supported this finding which indicated that administrators must accept responsibility for the total instructional programme to meet the physical, social, mental and emotional needs of all the educable children in the community. This finding also confirmed Lipham's (1965) finding on leadership; he noted that leadership is the role and function which is carried out or required from a principal. He stressed that the a principal's leadership is to enhance performance in instruction and learning in school.

Tompkins and Roe (1958) supported the reason why the Physiological-physical aspect was ranked first. Tompkins and Roe's study found that principals' attitudes toward interscholastic athletics for junior high school was positive. Similarly, the study also confirmed that Mental-emotional and Social aspects were ranked second . They found that 78 percent of the 2300 principals had favourable attitudes which emphasised desirable social conduct and social adjustment.

Table 6.1

Summary of mean scores for attitude and its sub-domains for administrators based on the Wear Physical Education Attitude Inventory

Attitude Sub-domains	No. of item	Maximum score	Mean
Physiological-physical	6	30 points	25.08
Mental-emotional	7	35 points	28.49
Social	8	40 points	32.59
General	9	45 points	35.03
Attitude	**30**	**150 points**	**121.27**

Table 6.1 showed that the attitude of the administrators were favourable towards Physical Education. The mean scores for attitude as a whole and all its sub-domains were very favourable as compared to the maximum scores. This undoubtedly raised a point regarding the misconceptions about the attitude of administrators towards Physical Education. This favourable attitude does not concur with the comment by Dato' Najib Tun Razak, Malaysian Minister of Education that school heads treated Physical Education subject as less important (New Sunday Times, 8.2.1998).

As shown in table 6.1, administrators had a high attitude score of 121.27. This may be due to the fact that administrators accept that they are responsible to ensure the smooth running of an academic programme which includes Physical Education.

Lai and Yin (1997) see this as a question of structural leadership. They contend that school principals and senior assistants with structural leadership emphasise analysis and data, keep performance above the bottom line, set clear directions, hold people accountable for results and try to solve organisational problems with new policies and rules. With this style of leadership they demonstrate favourable attitude towards the academic programme in school.

Senior assistants demonstrated a more favourable attitude towards Physical Education as compared to the principals. In Table 5.2 (p.198), 73.5% of senior assistants scored more than 90 points in the attitude inventory as compared to 69.0% of principals, showing that senior assistants' positive attitude is the manifestation of carrying out the duties according to principals' instruction (Tilak, 1978). Local researchers such as Chang (1969) and Shaharudin (1992) agree that the favourable attitude of administrators is due to the understanding that it is their duty to administer the Physical Education programme in schools.

Anderson & Gruhn (1962) believed that it is the perception of administrators regarding their role that govern their administrative behaviour when they carry out their duty in school. The favourable attitude of administrators towards Physical Education contributes toward the effective teaching process as it gives the right support to the Physical Education teachers. This was also pointed out by Firestone & Pennell (1993) that administrative support is one of the five major resources which help teachers complete their work and experience the personal rewards of teaching. This is supported by Sheikh Kamaruddin (New Sunday Times, 1998) that the effectiveness of Physical Education depends very much on the foresight of school heads.

6.2 The Physical Education teachers perceived meaning of Physical Education

The results of the analyses revealed that Physical Education teachers ranked Physiological-physical dimension last and ranked General domain first (Table 5.7, p.204).

Table 6.2

Summary of mean scores for attitude and its sub-domains for Physical Education teachers based on the Wear Physical Education Attitude Inventory

Attitude Sub-domains	No. of item	Maximum score	Mean
Physiological-physical	6	30 points	24.62
Mental-emotional	7	35 points	28.21
Social	8	40 points	32.31
General	9	45 points	34.54
Attitude	**30**	**150 points**	**119.68**

The results are identical to the results shown by the administrators. However, Physical Education teachers ranked Social dimension second and Mental-emotional dimension third. Physical Education teachers seem to relate more to social relationship and social values than mental health, emotional control and poise. This is supported by Maslow's (1958) needs theory which strongly emphasises the humanistic approach which sees the human being as a rational being who always interacts with himself or with others.

In supporting this, Kirk and Tinning (1990 cited in Deborah et al., 1994) propose that teachers should examine social issues related to sport and Physical Education. Secondary school students are adolescents and the adolescence phase is a difficult time for many young people as it is marked by rapid changes in physical and social development.

Gillam (1986 cited in Deborah et al., 1994) in a study noted that over 90 percent of Physical Education teachers believed Physical Education to be relevant and useful in later life and that there was a need for Physical Education in the school curricula.

However, the low total attitude mean score (119.68 points) of Physical Education teachers may be consistent with the results obtained by Goc-Karp, Kim and Skinner (1985). They found in a study that Physical Education teachers attitude towards Physical Education may be affected by the low status accorded to Physical Education and the views of other subjects teachers that Physical Education is considered as 'easy going' and ' a waste of time'. Similarly, Bandura (1982) stressed that when people are cast in subordinate roles or assigned inferior labels, they tend, regardless of their skill or ability level, to perform more poorly than when those negative perceptions do not exist.

If we consider 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-domains of Wear Physical Education Attitude Inventory'*, the results in Table 5.14 (p.210) and Table 5.15 (p.211) showed that there were significant differences in the attitude towards Physical Education between administrators and Physical Education teachers in the General sub-domain and Physiological-physical sub-domains. The possible reasons for the significant differences in the two sub-domains may lie in the fact that teachers are the personnel who work in the field and are more active and treasure health and skill related fitness. Similarly teachers who are practitioners of Physical Education would show a better liking towards Physical Education as compared to administrators who administrator the Physical Education programme and may not teach Physical Education. Those statements are substantiated by the results in Table 4.7 (p.159) which showed that 53.5% of administrators had never taught Physical Education before and 36.9%

taught Physical Education for a duration of less than five years. On the contrary 79.1% of the teachers have taught Physical Education before with 31% having taught Physical Education for five years or more. In addition 11.4% of the Physical Education teachers (Table 4.4, p.157) are Physical Education majors. This explains why the total mean score of attitude towards Physical Education is 119.68.

Table 6.3

Scores of attitude towards Physical Education by Physical Education Teachers: Physical Education Majors and Non Physical Education Majors

Score \ Major	Physical Education Majors	Non Physical Education Majors
75 and below	0	6
76 – 80	4	25
81 – 85	14	78
86 – 90	41	281
91 – 95	97	530
96 – 100	64	311
101 – 105	22	107
106 – 110	4	24
111 – 115	2	16
116 – 120	1	4
121 – 125	0	2
126 – 130	0	0
131 – 135	0	2

However if we look at Table 6.3, 76.3% of Physical Education majors scored more than 90 points (90 points is a neutral point) as compared to 71.75% of the non-majors. These results showed that both groups showed favourable attitude towards Physical Education. However the Physical Education majors demonstrated a more favourable attitude. Nevertheless Bandura (1982) indicated that simply possessing the

requisite knowledge, skill or years of experience to do a job well does not, in and of itself, guarantee that individuals will choose to perform to their potentials.

Lindholm (1997) noted that perception of meaning in any given situation is influenced by personal factors such as age, gender and experience, as well as situational factors such as the nature of the job and the particular characteristics of a given work organisation. Thus the Personal Investment Theory (Maehr & Braskamp, 1986) posits that in work organisations, job satisfaction and commitment provide two real-life indicators of employee motivation.

The attitude score for teachers (119.6 points) is lower than that of administrators (121.2 points). This may be due to the fact that teachers do not accept totally the teaching duty of Physical Education. According to Noraini and Rahimah (1984), teachers need skills to carry out their duty. They need skills in classroom management and administration, using curriculum resources, planning the teaching as well as making and using teaching aids. Without those skills, teachers would not be able to play their role effectively and implement the curriculum successfully in the classrooms.

The attitude of teachers may be due to the fact that they do not understand the National Education Philosophy, the aims of National Education, Secondary School Integrated Curriculum and translate these three elements into Physical Education (Ministry of Education, 1990).

However, it may be the result of other factors as proposed by many researchers (Ashton & Webb, 1986; Lawson, 1989; Newmann, Rutter & Smith, 1989; Oliver, 1988; Sage, 1989; Shulman, 1987; Siedentop, 1991; Stroot et al., 1994 & Templin, 1989) that school Physical Educators frequently have to contend with organisational constraints, inadequate resources, and excessive non teaching responsibilities.

6.3 Relationship between attitude towards Physical Education and age

The analysis of data reported in Table 5.18 (p. 213) showed that there were differences between the mean attitude scores of Group 1 (< 30 years) and Group 3 (40 – 49 years) and between Group 1 and Group 4 (> 50 years) on the Physiological-physical sub-domain. This means that the groups have different perceptions of the importance of Physical Education in developing one's physical well-being and the acquisition of neuromuscular skills.

Table 6.4 showed the comparison of attitude scores (Physiological-physical) in the respective groups. For scores of 16 to 20, Group 1 has the highest percentage of 9.2% and Group 4 had the lowest group percentage of 6.4%. Similarly for scores of 21 to 25, Group 1 has the highest group percentage of 58.7% and Group 4 has the lowest group percentage of 47.4. However, scores 26-30 showed a reverse trend; Group 4 has the highest group percentage of 46.1, followed by Group 3 (40.7%) and Group 1 (32.0%).

Table 6.4

Attitude mean scores of Physiological-physical sub-domains for Physical Education teachers with different age groups

Score \ Age Group	Group1 < 30 (%)	% of group total	Group 2 30 – 39 (%)	% of group total	Group 3 40 – 49 (%)	% of group total	Group 4 50 & above (%)	% of group total
15 & below	0	0.0	6 (0.3%)	0.7	0	0.0	0	0.0
16 – 20	40 (2.4%)	9.2	67 (4.0%)	8.1	23 (1.4%)	7.4	5 (0.3%)	6.4
21 – 25	253 (15.4%)	58.7	447 (27.3%)	54.4	159 (9.7%)	51.7	37 (2.2%)	47.4
26 – 30	138 (8.4%)	32.0	301 (18.3%)	36.6	125 (7.6%)	40.7	36 (2.1%)	46.1
Total	431 (20.2%)		821 (50.2%)		307 (18.8%)		78 (4.8%)	

6.4 Relationship between attitude towards Physical Education and training

Table 5.20 (p.215) revealed that there was statistically significant differences between the attitude of Physical Education majors and non-majors for all the sub-domains.

Table 6.5

Attitude scores Of Physical Education Majors and Non-majors

Score	P.E. Majors	Non P.E. Majors
75 & below	0	6
76 – 80	4	25
81 – 85	14	78
86 – 90	41	281
91 – 95	97	530
96 – 100	64	311
101 – 105	22	107
106 – 110	4	24
111 – 115	2	16
116 – 120	1	4
121 – 125	0	2
126 – 130	0	0
131 – 135	0	2
> 90	76.30%	71.75%

Table 6.5 revealed that 76.30% of Physical Education majors scored more than 90 points in the attitude score as compared to 71.75% of the non-majors. This again demonstrates that the Physical Education majors have a more favourable attitude towards Physical Education. The skills acquired by Physical Education majors such as managing and administering Physical Education classes, ability in using curriculum resources, ability to plan teaching, and ability to make and use teaching aids contributed to better attitude towards Physical Education (Norani & Rahimah, 1984).

The lower percentage (76.3%) of Physical Education majors scoring more than 90 points (Table 6.5) may be related to a study carried out by Lindholm (1997) in his study 'Secondary School Physical Education Teacher Motivation: An Application of Personal Investment Theory' . He reported that Physical Education teachers generally lack self-esteem and self-reliance as only 59 percent of the respondents in the study believed that they could succeed 'at anything they wanted to do' and 78 percent of the

respondents 'agreed' or 'strongly agreed' that jobs they had to do by themselves 'frightened' them. The study also revealed that few (27%) Physical Education teachers believed that their jobs provided them with opportunities to be 'cited for doing good work' while an even smaller percentage (12%) felt that they 'earned respect from their friends' because of their work.

To be an expert, a teacher must combine superior teaching skills with an extensive understanding of the subject matter (Eldar, 1994) and this comes with the training in the subject. Manross and Templeton (1997) agreed that while expertise in teaching is an attainable goal for teachers, it must be remembered that expert teachers are not born but made. Expertise is developed through experience, practice and knowledge. Perhaps, in the light of this notion that the difference between the percentages of majors and non majors scoring more than 90 points is small. Furthermore, the high percentage 71.75% of non majors scoring 71.75% above 90 points may be explained in terms of job satisfaction. The conducive working environment helped inculcate interest in them. Interest in turn helped increase job commitment (Crandall & Eiseman, 1983).

On the other hand results in Table 5.21 (p.216) showed that training of teachers only affect the General sub-domain of their attitudes toward Physical Education. The p-value of 0.0005 indicated that professional training showed a significant difference in the General sub-domain of the attitudes.

Manross and Templeton (1997) believed in the need of expertise in the teaching of Physical Education. Attaining extensive and thorough knowledge in all of the content areas is one of the main reason as to why it is more difficult to develop true expertise in teaching Physical Education. Schempp, Manross, Tan & Fincher (1998) reaffirmed the important role teachers' knowledge plays in the development and practice of teachers.

Table 6.6

Attitude scores of General sub-domains for Physical Education teachers with different professional training

Professional Training / Score	Teaching Certificate (n = 824)	Group %	Diploma in Education (n = 810)	Group %
21 & below	10	1.2	10	1.2
22-25	28	3.4	31	3.8
26-29	79	9.6	104	12.9
30-33	172	20.9	200	24.7
34-37	278	33.7	272	33.6
38-41	186	22.6	141	17.4
42-45	71	8.6	52	6.4

Table 6.6 compares professional effect on attitude towards Physical Education. Statistics revealed that for scores 26 to 39 and 30 to 33 teachers with Diplomas in Education demonstrated a more favourable attitude towards Physical Education. On the contrary, college trained teachers showed a more favourable attitude in score category 38 to 41 and 42 to 45.

However those results were not conclusive as Allport (1954) pointed out that attitude developed through integration. He stressed that attitude developed through accumulation of a large number of experiences over a long period of time, all of which influence the individual in a given direction. Nevertheless, in a local study of primary school teachers' attitude changes through in-service training in Physical Education, Velappan (1977) found that there were no significant differences in attitude change among the teachers of different professional qualifications. However, there were marginally significant differences in attitude change in respect of 'Appreciation of values and priorities in Physical Education'.

6.5 Relationship between attitude towards Physical Education and location of school

In 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'*, the results obtained indicated a non statistically significant t-values on all sub-domains of the attitude towards Physical Education. The results showed that there was no significant difference between administrators of rural schools and urban schools. This observations could be due to the fact that the responsibilities of administrators include the implementation of education plans which are determined by the Ministry of Education (Ministry of Education, 1984). Basically the problems faced by all the secondary schools are same; schools have no control over placement of teachers, there is imbalance of teachers in terms of subject majors and capability, majority of schools are not equipped with gymnasiums and, Physical Education is a non examination subject. Given those basic problems there is little doubt why there is no significant difference in attitude towards Physical Education between the administrators of the urban schools and rural schools.

On the contrary the results in Table 5.23 (Hypothesis 6, p. 218) revealed that there are significant differences in the Physiological-physical, Mental-emotional and General sub-domains. The results showed that the attitude towards Physical Education of teachers from rural and urban schools are different in the above-mentioned sub-domains. The diverse background especially in professional training contributed towards in the teachers' perceptions toward the value of Physical Education. Again culture and societal influence help make the difference.

The results of the Physiological-physical sub-domain in Table 6.7 (p.240), showed that the differences are substantially contributed by scores of 16 to 20 and 26 to 30. Detail analysis revealed that 99.4% of town and 99.5% of rural teachers scored 16 points and above. In addition 92.6% of the urban teachers scored 21 points or more for the Physiological-physical sub-domain as compared to 90.3% of rural teachers. For the Mental-emotional sub-domain, all score categories demonstrated substantial differences. 98.8% and 98.4% of urban and rural school teachers respectively scored 21 points and above. For the General sub-domain, differences were shown in all score categories except 18 to 21 and 30 to 33 score categories. However there were no distinguished patterns to substantiate the differences between the attitude of urban and rural school teachers in the three sub-domains mentioned above.

6.6 Relationship between attitude towards Physical Education and teaching experience

With regard to Hypothesis 7 (p. 219) which states that *'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 the Wear Physical Education Attitude Inventory'*, this study indicated that significant differences were obtained for two of the four sub-domains, that is Physiological-physical and Social sub-domains. The results showed that there were differences in attitude towards Physical Education between teachers with less than five years experience and those having more than five years experience.

Table 6.7

Attitude scores of Physiological-physical,, Mental-emotional and General sub-domains for Physical Education Teachers of Urban and Rural schools

Physiological-physical *(Maximum score = 30)*			Mental-emotional *(Maximum score = 35)*			General *(Maximum score = 45)*		
Score	Urban n=711 (%)	Rural n=926 (%)	Score	Urban n=711 (%)	Rural n=926 (%)	Score	Urban n=711 (%)	Rural n=926 (%)
15 & below	3 (0.4)	3 (0.3)	17 & below	9 (1.2)	15 (1.6)	17 & below	4 (0.5)	2 (0.2)
16-20	49 (6.8)	86 (9.2)	18-20	10 (1.4)	24 (2.5)	18-21	6 (0.8)	8 (0.8)
21-25	387 (54.4)	509 (54.9)	21-23	36 (5.0)	77 (8.3)	22-25	20 (2.8)	39 (4.2)
26-30	272 (38.2)	328 (35.4)	24-26	135 (18.9)	152 (16.4)	26-29	68 (9.5)	115 (12.4)
			27-29	276 (38.8)	346 (37.3)	30-33	162 (22.7)	210 (22.6)
			30-32	139 (19.5)	194 (20.9)	34-37	237 (33.3)	315 (34.0)
			33-35	106 (14.9)	118 (12.7)	38-41	145 (20.3)	182 (19.6)
						42-45	69 (9.7)	55 (5.9)

Manross and Templeton (1997) stressed that expertise could be developed through experience such as classroom experience where teachers have the opportunity to practise different teaching methods and to acquire knowledge necessary to achieve good teaching. However Crandall & Eiseman (1983) believed that experience and job commitment would be the deciding factor in determining attitude towards Physical Education.

Table 6.8

Attitude scores of Physiological-physical and Social sub-domains for Physical Education Teachers with less than five years teaching experience and those with more than five years experience

Physiological-physical *(Maximum score = 30)*			Social *(Maximum score = 40)*		
Score	< 5 years experience n=441 (%)	5 years & above experience n=1195 (%)	Score	< 5 years experience n=441 (%)	5 years & above experience n=1195 (%)
15 & below	1 (0.2)	5 (0.4)	20 & below	0 (0.0)	13 (1.0)
16-20	32 (7.2)	103 (8.6)	21-25	19 (4.3)	50 (4.1)
21-25	263 (59.6)	633 (53.0)	26-30	124 (28.1)	293 (24.5)
26-30	145 (32.8)	454 (37.9)	31-35	234 (53.0)	576 (35.2)
			36-40	64 (14.5)	263 (22.0)

With regards to the Physiological-physical sub-domain, Table 6.8 revealed that teachers with less than five years experience see Physical Education as a means to obtain health and skill related fitness. They relate Physical Education more to physical well-being such as muscular strength and endurance, acquisition of neuromuscular skills and co-ordination. Again in the Social sub-domain the younger group of teachers showed more inclination towards accepting Physical Education as a means to encourage social relationships and inculcate social values. However, a closer look at the age group of more than 5 years experience, it was revealed that all teachers were from the age group with 5 to 9 years of experience. This explains the indefinite pattern of favourable attitude towards Physical Education in the two sub-domains.

6.7 Relationship between location of school and the implementation of Physical Education programme.

In Hypothesis 8 (p. 221) which states that '*there will be no significant differences between urban schools and rural schools in the implementation of Physical Education programme*', the results indicated a non statistically significant t-value (-0.64, p = .521) and that the null hypothesis was accepted. Similar physical education curriculum which was administered at both location may be the reason why the implementation of Physical Education did not differ according to location. The national Physical Education curriculum which is prepared by the Curriculum Development Centre, is mandatory for implementation in all secondary schools in Malaysia. The administrators must follow the curriculum guidelines and slot in the Physical Education subject into the main school time table, be it a urbanschool or rural school. Nevertheless , the quality of teaching may differ among schools in different locations.

6.8 Relationship between grade of school and the implementation of Physical Education programme.

Table 5.26 (p. 222) showed a non significant t-value (0.40, p = .689) which resulted in the acceptance of Hypothesis 9. As mentioned in the last section, Malaysian schools carried out the same Physical Education curriculum irrespective of grades of school. Even though there may be variation in the implementation of the Physical Education programme, basically the teaching of Physical Education in Grade A and Grade B schools is quite similar. What may differ is the quality of teaching staff.

6.9 Findings on the implementation of Physical Education programme (IOPEP)

The findings on the implementation of the Physical Education programme which is based on IOPEP Questionnaires (Appendix E, F and G) and what has been discussed in Chapter IV, will be organised according to the four dimensions of IOPEP as follows:

6.9.1 Teaching ability

6.9.2 Administration of Physical Education programme

6.9.3 Physical Education class distribution

6.9.4 Non-human factors

6.9.1 Teaching ability

The findings in Table 4.16 revealed that the majority of secondary school Physical Education teachers can manage their students during Physical Education classes. However they agreed that they need further training as they have limited knowledge in teaching Physical Education, including teaching game skills and detecting and correcting students' weaknesses.

This finding is consistent with the observations made in the 1994/1995 report by the Federal Inspectorate of Schools on the performance of teachers in seven states of Peninsular Malaysia. It was reported that the performance of 65.4 percent of Physical Education teachers was average or weak. This observation is further substantiated by Normar Ali (1998), who found that 75.2 percent of Physical Education teachers never attended any Physical Education course since teaching the subject and 64.8 percent of the Physical Education teachers are non Physical Education majors. She stressed further that 95.5 percent of the Physical Education teachers were appointed to teach Physical Education by the principal and they accepted the job involuntarily.

In observing 24 secondary schools in the Klang District, Selangor, the Federal Inspectorate of Schools (1982) found gender differences in teaching ability; 62% of female Physical Education teachers lack knowledge and skills in football, sepak takraw (rattan ball), basketball and hockey. Further findings revealed that the majority of Physical Education teachers lack understanding in the learning objectives.

Similarly in 1993, the Federal Inspectorate of Schools reported their observation of Physical Education teachers in 6 schools in the states of Perak and Terengganu. It was found that teachers who teach Physical Education without training rely on personal knowledge and experience, and thus lack confidence to teach effectively even though they try their best. Similar observations were reported by the Federal Inspectorate of Schools in a study of 11 secondary schools (1991).

The Federal Inspectorate of Schools 1993 report revealed that teachers who attended courses for Physical Education teachers conducted by the Curriculum Development Centre were able to use various techniques to teach their students. However Physical Education teaching was still teacher based and the teachers were unable to utilise expertise among students to help demonstrate certain game skills.

With regards to cognitive ability, the Federal Inspectorate of Schools tested Physical Education teachers in 11 schools (1990) and found that they were weak in basic Physical Education concepts. In fact 45.2% of them failed the test. In addition to that it was found that Physical Education teachers could not differentiate between Physical Education and sports. The report also pointed out that Physical Education teachers lacked pre-teaching preparation which resulted in poor teaching. Other than using the required text book, Physical Education teachers failed to use other reference materials.

6.9.2 Administration of Physical Education programme

The findings in Table 4.24 (p.181) and Table 4.25 (p.182) revealed that a large majority of administrators do not organise in-house staff development programmes. In fact, the main problem in teaching Physical Education (Table 4.32) is that a large majority of teachers are non Physical Education majors. There is a need for training but there is no support from the school administration.

Results in Table 4.24 and 4.25 also showed that the frequency of observation of teaching by the administrators is relatively low. Administrators failed in their duties to observe and guide Physical Education teachers. The Federal Inspectorate of Schools 1994/1995 report showed that most administrators did not formally observe teachers; as observation is considered unimportant. They also did not provide formal input to Physical Education teachers. The results in Table 4.32 (p. 195) also revealed that there is a lack of communication between administrators and teachers regarding the teaching of Physical Education.

This situation has been revealed by the Federal Inspectorate of Schools through their nation wide study on 120 secondary schools in 1988. The study found that only 12 principals (10%) carried out supervision and were graded as good supervisors. They identified the capabilities of their teaching staff through effective supervision system. The study also revealed that 38 principals (31.7%) complied partially to the requirements of the Federal Inspectorsate of Schools. Seventy principals (58%) were not carrying out their supervisory responsibility and needed to be monitored.

According to Wood and Thompson (1980) although teachers and administrators considered in-service courses important they considered them negatively. Among the reasons for the negative attitude towards in-service courses are :

i. activities that were planned were not related to daily problems of the participants;
ii. lack of follow-up action after in-service training;
iii. objectives were unclear.

Similarly, Harris et al. (1969) found that administrators not only failed to choose the right activities for the training but also failed to get qualified resource personnel to run the course. More often than not, Mohd. Sani (1979) found that course conductors failed to provide the right training. The lack of foresight from administrators was further aggravated by the fact that the administrators were unsure of the Physical Education programme and were not confident to provide professional contribution to teachers. Sukumaran (1984) and Brim and Tollet (1974) shared the same view. In fact, Van Tulder and Veemann (1998) found that in training too much lecture methodologies and discussions were used, and as a result were ineffective in influencing teachers' performance. Similarly, Vellapan (1977) and the Special Committee on the Status of Subjects in Schools (1982) reported that courses conducted were not effective.

However, observation made by the Federal Inspectorate of Schools (1993) on the implementation of Physical Education in 6 secondary schools in the state of Perak and Terengganu found that Physical Education teachers who had attended courses organised by the Curriculum Development Centre, State Education Department, District Education Office or school demonstrated the ability to carry out their teaching duty well. The report also confirmed that all 6 schools had their Physical Education committees and the committees had their meetings at least twice a year to discuss annual plans. Curriculum resources, purchase of equipment and problems in teaching and learning of Physical Education were also discussed.

On in-house training, Federal Inspectorate of Schools (1993) revealed that many schools did not hold any in-house courses. However some schools organised in-house training for non-major. Physical Education teachers. In the earlier study of 120 secondary schools, Federal Inspectorate of Schools (1988) found that a majority of the principals (75.9%) did not focus on planning and administration of the Staff Development Programme in their respective schools. The findings revealed that 29 principals (24.1%) carried out their duty well and were graded as very good and good by the Federal Inspectorate of Schools.

6.9.3 Physical Education class distribution

The findings in Table 4.18 (p.172) revealed that majority of the Physical Education teachers did not choose to teach Physical Education. There was no discussion between the administrators and themselves and a large majority of them agreed that they accepted Physical Education classes given to them involuntarily. This also indicated that administrators did not take into consideration teachers' interest and their qualification. The lack of interest in teaching Physical Education in secondary schools is reflected in Normar Ali's (1998) findings that only 4.5 percent of the teachers in her study applied to teach Physical Education. The percentage substantiated the fact that even the Physical Education majors (35.2%, n = 125) shied away from teaching Physical Education. Similarly the Federal Inspectorate of Schools (1990) reported in their study of 11 secondary schools that the majority of Physical Education teachers were given Physical Education periods to make up the total number of teaching periods.

6.9.4 Non-human factors

Table 6.9

Extent of disagreement ('Disagree' and 'Strongly Disagree') on non-human factors : a comparison between administrators and Physical Education teachers.

Statements	Administrators (%)	P.E. Teachers (%)
The facilities for Physical Education are adequate.	63.6	44.5
Financial allocation for Physical Education is adequate	69.4	38.6
Equipment for Physical Education class is adequate	69.4	41.0
Physical Education reference books in the school library are adequate	42.8	35.2
Physical Education reference books are suitable	55.8	41.2
The Physical Education reference books in national language in the library are adequate	37.3	32.2

The majority of administrators agreed that financial allocation for Physical Education is inadequate. As such the facilities and equipment for Physical Education are lacking. The inadequacy of facilities is consistent with the findings in Table 4.22 (p.178). The majority of schools studied have only football field (77.2%), netball court (75.7%), volleyball court (71.6%), sepak takraw court (69.8%) and badminton court (56.7%). Football fields are usually used for Physical Education classes.

The Federal Inspectorate of Schools (1982) reported in a study of Physical Education teaching in 24 schools in the district of Klang, Selangor that 50% of the school fields observed were small and unkempt. In addition it was found that 70% of the schools lacked basic equipment for gymnastics and athletics, and 40% of the schools lacked games facilities.

On the inadequacy of financial support, the Federal Inspectorate of Schools (1994/1995) reported that financial allocations in schools were not properly planned. The survey which involved 118 schools in 7 states in Peninsular Malaysia showed that even though the head teachers were told about the allocations, they failed to act accordingly. Plans to acquire equipment for long term and short term use were not discussed thoroughly in the committee meetings. The ignorance about the real situation regarding the financial allocation may be the reason why 38.3 percent of Physical Education teachers responded as 'undecided' when asked whether 'financial allocation for Physical Education is adequate'.

In 1990, the Federal Inspectorate of Schools in their study of 11 schools reported that schools lacked reference materials such as syllabuses and guide books. It was found that even teaching staff who have those materials did not fully comprehend their content.

6.10 Suggestions

As indicated in the results of the findings, the administrators' and Physical Education teachers' attitude towards Physical Education were favourable. The results of the whole sample showed that 71.7 percent of the respondents scored

above the "neutral" 90 point score. The results may indicate that the majority of the respondents of this sample regard Physical Education as important.

The favourable attitude towards Physical Education may be due to the following reasons:

(a) There is an increased awareness regarding the importance of Physical Education due to the 'Sports For All' programmes promoted by the Ministry of Youth and Sports, Malaysia;

(b) There is an increase in awareness in health, fitness and healthy life styles in the society;

(c) The society as a whole is influenced by the major sporting events organised in this country such as the Commonwealth Games in 1998.

However the results also revealed that 28.3 percent of the respondents differ in their opinion about the importance of Physical Education. On the basis of this, the following possibilities are presented:

(a) Physical Education as a subject has always been regarded as a marginal subject. It is also a non-examination subject. Thus it is not as important as other subjects which contribute to the academic achievement of students;

(b) The promotion of the importance of Physical Education is non existent in schools. What is done by the administrators in schools is to adhere to the official requirement of the Ministry of Education, Malaysia;

(c) Physical Education itself lacks publicity in terms of its capability to upgrade the quality of life in communities;

(d) There is no effort on the part of schools to educate teachers who are not trained in Physical Education.

What is more worrying is the low percentage (69.0%) of principals who are favourable towards Physical Education. This will bring about serious implications to the schools. Principals are the heads of schools who determine the running of their school and thus may lay down policies which could be detrimental to Physical Education. As such more seminars and courses must be organised for the school principals. They must be briefed and convinced that:

(a) Physical Education is important for healthy living of individuals and well-being of the society;

(b) Physical Education needs to be taught in schools to ensure that students acquire knowledge of basic movements, physical skills and social skills so that they can make use of their free time in a more useful and meaningful manner and be more successful in life;

(c) the teachers teaching Physical Education should be well trained so that they can fulfil the curriculum requirements and ensure that the basic skills are delivered to youths in all secondary schools;

(d) school administrators should place Physical Education on par with other examination subjects.

In fact, the support of principals will undoubtedly bring success to the Physical Education programme in schools. When the head of the school is concerned, the Physical Education teacher will be serious too.

On the implementation of Physical Education programme in secondary schools, the following major trends exist:

(a) the Physical Education subject is considered a marginal subject which is dispensable;

(b) the subject is taught by many teachers due to morning hours constraint as a result of limited indoor facilities. Most Physical Education classes are conducted outdoors before 10.00 a.m. for the morning session school and after 4.00 p.m. for the afternoon session school (Federal Inspectorate of Schools, 1990);

(c) the subject is taught by non Physical Education majors as Physical Education periods are given to make up the total number of teaching periods;

(d) the subject is taught by teachers who lack Physical Education knowledge, lack skills in teaching games skills, lack knowledge to detect and correct student weaknesses; and

(e) there is a limited number of in-house training programmes for Physical Education teachers.

In view of the above-mentioned trends which exist and will persist for a some time in the Malaysian Physical Education scene, the following suggestions are deemed appropriate:

(a) a more stringent monitoring procedure by the Ministry of Education should be prepared and the procedure should be made mandatory for administrators to follow;

(b) the Teacher Education Division should review its Physical Education curriculum to ensure that every trainee teacher irrespective of their majors will be able to

teach Physical Education upon graduation such as allocating more time for Physical Education training;

(c) more in-service courses should be conducted for Physical Education teachers by the Teacher Education Division, State Education Department and District Education Office;

(d) more in house courses should be conducted in schools; a joint effort between a few schools could be exploited;

(e) teachers selected to teach Physical Education must fulfil the following criteria:

i. they must agree voluntarily to teach Physical Education;

ii. they must have a sports background;

iii. they must possess an acceptable standard of motor ability and skill level;

iv. they must undergo an orientation programme conducted by the school or education department;

(f) a mentoring system should be used to enable senior teacher to advise and support junior members in order to develop the junior members;

(g) more workshops and seminars should be conducted for teachers especially the non-major teachers, to upgrade their teaching skills and to inculcate positive attitude towards Physical Education.

6.11 Suggestions for further research

Based on the findings of this study, additional research is needed in the area of attitudes toward Physical Education and the implementation of

Physical Education programme in schools. Further research in the following areas are suggested:

1. Since the sample of this study is confined to administrators and teachers in Peninsular Malaysia, further research can be carried out on administrators and teachers of secondary schools in Sabah and Sarawak;
2. Investigating the in-service and in-house training needs of Physical Education teachers will provide more indication of how the training programme can be designed;
3. With greater financial resources, further research could cover the facilities and equipment for Physical Education in order to offer recommendation to overcome the shortage of facilities and equipment in schools;
4. More study should also be carried out to determine ways to select teachers to teach Physical Education in school given the fact that the number of qualified Physical Education teachers is limited;
5. With regards to the implementation of the Physical Education programme in schools, a longitudinal study should be carried out to investigate the actual teaching-learning process in schools;
6. Malaysia is a multi-cultural country, it could be important to carry out research based on culture and study the effect of different cultures on Physical Education.

6.12 Summary of the findings

1. Administrators demonstrated favourable attitudes toward Physical Education;
2. Physical Education teachers showed positive attitude towards Physical Education;

3. Physical education majors and non-majors demonstrated favourable attitude towards Physical Education with Physical Education majors showing more favourable attitude;
4. In terms of the relationship of attitude towards Physical Education and age, there were differences between below 30 year olds and 40 to 49 year olds, and between below 30 year olds and above 50 year olds;
5. There was no significant difference in attitude towards Physical Education between rural and urban schools;
6. There were significant differences between teachers with less than 5 years experience and those with more than 5 years experience on two domains that is Physiological-physical and Social;
7. There was no significant difference in the implementation of the Physical Education programme in urban and rural schools;
8. There was no significant difference in the implementation of Physical Education in Grade A and Grade B schools;
9. On teaching ability, Physical Education teachers face a number of problems such as inadequate knowledge to teach Physical Education and problems in teaching game skills including detecting and correcting students weaknesses;
10. On the administration of Physical Education programme, the majority of them did not organise in-house courses and did not observe teaching;
11. Physical Education classes were given to a majority of teachers without considering their interest and qualifications;
12. The majority of administrators agreed that financial allocation from the Ministry of Education is barely enough resulting in a shortage of Physical Education and sport equipment.