

Physical Education Teacher Effectiveness: Junior Secondary Student Perspectives on Influential Learning Factors

從學生的觀點探討初中體育教師的專業素質對學習的影響

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Abstract

The purpose of this study was to identify and examine the potential determinants of junior secondary school students' views on physical education teachers' qualities affecting their learning. Students (N=1,540), 791 males and 749 females were randomly selected from thirteen secondary schools of the territory for the study. Data were obtained from an 18-item response questionnaire developed and modified by the investigators. Results showed that teachers' fairness, variety of teaching technique, subject knowledge, organizational skills, and teachers' emotion were found to be the most influencing factors to students' learning. Whilst male students indicated that time/space allotment should be accentuated in physical education classes, female students concerned more about teachers' emotion. ANOVA tests on grade and gender found that secondary three males required better discipline during instructions while secondary one females expected precise explanation/demonstration as well as corrective feedback. Results of the study implied that contemporary physical education teachers must assume a wide range of roles to effect the desired change in student behavior. To be an effective teacher, it is necessary to apply a conscious effort in order to acquire the skills, attitudes and personal dispositions which respond to student needs.

摘要

本研究旨在調查初中學生對體育教師的專業素質在學習上之影響。研究對象為本地1,540名中一至中三男、女學生。研究結果顯示學生認為教師的(一)公正持平 (二)教學技巧多元化 (三)本科知識 (四)組織能力及 (五)控制個人情緒等因素最能影響其學習。現代體育教師的角色漸趨多元化,教師應從不同角度瞭解學生在學習上的需要,務求達致優質教育的目標。

Introduction

Research has indicated that the role of teacher is an important and powerful determinant of students' attitude towards physical education as a school subject (Cope, 1990; Figley, 1985; Rice, 1988; Tannehill, et.al., 1994). It appears that students who have a positive attitude towards their teachers also have a positive attitude towards the subject and learn more effectively than students whose relationship with the teacher is less positive (Anderson, et. al. 1979; Kounin, 1970). According to the research, creating a positive relationship in the teaching situation is based on teacher characteristics which include being honest, genuine, sincere, friendly, understanding, and accepting. In addition, the teachers' behaviors such as showing a willingness to listen, creating a relaxed climate and encouraging students to express themselves have all been found to be influential in cultivating

a positive learning environment (Gnagey, 1981; Weber, 1983; Wolfgang, 1986). Added to this is the recommendation by Solomon that the thoughts and feelings of students are important factors to consider if teachers wish to enhance their effectiveness. Unfortunately as Dauer and Pangrazi (1989), Harrison and Blakemore (1992) have observed the underlying role which the behaviors of teachers play in shaping attitudes towards physical education is often underestimated and trivialized.

The importance of student opinion has been the subject of pre-service and in-service training for some time and a limited amount of research has been reported over the past decade (Smith, 1991). Laminack and Long (1985) found among a preservice teachers group that caring and flexibility in adapting to changing needs were qualities which were associated with successful teachers. More specifically, the attitudes of prospective

physical education teachers toward their students and their subject have been investigated by many researchers (Arrighi & Young, 1987; Byra, 1991; Parker, 1995; Placek & Dodds, 1988). However, few of these studies have addressed the more desired qualities which physical education teachers should possess in order to be an effective physical educator. Evans (1990) and Dyson (1995) have both suggested that there is potential value in examining the teaching and learning dynamic in order to gain valuable insight into instruction and curriculum. Furthermore, by considering the students perspectives, communication between teacher and student can be improved (Tjeerdsma, 1997). Therefore, this study has set out to examine student perceptions of teacher qualities which they consider important in the enhancement of their learning.

Procedures

Subjects

The subjects for this study were 1,540 junior secondary school students ranged from 12 to 15 years old. Approximately 51% of the respondents were male with the remaining 49% being female. Classification according to grade level indicated 34% secondary one, 29% secondary two, and 37% secondary three. All individuals enrolled in physical education classes and in attendance the day the survey was administered in 13 selected schools were represented in the study.

Instrument

Data were obtained from an 18-item response questionnaire designed and validated by the investigators in the local context which was accomplished in the flowing manner. In order to construct an appropriate survey instrument, 36 secondary students were interviewed by the investigators and two research assistants using a structured interview in which each student was asked to respond to the following question "What personal and professional qualities do you think a physical education teacher should have to help your learning in the physical education class?" By grouping the related words and phrases occurring in the students responses, a questionnaire was indirectly developed which consisted of eighteen items. A six-point Likert-type scale questionnaire was used to indicate the degree of the factors affecting the respondents learning. To ascertain content validity, the questionnaire was reviewed by five secondary physical teachers who expressed approval with minor modifications. Prior to the actual study, a pilot test was executed on a group of 87 secondary school students to test the reliability of the instrument. All the participants were asked to complete the same questionnaire twice within a week. The data analysis in the pilot study, which was performed using SPSS program, indicated that no substantive changes in the content or format was required.

Data Analysis

A summary of the means score for all subjects was initially presented. Then, the rank order of teachers qualities between male and female students was reported. Data were finally analyzed using ANOVA technique to establish a ranking of the most influential teacher qualities as considered by different grades and by male and female students. An alpha level of .05 was used to determine significance.

Results

The overall means and standard deviations for influencing teachers qualities are reported in Table 1. The top five ranking of influencing qualities were fairness (4.43), variety of teaching technique (4.36), subject knowledge (4.34), organizational skills (4.33), stability of emotion (4.28). In addition to ranking the qualities of teachers, a ranking comparison between male and female perceptions was performed on the data (see Table 2). The rank order of male students were fairness (4.30), subject knowledge (4.29), organizational skills (4.26), time/space allotment skills (4.19), and variety of teaching technique (4.18); whilst female students ranked fairness (4.56), variety of teaching technique (4.54), emotion (4.49), organizational skills (4.40), and subject knowledge (4.39). Overall, female students responded higher mean on each factor than their male counterparts. However, the results indicate that female and male students disagree most widely over the importance of time allotment and teachers emotional state.

Further analysis using ANOVA tests was conducted to determine how teacher qualities varied in choice with males and females from different grade levels, which considered to be influential in teacher effectiveness ($p < 0.05$). As noted in Table 3, male students in secondary two considered understanding student interest and needs ($p < 0.05$) to be important in the learning process while secondary three males considered class discipline ($p < 0.05$) to be significantly important in determining their learning effectiveness. Of the responses from secondary one females, teachers professional qualities including demonstration/explanation ($p < 0.05$) and corrective feedback ($p < 0.05$) were perceived to be influential in the acquisition of knowledge in physical education.

Student Teacher Interaction

Successful teachers can enhance the relationship with their students if they are seen to treat students with a high level of consistency. Therefore teacher fairness is perceived to be one of the factors which can greatly assist the relationship and hence the effectiveness of the teacher. While teachers must

show care in being consistent they must, according to Figley (1985), be more demonstrative in their relationship because low student-teacher interaction is correlated with negative attitudes towards the subject. Consistent with the literature, students in this study have indicated that to be good at their work, teachers must combine their professionally trained skills with highly consistent, effective and emotionally stable interactions with their students (Dyson, 1995; Parker, 1995; Solmon, 1991). Further analysis of Table 1 indicates that the interactions between students and teachers which are more personal such as encouraging the student, correcting the student, or being friendly towards the student are perceived to be less important.

While the setting for this study may be culturally specific, the student perceptions of certain qualities resemble gender preferences of those in North America. For example, when we attempted to rank the top five qualities, we discovered that males and females differed significantly in their ranking of time/space allotment and emotion. Males downgraded emotional stability of the teacher to 10th, while elevating time/space allotment to 4th. In contrast, the females perceived the former quality no more important than 11th in the ranking but emotional stability was considered to be the third most important quality for a teacher. Similar patterns are found in Luke and Sinclairs (1991) research who suggested that secondary school females indicated a higher sensitivity to the personal qualities of teachers than their male counterparts. Moreover, in order for teachers and students to achieve a situation in which optimal learning can occur, there must be a consistency of even temperaments in the presence of male and female students (Harrison & Blakemore, 1989).

Teaching Skills and Their Application

Results in Table 2 indicate that male and female respondents consider the top ranking qualities in similar order. Subject knowledge, organizational skills, and teaching techniques appear to be important qualities which males and female pupils hold in high regard. Fairness, the combination of skills and their application, is unequivocally the most important quality a teacher may exhibit. Teachers are perceived to have something valuable to offer students but its value is only appreciated if it is distributed in, what students view to be, an equitable manner. In addition, students indicated that learning is enhanced when an effective method of using specific professional skills is applied to help students. This study not only indicates that students respect the teacher's knowledge but they also want to acquire the level of understanding that is evident in the teacher. To ensure that knowledge is accessible, students suggested that teachers should provide better exposure to specific subject knowledge by means of a wide range of teaching techniques which are

compatible and highly organized. By proposing what should take place may also reveal what is presently lacking in the existing school arrangements. Students seem to indicate that they do not receive the most effective methods but are often subjected to what other observers have described as teaching methods which are efficient for transmitting content and maintaining class control (Morris, 1995, p.116) regardless of their effectiveness in assisting students to learn. Given the large size of classes in Hong Kong (Ha, 1993), it is not unreasonable to conclude that students feel that teacher attention is not appropriated effectively. Such large classes obviously create difficulties and compromises the opportunity for adequate time on task for skill acquisition which males have been reported to zealously demand (Cope, 1990; Luke & Sinclair, 1991).

Teacher Control and Communication

Results of ANOVA tests on grade and gender revealed that male students in secondary 2 considered understanding student interest and needs to be important in the learning process. Secondary 3 males considered class discipline to be significantly important in determining their learning effectiveness. This group of males aged 14-15 are of the age where an authoritarian style of teaching tends to be the style of achieving good classroom management. Effective control, as Gallahue (1991) has pointed out, contains a good measure of teacher authority in order that control can be established. Therefore, it is likely that older students in the secondary school consider control of the learning environment to be critical in enhancing the learning effectiveness. Knowing when to be more permissive is a more complex formula which is more rarely used by experienced teachers.

While this study did not set out to determine if present practice matched what students preferred, it is not difficult to conclude that students in expressing their views of what contributes to effective learning reveal what they prefer and perhaps what is presently lacking in the existing school arrangements. Similar to their male counterparts female students expressed what they preferred, namely responsive teachers who, when introducing a new skill, would combine clear demonstrations with precise and useful explanations. This concern expressed by students' points clearly to the difficulties which others have observed. For example, Rink (1993) has criticized the process because invariably teachers over estimate exactly how much learning take place. As a result, teachers tend to presume that students understand after students have seen and been told something once or twice. Young female students prefer a demonstration supported by a clear explanation, followed by corrective feedback. Considering that younger student's function at the concrete level when confronted with verbal instructions, it would be more appropriate if the communication in the form of demonstration,

explanation and rehearsal of the skill was followed by corrective feedback. Such a procedure would likely result in greater learning than simply employing a demonstration/explanation format.

Discussion

The purpose of this study was identify and examine the views of junior high students with regard to teacher qualities that contributed to effective learning. By surveying what students desired most in good teachers revealed what is preferred rather than what is necessarily and readily available. This study has identified certain teaching qualities which, according to the perceptions of students, influence students learning. The analysis of the student responses determined that personal qualities such as fairness, display of emotion, exhibiting subject knowledge, displaying organizational skills, and using a variety of teaching techniques are the most influential factors which would have a significant impact on learning in physical education.

While these perceptions can be understood as important teacher qualities which students consider important, it has been suggested in this study that they can also be interpreted as clues to what is currently practiced in school physical education classes. When students prefer fairness, above other teachers qualities it suggests that in the existing conditions in schools students do not feel fairly treated. This is not difficult to accept given the current conditions in schools and given the present emphasis on teaching sport skills. First, it is understandable that when faced with large classes, teachers find it difficult to ensure that every student is treated equally and fairly. Instead, students frequently experience the physical education class as an impersonal and alienating situation. Second, physical education in Hong Kong is similar to many of the physical education programs found in North American schooling where there is an emphasis on sports skills acquisition where the social rewards associated with positive feedback, go to the highly skilled students (Freeman, 1992)

Other preferred teacher qualities, which indicate existing conditions, include communication and feedback strategies. In this study, junior girls reflected a strong need for better teachers interpretation of teaching content which supported Rinks supposition that the younger the student, the more the student is functioning at a concrete level with regard to verbal material. The lack of accurate demonstrations, clear explanations and an opportunity to practice in a friendly non-competitive environment is suggested. The needs of the students is supported by the research which indicates that, during the learning process, students need to see the whole action performed at correct speed, in context and from a well positioned angle. Apart from precise explanation

and demonstration, junior girls also considered constructive and corrective feedback to be a valuable teaching quality. The findings in this study are supported by previous research which suggests that Hong Kong physical educators seldom use corrective feedback technique during their instructions (Ha, 1996). This contradicts present findings which propose that if a favorable atmosphere for learning physical education skills is to exist, a ratio of four positive to every one corrective feedback is required (Siedentop, 1991).

Young females, in secondary one, expressed that, during instruction, clear demonstration/explanation and corrective feedback was important. Older males, on the other hand, were more concerned about discipline control and understanding students interests and needs. Male in secondary three in expressing opinions about discipline were convinced that a teacher who was able to control the class would provide the ideal learning setting. This is probably because males, at this stage, are rambunctious and their behavior, if left unchecked, can easily become disorderly. Many teachers who fear that they will lose control, adopt an authoritarian style of teaching and rule the classroom with a zero-tolerance authoritarian style. Students consider these teachers to be the most effective disciplinarians and this tends to be associated with effective teaching.

Discipline was not expressed as such a high concern for effective teaching by the slightly younger males who proposed that understanding the interests and needs of students was a more important teacher quality. We have no explanation for this except to suggest that this preferred quality is conjectured to be associated with this age groups inability to be understood by adults who, in their eyes, simply fail to comprehend their views or the awkward way in which young adolescent males express themselves.

Recommendations

Workshops and In-service Training

In this study, fairness, variety of teaching technique, subject knowledge, organizational skills and stability of emotion were found to be the five most influencing factors to students learning. Such results imply that today's physical educators need to be well prepared in terms of their personal traits and professional qualities. In other words, contemporary physical education teachers must assume diverse relationships with students which include instructor and manager (Grossman, 1990), in addition to being a firm but friendly mentor who is professionally well equipped to effect the desired change in student behavior. These roles, it must be recognized, are not automatically assumed. To be an effective teacher, it is necessary to apply a conscious effort

in order acquire the skills, attitudes and personal dispositions which respond to student needs. In order to support this effort the provision of an in-service training program for physical educators would be a practical measure that could prove to be effective particularly if it responded directly to the findings in this study. For example, we suggest that there is a need to examine the management of the instructional setting, personal dispositions of teachers, and the use of feedback. Moreover, in order to improve the alignment of teachers efforts with the expectations of the students, teachers need to improve their understanding of the needs and interests of those they teach.

A Student Perspective on Curriculum Design

Finally, we recommend that the opinions and observations of the students should be carefully considered in the design of the curriculum. From the experiences gained in this study, we believe that the student perspective provides an invaluable insight into the learning process and should be considered when efforts are made to improve teacher effectiveness and the quality of the educational experience. Just as it was timely to ask students to provide insights into what they considered to be important influences on learning effectiveness, it also may be an opportune time to seek their responses to questions related to the design of programming that will meet their perceived needs as members of modern urban society. In our opinion, such student considerations would likely consider their individuality, strengthen self-efficacy and self esteem and avoid the promotion of physical education as a school subject for the physically elite.

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Table 1. Summary of Mean Scores and Rank Order of All Subjects

Teacher's Qualities	Mean	S.D.	Rank
Fairness	4.43	1.58	1
Variety of teaching technique	4.36	1.57	2
Subject knowledge	4.34	1.53	3
Organizational skill	4.33	1.56	4
Stability of Emotion	4.28	1.58	5
Understanding of interests and needs	4.25	1.52	6
Demonstration and explanation	4.21	1.51	7
Enthusiasm	4.20	1.56	8
Time and space allotment skills	4.18	1.50	9
Corrective feedback	4.14	1.59	10
Physical Skill	4.09	1.53	11
Discipline control	4.01	1.42	12
Interaction with students	3.95	1.48	13
Encouragement of learning	3.94	1.55	14
Voice	3.58	1.44	15
Expectancy	3.56	1.44	16
Physique	2.98	1.70	17
Professional dressing	2.94	1.71	18

N= 1540 No. of male student = 791 No. of female student = 749

Table 2. A Comparison of Top Five Rankings of Teachers Qualities by Male and Female Students

Teacher's Qualities	Male			Female		
	Rank	Mean	S.D.	Rank	Mean	S.D
Fairness	1	4.30	1.69	1	4.56	1.51
Subject Knowledge	2	4.29	1.56	5	4.39	1.51
Organizational Skills	3	4.26	1.59	4	4.40	1.49
Variety of Teaching Technique	5	4.18	1.65	2	4.54	1.53
Time/space Allotment Skills	4	4.19	1.62	11	4.17	1.43
Stability of Emotion	10	4.07	1.75	3	4.49	1.55

Table 3. ANOVA Grade by Gender of Influencing Teachers Qualities

Teacher's Qualities	Grade	Gender	F	P
Discipline Control	Secondary 3	Male	2.67	<.05
Understanding Students' Interests and Needs	Secondary 2	Male	2.03	<.05
Demonstration & Explanation	Secondary 1	Female	2.42	<.05
Corrective Feedback	Secondary 1	Female	2.16	<.05