Incorporating Middle School Students' Insights to Determine Appropriate Curricula in Physical Education

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ABSTRACT

Curriculum innovation is normally driven by what is thought to be philosophically sound. The value orientation of curriculum development is typically based on teacher reflection as opposed to student opinion. Recently, studies have begun to examine the student's interests, likes, dislikes and values as a precursor to curriculum development. This coupled with the impact of physical activity involvement and its importance to one's health (USSDHS, 1996) presents physical educators with an enormous challenge. Based on the historical approach to curriculum development, students would only be presented with those activities believed to make the greatest longterm impact. This runs a tremendous risk of failing due to the likes and dislikes of children which may result in children who are inactive and consequently unhealthy. Therefore the purpose of this study was to determine what middle school students believed were the most important objectives for Physical Education. It was concluded that what is reported in the literature as the most important objectives of Physical Education don't necessarily match the children's thoughts. It was also found that the objectives of Physical Education change with age. It was also concluded that those who are taught might provide valuable insight into a more appropriate content or possibly even a change in the teaching methodology.

INTRODUCTION

In recent years there has been a significant amount of change and innovation in education, primarily in curriculum content. This has come about in an effort to make content more pertinent to the needs of society. Many of these curricular changes have emanated from the timeless views of such educators as Hopkins (1941) and Bruner (1974), who both stressed the need for a sound philosophical base with clearly stated objectives for any and all educational programs. But, before these objectives can be formulated so as to be pertinent to the needs of society and the students living in society, it is essential that they be related to the potential meaning they have for these students. Stillwell and Willgoose (1997) indicate that such an expression of concern for students comes from a growing awareness of the relationship between the needs and interests of students and the curriculum itself.

Efforts in curriculum development tend to have value orientation based on teacher reflection. This reflection is based on an understanding of society, individuals affected by the curriculum, and the subject-matter content within

the curriculum (Jewett, Bain, & Ennis, 1995). The tendency of "what" to teach and "how" to teach is determined, too often, by the individual teacher. This sole approach is questionable, even if it is done with the best interest of the student in mind. Efforts should be made, as Graham (1995) has stated, to find out what students like, dislike and value. Studies have been undertaken to seek this information from those most affected by the curriculum, the students (Alton-Lee & Nuthall, 1990; Bondy, 1990; Graham, 1995).

Determining the student's expectations in relation to the stated objectives may, in fact, be a very meaningful process. According to McKenzie, Alcaraz, and Sallis (1994), students who enjoy physical education will have a more positive attitude concurring with Siedentop (1991) in that the final result of being more physically active. In fact, Figley (1985) found that the leading determinant of a student's attitude toward physical education was the activities included in a curriculum.

Parents and students feel that physical education can contribute to one's overall development physically, mentally, and socially. Stewart and Green (1987) found that parents believe that physical education's importance lies in the development of both fitness and skill. Earl and Stennett (as cited in Laker, 1993) found that what students valued most about physical education was social contact, the learning of new skills, having fun, and keeping fit. While all of these factors would appear to be important, the level of importance placed on each by the students was not reported. To ensure that these objectives are meaningful to the students, it seems logical that they have some input into the formulation of the objectives (Stillwell & Willgoose, 1997). The students' understanding of and commitment to the content taught may be related to the actual attainment of these objectives. With this premise in mind, this study was designed to determine what middle school (grades 6,7, & 8) students deemed as the most important objectives for a physical education program. Secondary purposes were to determine if there were any differences in the objective preference (a) between genders and (b) among grade levels.

METHODS

A 12 item, rank-order questionnaire was administered to 853 middle school students from two southern states. Incomplete questionnaires were not utilized in the analyses resulting in a final n of 823. A breakdown by gender and grade level is shown in Table 1. The questionnaire included 12 physical education objectives listed alphabetically. These were:

1. Achieving success
2. Developing leadership
3. Developing physical fitness
4. Developing skill in various sports
5. Developing sportsmanship
6. Getting regular exercise
7. Having fun
8. Improving self confidence
9. Keeping in good health and physical condition
10. Keeping weight controlled
11. Learning activities that could be continued outside of school
12. Making new friends

TABLE 1

Breakdown of respondents by gender and grade level

Gender	Grade	Gender by Grade	
male =275	6^{th} = 399	female	male
female = 528	7^{th} = 154	6^{th} = 207	6^{th} = 192
	8^{th} = 270	7^{th} = 116	7^{th} = 38
		8^{th} = 225	8^{th} = 45

Students were given specific instructions to place a "1" by the item they felt to be the most important objective of physical education, a "2" by the next most important objective of physical education, and to continue ranking the remaining items in order of importance. Questionnaires were collected immediately upon completion to reduce opportunities for the sharing of information with fellow students.

To determine which objectives were deemed the most important by the students, the data were analyzed descriptively. For further analyses, the 12 items were subscaled into one of three categories, those being: (a) physical fitness, which included items 3, 6, 9, and 10; (b) motor skill, which included items 4 and 11; and (c) social-emotional well being, which included items 1, 2, 5, 7, 8, and 12. A Kruskal-Wallis Anova was used to determine whether there was a significant difference among grade levels. In cases of significant difference, post-hoc analyses were used to determine which means were significantly different than others. To determine whether there was a significant difference between each of the three categories and gender, Mann-Whitney U analyses were used.

RESULTS AND DISCUSSION

From the descriptive analyses it was determined that the most important objective for physical education, that is the objective receiving the lowest mean score, was item 9, "Keeping in good health and physical condition", followed closely by item 3, "Developing physical fitness". The objective receiving the lowest ranking by the students was item 11,

"Learning activities that could be continued outside of school". The complete ranking is shown in Table 2.

A descriptive comparison of the three categories (see Table 3) indicates that the entire student sample ranked the physical fitness category highest (M=5.48), with motor skill being the second most important (M=6.99), followed by the social-emotion well being category (M=7.01). This was consistent with the rankings of the individual objectives, since the top three ranked objectives were included in the physical fitness category. This ranking appears to be consistent with the recent *Surgeon General's Report of 1996* (USDHHS, 1996) emphasizing both the benefits of and the need for the development and

TABLE 2

Ranked objectives for physical education

Objective	M	SD	n
Keeping in good health and physical condition	4.66	3.23	823
Developing physical fitness	4.88	3.22	823
Getting regular exercise	5.56	3.10	823
Having fun	5.80	4.22	823
Achieving success	6.39	3.21	823
Developing skill in various sports	6.39	3.04	823
Developing sportsmanship	6.77	2.96	823
Keeping weight controlled	6.82	3.52	823
Improving self confidence	7.05	3.06	823
Developing leadership	7.61	2.91	823
Making new friends	7.84	3.78	823
Learning activities that could be continued outside of school	8.05	2.95	823

TABLE 3

Category rankings for physical education

Category	M	SD	n
Physical fitness	5.48	1.80	823
Motor skills	6.99	1.61	823
Social-emotional well being	7.01	1.44	823

maintenance of good health. While it is commonly accepted that one of the criteria used by physical educators to judge the success of a program is how happy students are (Earls, 1981; Placek, 1983), the middle school students in this study ranked "Having fun" fourth in order of importance, behind the need for good health, fitness and exercise. This student perspective lends support for (a) placing a greater emphasis on good health and fitness in the physical education program and (b) providing ample time for the development of these components.

Statistical analysis to determine whether there was a significant difference between gender rankings of the categories are shown in Table 4. There was no significant difference

$p = .0557$ ($U=69201.5$, $Z=1.91$, females = 548, males = 275) in the students' ranking of the social-emotional well being category. However, female students ranked the physical fitness category significantly $p < .001$ ($U=60811$, $Z=4.52$ females = 548, males = 275) higher in importance than did the males. Whereas, male students ranked the motor skill category significantly $p = .0013$ ($U=65032.5$, $Z=3.21$, females = 548, males = 275) more important than did the females. This finding may well provide support for segregated classes. Yet, a well thought out, coeducational program designed to meet both the fitness and the skill objectives for all students is the more progressive alternative approach.

Statistical analyses to determine whether there was a significant difference among the three grade level rankings of the categories are shown in Table 5. There was no difference $c^2(2,$

TABLE 4

Mean category rankings by gender as calculated by the Mann-Whitney U procedure

Category	Females	Males
Physical fitness	385.47	464.87
Motor skill	430.83	374.48
Social-emotional well being	423.22	389.64

TABLE 5

Mean category rankings by grade level as calculated by the Kruskal-Wallis procedure

Category	6th grade students	7th grade students	8th grade students
Physical fitness	390.33	423.30	437.58
Motor skill	403.31	398.08	432.79
Social-emotional well being	443.24	412.4	365.61

N = 823) = 3.14, p < .21, among the three grades as to their rankings of the importance of motor skill. While the overall sample placed a greater emphasis on good health and fitness, analyses by grade level revealed that the physical fitness category ranking was significantly different $c^2(2, N = 823) = 6.80$, $p = .03$. A Post-hoc analysis revealed that the sixth grade students ranked the physical fitness category significantly higher than did the eighth graders. The social-emotional well being rankings were significantly different $c^2(2, N = 823) = 17.20$, $p < .001$, by grade, as well. A post-hoc analysis indicated that eighth graders ranked this category significantly higher than the sixth graders. If listening to students is important, as Graham (1995) has stated, it would appear that a sixth grade curriculum should focus more on physical fitness. This emphasis should gradually change toward a more cooperative, social and personal responsibility focus, as students progress through adolescence.

SUMMARY

In today's education it is sound advice to consider "who" will be taught before deciding "what" will be taught. While it is accepted that physical educators possess some understanding of the needs and interests of students relative to the curriculum, perhaps the students themselves may be able to provide some insight as to what, in fact, is important. However, it should be recognized that the students' perspective on curriculum is not empirically based, but rather based upon what is important to them, personally.

The findings from this study are reported with the intent of leading to further thought, if not additional research, relative to the students' involvement in curricular matters. Furthermore, since this study was limited to the southern region of the United States, the reader is cautioned against generalizing the findings to a larger population. Further studies need to be completed examining not only the ranking of importance of perceived objectives by the students but also relating this to (a) their actual skills and fitness levels and (b) the curricula to which they are exposed.

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