Coll. Antropol. **45** (2021) 3: 191–200
Original scientific paper
doi:10.5671/ca.45.3.2

Teachers' Perceived Barriers to Implementation of Physical Education: Examining the Administration of Physical Education Programme and the Provision of Non-human Resources

Eng Hoe Wee[1], Wei Fong Cheng[2], Ngien Siong Chin[3]

[1]Department of Sport Science, Faculty of Applied Sciences, Tunku Abdul Rahman University College, Malaysia
[2]Faculty of Social Science And Humanities, Tunku Abdul Rahman University College, Malaysia
[3]Institute of Teacher Education Batu Lintang Campus, Kuching, Sarawak, Malaysia

ABSTRACT

This study investigated the perception of Physical Education (PE) teachers on barriers to implementation of PE programme in terms of the administration of PE programme, and the provision of non-human resources. A total of 248 PE-major teachers were surveyed using questionnaires which were mailed to schools. The sample consisted of almost 63% male teachers and the majority was under 40 years of age. A 12-item questionnaire was used to assess the administration of the PE programme, and the provision of non-human resources. Results showed that a majority of administrators did not assume PE important; they did not seek consensus in assigning teaching duty, did not discuss teaching and learning factors, and did not organize staff training programme (STP). Older teachers and teachers with 15 years of teaching experience or more agreed that administrators discuss their teaching assignment, observe them, and organize STP. Respondents also perceived inadequacy of facilities, equipment, financial allocation, and reference books in the school PE programme. Male teachers, younger teachers and teachers with less teaching experience concurred the inadequacy of human resources. It is recommended that further research on solving PE human resource problems and PE administration be undertaken. Specifically, greater attention should be given to the needs of younger and junior PE teachers.

Key words: *physical education, curriculum implementation, teaching assignment, non-human factor*

Introduction

Since the proclamation of 'UN International Year of Sport and Physical Education (PE)' by UNESCO in 2015[1], PE has been accepted as a holistic academic subject by governments all over the world. Previous research findings have reported that a safe, supervised, and structured PE programme could provide knowledge and promote active behaviours, making students active and healthy[2–3]. Pangrazi and Brusseau[4] concur that PE programme contributes to the total growth and development of all children leading to the cultivation of physical health and lifelong behaviours. Similarly, the Organisation for Economic Co-operation and Development[5] emphasized that schools should not only develop students academically but also nurture environments to develop the complete child in terms of social, emotional, physical, and mental well-being. However, despite the well documented benefits of PE programme on individuals' health and well-being, PE policy implementations in most countries have not been consistent and the Quality Physical Education (QPE) objective has not been achieved. In fact, according to OECD[5], even though PE is part of the school curriculum, there is considerable variation in how it is regarded within the school curriculum and how it is implemented in schools. Previously, Wee[6] reported that there are three main challenges in implementing QPE in Malaysia which include teacher-related, student-related, and administrative-related challenges. In addition, Wee and Chin[7] revealed that barriers to the provision of school PE are institution non-human related, institution administration related, and teacher related. In a recent Malaysian study, Leong and Chee[8] reported that barriers to quality PE implementation are mostly contributed by systemic factors such as the administration of the programme and the vision of the school administrators.

Received for publication August 31, 2021

In that context, Wee[9] had proposed numerous QPE strategies for PE in Malaysian secondary schools which include constant review of PE curriculum, enhancing PE teaching methods, ensuring adequate supply of qualified PE teachers, monitoring PE teaching, and providing adequate facilities, equipment, and teaching and learning resources for PE. Previously, the Final Report of the world-wide PE Survey[10] had identified numerous factors which could contribute to QPE: PE teaching staff must be qualified, PE programme should be well supported administratively and financially, teaching resources, equipment and facilities must be adequate, government policies relating to PE must be executed appropriately, and strong school-community partnerships should be established.

The administration of PE programme, and the provision of non-human resources depend on the capability and professionalism of the school administrators or principals. They play a crucial role in implementing an academic programme such as a PE programme. The effectiveness of a programme in school depends very much on the foresight of school principals and assistant principals. The quality of a PE programme in a school depends more on the administration than any other factor and it is imperative that administrators have the right and positive attitude toward PE since the school academic programme could not advance beyond the vision of the administrators[11]. Not only is it undeniable that quality PE programme implementation is dependent on personnel, facilities, equipment, and time allotment, it is also a fact that a good administrator produces a substantially better programme than a poor one. However, a good administrator with the wrong attitude would undoubtedly influence the implementation of a quality programme.

In Physical Education, administrators are expected to accomplish the purposes of the school with human and material resources available. The right decision made by administrators is important, as human resources are expensive, and it is rewarding to identify the right person for the right job[12]. School principals should always prioritize the assignment of PE teachers and have acumen and desire for improving the instructional programme. Instead of forcing PE curriculum to the teachers, administrators should promote shared ownership of the PE curriculum by involving teachers in decision making[13]. Teachers are stakeholders in school curriculum and involving them in decision making is a fulfilling democratic personnel practice.

In Malaysia, the Federal Inspectorate of Schools[14] specifically outlined the requirements of an effective secondary school academic leader. Firstly, principals must be involved in the subject committee; present at the meeting, examine meeting minutes, discuss, and provide support as well as guidance to the panel. Secondly, principals should plan, administer, and evaluate Staff Training Programme (STP): identify the strengths and weaknesses of academic staff, plan STP based on the identified needs, and monitor and make adjustment to ensure effective STP. Thirdly, principals must supervise teachers and share the supervision duty with the Senior Assistant and senior teachers, ensure that teaching follows the school planning and direction through systematic supervision, identify the teachers' strengths and weaknesses, and provide professional guidance to teachers.

Taking into account the shortcomings and requirements in implementing a quality PE programme, it is important to examine barriers to the implementation of PE programme in Malaysian secondary schools.

Purpose

This study investigated the perception of PE teachers on barriers to the implementation of PE programme. Specifically, this study examined the administration of Physical Education programme, and the provision of non-human resources.

Method

The participants

The sample respondents consisted of 248 PE-major teachers (male = 62.9%, female = 37.1%). By age, the majority of respondents (62.9%) was under 40 years of age. In terms of academic qualification, the sample was made up of 45.2% graduates and 54.8% non-graduates. With regard to professional qualification, about 62% of the respondents had entered Malaysian Teacher Training Colleges (MTTCs) while the rest had their teaching education at the universities through the Diploma in Education or Degree in Education Programmes. The data on working experience in PE showed that almost 40% of the teachers have less than 10 years of teaching experience and 20% of them have less than five years of experience. Almost 57% of the respondents taught 10 PE periods or less per week, 21.8% had 11 to 15 PE periods per week and 21.4% taught 16 PE periods or more per week.

Conceptual framework

The conceptual framework for the barriers to the implementation of the PE programme is based on two factors: human factor and non-human factor. These two factors were noted by Malaysian researchers[15–17] to be important in the implementation of the secondary school curriculum in the Malaysian context. Similar to Lutterdolt[18], Siow and Wong[15] stressed that resources influence the implementation of the school curriculum. Similar to Lutterdolt[18], resources were divided into two categories: human factor and non-human factor.

The human factor includes administrators, teachers, and other staff. The non-human factor includes rooms or space, facilities, and equipment, as well as reference books. In this study the human factor comprised of the administration of the Physical Education programme. The

non-human factor is divided into facilities and reference materials.

In addition, administration of the PE programme in this study focuses on the instructional leadership of school principals which includes attitude toward PE, assigning and monitoring teaching duty, engaging with teachers on teaching and learning, and providing in-house training for teachers. In considering the implementation factors (human and non-human), this research focused on the perception of PE teachers in order to understand their behaviour and how context variables affect them in the implementation of PE programme. (Figure 1)

Theoretical framework

This study is anchored on Human Resource Development (HRD) Theories. Specifically, this study focuses on 'theory of performance improvement'[19]. Rosenberg[19] itemized six performance factors which could be manipulated to enhance individual, group, and organization performance. Among those factors which are related to the context of this study are 'resource, tools, and environmental support', 'individual capacity', and 'skills and knowledge'. In supporting human performance theory, Rummler and Brache[20,21] emphasised that six components need to be included in the human performance system. The six components are relevant to the 'administration of PE programme', and the 'provision of non-human resource' domains of this study. The six components are: 1) performance specification (standards, output), 2) task support (resources that are available), 3) consequences (ensuring desired performance), 4) feedback (provide information to performers), 5) skills/knowledge (performers must be qualified), and 6) individual capacity. In addition, this study relates to the 'learning organization theory' as proposed by Marsick and Watkins[22]. The learning organization facilitates the learning of all its members and continuously transforms itself.

PE implementation questionnaire

A 12-item instrument was developed from the initial 13-item pool assembled after discussions with the panel of eight experts. A total of 30 secondary school PE teachers were recruited for pilot testing of the instrument. The raw data for the PE teacher sample was the factor analysed for the purpose of determining the emerging factors.

The analysis following the varimax rotation revealed two dominant factors: the administration of the PE programme and the provision of non-human resources. Final statistics revealed that two dimensions met the following criteria: (a) Each was based on dimensions with an eigenvalue >1.0 (b) Only items with a community of 0.50 were selected (c) Each item included had no significant correlation with another dimension. The two dimensions that met these criteria emerged, accounting for 50.02 percent of the variance (KMO=0.845, sig.=0.001). The factors numbered 1 to 2 in order of extraction are Administration of Physical Education Programme (5 items, α=.765), and Provision of Non-human Resources (7 items, α=.855). A total of 12 items were extracted.

The respondents had to state whether they "strongly agree", "agree", "undecided", "disagree" or "strongly disagree" with the statements on Administration of Physical Education Programme dimension. Furthermore, the respondents had to express their agreement for the statements on the Provision of Non-human Resources dimension by using the following expressions: 'almost never', 'rarely', 'occasionally', 'frequently', and 'almost always'.

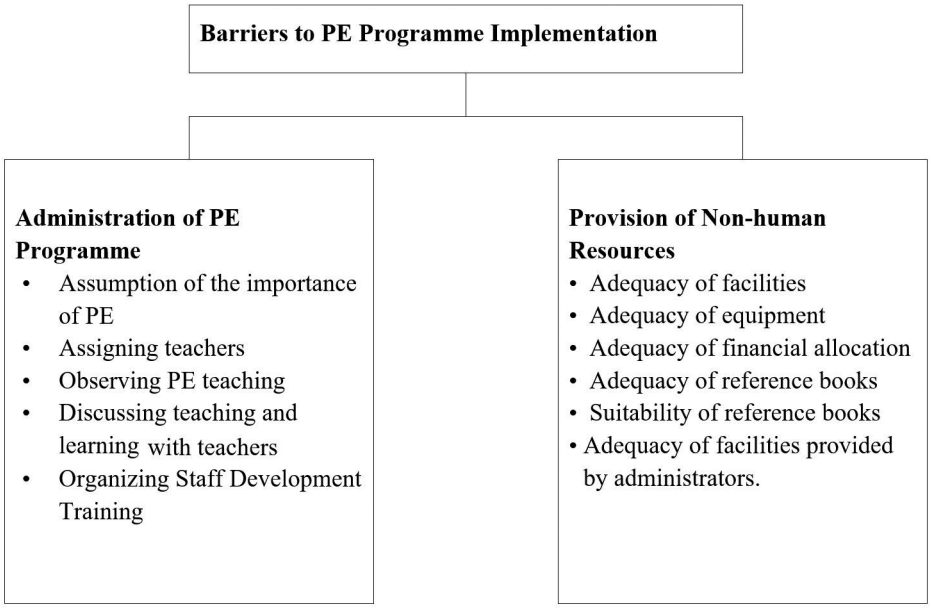

Fig.1. Conceptual framework of barriers to PE programme implementation.

The reliability index of the items is obtained by observing correlation coefficient of each item with the total score of the factor. Further analysis of the correlation coefficient between each item and the total score of the 'Physical Education programme administration factor' yielded correlation coefficients that range from 0.7429 to 0.8399 and are significant at $p < 0.01$. As for the 'Provision of non-human resources dimension', the correlation coefficients range from 0.7463 to 0.8510 and are significant at $p < 0.01$.

Data collection and analysis

The collection of data was conducted through mailing of questionnaires to the listed secondary schools. The quantitative data were analysed using SPSS (version 23.0). All variables satisfied normality criteria and were examined using relevant tests. Two types of statistical techniques were used to analyse the data, namely, descriptive and inferential statistics. Descriptive statistics was used to analyse gender, age, years of PE teaching experience, academic qualification, and professional qualification. Several inferential statistics such as t-tests and analysis of variance (ANOVA) were used to analyse the relationships among selected variables. T-tests were used to contrast mean scores for key variables in terms of gender. One-way ANOVAs were used to examine differences between PE teachers' age categories, professional qualification, and years of PE teaching experience on the two dimensions of the PE programme implementation. All tests of significance were set at .05 level. For the one-way ANOVA, where F-tests were significant, a post-hoc test using the Tukey-HSD tests was applied.

Results

Physical education teachers' perception on the provision of non-human resources in PE programme

The analyses of responses on the 7 statements regarding the provision of non-human resources are shown in Table 1. Overall results indicate that facilities and equipment for PE were inadequate (52.0% and 49.6% of respondents 'disagree' and 'strongly disagree' respectively). This is supported by inadequate financial allocation: 50.8% 'disagreed' and 'strongly disagreed' on "financial allocation for Physical Education is adequate".

The results in Table 1 also indicate that only 30.6% of the respondents agreed that PE books in the school library are suitable while 45.1% disagreed. However, Table 1 also reveals trends which are quite worrisome. It reveals that 26% of respondents gave their response as "undecided" on the statement such as "adequate facilities are provided by administrators", and indecision percentages ranged from 7.7 to 24.2% for the other 6 statements.

These findings indicate that PE teachers were undecided on the adequacy of financial allocation (23.4%), on adequacy of books in school libraries (19.8%), on suitability of PE reference books (24.2%) and on the adequacy of PE books in the national language (20.2%). (Table 1)

Analyses of the statements in Table 2 showed that slightly more than half of the male PE teachers perceived that facilities (56.7%), equipment (56.7%) and financial support (52.8%) for PE were adequate. Only 38% of female teachers agreed ('strongly agreed' and 'agreed') that PE equipment was adequate. However, both male and female PE teachers agreed that administrators have provided adequate PE facilities. On the provision of PE reference books, about one third of male and female PE teachers concurred that library PE books were adequate (males = 37%, females = 35%) and national language PE reference books were adequate (males = 35%, females = 31.5%). Furthermore, 45% of male and female PE teachers agreed that the reference books were suitable.

Differences in the perception on the provision of non-human resources

In order to examine differences in PE teachers' perceptions on the provision of non-human resources, t-test and one-way ANOVA were executed in terms of gender, age, professional qualification, and teaching experience in PE (Table 3).

TABLE 1

EXTENT OF AGREEMENT ON STATEMENTS OF THE PROVISION OF NON-HUMAN RESOURCES AS PERCEIVED BY PE TEACHERS

Statements	Extent of Agreement in Percentage				
	SA	A	U	D	SD
The facilities for PE class are adequate.	4.4	35.9	7.7	38.3	13.7
Equipment for PE class is adequate.	4.8	35.5	10.1	39.1	10.5
Financial allocation for PE is adequate	4.0	21.8	23.4	39.1	11.7
PE reference books in the school library are adequate.	4.4	39.5	19.8	32.3	4.0
PE reference books are suitable.	3.2	27.4	24.2	41.1	4.0
The library PE reference books in national language are adequate.	6.0	40.3	20.2	30.2	3.2
Adequate facilities are provided by administrators.	4.4	12.5	25.8	37.1	20.2

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree

As compared to the female counterparts, male PE teachers perceived that equipment for the teaching of PE in schools was inadequate. On the other hand, younger PE teachers (30 years old and younger), as compared to the older teachers (≥40 years old), felt that not only was the equipment inadequate, but also financial allocation for PE. Similarly, teachers with less PE teaching experience confirmed the inadequacies more than those who were senior in teaching.

On the issue that administrators provided adequate PE facilities, younger teachers and teachers with less teaching experiences perceived that the administrators have failed to do so. Similarly, teachers with a diploma in education concurred on the failure of administrators in providing adequate facilities as compared to teachers with teaching certificates.

TABLE 2

EXTENT OF AGREEMENT ON STATEMENTS OF THE PROVISION OF NON-HUMAN RESOURCES AS PERCEIVED BY PE TEACHERS ACCORDING TO GENDER

Statements	Extent of Agreement in Percentage									
	SA		A		U		D		SD	
	M	F	M	F	M	F	M	F	M	F
The facilities for PE class are adequate.	15.9	10.9	40.8	33.7	5.7	10.9	32.5	41.3	5.1	3.3
Equipment for PE class is adequate.	12.1	8.7	44.6	29.3	9.6	10.9	28.7	46.7	5.1	4.3
Financial allocation for PE is adequate	12.7	10.9	40.1	37	19.1	30.4	24.2	17.4	3.8	4.3
PE reference books in the school library are adequate.	2.5	6.5	34.4	28.3	20.4	19.6	38.9	40.2	3.8	5.4
PE reference books are suitable.	2.5	6.5	42.7	38	21.7	29.3	29.9	22.8	3.2	3.3
The library PE reference books in national language are adequate.	1.9	5.4	32.5	26.1	21.7	18.5	38.2	43.5	5.7	6.5
Adequate facilities are provided by administrators.	23.6	15.2	35.7	39.1	24.8	27.2	10.8	15.2	5.1	3.3

TABLE 3

DIFFERENCES IN THE PERCEPTION ON THE PROVISION OF NON-HUMAN RESOURCES AS PERCEIVED BY PE TEACHERS ACCORDING TO GENDER, AGE, PROFESSIONAL QUALIFICATION, AND PE EXPERIENCE.

Statement	p-value/post-hoc							
	Gender	Mean	Age	Post-hoc	PQ	Post-hoc	PE Exp	Post-hoc
The facilities for PE class are adequate.	NS	-	0.004	G1<G3 G1<G4	-	-	0.032	NA
Equipment for PE class is adequate.	0.013	M>F	0.001	G1<G3 G1<G4	-	-	0.001	G1<G6 G2<G5 G2<G6
Financial allocation for PE is adequate	NS	-	0.012	G1<G3	-	-	0.001	G1<G5 G1<G6 G2<G6 G4<G6
Adequate facilities are provided by administrators.	NS	-	0.003	G1<G3 G1<G4	0.020	G1>G2	0.001	G1<G5 G1<G6 G2<G5 G2<G6
		F:Female M: Male		G1:≤30yrs G2:30-39yrs G3:40-49yrs G4:≥50yrs		G1 Teaching cert. G2 Dip. In Edu. G3 Degree + Edu.		G1:Never G2: <5yrs G3:5-9yrs G4:10-14yrs G5:15-19yrs G6: ≥20yrs

PQ = Professional Qualification, PE Exp = PE teaching experience, NA = Not Available

Physical education teachers' perceptions on the administration of school PE programme

The results in Table 4 revealed teachers' perceptions on the 5 statements of the administration of the school PE programme. It was found that only 42.0 percent of the PE teachers perceived that administrators 'frequently' and 'always' assume that PE is important. This is supported by the fact that only 39.9 percent of the administrators 'frequently' and 'always' had discussions with teachers before assigning them to teach PE. Similarly, it was noted that almost 79 percent of administrators 'never', 'rarely' and 'occasionally' discuss factors affecting teaching and learning of PE with teachers. The data in the same table also showed that low status was accorded to PE by the administrators as it was revealed that 92.7 percent of administrators 'never', 'rarely' and 'occasionally' organise staff development programmes. The data in Table 4 also showed that 73.4 percent of the administrators 'never', 'rarely' and 'occasionally' observe PE teachers teaching PE.

Data in Table 5 showed that about 40% (males = 42%, females = 41.3%) of the administrators 'frequently' and 'always' presumed that PE was important. This presumption was supported by the fact that only 39% of the administrators 'frequently' and 'always' had discussion with teachers before assigning them to teach PE (males = 41.4%, females = 36.9%). However, only about 26.2% of administrators (males = 27.4%, females = 25%) observed PE teaching. On the issue of Staff Development Training, it was noted that 86.7% (males = 93%, females = 80.4) of administrators 'never', 'rarely' and 'occasionally' organize courses for teachers. Similarly, it was noted that 79.5% (males = 76.4%, females = 82.6%) of administrators 'never', 'rarely' and 'occasionally' deliberated about factors affecting the teaching and learning of PE with teachers.

Differences in the perception on the administration of school PE programme

The results of inferential statistics (Table 6) revealed that there were no significant differences on all 5 state-

TABLE 4

EXTENT OF OCCURRENCE IN THE ADMINISTRATION OF PE PROGRAMME AS PERCEIVED BY TEACHERS

Statement	Extent of occurrence in percentage				
	N	RLY	OLY	FLY	AL
Administrators have discussion with teachers before assigning PE teaching load	20.6	17.7	21.8	23.0	16.9
Administrators assume that PE is important.	11.7	21.4	25.0	20.6	21.4
Administrators observe PE teaching.	10.9	18.5	44.0	19.8	6.9
Administrators organise staff development training course for PE	27.8	31.0	33.9	6.9	0.4
Administrators discuss with teachers concerning factors affecting the teaching and learning of PE	16.9	21.4	40.3	17.7	3.6

N = Never; RLY = Rarely; OLY = Occasionally; FLY = Frequently; AL = Always

TABLE 5

EXTENT OF OCCURRENCE IN THE ADMINISTRATION OF PE PROGRAMME AS PERCEIVED BY TEACHERS ACCORDING TO GENDER

Statements	Extent of occurrence in percentage									
	N		RLY		OLY		FLY		AL	
	M	F	M	F	M	F	M	F	M	F
Administrators have discussion with teachers before assigning PE teaching load	18.5	23.9	14.6	22.8	25.5	16.3	22.9	22.8	18.5	14.1
Administrators assume that PE is important.	10.2	14.1	22.9	19.6	24.8	25	21	19.6	21.0	21.7
Administrators observe PE teaching.	8.9	14.1	18.5	18.5	45.2	42.4	20.4	18.5	7.0	6.5
Administrators organise staff development training course for PE	25.5	32.6	35	23.9	32.5	23.9	6.4	35.9	6.0	7.6
Administrators discuss with teachers concerning factors affecting the teaching and learning of PE	18.5	15.2	17.8	27.2	40.1	40.2	20.4	13.0	3.2	4.3

TABLE 6

DIFFERENCES IN THE PERCEPTION ON ADMINISTRATION OF SCHOOL PE PROGRAMME AS PERCEIVED BY PE TEACHERS ACCORDING TO GENDER, AGE, PROFESSIONAL QUALIFICATION, AND PE TEACHING EXPERIENCE.

Statement	Age	Post-hoc	PE Exp	Post-hoc
Administrators have discussion with teachers before assigning PE teaching load	0.016	G1<G4 G2<G4 G3<G4	0.016	G4<G6
Administrators observe PE teaching.	0.001	G1<G4 G2<G4 G3<G4	–	–
Administrators organise Staff Development Training Course for PE	0.008	G1<G4	–	–
Administrators discuss with teachers concerning factors affecting the teaching and learning of PE.	0.007	G1<G3 G1<G4	0.001	G1<G5 G1<G6 G4<G5
		G1:≤30yrs G2:30–39yrs G3:40–49yrs G4:≥50yrs		G1:Never G2: <5yrs G3:5–9yrs G4:10–14yrs G5:15–19yrs G6: ≥20yrs

PE Exp = PE teaching experience

ments related to the administration of the PE programme in terms of gender and professional qualification.

Post-hoc results showed that older teachers (>50 years old) confirmed that administrators had discussion with them before assigning to teach PE as compared to the younger teachers. Older teachers also agreed that administrators observe PE teaching, organize in-house training, and discuss teaching and learning issues with PE teachers. In terms of PE teaching experience, teachers with 15 years of experience and more concurred that administrators assign teaching loads only after discussion with teachers. And they also admitted that administrators discuss teaching and learning factors with teachers. (Table 6)

Discussion

Physical education teachers' perception on the provision of non-human resources in PE programme.

Reports in previous sections revealed that teachers perceived that facilities, equipment, and financial allocation for PE were inadequate. In addition, they also perceived that PE books in the school library were not suitable. Male teachers, older teachers, and teachers with more PE teaching experience felt that equipment, and financial allocation were inadequate, and not provided adequately by administrators.

The above-mentioned results were supported by a study of 1276 full-time PE teachers from 248 government-aided primary schools in Malaysia[23]. The study reported that almost half of the PE teachers perceived that facilities (52.2%) and equipment (48.1%) for PE were inadequate, and only 42% of them agreed that financial allocation for PE was adequate. About one third of them concurred that PE books in school library were suitable (36.5%). In a previous research on 1388 out-of-field Malaysian secondary school PE teachers, Wee [24] revealed that less than half of the respondents agreed that facilities (43.2 percent) and equipment (36.3 percent) for PE were adequate. Furthermore, a third of the respondents agreed that financial allocation for PE was adequate, while only 40 percent of the respondents agreed that PE books in the school library were suitable. In addition, about 42 percent of the respondents reported that school administrators 'frequently' and 'always' provide adequate facilities for the teaching of PE. Similarly, Syed Ali, Zahidi, and Ab. Samad [25] examined non-human factors in 155 primary schools involving 310 PE teachers. They reported that 77% of PE teachers acknowledged shortage of PE equipment in their schools while 86% reported that damaged equipment was unrestored or not replaced. These might be due to insufficient funding for PE (79% agreed) which was exacerbated by inappropriate usage of the PE budget (81% agreed). They also revealed that outdoor facilities were not wide enough (83% agreed) and were crowded when numerous classes shared the same venue for their respective PE classes (85% agreed).

This is also supported by research findings from Singapore schools where 42 percent of PE teachers felt that PE facilities in their schools were adequate or more than adequate[26]. Similarly, indoor gymnasium for PE classes

was reallocated as a resource room or study room for other more important academic subjects[27]. Conversely, European schools were better equipped; the survey showed that two-thirds of the countries surveyed indicated adequate to excellent facilities for PE teaching[28].

In terms of teachers' perception of the provision of non-human resources in PE programme based on gender, age, and PE teaching experience, Wee[24] reported no significant differences in the perceptions according to gender and age groups. Although a significant difference was found on the perception of non-human factors based on PE teaching experience, no post-hoc results were computed and differences between groups could not have been determined.

Physical education teachers' perceptions on the administration of school PE programme

Results from previous sections revealed that less than half of the teacher respondents agreed that administrators assumed PE as an important academic subject. Teachers perceived that administrators had failed to fulfil their duty in having discussion on PE teaching assignment, in observing teaching and in organizing staff in-house programme (STP). However, older teachers and teachers with more PE teaching experience perceived otherwise on the three issues.

Wee[24] in a study of 1388 out-field secondary PE teachers reported that only one third of the respondents agreed that administrators assumed PE important. PE was marginalized as the PE classes were often used for other more important subjects (e.g., mathematics and science) to enable teachers to complete the required syllabi[29]. Previously, Wee[30] found that about 74 percent of principals 'always' replaced PE classes with other academic subjects. Similarly, research reports from other countries confirmed that PE is not important. PE teachers in Brazil felt that they have not been appropriately recognized (37%) [31]. In Australia, 97% of surveyed PE teachers felt that PE was not considered a priority school subject [32]. Furthermore, China PE teachers frequently expressed resentment about themselves not being seen as a legitimate authority in PE[33]. On the contrary, Zeng and Wang[30] revealed that principals of Shanghai schools (China) believe that PE is important to fully develop students; regular PE and PA would gradually develop their active and healthy lifestyle, as well as providing opportunities for students to develop physically, socially, and emotionally. Similarly, Strampel et al.[35] surveyed 36 primary schools and 137 teachers in Ontario, Canada, using a 5-point Likert scale which revealed that administrators perceived that PE/daily PA as important. Recent Malaysian study of 250 principals from 372 primary schools on their attitude towards the implementation of PE found that both female and male principals had a positive attitude toward PE and believed that it is important[8].

On the contrary, in a study of novice PE teachers in Israel, Zach et al.[36] reported that 50% of the respondents were discouraged to continue teaching by the principals' disrespect for the profession, lack of support by the staff/supervisor, and lack of facilities. Zach et al.[36] also revealed that PE was considered less academic as compared to other subjects in school. The respondents perceived it to be of lower status as often their planned lesson had been undermined due to events deemed more important than PE. They were also re-assigned to teach students in subjects considered more important than PE. Similarly, in a study of barriers of teaching PE in Indonesia, Friskawati et al.[37] reported that 43% of barriers are institutional (e.g., marginalization of PE, lack of resources, and lack of training), 29% of barriers are teacher-related, and 28% of barriers are student-related.

In support of the lack of discussion on PE teaching assignment, Wee[24] revealed that administrators did not practice consensus in allocating PE classes. Almost 86% of teachers perceived that administrators often assigned teaching responsibilities to them without considering their qualification and 78% of teachers felt that their interest towards PE was not counted. In addition, about half of the sample (46.3%) reported that they had no knowledge of PE teaching assignment, and almost 19% of the respondents agreed that PE classes were given to them to fulfil the minimum number of teaching periods per week. In Brazil, PE assignment was given without teachers' knowledge because PE was not considered a priority academic subject in schools [31]. In fact, school principals play a pivotal role in developing curriculum and instructional policy in school academic programme[38]. Principals and teachers could interact to improve school academic programme; quality PE programme could be developed through the shared role of principals and PE teachers[33,39]. This notion is supported by Zach et al.[36] study of novice PE teachers in Israel where the teachers reported that the principal and experienced teachers conducted discussions once a week; the sharing session helped them overcome difficulties, questions, and educational dilemmas they experienced.

On the issue of monitoring teachers teaching PE, there was a high incidence of the lack of observation and supervision of PE lessons by principals in Malaysian schools[40]. Wee [30] reported that only about 51% of principals 'frequently' and always' observed PE lessons, and 6% of them delegated the duty to assistant principals. In fact, in some instances, there was no observation plan by the PE Curriculum Committee[36]. Wee[24] surveyed the perception of non-major PE teachers on the administration of PE programme and revealed that about 79 percent of school principals 'never', 'rarely' and 'occasionally' observe PE teaching. Similarly, Wee [19] found that 68 percent of the 248 primary school principals 'never', 'rarely' and 'occasionally' observed teachers teaching PE. On the contrary, Strampel et al.[35] surveyed 137 primary school teachers in Ontario, Canada, using a 5-point Likert scale and revealed that administrators supervised teachers on PE/daily PA (mean = 3.22). This is supported by Zach et al.[36] that routine weekly conversation among teachers, princi-

pals, and experienced teaching staff has provided positive feedback on the teachers' lessons. The discussions were conducted after observations of teaching of PE or after demonstration lessons of senior PE teachers to the novice teachers.

As for organizing staff in-house programme, Wee[24] supported the findings of this study and reported that over 90 percent of principals did not organize Staff Training Program, even though, according to the Ministry of Education Malaysia, it is mandatory for school principals to plan, administer and evaluate school STP. Previous research by Sebastian [41] reported that almost 31 percent of the schools never organized STP and 63 percent organized STP 1–3 times annually. In addition, MOEM [42] reported that only about 29 percent of secondary schools organized STP for their teaching staff. In fact, Wee [23] disclosed that PE had an inferior position among the school subjects; about 85 percent of primary school principals 'never', 'rarely' and 'occasionally' plan in-house STP. The lack of STP for PE teachers in schools was also reported by other Malaysian researchers [24,29,30]. Other studies[43,44] reported that poor administrative support has led to teachers leaving the profession, and the findings of those studies emphasised that teachers could succeed if they are equipped with quality training and induction support such as STP. This is supported by Zach et al.[36] that 52% of novice teachers rated their training as average (35%) and insufficient (17%), thus STP has become important in order to upskill the teachers.

In terms of teachers' perception on the administration of PE programme based on teaching experience and age, Wee [24] discovered that older teachers and teachers with more experience demonstrated higher perception mean scores. However, contrary to the findings of this study, there was no difference in the perception of mean scores according to age groups. In another study by Wee [23], it was found that male teachers agreed that administrators planned in-house training, discussed PE teaching assignment, deliberated factors affecting PE teaching, and observed the teaching of PE more than female teachers.

Conclusion

This study shows that the majority of the PE teachers perceived inadequacy in facilities, equipment, and reference books for PE. In addition, they felt that financial allocation provided by school administration was also inadequate. Male teachers, younger teachers (≤30 years old) and teachers with less teaching experience (≤ 15 years) perceived the inadequacies much more than the older and more experienced teachers. In terms of the administration of the PE programme, younger PE teachers (≤30 years old) perceived that the administrators did not consult them prior to teaching assignment. They also perceived that administrators did not ('never, rarely and occasionally') observe teaching of PE (73%), discuss the factors affecting teaching and learning of PE (79%), discuss teaching assignment (60%), nor organized STP (93%). To overcome the above-mentioned issues, the Ministry of Education Malaysia could conduct more research on PE implementation in secondary schools, and specifically focusing on the needs of younger PE teachers and juniors in teaching experience. While the general consensus is that implementation of PE at the school level depends on the vision of the school administrators, it is important that various stakeholders such as teachers, parent-teacher associations, and community leaders cooperate in advocating quality secondary school PE programmes in Malaysia.

Acknowledgements

We would like to thank all the participating principals, assistant principals, and Physical education teachers at the Malaysian public secondary school for their assistance and contribution to make this publication possible.

REFERENCES

1. UNESCO, Quality physical education (UNESCO, Paris, France, 2015). — 2. INSTITUTE OF MEDICINE [IOM]. Educating the student body: Taking physical activity and physical education to school (National Academies Press, Washington, DC, 2013). — 3. SHAPE AMERICA 2016, Shape of the nation: Status of physical education in the US. http://www.shapeamerica.org/advocacy/son/2016/upload/Shape-of-the-Nation-2016_web.pdf. — 4. PANGRAZI D, BRUSSEAU S, Dynamic physical education for secondary school students (Pearson Education Limited, Harlow, Essex, 2014). — 5. THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT [OECD], OECD Future of Education 2030 (OECD, Paris, France, 2019). — 6. WEE EH, Journal of Physical Activity, Sports and Exercise, 1 (2013) 17. — 7. WEE EH, CHIN NS, IOSR Journal of Sports and Physical Education, 7 (2020) 22. doi:10.9790/6737-07042228. — 8. FONYI L, SOON CC, Pertanika J. Soc. Sci. & Hum, 29 (2021) 291. doi:10.47836/pjssh.29.s1.16. — 9. WEE EH, Quality Control in physical education in Malaysia: Relooking at the national strategy for quality physical education. In: Proceedings (Tunku Abdul Rahman University College International Conference, Kuala Lumpur, 2016). — 10. UNESCO FINAL REPORT, World-wide survey of school physical education (UNESCO, Paris, France, 2013). — 11. VOLTMER EF, ESSLINGER AA, MCCUE FOSTER B, TILLMAN KG, The organization and administration of Physical Education (Prentice-Hall, New Jersey, 1979). — 12. THOMSON R, Managing People (Butterworth-Heinemann, Oxford, 1993). — 13. ANDERSON EM, SHANNON AL, Journal of Teacher Education, 39 (1988) 38. — 14. MINISTRY OF EDUCATION, MALAYSIA, Report on the teaching of physical education in secondary school (Federal Inspectorate of Schools, Ministry of Education, Kuala Lumpur, 1988). — 15. SIOW HL, WONG HH, Chemistry curriculum: Some factors that affect its implementation (Utusan Publication, Kuala Lumpur, 1983). — 16. ASMAH A, Pedagogy I (Longman, Petaling Jaya, 1989). — 17. JAMIL A, A study of the constraints in the implementation of KBSM Science in secondary schools in the state of Kedah Darul Aman. M.Ed. Thesis. (National University of Malaysia, Bandar Baru Bangi, 1992). — 18. LUTTERDOLT SA, European Journal of Science Education, 2 (1980) 121. — 19. ROSENBERG MJ, The ASTD Training and Development Handbook (McGraw Hill, NY, 1996). — 20. RUMMLER GA, BRACHE AG, Training, 25 (1988) 43. — 21. RUMMLER GA, BRACHE AG, Improving performance (Jossey-Bass, 1995). — 22. MARSICK V, WATKINS K, Human Resource Development Quarterly, 5 (1994) 353. doi:10.1002/hrdq.3920050406. — 23. WEE EH, Pertanika J. Soc. Sci. & Hum, 27 (2019) 1. — 24. WEE EH, Perceptions of

non-PE major teachers on the implementation of Malaysian secondary school PE program. In: Proceedings (7th International Scientific Conference on Kinesiology, Opatija, Croatia, 2014). — 25. SYED ALI SK, ZAHIDI MA, AB SAMAD RS, Turkish Journal of Sport and Exercise, 16 (2014) 70. — 26. MCNEILL M, LIM BSC, WANG CKJ, TAN, WKC, MACPHAIL A, European Physical Education Review, 15 (2009) 201. doi: 10.1177/1356336X09345224. — 27. KOUGIOUMTZIS K, PATRIKSSON G, STRAHLMAN O, European Physical Education Review, 17 (2011) 111. doi:10.1177/1356336X11402266. — 28. HARDMAN, K, Human Movement, 1(2008) 5. doi:10.2478/v10038-008-0001-z. — 29. CHONG AL, SALAMUDDIN N, The implementation of physical education in secondary school: A preliminary study. In: Proceedings (Comparative Studies in Educational System Between Indonesia & Malaysia, Bandung, Indonesia, 2010). — 30. WEE EH, The Journal of Administrative Science, 6 (2009) 27. — 31. OSBORNE R, BELMONT RS, PEIXOTO RP, DE AZEVEDO I, JUNIOR A, Motriz Rio Claro, 22 (2016) 310. doi:10.1590/S1980-6574201600040015. — 32. JENKINSON KA, BENSON AC, Australian Journal of Teacher Education, 35 (2010) 1. doi:10.14221/ajte.2010v35n8.1. — 33. JING YH, Advances in Physical Education. 6 (2016) 227. doi: 10.4236/ape.2016.63024. — 34. ZENG HZ, WANG X, World Journal of Education, 5 (2015) 37. doi:10.5430/wje.v5n6p37. — 35. STRAMPEL CM, MARTIN L, JOHNSON MJ, IANCU HD, BABINEAU C, CARPENTER JG, Physical & Health Education Journal, 80 (2014) 14. — 36. ZACH S, DUNSKY A, STEIN H, LITVIN O, HELLERSTEIN D, Sustainability, 12 (2020) 1. doi: 10.3390/su12093830. — 37. FRISKAWATI GF, SOBARNA A, STEPHANI MR, Teachers' Perceptions of Physical Education Teaching Barriers at Elementary Schools. In: Proceedings of the 4th International Conference on Sport Science, Health, and Physical Education ICSSHPE 2019 (Atlantis Press, 2019). doi:10.2991/ahsr.k.200214.095. — 38. RIZZO TL, Journal of School Leadership, 30 (2020) 275. doi: 10.1177/1052684619887548. — 39. LOUNSBERY MAF, MCKENZIE TL, TROST S, SMITH NJ, Journal of Physical Activity and Health, 8 Suppl (2011) S17. — 40. WEE EH, Physical education in Malaysia: A case study of fitness activity in secondary school physical education classes. In: UNESCO, Innovative practices in physical education and sports in Asia (UNESCO, Bangkok, 2008). — 41. SEBASTIAN BAS, Comparative study of the implementation of physical education programme in Bintulu and Shah Alam secondary schools. Undergraduate Project (University of Technology MARA, 2006). — 42. MINISTRY OF EDUCATION MALAYSIA, Primary School Inspectorate Report (Federal Inspectorate of Schools, Ministry of Education, Kuala Lumpur, 2007). — 43. GUJARATI J, Educ. Forum, 76 (2012) 218. doi: 10.1080/00131725.2011.652293. — 44. INGERSOLL RM, Phi Delta Kappan, 93 (2012) 47. doi:10.1177/003172171209300811.

E. H. Wee

Tunku Abdul Rahman University College, Jalan Genting Kelang, Setapak, 53300 Kuala Lumpur, Malaysia
e-mail: weeeh@tarc.edu.my

PERCIPIRANE PREPREKE U PROVEDBI TJELESNE I ZDRAVSTVENE KULTURE: ISTRAŽIVANJE UPRAVLJANJA PROGRAMOM TJELESNE I ZDRAVSTVENE KULTURE I OSIGURAVANJA NELJUDSKIH RESURSA

S A Ž E T A K

Ovo istraživanje istraživalo je percepciju nastavnika tjelesne i zdravstvene kulture (TZK) o preprekama u provedbi programa TZK u smislu vođenja programa i pružanja neljudskih resursa. Ukupno je 248 nastavnika TZK ispitano putem upitnika koji su upućeni školama. Uzorak se sastojao od 63% muških učitelja, a većina je bila mlađa od 40 godina. Upitnik od 12 točaka korišten je za procjenu upravljanja programom TZK i pružanja neljudskih resursa. Rezultati su pokazali da većina školskih administratora ne smatra TZK važnim predmetom; nisu tražili konsenzus u dodjeli nastavne dužnosti, nisu raspravljali o faktorima učenja i poučavanja i nisu organizirali program edukacije nastavnika. Stariji učitelji i učitelji s 15 ili više godina iskustva u nastavi kazuju kako školski administratori često raspravljaju o ovom nastavnom predmetu, promatraju ga i organiziraju česte edukacije nastavika. Ispitanici uočavaju neadekvatnost objekata, opreme, financijskih sredstava i priručnika u školskom programu TZK. Muški učitelji, mlađi učitelji i učitelji s manje nastavnog iskustva složili su se s nedostatkom ljudskih resursa. Preporuča se poduzimanje daljnjih istraživanja o rješavanju problema ljudskih potencijala i administracije u okviru nastave TZK. Konkretno, veću pozornost treba posvetiti potrebama mlađih nastavnika TZK.