

Student and Parent Perceptions of

Supervisor: High School Physical Education

by


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to the required standard


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ABSTRACT

The purpose of this study was to identify and investigate the perceptions of students and parents toward high school physical education at Bowness High School. Grade 10 and 11 students (N=190) completed a 33-item questionnaire and 87 parents completed a 17-item questionnaire. Both students and parents were queried on the current high school programs, goals of physical education, and importance of physical education. Students also provided reasons for selection or nonselection of elective physical education and parents reflected on their own high school physical education. Overall, both students and parents were positive and supportive of physical education, with the parents being significantly more positive and supportive. In contrast to other studies, the female student group were significantly more positive toward the compulsory Physical Education 10 program as compared to the male student group. Students and parents provided invaluable information for program restructuring.

Examiners:

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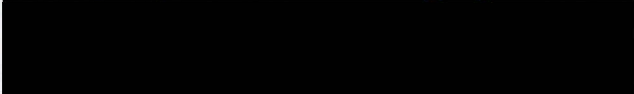

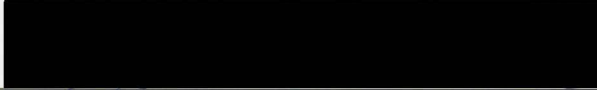
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Thanks to my colleagues, students, and parents at Bowness High School for their cooperation. Gisella for her guidance in statistics and Dwayne for his support and encouragement.

DEDICATION

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This thesis is dedicated to my family, particularly my

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This thesis is dedicated to my family, particularly my
parents, who taught me the true meaning
of commitment and the ability
to achieve the seemingly
impossible.

Chapter 1

Introduction

Educators have traditionally excluded parents and students from the school decision-making process. Recent trends have recognized and included input from both parents and students to survive the challenge of increasing demands with diminishing financial resources. To meet the challenge it is essential that all stakeholders approach "change" as a necessary process to address the new realities facing the school system. Restructuring will transcend into all aspects of public education to meet the needs of a rapidly changing society and economy. The "core" subjects areas are no exception. This is especially true of physical education that is currently struggling to maintain its position within the definition of "basic education" (Alberta Education, 1994a).

The "Calgary Board of Education Purposes" document (1994a) states, "Each C.B.E. school is responsive to their community . . . for serving the best educational interests of the individual" (p. 1). Schools within the Calgary Board of Education have responded by incorporating the community within their mission statement. Bowness High School (1994) is one example, with the following mission statement:

Bowness High School is a collaborative community, committed to pride and excellence. Through the development of knowledge, skills, attitudes and responsibility, we work toward self-confident, lifelong learners, capable of enhancing their lives and the quality of our world. We create a climate characterized by realistic expectations, personal excellence, mutual respect, caring and positive support for all members of the school community. (p. 1)

The previous Bowness High School Mission statement (1992) used the phrase, "collaborative community of educators" (p. 1) which did not explicitly include the community the school serves. Parents, and students, are now considered valuable members of the collaborative leadership model at Bowness High School, as reflected in the current mission statement presented above. A select number of interested students and parents are invited to bimonthly, interdisciplinary team meetings to provide their input regarding general school issues. The student and parent recommendations are given serious consideration, with the final decision left to the responsibility of the educators.

By listening and working with students and parents, physical educators will be better able to meet the call for massive and radical restructuring (Locke, 1992; Paese, 1983; Tannehill, Romer, O'Sullivan, England, & Rosenberg, 1994;

Tinning & Fitzclarence, 1992) if physical education is to survive into the next century. For physical education, in particular, there is a widely and uniformly held belief that parental perceptions and attitudes (Martens, 1990; Rolloff, 1985; Stewart & Green, 1987; Wilcox, 1988) and student perceptions and attitudes (Avery & Lumpkin, 1987; Browne, 1992; Butcher, 1982; Macintosh, 1979; Wilcox, 1987; Tinning and Fitzclarence, 1992) matter a great deal; they are critical to the future of the subject in public schools. It is imperative that student and parent perceptions and attitudes are assessed to reveal the status of physical education and provide valuable insight for restructuring programs (Avery & Lumpkin, 1987; Fitness Canada, 1990; Vogel & Seefeldt, 1988; Wilcox, 1987). Physical educators can then influence these attitudes and perceptions by developing quality programs that meet the needs and interests of the students. The assessment of student and parent attitudes toward physical education can be the first step toward the concept of youth ownership of programs. Youth ownership is based on the premise that youth will show greater interest in programs that they have had the opportunity for input. The concept of youth ownership was emphasized throughout the "Canadian Symposium on Youth Fitness" in a concerted effort to increase the activity level of youth (Fitness Canada, 1985). The research literature indicates that student attitudes toward physical education vary, although most

studies report that the majority of students think favorably of the subject (Butcher, 1982; Coe, 1984; Rice, 1988; Scott & West, 1990; Williams & Nelson, 1983). To report satisfaction by majority can be quite deceiving. In the business of education satisfying just the majority is not sufficient, as the minority may be as high as 49% of the population and their needs must also be addressed.

Initially, attitudinal studies focused primarily on college age subjects (Aicinena, 1991; Avery & Lumpkin, 1987; Campbell, 1968; Figley, 1985; Goc-Karp, Kim, & Skinner, 1985; Soudan & Everett, 1981; Wear, 1951). In the past decade a surge of interest in school-aged students' attitudes has resulted in research with high-school populations (Browne, 1992; Earl & Stennett, 1987; Luke & Sinclair, 1991; Rice, 1988; Stewart, Green & Huelskamp, 1991; Sparks & Webb, 1991; Tannehill et al. 1994) and with junior-high school populations (Godin & Shepard, 1986; Hurst, 1986; Macintosh & Albinson, 1982; O'Reilly, 1988; Scott & West, 1990) representing a very diverse population. Continued research on student attitudes toward physical education is essential to identify the status of physical education and to provide helpful insight into necessary changes within the physical education program.

It is ironic that we have more information today about the benefits of physical activity (Seefeldt & Vogel, 1986) than ever before and favorable attitudes toward physical

education are reported; yet research findings indicate, the activity levels of youth decreases with age (Russell, 1981, and Hyndford, & Beaulieu, 1992; Stephens & Craig, 1990) and that high school students are choosing to opt out of school physical education programs once the subject becomes elective (Earl & Stennett, 1987; Macintosh & Albinson, 1982; Sparks & Webb, 1991). At present, physical education is compulsory in Alberta from grade one to and including grade ten. At the grade ten level, students are required to take three credits of physical education, which is the equivalent of 75 hours. Physical education is elective for students in their final two years, grade 11 and 12. The global trend of low and declining enrollment in elective physical education programs is also present at Bowness High School with approximately 50% and 25% of the students electing physical education in grade 11 and 12 respectively.

Lack of time in the timetable has been identified as one of the top two reasons students elect not to take physical education in their final years of high school (Browne, 1992; Earl & Stennett, 1987; Green, 1990). This limitation was addressed in a study in Ottawa by Zacour and Ducharme (1986-87) with the proposal of an early morning class to the students. Fifty-six percent of the students indicated they would be willing to take an 8:00 a.m. course. Creative time-tabling by educators may allow more students the opportunity to experience physical education throughout

their school years. (Renholtz, & Bullis, 1980; Poltras, 1984)

Three recent studies by Figley (1985), Rice (1988), and Luke and Sinclair (1991) provide some valuable insight into the determinants of student attitude toward physical education. All reported, "curriculum" was the most influential factor in the development of both positive and negative attitudes toward physical education, regardless of gender. Luke and Sinclair (1991) state, "Much could be done in future P.E. programs to identify and change those aspects of the curriculum resulting in negative attitude and to build on those aspects resulting in positive attitudes" (p. 41). Aspects of the curriculum identified by Figley (1985) as "turn-ons" or "turn-offs" were categorized under the following headings: specific content, coed versus segregated classes, elective classes, conflicting goals, grading, organizational patterns, uniforms, equipment, and competition or cooperation. It is critical, therefore, to examine the specific curriculum aspects of a program that operate as "turn-ons" or "turn-offs" to allow the most positive experience possible for all students.

As mentioned previously, the status of physical education within a community is largely dependent on the parent perceptions and attitudes toward physical education. There are few published research reports that describe the attitudes of parents about physical education. In general, parents are supportive of physical education (Carre, Mosher,

Schutz, Thomson, Farenholtz, & Bullis, 1980; Poitras, 1984; Pritchard, 1988; Tannehill et al., 1994) but tend to be critical of their experiences with earlier physical education programs (Sheehy, 1993; Snyder & Spreitzer, 1983). As physical educators begin restructuring the physical education program, it is important to assess the attitudes and perceptions of parents in working toward a consultative leadership model. Involving parents in school improvement plans can be very beneficial in bringing about educational change (Fullan, 1991).

An understanding of student and parent perceptions can provide valuable information to guide the physical education team in restructuring physical education to better meet the needs of the students by making it a more positive and meaningful experience. Knowledge about parental perceptions can provide insight as to the direction of future public relations and ultimately increase the "perceived" worth of physical education within the school curriculum.

Purpose of the Study

The purpose of this study was to assess the perceptions of students and their parents toward curriculum aspects and the importance of physical education at a single public high school site.

learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6).

Research Questions

The specific questions this study addressed were:

1. What are the student perceptions/attitudes toward curriculum aspects of the required physical education program at Bowness High School?
2. What are the student perceptions/attitudes toward curriculum aspects of the elective physical education program at Bowness High School?
3. What are the parent perceptions toward curriculum aspects of the Bowness High School physical education programs?
4. What gender differences exist in student perceptions/attitudes toward curriculum aspects of the physical education programs at Bowness High School?
5. What perceptual differences exist between students and their parents toward various curriculum aspects of the physical education program at Bowness High School?

Definition of Terms

The following terms used in this study may be understood in a variety of ways. For clarity and interpretation, their use is defined.

Attitude: "A learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6).

Collaboration: "An agreement between parties to align their efforts to implement a change in procedures, usually for a given project that will be assessed in a given time frame" (Sears, 1995, p. 1).

Consultation: " a process often used to determine the range of possibilities that could be used in making a decision, or for input regarding an impending decision that may have a limited combination of solutions. Consulting is most often used to determine potential solution, but does not necessarily have those consulted determining the final outcome" (Sears, 1995, p. 1).

Course Challenge: An option available to any student that is registered in senior high school and believes that he or she already possesses the knowledge, skills, and attitudes prescribed by the program of studies for a course, can demonstrate these learnings through special assessment opportunities (Alberta Education, 1995).

Curriculum: "... education plan for facilitating learning ...with the major focus on ends, on the 'why' and 'what' questions. Curriculum describes alternatives for making decisions about scope, structure, and sequence of content" (Jewett & Bain, 1985, p. 14).

Ownership: Individual feeling or state of valuing an activity, program, or organization due to personal investment of time or energy. Individuals believe they can make a difference and assume responsibility for both successes and failures. They are no longer just participants but become part owners.

Perception: "...an awareness of something interpreted through one's own experiences with that person, object, or situation" (Sheehy, 1993, p. 8)

Physical Education: refers to classes where a variety of physical activities are taught during regular school hours. It should not be confused with after school athletics or intramural sports (O'Sullivan, 1994, p. 78).

Delimitations of the Study

The delimitations imposed on this study were:

1. The study was limited to the data collected via the student and parent questionnaires.
2. The study was limited to students and their parents at Bowness High School located in Calgary, Alberta.
3. The sample size was limited to four randomly selected P.E. 10 classes and four randomly selected grade 11 "core" classes.

4. The parental response rate was limited by students acting as couriers of the questionnaires to the home and returning them to the student services office at Bowness High School.

4. Parents and students are important sources of information

Limitations of the Study decision-making.

3. A Limitations of the study included the following: word

1. Degree of motivation of the parents and students in completing the questionnaire.

2. Other factors such as peers, media, society, experience may influence attitude toward physical education.

3. Questions may be interpreted differently from one respondent to another in self-report data (Henerson, Morris, & Fitz-Gibbon; 1987) therefore construct validity was established by a questionnaire review performed by a panel of experts.

4. Ability of the researcher to interpret accurately and present the data collected.

Assumptions of the Study

The assumptions underlying this study were:

1. Parents and students responded truthfully to the items on the questionnaire.

2. The sample selection (randomly selected classes) represented a normal distribution of the attitudes and perceptions held by students and their parents toward physical education at Bowness High School.

3. Perception/attitude toward physical education can be reliably demonstrated and measured via the student and parent questionnaire.

4. Parents and students are important sources of information in assisting educational decision-making.

5. A relationship exists between student attitudes toward physical education and their reaction to physical education programs.

6. Student interest in physical education will be greater if the program reflects their needs and interests.

Attitude Formation in Physical Education

Student attitude is the result of complex interaction of numerous factors. Aspects of cultural, societal, and school contexts were found the major influences of student attitudes toward physical education (Carlson, 1994). The three most pertinent categories identified within the cultural context were gender, idolizing of elite sport people, and a compartmentalization of the body and mind. The cultural context affects both the societal and school contexts. Within the societal context, self-esteem has been identified as the most influential element. Other factors within the societal context include mass media, family, perceptions of fitness, sport success/skill, peers, and

Chapter 2

Review of Literature

This chapter is divided into three sections. The first section provides an overview of the complexity of student attitude formation toward physical education, based on the research of Carlson (1994). The second section reviews current research on student attitude toward physical education to reveal what is known about student attitudes in physical education. Both public and parent attitudes toward physical education are reviewed in the final section.

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previous physical education experience. The four major factors within the current school context are the personality and behaviors of the physical education teachers, the curriculum, the status of physical education, and the environment in the gymnasium. The teachers were a pivotal factor. Teachers designed and implemented the curriculum, had some effect on the way physical education was viewed by the rest of the school faculty, and had a strong influence on the class climate. Attitude formation is apparently very complex and it was beyond the scope of this study to investigate all the factors identified by Carlson (1994). This study will focus primarily on the school context, specifically, the curriculum and the status of physical education.

Research on Student Attitudes Toward Physical Education

Only recently have researchers identified the major determinants within the school context that are responsible for student attitude formation in physical education. Figley (1985), Luke and Sinclair (1991), and Rice (1988) all reported that the curriculum and the teacher were the most significant determinants of both positive and negative attitudes toward physical education. It is therefore necessary, as recommended by Luke and Sinclair (1991), that physical education programs be examined with a special emphasis to identify and change aspects identified as negative and build on the positive.

Few standardized instruments measuring attitude toward physical education exist as most researchers have constructed their own instruments due to the uniqueness of the particular situation and the specific research question being addressed. Wear (1951) was one of the first researchers to develop an instrument that was specifically designed for physical education that permitted a valid and reliable measure of students' attitude. Wear's instrument presented statements, relating to the outcomes of physical education, to subjects in the manner described by Likert (1932). The subjects, 494 college men, were asked to respond to a series of statements by selecting one of five choices: strongly agree, agree, undecided, disagree, or strongly disagree. A list of 289 statements was developed and tested intensively; resulting in 120 selected for the Wear Attitude Inventory. The inventory was further reduced to a list of 21 positive statements and 19 negative statements for a total of 40 items known as the Wear Short Form. The split-halves' reliability of the 40 items on the Short Form was 0.94 for 272 cases. Wear (1951) concluded, "through response to relatively small number of statements related to the outcomes sought by means of physical education activities it is possible to secure a reliable and valid evaluation of attitude toward physical education" (p. 123). Wear (1955) went on to develop his Attitude Inventory into two forms containing 30 statements each and referred to

as Form A and Form B. Both were shown to be statistically reliable with a reliability of .94 and .96 respectively. In each of the two forms, the thirty statements were divided into four categories: physical, emotional, social, and general.

The Wear Attitude Inventory was later used by other researchers including Keogh (1962), Campbell (1968), Williams and Nelson (1983), and Poitras (1984). Keogh (1962) used the Wear Form A Inventory to study 136 college men and 130 college women to determine whether gender differences in attitude toward the general benefits of physical education existed. Results of this study found that men and women were not different in their stated attitude toward physical education with both genders endorsing the social, physical, and emotional values of physical education. Subjects, however, were in conflict on five of the ten general category statements concerned primarily with the relative value of the school physical education program. Many subjects felt that physical education was not important in the school program and would take physical education only if required. Women were more positive than men in their statements regarding the importance of physical education, but they indicated that they would be less likely to participate unless required. Campbell (1968) used the Wear Short Form A with 199 college males to determine if attitude could be

predicted by the size of high school attended, the area of academic interest, or the preference of physical activities. No significant variations in attitude scores toward physical education were found among the three subgroups. He found a significant difference in attitude scores between the responses and the four categories (physical, emotional, social, and general) of items on the inventory. A more favorable response from all three subgroups (size of high school, area of academic interest, and preference of physical activity) toward physical and social development was reported. He concluded that the Wear physical education attitude inventory is a reliable and valid means for determining attitudes toward physical education.

Williams and Nelson (1983) used the Wear inventory to investigate the attitudes of 814 New Zealand high school boys and girls toward physical education with particular reference to comparisons involving age, gender, and school type (all-girls and co-educational). Attitudes were generally favorable for both boys and girls. Although, the younger (3rd Form) high school students in the co-educational schools had more positive attitudes than the older (5th Form) high school students. There was no difference in attitude between the age groups in the all-girls school. The researchers suggested that this finding may be attributed to differences in the physical education curriculum. The Wear inventory was designed to provide an

overall average of attitude toward physical education and the relative importance of the four categories identified.

Poitras (1984) also used the Wear inventory with a sample size of 3600, consisting of students, parents, and teachers in New Brunswick. He found no significant attitudinal difference toward physical education existed between French-Canadians and English-Canadians; all groups were favorable to physical education. Poitras recommended that future research be conducted to determine if the physical education curriculum affects the attitudes of the people. Later research by Carlson (1994), Figley (1985), Luke and Sinclair (1991), and Rice (1988) all identified curriculum as a major determinant of student attitude toward physical education.

Kenyon (1968) developed two forms (college men and college women) for assessing attitude toward physical activity. It was based on the assumption that physical activity could be reduced to more specific components based on the type of satisfaction derived from the activity. Six subdomains were identified: social, health and fitness, vertigo, aesthetic, catharsis, and ascetic. The six subdomains were represented by seven Likert-type attitude statements for each form, resulting in 42 statements per form. Both forms proved to be reliable and valid in assessing students' attitude except the dimension "catharsis". Because of its ability to characterize

physical activity, this scale was used extensively for many years.

Zaichkowsky (1975) used Kenyon's Attitude Toward Physical Activity Inventory (ATPAI) at the college level between two different curriculums to determine the difference in attitude toward physical activity after participation in a required physical education program. He reported significant statistical differences in responses of men and women. He inferred that men and women were different in the way they perceived physical activity and that the type of program in which one participated may affect one's behavior toward physical activity.

It was through extensive modification and revision of Kenyon's Inventory by several researchers that resulted in the Children's Attitudes Toward Physical Activity Inventory (Schutz, Smoll, Carre, & Mosher; 1985) known as CATPA-- Revised. The revised inventory inquired into the subdomains of social growth, social continuation, health and fitness, vertigo, aesthetic, catharsis, and ascetic. Each subdomain was represented by one statement and was then scored using five bipolar adjective pairs (e.g., good-bad) on a five-point scale. The CATPA was recommended for use with boys and girls at the grade four level through high school, especially for the detection of abnormally low attitudes toward physical activity related to each of the subdomains. It was also useful in identifying why students value

participation in physical activity. The British Columbia Physical Education Assessment team (Carre et al., 1980) used the original CATPA inventory. They reported that all grades (3, 7, 11) most valued social interaction and health and fitness benefits as a result of physical activity. Edgington (1968) successfully developed a valid and reliable scale to measure the attitude of high school boys toward physical education. Four general outcomes of physical education were identified: physical, motor, mental, and human relations development. The inventory contained 117 statements for its first administration with subjects responding to a modified 6-point Likert style scale; the neutral choice was eliminated. The final instrument had a reliability of .92 and consisted of 66-items of which 32 were positive and 34 were negative statements about physical education. Edgington did not report the actual attitudes of his sample. (1990), Earl and Stennett (1987), Hurst (1986).

The Edgington scale was recently used in a study by Stewart, Green, and Huelskamp (1991) to investigate the general attitudes of junior and senior high students toward physical education. The study involved 2,150 junior and senior high students (51% female, 49% male) in four suburban schools within one school district. An analysis of data revealed that overall, all groups were favorably disposed toward physical education. Students felt fitness, skill, and social domains were the important aspects of the

physical education curriculum. Item analysis revealed that 51% of the subjects either strongly agreed or agreed that physical education was as important as other subjects. Further analysis by grade level indicated a more favorable position by senior high students than junior high students (58% and 44% respectively agreeing). Eighty-two percent of the students felt physical education should be part of the curriculum and 56% of the students favored grades being assigned. When asked whether written tests should be given in physical education, 84% of the students agreed. To gain a more thorough understanding of student attitude toward physical education, it was apparent researchers must look beyond assessment of overall attitude and investigate specific aspects.

In order to further examine student attitudes toward physical education, many researchers, such as Butcher (1982), Cope (1990), Earl and Stennett (1987), Hurst (1986), Soudan and Everett (1981), and Tannehill and Zakrajsek (1993) developed their own research instruments. Soudan and Everett (1987) formulated a questionnaire to determine which physical education objectives students perceived as most important and least important. They also investigated whether differences existed between genders, among the classes (e.g., freshmen, sophomores, juniors), among faculties of study, and between undergraduate and graduate students. The study involved 909 students at Florida State

University, representing five percent of the population available. The questionnaire contained a list of 24 of the most important physical education objectives. Students responded to each statement on a five-point scale relative to the importance of attaining each objective. Mean scores were calculated for each item and the top two objectives for males and females were "keeping in good health and physical condition" and "getting regular exercise" (p. 16). Males expressed "having fun" and "improving self-confidence" (p. 16) as the third and fourth most important objectives. Females also selected these two objectives as priorities, but in reverse order. The objectives deemed least important by males and females were "achieving success", "developing leadership", "developing skill in various sports", "understanding the principles of movement and effects of exercise", and "providing vocational preparation" (p. 16). Factor analysis revealed that social development and organic development were the two significant areas of objectives. Significant differences were noted among classes, between gender, and between undergraduates and graduates in the importance of the items in social and organic development.

Avery and Lumpkin (1987) replicated Soudan and Everett's study with 2,559 students at the University of North Carolina at Chapel Hill. "Having fun", "getting regular exercise", and "keeping in good health and physical condition" (p. 5) were identified as the most important

objectives of physical education, reaffirming the findings of Soudan and Everett. Results of a factor analysis revealed that the 24 objectives loaded on four factors: self-worth, physiological parameters, social affiliation, and lifetime use; accounting for 60.6% of the total variance. ANOVAs on each factor revealed significant effects ($p < .05$) for class and gender. Males valued the physiological parameters more than did females and younger students rated the social affiliation objectives more highly than did seniors and graduate students. Avery and Lumpkin concluded by stating, "we must continually assess students' perceptions of physical education objectives. A willingness to adapt may not only rescue programs viewed as irrelevant by many students, but may also increase enrolment in elective programs" (p. 11).

The election or non-election of physical education once it becomes optional was a major focus in studies by Brown (1992), Earl and Stennett (1987), Macintosh (1979), and Sparks and Webb (1991). Earl and Stennett (1987) prepared two questionnaires, one for students who were currently taking physical and health education ($N=1162$) and one for students who were not taking physical and health education ($N=645$) within the London, Ontario school system. Students presently taking physical education were asked to rate the importance of various reasons for their decision to take physical education. In addition, students not taking

physical education were asked to rate the importance of various reasons for not taking physical education. The top five reasons for taking physical and health education and the percent of students responding 'important' were: they liked the activity (97%), they liked sports (96%), it helped keep them fit (94%), they found the classes fun (94%) and they learnt new skills (94%). The relative importance of the reasons for taking physical and health education was very similar for boys and girls. Statistically significant ($p < .05$) differences existed by grade in the importance attached to some reasons for taking physical and health education especially for the grade 13 students. Fewer grade 13 students were taking physical and health education to keep fit, to get an arts credit, as a break from other classes, for access to school teams or for parents. More were taking it to major in physical education after high school. The top five reasons for not taking physical and health education and the percent of students responding "important" were: other subjects are more important (84%), dislike of some parts of the program (64%), difficulty fitting it into my timetable (63%), getting enough exercise outside of school (58%), and dislike getting sweaty and then having to go to another class (56%). Results were similar for boys and girls; although there, were some gender differences. Girls cited the following more often than boys: other subjects were more important,

A significant decline in Year 12 girls taking physical education provided the impetus for a study by Brown (1992) in Western Australia to ascertain the reasons for the selection or nonselection of physical education. Data was gathered utilizing a modification of the questionnaire used by Earl and Stennett (1987) in Canada. Reliability of the modified questionnaire was calculated by test-retest, and coefficients of correlation ranged between .638 and .918. An equivalent number (N=103) of girls taking and not taking physical education within 26 schools were surveyed. The major reasons girls gave for selecting physical education were that they liked physical activity (99%), classes were fun (95%), provided a break from the classroom (94%), helped to keep them fit (93%), enjoyed learning new skills (91%), liked the sports offered (86%), perceived themselves as good at physical education (83%), and enjoyed the coeducational approach (74%). The major reasons given by the girls for not taking physical education were that other subjects were more important to career plans (95%), could not fit physical education into the timetable (57%), obtained enough exercise out of school (40%), felt there was too much competition in physical education classes (29%), did not like the theoretical component (26%) and thought that taking physical education would lower their average mark (24%). Overall, the results of this study indicated that the reasons for selection or nonselection of elective physical education

were similar to responses obtained by Earl and Stennett (1987). A final comment by Brown, states that physical education teachers in secondary schools are largely responsible for encouraging girls to reap the benefits of exercise and ensure they understand its relevance for a healthy lifestyle.

A decline in grade 12 students electing physical education prompted another study in Australia by Sparks and Webb (1991). The purpose of the research was to survey student attitude toward physical education and the potential of physical education in the senior curriculum. The study region contained 21 high schools of which six did not offer a physical education course for Year 12 students. Only 12.8% of Year 12 students within the region participated in physical education. The survey was administered to 358 Year 12 students from four high schools that provided insight on their attitude toward physical education, academic commitments, stress, leisure time, and preferred activities. Of significant interest should be the student response on the structure of a physical education course. Almost 80% of the students said the course should provide theory-based work such as sports medicine, first aid and anatomy, while only 26% of students said the practical component should concentrate on team games. This was consistent with the activities students reported that they participated in outside school hours; only two of the ten usual exercise

pursuits involved team activities. With 59% of the students indicating they would like to take physical education it might be inferred that the current programs, where offered, did not appeal to a large percentage of the students.

Macintosh (1979) also explored factors influencing the election of secondary school physical education in Eastern Ontario using a sample of grade 8 and 11 students. Data were gathered specifically to determine the characteristics of students who elected and students who did not elect physical education. Comparisons were made to determine the influencing factors for the selection of physical education. Data were gathered using a questionnaire survey. Marked differences in attitude and characteristics were reported between selectors and nonselectors, especially at the grade 8 level. Of special interest are the factors related to the school context. In contrast to selectors, nonselectors expressed less positive attitudes toward physical activity and physical education, placed lower values on the outcomes of physical education programs, and reported less satisfaction with various aspects of physical education programs. Aspects identified included the grading systems, level of competition, and discomfort experienced in the physical education program. In conclusion, Macintosh (1979) stated, "a major reason for not taking physical education in grade 9 was that nonselectors did not wish to expose themselves to an environment in which their perceived

physical incompetencies were exposed and compared to those of more skillful peers" (p. 40). Recommendations were made to adapt existing physical education programs by offering sections that were less competitive and did not include student comparisons in more recreative physical activities. A follow-up study by Macintosh and Albinson (1982) using the grade 8 students from 1979 in their grade 11 year reaffirmed the need for an alternate grade 9 program with a strong emphasis on the individual.

Other approaches used to elicit student perceptions of physical education included the investigation of student satisfaction (Butcher, 1982), student expectations (O'Reilly, 1988), and student preferences (Green, 1990; Hurst, 1986; Zacour & Ducharme, 1986-87). Butcher surveyed 661 girls (grades 6 to 10 inclusive) within the Edmonton Catholic School system to measure student satisfaction with specific aspects of physical education programs. The inventory consisted of 19 items which students responded to using a five-point Likert scale and three open-ended questions regarding the physical education program in which the subjects were enrolled. Open-ended questions were "(1) What do you think is the most important reason for having physical education? (2) What do you like most about physical education? (3) What do you like least about physical education?" (p. 12). In addition, a single item asked them how satisfied they were with their physical education

program with the results indicating the majority of the sample (83%) were satisfied or extremely satisfied. The average score, however, on the 19-item physical education satisfaction inventory showed a significant ($p < .05$) decline in overall satisfaction from Grade 6 to Grade 10. Item analysis revealed that the total sample was most satisfied with the amount of enjoyment and fun, with the opportunity actually to play the sports learned, and with the facilities available. The girls were most dissatisfied with the changing facilities, with dressing and undressing for class, and with the uniform required for class. The open-ended questions yielded some interesting and informative responses. Factors liked least about physical education were quite varied, although 48% of the responses can be categorized as a curriculum item. Items of dislike included specific sports, fitness, warm up, written exams, and co-ed classes. In contrast, factors liked most about physical education were fun and enjoyment. Students overwhelming (66%) identified fitness and health-related reasons as the most important reason for having physical education. These included, "to be fit, to get in good shape, to be healthy, and to make me feel better" (p. 12). The subjects realized the importance of fitness but did not like what they were required to do to attain it. Butcher makes several recommendations for program improvement including: fitness activities need to be more enjoyable, increased cognitive

awareness of basic fitness principles, increased flexibility regarding uniform requirements, and increased student choice and variety of activities offered.

Hurst (1986) investigated student attitudes toward organizational aspects of physical education programs. Data were collected using a 38-item questionnaire to guide a 45 to 60-minute taped interview with each student and the researcher. Sixty grade 9 students (30 boys, 30 girls) representing high, medium, and low achievers in physical education were randomly selected from eight schools in Victoria. Analysis of data using chi-square revealed significant differences ($p < .05$) between low, medium, and high achievers, and between genders. Aspects of particular interest identified were: males reported they felt they were under-challenged; only 10 of the 60 subjects thought individualization occurred; 99% of the students felt that students should be involved in the development of physical education policies, program content, and class organization; and the majority of the students felt that the organization of the physical education program could be improved by increasing student involvement. The need for separate classes for different abilities was considered unnecessary. From this study by Hurst (1986), students apparently want to be more involved in the decision making process within the physical education programs and their needs will be best met by individualizing instruction.

(N=3) A study to determine students' expectations about activities in physical education by O'Reilly (1988) does not provide any significant revelations. As student expectations were based on what students had heard about various programs from their friends and family or because they expected activities to be the same as in elementary school. It raises an important issue about how compliant students have become to the limited scope of physical education programs. For example, 48% of the grade 10 girls (N=67) and 49% of the grade 10 boys (N=78) expected physical education for grade 10 to be the same as in junior high. The need to broaden the scope and definition of physical education by adopting and promoting the Active Living philosophy as proposed in the document "Physical Education 2000" (CAHPER, 1992-93), was very apparent.

Surveys of high school students (Green, 1990; Tannehill & Zakrajsek, 1993; Zacour & Ducharme, 1986-87) to reveal student preferences within physical education programs indicated the need for diversity to meet the diverse preferences expressed by the students. As stated by Dahlgren (1988) in a national report on young females and physical activity; "the problem, is not in the activities that are offered, but rather in the activities that are not offered. There is simply not a sufficient range of activities to accommodate the activity interests of all females" (p. 16). Zacour and Ducharme's survey of grade 9

(N=310) and grade 10 (N=306) students within the Ottawa Board of Education asked students their preference of selected activities. Analysis of data pertaining to student preferences for specific activities concluded that males and females do not have the same attitudes or preferences toward most of the suggested physical activities. The only individual activity preferred by both boys and girls was badminton. As for team sports the diversity was great, however, boys tended to prefer most team sports and the girls were more selective with volleyball, basketball, and touch football being preferred. Dance, especially jazz and aerobic, was preferred by girls but very minimally by the boys. Zacour and Ducharme also asked the students if they would prefer a traditional, module, or focus physical education course. The results indicated that 48-60% of boys and girls continuing in physical education preferred the traditional course. Only 13-33% of students not continuing in physical education preferred the traditional course and expressed greater interest in the module or focus course. In addition, 56% of the students were willing to take an early morning (8:00 a.m.) physical education course to overcome timetabling conflicts. It is imperative that physical educators look beyond what physical education currently is and explore the real potential of physical education by adopting innovation to meet the challenge of the future.

Green's (1990) cross Canada survey of high school students (N=1048) asked students which activities they recommend be added to their physical education program. The responses were very diverse with the following recommendations reported: individual/dual sports (31%), team sports (27%), aquatic activities (13%), outdoor activities (6%), and dance (2%). Unfortunately, data analysis by gender or geographical location was not provided. Again, lack of time in the timetable was identified by 54% of the students as a major reason for not taking physical education. Other reasons included, already completed required credits (56%), did not enjoy activities (19%), and lack of variety (13%). Changes to current programs are necessary if educators are to address the needs of the students represented by the figures of 54%, 19%, and 13%.

Tannehill and Zakrajsek (1993) reported middle school students (N=64) and high school students (N=151) from different ethnic groups believed that physical education was important and fun, and that it should improve their fitness levels. A few differences by gender, ethnic group, and school level were reported. Most of the negative experiences students reported related to fitness (74%) and injuries (49%). Positive experiences within physical education were related to winning, success, performing well, teamwork, and having fun. In conclusion, Tannehill and Zakrajsek (1993) stressed the need to be sensitive to

individual and group differences and that this knowledge is critical in meeting student needs within the physical education setting.

Rice (1988) developed her own questionnaire and surveyed 602 high school students on their attitude toward physical education activities, teachers, and personal health. The results indicated that team sports was preferred to individual sports by 73% of the females and 78% of the males. Specific team sports preferred by the females, in order of preference were softball, basketball, and volleyball. Females listed swimming, roller skating, and bike riding as their favorite individual sports. Specific team sports preferred by the males, in order of preference were football, basketball, and baseball. Males listed bike riding, swimming, and table tennis as their favorite individual sports. These findings reaffirm the need for variety within the physical education program with 81% of the students identifying "variety of activities" as the item most enjoyed in physical education. The study revealed positive responses by the students toward their physical education classes and teachers. Rice (1988) reported that 85% of all students enjoyed their physical education classes and 73% of all students considered their physical education teachers as good role models. Although Rice admits that the study was not without possible errors due to the nature of self-report questionnaires, she saw

student questionnaires as an important source for assessing student needs and evaluating school programs. Researchers, Figley (1985) and Luke and Sinclair (1991) collected data utilizing the critical incident report form (Flanagan, 1954). It is an open-ended instrument that allows students to comment freely on selected events or situations from their physical education classes. Figley questioned first year college students (N=100) and Luke and Sinclair questioned grade 11 high school students (N=488) to identify what aspects or determinants' students report as turning them on to or turning them off from physical education. The specific statements used in the Luke and Sinclair study were: "(1) Please tell us about the event or events that you have experienced in the past, from kindergarten to grade 10 that have caused you to like physical education. (2) Please tell us about the event or events that you have experienced in the past from kindergarten to grade 10 that have caused you to dislike physical education" (p. 34). Through self-reflection the students recalled both positive and negative events from their K-12 or K-10 physical education classes. Student comments were analyzed, resulting in six major categories or determinants of student attitude being identified in each study. Five of the six categories were the same for both studies and included: curriculum, teacher, atmosphere, self-perception, and other. The sixth category identified by

Figley (1985) was peer behavior and facilities for Luke and Sinclair (1991). Curriculum and teacher behavior were the two most influential major determinants of both positive and negative attitudes in both studies accounting for approximately 70% of all the incidents reported.

Minor determinants of positive attitudes within the curriculum category reported by Figley (1985) included: specific content (56.4%), elective classes (20.5%), cooperation/competition (7.6%), grades (5.1%), organizational patterns (5.1%) and equipment (2.5%). Further analysis identified the curriculum characteristics of variety and choice as contributing to a positive attitude, "both of which are within the physical educator's control" (p. 234). Minor determinants of negative attitudes within the category curriculum reported by Figley included: specific content (49.1%), coed/sex-segregated (14.8%), conflict of goals/expectations (8.2%), grading (6.6%), uniforms (6.6%), competition/cooperation (4.9%), organizational patterns (4.9%), and showers (3.3%). Specific content did not pertain to specific activity but rather a description of activities that appeared to be irrelevant, repetitive, formal, and shallow.

In the study by Luke and Sinclair (1991), the minor determinants of the curriculum category were more activity specific. Minor curriculum determinants of positive attitudes in rank order included team games, individual/dual

activities, sport/games, and knowledge. Minor curriculum determinants of negative attitudes related primarily to fitness development, with running and long runs ranking, one and two respectively and fitness tests ranking fourth. The dislike of fitness activities was supported by Butcher (1982) and Zacour and Ducharme (1986-87) which strongly suggests that teachers need to find new approaches to present fitness activities that are more enjoyable to the students. The identification of curriculum as the most crucial determinant of positive and negative attitudes for males and females should bring physical educators to action as they have considerable choice over the curricular content of their physical education programs. By identifying and changing aspects of the curriculum resulting in negative attitudes and building on aspects that contribute to positive attitudes, physical educators can play a vital role in the process of attitude change (Luke & Sinclair, 1991).

As stated earlier, the teacher is very influential in the formation of attitude and ranked consistently second in the Luke and Sinclair study (1991) and second in the formation of negative attitudes in the Figley study (1985). Some minor determinants of teacher behavior that contributed to negative attitudes included: method of evaluation and lack of student decision-making (Luke and Sinclair, 1991) and lack of reinforcement and personal qualities (Figley, 1985). Luke and Sinclair (1991) stated that teachers

"should be aware of those factors that influence positive and negative attitudes between males and females in order that these factors be emphasized or eliminated in their teaching" (p. 42).

Carlson (1994) also investigated the factors that contribute to attitude formation toward physical education with grade 8 and 9 students (N=36) from two schools. Data were collected using numerous methods: initial survey, group interviews, journals, observing and videotaping physical education classes, teacher interviews, and stimulated recall. Subjects were categorized as having a positive, neutral, or negative attitude based on information obtained from the initial survey (N=150), observation of classes, and subjective ratings by their physical education teachers. Results of this in-depth study provided some insightful information from the viewpoint of the student. The majority of the students did not perceive physical education as a "real subject" (p. 211). Thus, they did not hold physical educators accountable for teaching. Physical education was viewed as an opportunity to "play not learn" (p. 210). Only two out of the 36 participants valued physical education and believed they were provided with appropriate challenges and goals. Students did not expect teachers to know their subject as well as other classroom teachers knew their subject matter. Data analysis identified the major influences of student attitudes toward physical education

were the aspects of cultural, societal, and school contexts. These aspects have been described previously at the beginning of this chapter. Of particular interest was that of the school context. Determinants identified within the school context were the curriculum, the environment in the gymnasium, which includes the influence of peers, the teachers' behaviors and personality, and the status of physical education within the school. Teachers were considered the single most important factor within the school context especially since teachers also have a great degree of control over the curriculum. Carlson (1994) concluded that breaking the cycle of expectations and attitudes toward physical education is essential and this would require careful thought and major changes in teachers' and students' expectations and beliefs. She goes on to state further, "resistance would be substantial because established practices allow both students and teachers to satisfactorily co-exist, with minimal behavioral problems (a teacher priority) and minimal effort (often a student priority)" (p. 219). In support of Carlson, and in reference to the crisis in Australian secondary school physical education, Tinning and Fitzclarence (1992) argued that the change "requires more than providing entertaining classes or better teaching: It requires a rethinking of the nature of school physical education" (p. 287). It is ironic that adolescents are bored with school physical education

yet they see physical activity as significant to their lifestyles outside the school context. The development of a curriculum that is relevant and engaging for youth is critical (Tinning & Fitzclarence, 1992).

Specific examination of student attitudes toward teacher behavior and program content provided the focus in a study by Cope (1992). Students (N=386) from three grade levels (3, 7, 11) in the Delta School District were represented in the study. Cope constructed his own 30 statement questionnaire with items pertaining to teacher behavior and program content. Reliability of the survey was determined using a Lertap 2.0 test which produced a Hoyt estimate of .86. Validity was established by consulting with experts and by conducting two pilot surveys. Data were analyzed by grade, gender, and students who liked or disliked their physical education classes. Results indicated that a positive attitude existed toward teacher behavior and program content by males and females in each grade. A significant difference in student attitudes toward teacher behavior and program content between the grades was reported, with the grade 3's being most positive and the grade 7's being least positive. Of interest were the gender differences reported at the grade 10 level. Grade 10 girls expressed less favorable attitudes toward the following items: (1) appropriate time given to practice the skills taught (2) teacher as a good role-model and (3) teacher

understanding of those less skilled at sports. Cope recommended future research focus on either teacher behavior or program content to obtain more information on that area. He also stated, "measuring student attitudes can play a useful role in program development and delivery" (p. 169).

This review of student attitudes toward physical education indicates a considerable interest and recognition of the value which has been placed on student attitudes and continues to thrive.

Research on Public and Parent Attitudes Toward Physical Education

Reviewing the literature on public attitude toward physical education is necessary as the sample populations include at least some unknown percentage of parents. An understanding of public attitudes can provide, to a limited extent, some understanding about the attitudes of parents toward physical education.

A recent Gallup (1989) poll interviewed 1047 adults in their homes across Canada to determine Canadians' attitude toward the importance of physical education in Canadian schools. A summary of results revealed that physical education was perceived as important. However, there was much doubt about the adequacy of physical education that students received in school. Ninety-four percent of the adults surveyed believed physical education in schools was important and 52% stated that physical education was either

as important or more important than academic subjects. Exact figures on Canadians' perceptions about the adequacy of physical education were reported inconsistently. Figures on the graphic representation indicated that 22% felt that the physical education students received in school was inadequate; whereas the text stated "fully 29%" (p. 1) of Canadians felt that the physical education that students received in school was inadequate. The graphic representation also indicated that 21% of the population did not know whether physical education was adequate or inadequate. This final figure which indicated a lack of understanding was not surprising as physical education has been referred to as the "least understood" and the "most misunderstood subject" in the school curriculum (Martens, 1990, p. 172). Inadequacies must be addressed by ensuring that quality programs and teaching exist and that they are promoted and interpreted through an effective public relations program.

An American Gallup (1988) poll of public opinion toward public education revealed a distinct Canadian-American contrast in opinions toward physical education. The survey sample included 1,594 adults who were interviewed within their homes. Physical education appeared in the results only twice, once under the heading of required core courses and again under the heading of subjects that should be emphasized in schools. Participants were asked to indicate

which subjects they would require of every public high school student who plans to go on to college. Physical education ranked eleventh out of a possible fourteen subjects. Only 40% of the participants said they would require any physical education for those students planning to go to college.

Snyder and Spreitzer (1983) conducted a large sport sociology study and utilized data from part of that study to prepare a report entitled, "Adult perceptions of physical education in the schools and community sport programs for youth" (Snyder & Spreitzer, 1983, p. 88). The researchers mailed a questionnaire to three groups of people: 10 kilometer road-runners (N=321), racquetball tournament players (N=202), and randomly selected members of the general population (N=120) in Toledo, Ohio. The results indicated that all three groups of adults tended to be somewhat critical of physical education programs they had experienced in schools. In fact, 55% of the runners, 51% of the general population, and 44% of the racquetball players reported that their school physical education programs had not stimulated them to be physically active adults.

A later study (Loper, Schheer, Ansorge, Bahls, & Wandzilak, 1989) produced quite a different conclusion after surveying three groups of adults to get their perceptions of physical education programs in Nebraska. The three groups were the general public, health professionals, and education

leaders, resulting in a sample size of 722. The results revealed strong support by all groups for a physical education curriculum that emphasized health outcomes rather than sport outcomes. This clear support for fitness as a significant outcome of physical education classes reaffirms the earlier findings of Gillam (1986).

The reduction of physical education requirements in Alabama provided the impetus for Gillam's (1986) study of public attitudes toward physical education. Numerous questions were investigated including the following. "Is there really a need for physical education in the education curriculum? Will physical education be useful to children in their lifetime? Is the physical educator properly trained or not doing the job? Is program content inappropriate (Gillam, 1986, p. 57)?" To answer these questions, Gillam developed a 16-item telephone questionnaire used to gather data from a sample of 532 people obtained through random digit dialing. Public attitudes toward physical education were very positive with more than 93% indicating that physical education was important and was relevant for later life. The majority of the respondents awarded the physical educator an A or B; yet only 47% agreed or strongly agreed that physical education teachers are adequately prepared to meet the demands of their job. This suggests the need for educators to become involved in professional development on a regular basis.

In answer to Gillam's question regarding program content, the respondents overwhelmingly expressed that physical fitness should be the primary concern of the physical education program. Ninety-nine percent of 260 parents in the survey believed teaching their children how and why to exercise should be emphasized within the physical education program. Lifetime individual sports ranked second and team sports third. In addition, 38% of the respondents indicated that their experiences in school physical education programs did not stimulate them to be active adults. This figure was slightly more favorable than reported earlier by Snyder & Spreitzer (1983).

As noted by Sheehy (1993), all of the studies dealing with attitude toward physical education in general, do not tap responses related specifically to parental roles, specific schools, programs, or teachers. She states, "this ambiguity invites responses based primarily upon personal experiences because no other set of role functions are specified" (p. 29). Unless respondents are asked to assume a particular role when responding to the questions it is difficult for the researcher to know which orientation the person is responding. In the following studies, the participants were asked to respond as parents.

Parents were surveyed as part of an extensive British Columbia physical education assessment (Carre et al., 1980) conducted in the spring of 1979. Parents (N=1600) with

students in grade 3, 7, and 11 completed the questionnaire which dealt with aspects such as physical education goals, content, importance of physical education, evaluation of student performance, and organizational aspects. The parents were instructed to answer the questions as they reflected on their child's physical education program which included only the regular physical education class. This excluded activities or sports that occurred at recess, lunch time, or after school. The results of this survey indicated that 70 to 77% of the parents felt that physical education was equal in importance to other subjects. Regarding the goals of physical education, parents expressed a desire that they "wanted it all" for their child; this included fitness, interpersonal skills, attitude development, self-esteem, understanding of the body, and skill development. The parents felt that effort and attendance should count the most for students' report card in physical education. The questionnaire assumed that parents had sufficient knowledge to make an accurate decision for each question as parents were not provided with choices such as don't know or undecided. Generally, parents have limited accurate information about the educational system (Fullan, 1991).

Poitras (1984) surveyed French-speaking and English-speaking parents, students, and teachers within the province of New Brunswick to analyze their attitudes toward physical education. A sample size of 3600 subjects representing 48

junior and senior high schools was surveyed using the Wear Inventory (1951). The Wear Inventory was developed to measure attitudes of college men enrolled in physical education activity courses. Instructions on the Wear Inventory state, "Wherever possible, let your own personal experience determine your answer" (p. 124). This could have been problematic, as Poitras indicated that many parents had not been exposed to physical education. Knowing what orientation the parents assumed in answering the questions is difficult. Despite the lack of experience in physical education, parents held positive attitudes toward physical education; similar to those held by teachers and students.

A later study by Stewart and Green (1987) to determine the attitudes of parents toward physical education also utilized a standardized questionnaire developed by Edgington (1968). The Edgington scale was originally developed to measure the attitudes of high school freshmen boys toward physical education. Stewart and Green (1987) did not indicate from which orientation the parents were asked to respond to the items on the questionnaire, therefore, it was unknown if parents were thinking of their child's current physical education program, their own physical education classes as children, or physical education in general. In addition, the neutral choice on the Likert scale was eliminated, assuming parents had sufficient information to make a valid response. A total of 505 parents within the

Midwest area of the United States responded to the questionnaire providing a cross-sectional sampling of parents whose children attended K-12 schools. Analysis of the data showed that parents were favorable toward physical with an average score of 3.2. The maximum score for an extremely favorable attitude was four. Parents particularly valued fitness, skill acquisition, and the social benefits of the curriculum over cognitive and affective areas. Specific results indicated, 82% of the parents felt physical education should be a part of the total education of students. Ninety-four percent of the parents felt it was of value and should be retained although 65% felt that physical education was not as valuable as other subjects. Eighty-seven percent of the parents felt that physical education should be a required school subject. In conclusion, the authors encouraged others within the educational profession to assess their program, to determine the degree of support and to collect information to assist in making curricular decisions (Stewart & Green, 1987).

The study by Stewart and Green (1987) was replicated by Pritchard (1988) to examine the perceived physical education needs of parents, students, and teachers in England's secondary schools. Ten secondary schools were represented in the study with a total of 269 parents, 277 students, and 296 teachers completing the Edgington Attitude Scale. The results indicated that all three groups valued physical

education for the improvement of personal health and fitness and the development of social skills. Specific results indicated that 80% of the sample strongly agreed that physical education should always be included in the curriculum. Parents valued moral and social development through physical education, whereas, students valued personal achievement and enjoyment in physical activity. In a direct comparison of United States and England, Pritchard (1988) concluded that parents in both countries consider physical education as an important subject in the school curriculum.

Tannehill et al. (1994) surveyed parents and students as part of an extensive high school physical education study in Ohio. Two separate questionnaires were constructed using items from previous studies. Questionnaires were completed by 314 grade 10 and 11 students and 139 parent questionnaires were returned. Parental support of physical education as a requirement was not strong: 69% for grade 9, 63% for grade 10, 46% for grade 11, and 37% for grade 12. Fifty-one percent of the parents indicated that physical education is important to their son's or daughter's total education. Physical education, however, did not rank as important when compared with other subject matter taught in schools. Eighty-one percent of the parents were pleased with the existing program and 63% indicated that they were aware of what their child was learning in physical

education. The results indicated that minimal direct communication existed between physical education teachers and parents. In response to an open question regarding the major purpose of physical education, 44% of the parents valued the promotion of health and fitness as most important. Twenty percent indicated that developing teamwork, cooperation, and improved self-image were most important, only 14% valued learning new sport skills as the major purpose of physical education. Of interest was the number of nonrespondents to the open-ended questions; 39% of the parents chose not to identify a program strength, 41% failed to identify a program weakness, and 28% did not indicate the major contribution of physical education. As stated by the researchers (Tannehill et al., 1994), "it is impossible to judge whether these nonrespondents were parents who perceived no value in physical education, did not know what physical education does, or were indifferent toward the subject matter" (p. 420).

Sheehy (1993) investigated parental perceptions of fifth grade physical education at a single public school site. Data were collected by a parent background questionnaire; open-ended interviews with the parents (N=27) of the fifth grade student, the physical education teacher, nine classroom teachers, and the principal; and observations at the site. Results indicated that many parents possessed inaccurate information about the physical education program

and all parents drew on their own, often negative, focusing experiences of physical education classes when describing perceptions of their child's program. The study by Sheehy (1993) reaffirms the need for enhanced public relations and the need to involve parents in meaningful ways within the educational system. and no previous studies have investigated

A parent survey was conducted by the Calgary Board of Education in May 1994 to find out how parents felt about the education their children were receiving. One question asked parents how satisfied they were with how various subjects were taught. Physical education was listed as a subject and a publication (Calgary Herald, 1994) of the results indicated that 80% of the parents were satisfied with how physical education was taught. The printed results of the survey were misleading as the researchers took the liberty to assume that very satisfied and somewhat satisfied equaled satisfied. The survey sample (N=14,613) responded on a 5-point Likert scale but the results were published using only a 3-point scale.

In summary, this review of literature provides an overview of what has been accomplished in the assessment of students' and parents' attitude toward physical education. The value and importance of information that can be obtained through the assessment of student and parent attitudes have been stressed in many studies. This study attempts to further the research of others (Carlson, 1994; Cope, 1992;

Figley, 1985; Luke & Sinclair, 1991; Rice, 1988) by focusing on the factor identified within the school context as being most influential in student attitude formation in physical education, which was curriculum. The review of literature reveals a lack of research on parental attitudes toward physical education and no previous studies have investigated the attitudes of parents toward a particular high school physical education program. In addition, by assessing the perceptions and attitudes at a single high school site the information will be useful in determining the direction of future physical education programs and future public relation projects at Bowness High School.

The community of Bowness lies along the south bank of the Bow River Valley, directly below the bluffs of Silver Springs in Calgary, Alberta. James Hextall, an enterprising Englishman owned the lands that are now Bowness and had plans to develop it into an exclusive bedroom community. In 1911 he donated some land to the City, which now comprises Bowness Park, and a three span steel bridge, to provide access to the community. In exchange for these donations the City provided for the extension of street car service to Bowness. Population growth was slow and major community development did not occur until the 1940s, however it was not until 1964 that Bowness was annexed to the City of Calgary. City census in 1990 indicated a population of 12,626. The Bowness area entails a total of 376.9 acres of

Chapter 3

Methodology

This chapter contains the details of methodology used within this study. This includes a description of the research design, research questions, selection of subjects, instrumentation, data collection, and data analysis. To help the reader understand the context in which this study was conducted, a brief profile of the community, school, and physical education program is included below.

Bowness Community Profile

The community of Bowness lies along the south bank of the Bow River Valley, directly below the bluffs of Silver Springs in Calgary, Alberta. James Hextall, an enterprising Englishman owned the lands that are now Bowness and had plans to develop it into an exclusive bedroom community. In 1911 he donated some land to the City, which now comprises Bowness Park, and a three span steel bridge, to provide access to the community. In exchange for these donations the City provided for the extension of street car service to Bowness. Population growth was slow and major community development did not occur until the 1940s, however it was not until 1964 that Bowness was annexed to the City of Calgary. City census in 1990 indicated a population of 12,620. The Bowness area entails a total of 876.9 acres of

which the primary uses are residential (70%), recreational (10%) and institutional (10%) (City of Calgary, 1993).

Community facilities include: six schools, six childcare centres, eight churches, four senior facilities, library, scout and guide hall, sportsplex, and two ethnic clubs.

Bowness High School Profile

Bowness Senior High School was opened in 1953. It was upgraded in 1985 and is now a fully-equipped public school which provides a wide range of courses to a student population of approximately 1000, in grades 10 to 12. Students attending Bowness High are primarily from the communities of Arbour Lake, Bowness, Greenwood Village, Montgomery, Scenic Acres, and Silver Springs which are predominantly white suburban middle to upper middle class districts. Some of the unique facilities include: three computer labs, computer assisted drafting lab, technology equipped library, cosmetology lab, drama theatre, automotive shop, career centre, building construction shop, two large gymnasiums, fitness and weight-training facility, and sports medicine training room. A wide range of courses are offered at Bowness High by a teaching staff of approximately 50. The school has an active and supportive Parent Advisory Council as well as three business partnerships within the Calgary community.

The co-curricular program is diverse with activities such as debate team, drama productions, hair and art shows,

music concerts, model parliament, and athletics. School athletics are very popular and are well supported by both students and parents. Athletic teams at Bowness High include: boys football, boys and girls volleyball, boys and girls basketball, boys and girls badminton, girls field hockey, and boys rugby.

Physical Education Program Profile

Bowness High School provides physical education during grade 10 as a "core course" as required by Alberta Education as well as elective physical education for year 11 and 12. Three credits of Physical Education 10 are required for high school graduation, which equates to approximately 75 hours of course work. Bowness High School does not offer a three credit option for Physical Education 10 and all grade 10 students are enrolled into a five credit course. The P.E. 10 classes are segregated; boys only and girls only and are usually taught by a teacher of the same gender. The P.E. 10 course is semestered providing six classes (60 minutes each) of physical education each week for five months. Students are required to change into "Bowness" gym strip. The P.E. 10 program is activity-based, offering a variety of activities from the following major dimensions: team games, individual activities, combatives, dance, fitness, outdoor pursuits, and special activities. The areas emphasized and assessed within the program are: physical development (40%), social development (40%), and cognitive development (20%).

The P.E. 20/30 program is an elective program available to grade 11 and 12 students who have completed five credits in P.E. 10. It is offered in a three credit modular form. Each module is a half semester in length. Students choose from the following modules: team sports; sports medicine; fitness for life; racquet sports; golf, tennis and curling; power skating and non-contact hockey; target games; career opportunities in sport; and outdoor pursuits. All the modules are assessed a user fee with the exception of team sports and career opportunities. Completion of four modules is the equivalent of P.E. 20 and P.E. 30 for Alberta Education requirements. The physical education program is taught by three males and three females.

Research Design

Research was conducted through the descriptive method of self-report research utilizing the parent/guardian and student questionnaires. In this study, curriculum aspects of physical education were viewed as the independent variables as represented on the questionnaires. Students and their parents perceptions toward physical education were viewed as the dependent variable obtained from data response. Intervening variables such as skill level, fitness level, and teacher expertise were controlled by using a random selection of students.

Research Questions

1. What are the student perceptions/attitudes toward curriculum aspects of the required physical education program at Bowness High School?
2. What are the student perceptions/attitudes toward curriculum aspects of the elective physical education program at Bowness High School?
3. What are the parent perceptions toward various curriculum aspects of the Bowness High School physical education program?
4. What gender differences exist between student perceptions/attitudes toward curriculum aspects of the physical education programs at Bowness High School?
5. Do perceptual differences exist between students and their parents toward curriculum aspects of the physical education program at Bowness High School?

Subjects

Both 10th- and 11th-grade students at Bowness High School who had taken or were currently taking physical education and their parents were the intended subjects. The study sample included four classes of 10th graders (N=102), four classes of 11th graders (N=88) and their parents (N=87). In order to take part in the study, students must have taken a minimum of Physical Education 10 at Bowness High School. Subjects were selected through the random selection of four P.E. 10 classes and four grade 11 "core"

classes. The "core" programs for grade 11 as defined by Alberta Education (1994a) include language arts, mathematics, science, social studies, and career and life management.

Instrumentation

Because the researcher wished to focus specifically on curriculum aspects and the importance of physical education for which no established survey was found, it was necessary to develop both a parent and student questionnaire for this study as opposed to utilizing a standardized one. In addition, there was specific information that Bowness High physical education teachers were interested in acquiring. The content of the questionnaires was established by reviewing previous instruments, consultation with the physical education teachers at Bowness High, and consultation with other experts within the profession. Content validity of the student and parent questionnaire items was enhanced by including variables, wherever possible, that had been previously validated by other researchers as important components in attitude formation toward physical education. The student questionnaire incorporated items from the following student attitudinal studies: Carre et al. (1980), Cope (1992), Hurst (1986), Tannehill et al. (1994), and Zacour and Ducharme (1986-87). The parent questionnaire included variables previously used by Carre et al. (1980), Gallup (1989), Gillam (1986), Snyder

and Spreitzer (1983), Tannehill et al. (1994), and Turkington (1993). Two questionnaires were prepared, one for students and one for the parents. The student questionnaire consisted of 33-items and the parent questionnaire consisted of 17-items. The questionnaires used a multiple response format with the response range including two to eight alternatives. In addition, the students were asked to respond to six open-ended questions and the parents were asked to respond to four open-ended questions.

A panel of experts reviewed the questionnaires for construct validity and a small pilot test was conducted using similar populations (N=10 students; N=5 parents) for clarity of language and understanding. Subjects in the pilot test responded to the questionnaire and then discussed their responses with the researcher individually in order to determine if each question had been interpreted as intended. Items which were confusing or vague were reworded to enhance the clarity and understanding and administered to the remaining subjects in the pilot test. Again individual conferences were held with each subject to determine if the interpretation was consistent with the intent of each question. It was concluded that construct validity had been established.

Each parent questionnaire and a letter (see Appendix C) explaining the research project

Research Approval and Informed Consent

In order to conduct this study, permission was sought and obtained from the principal of Bowness High, the University of Victoria, and the Calgary Board of Education. Once approval was obtained, the eight classes were selected and the teachers of each class were sent a memo informing them of their selection and requesting their consent to conduct the survey in their class (see Appendix A).

Data collection

The questionnaires were administered during the third week of January 1995. This allowed the grade 10 students to experience the entire Physical Education 10 program and utilization of the data in aiding curriculum decisions such as timetabling, program offerings, and class composition for the upcoming school year. All student questionnaires were administered by the researcher. Using only one person increased the consistency of the administration of the questionnaire; therefore strengthening the internal validity of the study. It ensured that the introduction, instructions, and time given to complete the questionnaire were the same for all students (see Appendix B). After students completed their questionnaires, parent questionnaires were distributed to students and it was requested they be returned to the Student Services office at Bowness High the following week. Each parent questionnaire and a letter (see Appendix C) explaining the research project

were packaged in a full document-sized envelope. In an attempt to encourage students to return the parent questionnaire an incentive program was instituted. Every student who returned the parent survey was eligible for several draw prizes for gift certificates at the school cafeteria.

Class-lists of all the students who had completed the questionnaire were given to the secretary of Student Services who checked off the return of the parent questionnaire when it was deposited into a sealed ballot style box. A follow-up to parents whose questionnaire had not been returned occurred after 10 days. Parents were phoned requesting the return of the questionnaire. Those who needed another copy were either mailed one or had their son/daughter pick up a copy from the Student Services office. After all the questionnaires were collected and the incentive draws completed the class lists and the draw prize entry forms were destroyed. To further ensure anonymity of all the respondents, students and parents, respondents were requested to not place their names on the questionnaires. Confidentiality of the responses were maintained through out all stages of the study and questionnaires were kept in a locked filing cabinet.

Data Analysis

S.P.S.S. (Version 5.0) was used to analyze student and parent responses to closed-ended and Likert scale responses using non-parametric statistics. Data were tabulated and analyzed by frequencies, means, mean ranks, and percentages and reported as a function of gender and as a total group for parents. Data were analyzed to determine if differences existed between the genders of the student group and between the student group and the parent group. Chi square was used to determine the significance of frequency distributions. The Mann-Whitney test was used to determine the extent to which the mean rank differences between students and parents occurred beyond chance expectation on the questions requiring a scaled response. Further analysis of the data occurred through the use of exploratory data analysis. Results were considered significant at the .05 level. A reliability check to measure the internal consistency of the student questionnaire and the parent/guardian questionnaire was conducted using the Cronbach Alpha coefficient, producing coefficients of .81 and .70 respectively.

Responses to open-ended questions were read and reread by the researcher and research assistant (colleague with masters degree in physical education) to establish a set of categories that would best represent the student and parent perspective. Interobserver agreement was established by selecting one question which both the researcher and the

assistant coded each response for a selected 50 questionnaires to check consistency between the observers. Once an interobserver agreement of 80% was reached all the responses were coded and categorized. Data were then tabulated and analyzed by frequency and percentage for each question. Percentages were calculated by the frequency of total and the total number of respondents, not the number of responses.

of the parent groups' physical education background. Results of the two questionnaires are organized into three sections that includes: (1) items presented only to the students, (2) items presented to both the students and parents, and (3) items presented only to the parents. The results are followed by immediate discussion in regards to this research project and in relation to previous studies.

Demographics-Students

The subjects were selected through random selection of four Physical Education 10 classes and four Career and Life Management Classes at Bowness High School resulting in a sample size of 190. Table 1 illustrates the distribution of student participants proportionally by gender and grade. A total of 190 student questionnaires were completed by 90 males and 100 females (see Table 1). Student compliance to participate in the study was 100%

Chapter 4

Table 1

Frequency and Percentage of Students by Gender and Grade

Results and Discussion			Total
Gender	Grade 10	Grade 11	(n, %)
Male	(n, %)	(n, %)	(n, %)
Female	(n, %)	(n, %)	(n, %)

This chapter presents the data and findings from both the student and parent questionnaires. The demographics of the student group and the parent group are followed by a description of the parent groups' physical education background. Results of the two questionnaires are organized into three sections that includes: (1) items presented only to the students, (2) items presented to both the students and parents, and (3) items presented only to the parents. The results are followed by immediate discussion in regards to this research project and in relation to previous studies.

Demographics-Students

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outside of the physical education class on school teams and/or involved in community activities.

Table 1

Frequency and Percentage of Students by Gender and Grade

Gender	Grade 10 (n, %)	Grade 11 (n, %)	Total (n, %)
Male	48 (25%)	42 (22%)	90 (47%)
Female	54 (29%)	46 (24%)	100 (53%)
Total	102 (54%)	88 (46%)	190 (100%)

Table 2 displays the frequency and percentage of males and females who were registered and not registered in physical education during the 1994-95 school year. All the grade 10 students were enrolled in P.E. 10. with the addition of three grade 11 females who were also enrolled in P.E. 10. Twenty-one grade 11 males and 21 grade 11 females were registered in P.E. 20/30 with the remaining 21 males and 22 females electing not to take P.E. 20/30 during the current school year.

Table 2

Frequency and Percentage of Students Registered in Physical Education

Gender	P.E. 10	P.E. 20/30	No P.E.
Males	48 (25%)	21 (11%)	21 (11%)
Females	57 (30%)	21 (11%)	22 (11%)

Table 3 displays the frequency and percentage of the students surveyed who are involved in physical activity outside of the physical education class on school teams and/or involved in community activities.

Table 3

Frequency and Percentage of Students Involved in Physical Activity Outside of Physical Education Class

Gender	School Teams	Community Activities
Males	33 (37%)	55 (62%)
Females	23 (23%)	59 (59%)

Demographics-Parents

Of the 190 parent questionnaires distributed with the students acting as the couriers, 87 (46%) were returned. Forty-six (53%) of the parent/guardian questionnaires were completed by females, twenty-eight (32%) by males, and ten (12%) were joint efforts with input from both parents/guardians. Three of the parent/guardians respondents did not indicate gender. Fifty-three (61%) of these parents had daughters attending Bowness High School and thirty-four (39%) had sons attending Bowness High. Forty-eight (55%) of the parents responding had a son or daughter in grade 10 and thirty-nine (45%) had a son or daughter in grade 11.

Physical Education Background of Parent Group

Parents were asked five questions regarding their own high school physical education experiences. Of the parents responding to the survey, 94% (82) took physical education in grade 10, 62% (54) in grade 11, and 49% (43) in grade 12. The percentage of parents who took physical education in grade 11 and 12 is higher than the current trend in student

registration for physical education in grade 11 and 12. Higher registration in physical education during grade 11 and 12 by the parents may be due to different regulations or it may indicate that the parents who responded represented the "concerned" or "interested" parents.

Seventy percent (61) of the parents indicated they enjoyed physical education in high school (see Table 4). This result is comparable to Turkington's (1993) survey of 240 active adult females; 70% responded that they enjoyed their high school physical education classes.

Table 4

Parental Response to: "Did you enjoy physical education during your high school years?"

Responses	Frequency	Percentage
Yes	61	70%
No	24	28%
Missing Response	2	2%

Although a large majority of the parents indicated that they enjoyed high school physical education, only 45% (39) would sign up for the same type of physical education program they received while in high school (see Table 5). Obviously the parents want something different from physical education today than what they received. This result is slightly lower than what Turkington (1993) reported from his survey with adult females. Fifty-one percent responded that they would sign up for a physical education program similar to what they had experienced.

Table 5

Parent Response to "If YOU went back to high school today would you sign up for the same type of physical education program you received while in high school?"

Responses	Frequency	Percentage
Yes	39	45%
No	43	49%
Missing Response	5	6%

Sixty-eight percent (59) of the parents responded to the open-ended question, "which activities were not offered in your high school physical education program that you would strongly recommend be included today?" Parents provided an extensive and diverse list of activities. Most of the activities recommended by the parents could be classified into lifetime-leisure pursuits. Table 6 provides a detailed listing of activities strongly recommended by the parent group for inclusion into today's physical education program.

Based on what the parents have expressed in this study

Table 6 Parent Recommended Activities for Physical Education

Frequency	Activities
13	Outdoor pursuits
11	Swimming
8	Curling, Golf, Racquet sports
7	Skiing, Tennis
5	Aerobics, Rock climbing, Soccer
4	Weight training
3	Cross Country skiing, Dance, Hockey, Martial Arts
2	Archery, Badminton, Bowling, Camping, Field Hockey, Fitness, Gymnastics, Personal Fitness, Power Walking, Scuba, Skating, Squash, Volleyball
1	Basketball, Billiards, Canoeing, Cycling, Handball, Hiking, Judo, Low Organizational Games, Nutrition, Olympic Sports, Running, Personal Fitness Goal-setting, School Teams, Sports Medicine, Tai Chi, Understanding Fitness, Wall Climbing, Weight Control, Yoga

Parents responded to the question, "Were YOUR experiences in high school physical education helpful in stimulating you to be physically active as an adult?". The parents were fairly evenly split with 52% (45) responding "yes" and 48% (42) responding "no". Other studies have found similar results with Gillam (1986) reporting 53% and Snyder and Spreitzer (1983) reporting 45% to 56% of the public surveyed indicated that physical education had stimulated them to be physically active.

Based on what the parents have expressed in this study not enjoy physical education. This result is in contrast to

regarding their own high school experiences and the results of other surveys of parents and public it can be concluded that "enjoyment" alone is not a good measure of program success. Physical education can be enjoyable without contributing to the major goals of physical education such as the promotion of lifelong participation in physical education.

Student Response: Reflections on Physical Education 10 Program

When asked, "Did you enjoy P.E. 10?", 94% (178) of the students surveyed said, "yes". This is considerably higher than other researchers have reported. Rice (1988) reported 85% of high school students enjoyed physical education classes and Carre et al. (1980) reported that 80% of grade 11 students "often like" or "always like physical education". In an extensive educational study, Goodlad (1984) reported that 79.8% of senior high students like physical education. Although a large majority of students at Bowness High School say they enjoy physical education, educators should not be satisfied in maintaining the status quo as the student group revealed numerous areas where improvements or changes should be made.

A slightly greater percentage of females than males indicated they enjoyed Physical Education 10 at Bowness High School (see Table 7). No significant difference existed between the number of males and females that enjoyed and did not enjoy physical education. This result is in contrast to

previous studies (Carlson, 1994; Coe, 1984; Macintosh & Albinson, 1982) which reported more favorable attitudes toward physical education by males than females. O'Reilly (1988) concluded that, the more physical education females take, the more they dislike it. This does not appear to be the case at Bowness High School.

Table 7

Student Response to: "Did you enjoy P.E. 10"?

Gender	Yes	No
Males	82 (91%)	8 (9%)
Females	96 (96%)	12 (6%)

(Chi-square value 1.58; $p=.208$)

Students were asked, "Would you choose to take P.E. 10 if you did not have to?" Table 8 displays the three options available to the students and the student responses.

Table 8

Student Response to Voluntary P.E. 10 Registration

Gender	Yes-5 credits	Yes-3 credits	No P.E.
Males	77% (69)	11% (10)	12% (11)
Females	68% (68)	16% (16)	16% (16)
Total	72% (137)	14% (26)	14% (27)

Statistical analysis of the data using chi-square (1.797; $p=.278$) reveals no significant difference between males and females. Both groups show a favorable disposition toward electing physical education in grade 10 even if it were offered on an optional basis.

Only 39% of the Bowness High student population surveyed would like physical education to be non-semestered, allowing for physical education classes to occur three times a week for the entire year. The males (65%, 58) and females (57%, 57) were fairly united in expressing an unfavorable perception toward year-round physical education.

Statistical analysis of the "yes" and "no" responses using chi-square produced a value of .998 ($p=.318$); therefore, a significant gender difference is not present. It appears that students at Bowness High are more satisfied with physical education being offered via a semester system or half the school year rather than year-round.

Students were asked what the class composition of P.E. 10 should be by selecting one of the following three choices: (1) segregated classes; boys only and girls only, (2) co-ed; boys and girls in each class, and (3) a combination; some co-ed and some segregated classes. Table 9 reveals the student responses to class composition.

Table 9

Student Preference for P.E. 10 Class Composition by Percentages and Frequencies

Gender	Segregated classes--boys only and girls only	Co-ed classes Boys and girls in each class	Combination; some co-ed and some segregated classes
Males	37% (33)	21% (19)	42% (38)
Females	26% (26)	19% (19)	55% (55)
Totals	31% (59)	20% (38)	49% (93)

Statistical analysis of this item using chi-square to explore if gender interacts with student preference for class composition produced a value of 3.421 ($p=.278$). No significant gender difference existed between the views of males and females toward the desired class composition for grade 10 physical education. As indicated in Table 9, the most popular choice for the male student group (38%) and the female student group (55%) was a physical education program that allows for both coeducational and segregated opportunities. Carre et al. (1980) reported similar student preference with 49% preferring a combination of coed and segregated classes, 38% preferring coed classes, and 13% preferring segregated classes. A survey of 60 grade 9 students by Hurst (1986) also found that students (88%) preferred a mixture of some coed classes and some separate boys and girls classes.

Sixty-seven percent (60) of the males and 88% (88) of the females responded to an open-ended question that asked the respondent to indicate what activities they would like to see added to the Physical Education 10 program. The most frequent responses by both males and females were swimming, billiards, and skiing. Girls also recommended the inclusion of dance as one of their top three requests. A listing of the activities suggested by the two student groups is displayed in Table 10.

Table 10
Student Recommendation of Additional Activities for P.E. 10
by Frequency and by Percentage Responding

Males			Females		
Activity	Freq.	%	Activity	Freq.	%
Swimming	7	12	Swimming	22	25
Billiards	7	12	Billiards	17	19
Skiing	7	12	Dance *	17	19
Floor Hockey *	6	10	Bowling	13	15
Soccer *	6	10	Skiing	12	14
Baseball	5	8	Field Hockey	11	13
Skating	5	8	Soccer *	8	9
Archery *	5	8	Tennis	8	9
Boxing	5	8	Track & Field	8	9
Martial Arts	4	7	Volleyball *	8	9
Rock Climbing	4	7	Football	4	5
Golf	4	7	Rugby	2	2
Wrestling	3	5	Softball *	2	2
Track & Field	3	5	Snowboarding	2	2
Bowling	3	5	Horseback Riding	2	2
Lacrosse	3	5			
Snowboarding	3	5			
Paintball	2	3			
Racquetball	2	3			
Rugby *	2	3			

* Indicates activities currently included in the P.E. 10 program at Bowness High School

In addition to the above list are the following activities requested by only one respondent within the student group. Single recommendations from the male student group included

water-aerobics, badminton, basketball, broomball, canoeing, cricket, and curling. Single recommendations from the female student group included karate, kick-boxing, lacrosse, rafting, rappelling, roller skating, self-defence, and cardio-activities. The student recommendations for additional activities are quite varied, revealing the diversity of student interests. Teachers are challenged to meet the diversity by providing sufficient choice and variety within the P.E. 10 program. The high request and preference for dance by the girls is consistent with other studies (Scott & West, 1990; Tannehill et al., 1994; Zacour & Ducharme, 1986-87).

Students were asked to respond to nine questions regarding the P.E. 10 program and three questions regarding the teachers, using the following scaled response format:

- 5 = strongly agree (SA)
- 4 = agree (A)
- 3 = undecided (U)
- 2 = disagree (D)
- 1 = strongly disagree (SD)

The above numerical values were used to derive a mean for the total student group, female student group, and male student group to aid in data presentation and interpretation. Mean values were used to interpret the extent to which groups agreed or disagreed with the various items. Values between 3.5 and 5 reflect agreement, with the

degree of agreement increasing with the value. Values between 2.49 and 1 represent disagreement, the strongest of which could be 1. Values between 2.5 and 3.49 signifies a group or collective indecision. The Mann-Whitney Test was used for each question to determine if a gender difference exists using the mean rank scores to produce a "U" value. Results are considered significant at the .05 level. Table 11 provides a summary of the data for the twelve items/questions (see Appendix D for raw data) and reveals six significant gender differences. Overall the males tended to be undecided or neutral and females tended to be positive toward the program and teacher items. Based on the student responses, there is room for improvement in the P.E. 10 program, especially from the perception of the male student group. The males tended to be much more divided on each item as compared with the females who tended to be more united in responding, as revealed by larger standard deviations for the male student group. Each item is presented in the entire format in which it appeared on the student questionnaire with a short discussion after the summary of results (see Table 11).

Question 4 stated, "the Physical Education 10 program at Bowness has influenced me to be physically active during my leisure time." Interpretation of the data indicates that the males were undecided, mean value of 3.2; and the females agreed, mean value of 3.54, that physical education during

Table 11 had influenced them to be physically active during
Summary of Student Responses to P.E. 10 Program and Teachers

Q#	Males		Females		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
8	3.2 (1.27)	88.13	3.54 (.91)	101.16	3845.5	.089
9	3.43 (1.16)	87.96	3.77 (.94)	102.29	3821.0	.053
10	3.39 (1.12)	87.19	3.72 (.96)	102.98	3752.0	.036*
11	2.92 (1.08)	97.47	2.89 (1.04)	93.73	4323.0	.625
12	3.66 (1.12)	86.38	4.02 (.88)	102.83	3679.5	.030*
13	3.86 (1.09)	92.48	4.08 (.68)	98.22	4228.0	.430
14	3.54 (1.09)	88.22	3.87 (.83)	102.05	3845.0	.065
15	3.04 (1.26)	77.02	3.87 (.99)	112.14	2836.5	.0001*
16	3.50 (1.23)	82.01	4.08 (.76)	105.49	3301.0	.0013*
17	3.16 (1.29)	72.82	4.23 (.84)	116.81	2369.0	.0001*
18	3.57 (1.10)	78.32	4.18 (.97)	110.96	2953.3	.0001*
19	3.80 (1.06)	89.46	4.10 (.86)	100.93	3956.5	.119

*Denotes significant difference $p < .05$

Question # 8 stated, "the Physical Education 10 program at Bowness has influenced me to be physically active during my leisure time." Interpretation of the data indicates that the males were undecided, mean value of 3.2, and the females agreed, mean value of 3.54, that physical education during

grade 10 had influenced them to be physically active during their leisure time. No significant difference exists between the genders.

Question # 9 stated, "the Physical Education 10 program at Bowness High School has helped me to understand the importance of being physically active." Interpretation of the data indicates that the male student group (Mean 3.43) were undecided and the female student group (Mean 3.77) agreed the physical education 10 program helped them to understand the importance of being physically active. There is no significant difference between the genders. Student understanding of the benefits and importance of physical education could be improved by integrating an academic knowledge base into the activity-based program. Vickers (1992) is a strong advocate of this concept and believes students will be attracted to programs that are academically strong and that also allows students to achieve personal physical excellence. Vickers stresses that the inclusion of an academic base legitimizes physical education and will be an important factor for the survival of physical education into the next century.

Question # 10 stated, "the Physical Education 10 program at Bowness High School allowed me to work on some of my personal goals." The mean value of the male student group (3.39) indicates indecision whereas the female student group (3.72) agreed that they were able to work on some of

their personal goals during the P.E. 10 program at Bowness High. The mean value for the females was significantly higher than the males, which indicates that the females perceived they had more opportunities to work on personal goals than the males. By providing opportunities in physical education for students to work toward achieving personal goals, physical educators can help provide a physical education program that is meaningful and relevant to the students. The adoption of curriculum models such as Hellison's (1985) Humanistic model that emphasizes social responsibility and caring in the physical education curriculum or Jewett and Bain's (1985) Personal Meaning model which emphasizes the development of self-directing persons', can greatly enhance student opportunity for personal goal-setting within the physical education program.

Question # 11 stated, "the Physical Education 10 program at Bowness High School should have spent more time on maintaining and improving fitness." The mean values of both the males (2.92) and females (2.89) indicate indecision, leaning toward disagreement with the statement regarding fitness. Students may realize the importance of fitness but are undecided whether more time should be spent on fitness. This would suggest that students perceived adequate class time is spent on fitness or as noted by Butcher (1982), "students realized the importance of fitness but did not like what they were required to do to attain it"

(p. 13). A survey by Cope (1990) also had students respond to a very similar statement, "In my physical education classes, more time should be spent improving my fitness level" (p. 121). The Grade 10 students responded in an almost identical manner as those at Bowness High School, with both males and females in slight disagreement toward more time for fitness.

Question # 12 stated, "the Physical Education 10 program at Bowness provided equal opportunity for boys and girls". The mean values of both the male (3.66) and female (4.08) student groups indicated that both agreed that equal opportunity existed for boys and girls within the P.E. 10 program. The data provided in Table 11 reveals that there was a significant difference ($p < .05$) between male and female perception toward male/female equity. Females displayed a more positive perception than males regarding the P.E. 10 program providing equitable opportunities for both boys and girls.

Question # 13 stated, "the Physical Education 10 program at Bowness High School was well organized." No significant gender difference was observed. The mean values of the males (3.86) and females (4.08) indicated that both groups "agreed" that the program was well organized. These results are consistent with studies by Cope (1990) and Rice (1988) who reported that both males and females agreed that the physical education classes were well organized.

that Question # 14 stated, "the Physical Education 10 program at Bowness High School was personally meaningful and relevant." The mean values of the male student group (3.54) and the female student group (3.87) indicates that both groups "agreed" that the P.E. program was meaningful and relevant. The values are not exceptionally high indicating that there are some aspects of the physical education program that students find uneventful or irrelevant. Tinning and Fitzclarence (1992) reported a "Crisis" in Australian secondary physical education due to the irrelevance and boredom experienced by students; yet many students see physical activity as significant to their lifestyles outside of schools. Tinning and Fitzclarence challenge physical educators to "rethink the nature of physical education" and consider a curriculum that is relevant and engaging for youth. Physical educators at Bowness High School, too, are challenged to "rethink" the current curriculum as only 61% of the males and 71% of the females "agreed" or "strongly agreed" that the Bowness P.E. 10 program was meaningful or relevant (see Appendix D for raw data).

Question # 15 stated, "the Physical Education 10 program at Bowness provided sufficient opportunity for student choice and input." The mean value of the male student group (3.04) indicates indecision, whereas the mean value of the female student group (3.87) indicates agreement

that sufficient student choice and input was provided. The difference between the two student groups was significant ($p < .05$). The female student group perceived significantly more opportunities for student choice and input than the male student group. Allowing for student choice was identified by Hurst (1986) as an important factor contributing to students enjoying the organization of the physical education program. Through increased student input students will assume more responsibility for their own learning and be more self-motivated. Chen and Watson (1993) stated that physical education is an excellent medium through which to encourage a greater level of independence in the learner. With sufficient consideration of the student voice, the students may feel they helped to design the physical education curriculum and begin to assume ownership. This would be the ultimate goal for a physical education program in which the teacher assumes the role of facilitator.

Question # 16 stated, "the Physical Education 10 program at Bowness High School included some new skills and activities." Both the male student group and female student group agreed that the P.E. 10 program included some new skills and activities. There was a significant difference ($p < .05$) between genders as to the relative agreement. The males (3.50) are not as convinced as the females (4.08) that the P.E. 10 program included some new skills and activities.

On a similar item, Cope (1990) reported that both the grade 10 boys and girls responded almost identically to the Bowness High female student group. A perceived lack of new skills or activities may indicate that the P.E. 10 program, especially for the males, was a continuation of more of the same from junior high physical education or previous physical activity pursuits. Teachers need to be aware of the previous experiences of the students and avoid mere duplication of the skills and drills of years gone by. Vickers (1992) articulates, "one of the greatest problems we have now in our activities-only curricula, is the mind-numbing repetition that continues from year to year. Students complain that they are taught the same thing over and over" (p. 83).

Question # 17 stated, "the physical education teachers at Bowness High School provided me with a thorough understanding of how my mark was determined." The male student group was undecided (Mean=3.16) whether they had been provided with a thorough understanding of how the P.E. mark was determined. In contrast the female student group (Mean=4.23) was fairly united in agreeing that they had received a thorough understanding of how the P.E. mark was determined. The females perceived a significant ($p < .05$) greater understanding of the evaluation process than the males.

Students were asked which of the P.E. 20/30 program modules currently offered at Bowness High were of interest

Question # 18 stated, "the physical education teachers at Bowness High School used a fair grading procedure." Both the male student group (Mean=3.57) and female student group (Mean=4.18) agreed that the grading procedure was fair. The strength of the agreement by the females was significantly higher ($p < .05$) than the males, indicating that the female student group perceived greater equity with the grading procedure than the boys.

Item # 19 stated, "the physical education teachers at Bowness High School provided me with enough time to practice the skills I was taught." The mean values of both the males (3.80) and the females (4.10) indicated similar agreement. Sufficient practice time has been identified by numerous researchers (Godbout, Brunelle & Tousignant, 1983; Metzler, 1989; Phillips & Carlisle, 1983) as a critical factor to student learning in physical education.

Student Response: Reflections on P.E. 20/30 Program

Student input on the P.E. 20/30 program was requested in the following areas: student interest in the present modules, recommendations for program additions, interest in the "old" program, reasons for taking or not taking additional P.E. courses, and interest in alternative scheduling of physical education.

Students were asked which of the P.E. 20/30 program modules currently offered at Bowness High were of interest

to them. They were allowed to choose all that were of interest to them. The implementation of an integrated grade 11 and 12 physical education program via the module program was implemented at Bowness High in the fall of 1994; this replaced the old P.E.20/30 program. The modules offered were selected and designed by the Bowness High physical education staff, with the goal to allow for increased student choice and specialization. Table 12 displays the expressed student interest in the various P.E. 20/30 modules.

Table 12

Student Interest in P.E. 20/30 Modules by Percentage of Student Responding and Frequency in Rank Order

Activity	Males	Females	Total	p
Outdoor Pursuits	67% (60)	85% (85)	77% (145)	.003*
Target Games	69% (62)	60% (60)	64% (122)	.300
Team Sports	64% (58)	55% (55)	60% (113)	.273
Racquet Sports	50% (45)	51% (51)	51% (96)	.950
Golf, Tennis, and Curling	52% (47)	36% (36)	44% (83)	.041
Sports Medicine	27% (24)	55% (55)	37% (69)	.011*
Fitness for Life	20% (18)	48% (48)	35% (35)	.0008*
Powerskating and Hockey	34% (31)	21% (21)	28% (52)	.061
Career Opportunities	22% (20)	19% (19)	21% (39)	.738

* Denotes significant gender difference ($p < .05$)

Students showed sufficient interest in all of the P.E. 20/30 activities modules to make them viable electives. Three significant gender differences were observed with the

females showing significantly greater interest ($p < .05$) in outdoor pursuits, sports medicine, and fitness for life than the male student group. The high student interest in outdoor pursuits was consistent with the findings of Carre et al. (1980) who reported that the most enjoyable activity of grade 11 students was outdoor pursuits. Considering the geographical location of both studies (province of British Columbia and city of Calgary), the outdoor opportunities available in each region is exceptional and this may have had some influence on their choice of activities. Other studies (Carlson, 1994; Cope, 1990; Tannehill et al., 1994; Tannehill & Zakrajsek, 1993; Zacour & Ducharme, 1986-87) reported that the activity preferred most by both boys and girls was team sports.

As with the P.E. 10 program, students were asked via an open response question to indicate any activities they would like to see added to the P.E. 20/30 program. The number of students who provided suggestions was considerably less than the number who provided suggestions for the P.E. 10 program. Fifty-three percent (48) of the males and 62% (62) of the females indicated activities they would like to see added to the P.E. 20/30 program. The most frequent request by the males (18) and the second most frequent request by the females (24) was winter outdoor pursuits. The other top two requests by the males were martial arts and paintball. The top request by the females was aquatics, and dance filled

the number three position. A complete listing of the activities suggested for P.E. 20/30, by the two student groups, are displayed in Table 13.

Table 13

Student Suggested Additions to the P.E. 20/30 Program by Frequency and Percent Responding

Activity	Males		Females		
	Freq	%	Activity	Freq	%
Winter Outdoor Pursuits	18	38	Aquatics	24	39
Martial Arts	9	19	Winter Outdoor Pursuits	16	26
Paintball	5	10	Dance	9	15
Basketball	5	10	Horseback Riding	5	8
Track & Field	3	6	Self-Defence	4	6
Floor Hockey	2	4	Billiards	4	6
Soccer	2	4	Kayaking	3	5
High Risk Adventures	2	4	Track & Field	3	5
Swimming	1	2	Field Hockey	3	5
Target Shooting	1	2	Gymnastics	2	3
Volleyball	1	2	Rafting	2	3
Broomball	1	2	Parachuting	2	3
Mtn. Biking	1	2	Aerobics	2	3
Horseback Riding	1	2	Baseball	2	3
			Gymnastics	2	3
			Football	1	2
			Tennis	1	2
			Running	1	2
			Basketball	1	2

The long list of activities generated by students reinforces the need for variety within a physical education program that has been strongly advocated by previous researchers. Green (1990) surveyed Canadian High School students (N=1059) regarding their preferences in physical education. When asked, "What do you think the ideal physical education program should consist of?" (p. 6), the most frequent (28%, 302) response was, "A variety of activities". Variety, was also identified by Hurst (1986), Rice (1988), and Tannehill et al. (1994) as a major factor in student enjoyment of physical education. Eighty-one percent of the students in the study by Rice and 68% of the students in the study by Tannehill et al. liked physical education for the variety of activities it offered.

A new P.E. 20/30 program had just been implemented at Bowness High School during the current school term and it was decided that obtaining student perceptions of the old program would be valuable. Student perceptions would be based only on what the students had heard about the program and the brief lead-up provided on the questionnaire since none of the grade 10 or 11 students surveyed would have experienced the previous P.E. 20 or 30 program. The old P.E. 20/30 program consisted of the following core activities: tennis, golf, curling, court sports, badminton, and team sports. It was offered for an entire semester with six hours of class time per week; students received five credits

upon completion. Classes were coeducational and the entire class and teacher stayed together for the duration. Students were asked, "If you had a choice would you sign-up to take the old P.E. 20 or P.E. 30 program rather than the P.E. 20/30 modules which were introduced this year?" Two responses were provided; "yes" or "no". Only 24% (46) of the total student population indicated they would rather take the old P.E. 20 or P.E. 30 program, rather than selecting from the module system. Males (29%, 26) and females (20%, 20) responded in a similar manner. Chi-square on the data produced a value of 1.58 ($p=.2082$); no significant gender difference existed on this item. Students appear to prefer the module system that allows for more student choice and a greater variety of activities.

Sixty percent (112) of the students surveyed plan to take P.E. during the next school term. The gender split responding "yes" or "no" was very similar with 64% (56) of the males and 57% (56) of the females responding "yes". Statistical analysis produced a chi-square value of .5675 ($p=.451$); no significant gender difference existed on this item.

Using an open-response format, students indicated why they would or would not be taking P.E. during the next school term. Categories were established by the researcher and then the responses were coded by the researcher and research assistant after checking for interobserver

agreement; a score of .92 was recorded. Table 14 reveals the reasons students provided for taking additional physical education. Percentages were calculated based on the number of respondents taking additional physical education and not the number of responses.

Table 14

Reasons Provided by Students for Taking Elective P.E. in High School

Reason	Males n=56	Females n=56	Total n=112
Enjoy the activity	45% (25)	68% (38)	58% (63)
Fitness/Health	36% (20)	23% (13)	29% (33)
Choice of (new) activities	4% (2)	18% (10)	11% (12)
Stress release from classroom	4% (2)	14% (8)	9% (10)
Learn skills	5% (3)	5% (3)	5% (6)
For the credits	4% (2)	5% (3)	4% (5)
Easy credits	5% (3)	--	5% (3)
Need P.E. for university	--	4% (2)	4% (2)
Have the time	2% (1)	--	2% (1)
Course is excellent	2% (1)	--	2% (1)
Social opportunities	--	2% (1)	2% (1)
Raise average	2% (1)	--	2% (1)
No reason provided	13% (7)	7% (4)	10% (11)

The major reasons provided by the males and females for selecting physical education were that they enjoyed being active and to help them keep fit. These reasons are consistent with previous studies that surveyed a similar age group and found liking or enjoying physical activity and a

desire to stay in shape, received the highest rankings (Browne, 1992; Earl and Stennett, 1987; Green, 1990; Zacour & Ducharme 1986-87).

The major reasons provided by students not planning to select additional physical education were: lack of time (33%), other subjects are more important (21%), and physical education is not interesting or enjoyable (13%). The reasons for non-selection provided by the males and females were very similar with the exception that considerably more females (53%) than boys (18%) identified lack of time. Earl and Stennett (1987) also noted that females identified a lack of time as a limiting factor more than males. In comparison with other Canadian studies the reasons are similar. Additional reasons for non-selection are provided in Table 15. Green (1990) reported the following reasons for non-selection, already completed credits (56%), no time (54%), did not enjoy activity (19%), and lack of variety (13%). Students in a study by Zacour and Ducharme (1986-87) identified no time (47%), lack of variety (38%), and did not enjoy (29%) as the main reasons for non-selection of physical education.

Table 15 Parent ResponsesReasons Provided by Students for Non-Selection of Elective Physical Education

Reason	Males n=33	Females n=44	Total n=78
Lack of time	24% (8)	41% (18)	33% (26)
Importance of other subjects	24% (8)	18% (8)	21% (16)
Not interesting or enjoyable	18% (6)	9% (4)	13% (10)
Active outside of school	9% (3)	9% (4)	9% (7)
Don't need it, not useful	6% (2)	2% (1)	4% (3)
Need the spare	9% (3)	--	4% (3)
Dislike changing	--	5% (2)	3% (2)
Physical limitation	--	5% (2)	3% (2)
Too expensive	3% (1)	--	1% (1)
No reason provided	9% (3)	7% (3)	8% (6)

Students were asked, "Does lack of time in the school timetable due to the large number of required courses for high school graduation and/or the number of courses required for your chosen career limit you from taking additional P.E. courses"? Seventy percent of the students said, "yes"; with the males (62%) and females (76%) in agreement that lack of time was a definite limiting factor. Researchers have consistently identified "lack of time" as one of the top two (Browne, 1992; Green, 1990; and Zacour & Ducharme 1986-87) or three (Earl & Stennett, 1987) reasons why students do not select additional physical education.

Student and Parent Responses

The following section presents the student and parent data on items/questions that appeared on both the student questionnaire and the parent/guardian questionnaire.

Parallel items included course challenge assessment, goals, alternative scheduling, and the importance of physical education. The discussion on each item addresses similarities and differences between the student group and parent group and between the two student groups.

Alternative Scheduling of Physical Education 20/30

Students and parents were asked to indicate their views toward scheduling physical education outside of the regular timetable. Students expressed degree of interest and parents expressed degree of support for four options to alternative scheduling of physical education. The four options presented to the students and parents were

- (1) Summer course for three weeks during July or August (e.g., mountain biking, cycle touring, backpacking, rowing, volleyball, football).
- (2) 7:50 a.m. 'sport-specific' morning class (e.g., badminton, basketball)
- (3) Lunch-hours and weekend course (e.g., backpacking, cross country skiing)
- (4) Personalized fitness course scheduled at a time convenient for students (e.g. lunch-time, during spares, after-school)

Analysis of the data (see Table 16) reveals significant parent and student differences on all of the four options. Parents were most supportive of the personalized fitness

(83%, 72) and morning class (70%, 61) options and least supportive of the summer option (48%, 42). In contrast to the parents, students were most interested in the summer option (66%, 124) resulting in a significant difference ($p < .05$) between students and parents. The second option of most interest to the students was the personalized fitness alternative (65%, 123) but was not favored to the same degree as the parents resulting in a second significant difference ($p < .05$) between students and parents. Parents indicated significantly ($p < .05$) more support for the fitness option as compared to expressed student interest. Parents support the idea of an early morning class (70%, 61) but students probably do not relish the idea of an earlier alarm clock and only 38% (73) indicated they were interested. Parents showed significantly ($p < .05$) more support for the lunchtime and weekend alternative (51%, 44) as compared to the interest expressed by the students (35%, 67). Obviously other activities are more important to students during lunch-hour and weekends than trying to fit in physical education.

Table 16

Student Interest and Parent Support of Alternative Scheduling of P.E. 20/30 by Percentages and Frequencies

Option	Students	Parents	Chi-Sq	p
Summer	66% (124)	48% (42)	4.848	.028*
7:50 a.m.	38% (73)	70% (61)	25.910	.0001*
Lunch/Weekends	35% (67)	51% (44)	6.390	.011*
Pers. Fitness	65% (125)	83% (72)	9.074	.003*

*Denotes significant difference $p < .05$

Missing responses for the parents on the above items were summer (4), 7:50a.m. (3), lunchtime (3), and personalized fitness (1). One female did not respond to the question regarding the summer option.

Analysis of male and female student group data (see Table 17) revealed two significant gender differences. Both the male and female student groups were most interested in the summer and personalized fitness scheduling alternative but in reverse order. The female student group (74%, 74) expressed significantly ($p < .05$) more interest in the summer option than the male student group (57%, 51). The most popular scheduling option for the male student group (69%, 61) was personalized fitness, which ranked number two for the female student group (62%, 62). A significant ($p < .05$) gender difference was also noted for the lunchtime/weekend scheduling option, with the female student group (45%, 45) expressing significantly more interest than the male student group (24%, 22). Student interest in the early morning

class option was similar for both student groups as revealed in Table 17. Similarly, Zacour and Ducharme (1986-87) reported that 35%-56% of the grade 10 students would take an early morning physical education class.

Table 17

Male and Female Student Interest in Alternative Scheduling of Physical Education by Percentages and Frequencies

Option	Males	Females	Chi-Sq	p
Summer	57% (51)	74% (73)	5.355	.021*
7:50 a.m.	41% (37)	36% (36)	.329	.566
Lunch/Weekends	24% (22)	45% (45)	.005	.011*
Pers. Fitness	69% (61)	62% (62)	.623	.430

*Denotes significant difference $p < .05$

On the question of alternative scheduling of physical education, students were also provided with a list of activity options and asked to indicate which ones they were interested in taking. Student expressed interest in the summer activity options are displayed in Table 18. Six significant gender differences were noted for the nine activities listed. The female student group expressed significantly ($p < .05$) more interest than the male student group in the following summer activities: backpacking, volleyball, rowing, cycle touring, and tennis. Considering that the females expressed significantly more interest in the summer scheduling option, it was expected that they would also express more interest in the summer activity options. The male student group expressed significantly

($p < .05$) more interest than the female student group in the summer activity option, football.

Table 18

Male and Female Student Interest in Summer Activity Options by Percent Responding and Frequency

Activity	Total	Males	Females	Chi-Sq	p
Backpacking	42%	23% (21)	58% (58)	22.03	.0001*
Mtn. Biking	38%	32% (29)	43% (43)	1.90	.168
Volleyball	31%	12% (11)	47% (47)	25.40	.0001*
Rowing	30%	17% (15)	42% (42)	12.30	.0003*
Basketball	29%	26% (23)	32% (32)	.67	.413
Cycle Tour	26%	14% (12)	37% (37)	12.65	.0004*
Football	24%	34% (31)	15% (15)	8.73	.003*
Tennis	23%	13% (12)	32% (32)	8.26	.004*
Squash	16%	21% (19)	11% (11)	2.92	.087

*Denotes significant difference $p < .05$

Students were also permitted to provide additional summer activity options in which they would be interested. Additional activities were suggested by 34 percent (31) of the males and 66 percent (59) of the females. Again the list was very extensive indicating the diversity in student interests. Several of the activities suggested for the P.E. 10 and P.E. 20/30 program reappeared. The most frequent suggestions from the male student group were aquatics (5), baseball (4), water-skiing (4), martial arts (3), soccer (3), and rock climbing (3). The most frequent suggestions from the female student group were baseball (10), aquatics (9), horseback riding (6), soccer (6), and field hockey (5).

A total of 19 activities were suggested by the males and 20 by the females. It is apparent that a very important component for a successful physical education program is variety.

The minimal interest expressed by the two student groups toward the early morning physical education option was also reflected with minimal interest in the two morning options presented. Males and females responded similar, with 18% interested in basketball and 13% interested in badminton at 7:50a.m. However, the students again provided an exhausting list of other activities they would like to see offered in the morning. Interest was highest for both the male student group and the female student group for team sports, but completely different team sports. Males listed floor hockey, football, and ice hockey, whereas the females listed volleyball, soccer, and field hockey. Previous researchers (Scott & West, 1990; Zacour & Ducharme, 1986-87) have reported both males and females preference for activity was team sports. Educators must be aware that much student and gender diversity within the various categories of activities often exists, with team sports being only one example.

Two activity options were presented to the students for the lunch/weekend alternative scheduling option. Significantly more females (22%, 22) expressed interest in cross country skiing than males (8%, 7). The second

activity option, backpacking, received less interest from the male group (16%, 14) than the female group (27%, 27). Again students generated a lengthy list of other activities for lunch/weekend scheduling, with winter outdoor pursuits being the top request by both males and females. Other suggestions by the male student group included activities such as weight training, track-sprints, mountain climbing, and basketball. Other suggestions by the female student group included activities such as gymnastics, track, badminton, soccer, and cycling.

Course Challenge Assessment

Both parents and students were asked their views toward course challenge assessment; students receiving credit for participating in physical activities outside the physical education class. The two questions were

"Should P.E. credit be granted to students who participate on school teams?" and

"Should P.E. credit be granted to students who participate on community teams or sport clubs outside of school?"

Students and parents responded to a 5-point scale; strongly agree (5) to strongly disagree (1). Examination of the data (see Table 19) reveals a significant difference ($p < .05$) between the student group and parent group regarding students receiving credits for school team involvement. The parents were more united in their views and "slightly agreed", that students should receive credits for participating on school team sports. The mean values for

the parent group (3.10) and the student group (2.73) were both in the range of "undecided". No significant gender difference was observed between the male and female student groups regarding credits for school team participation (see Table 20). The student group and parent group unanimously disagreed in their views toward students receiving physical education credits for participating in physical activity within the community (see Table 19).

Table 19

Student and Parent Views Toward Granting P.E. Credit for Student Participation Outside of P.E. Class; Displayed by Mean Values

Credits	Students		Parents		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
School teams	2.73 (1.32)	132.23	3.10 (1.29)	153.78	6979.5	.03*
Commun. sports	2.35 (1.32)	135.47	2.53 (1.29)	146.71	7594.0	.26

* Denotes significant difference at $p < .05$

Both male and female student groups disagreed with the suggestion of students receiving P.E. credits for participation in community physical activities (see Table 20). Carre et al. (1980) asked grade 11 students (N=858) how they felt about students receiving credit for participating daily in organized sport or physical activities outside of class time. The results of this study (Carre et al., 1980) indicated that 71% of the students felt they should not be given any special consideration regarding

their physical education classes, 21% felt they should be required to take part in physical education classes but given extra credit, and only 8% felt they should be excused from P.E. and receive full credit.

Table 20

Male and Female Student Groups Views Toward Granting Credit for Student Participation Outside of the P.E. Class; Displayed by Mean Values

Credits	Males		Females		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
School Teams	2.92 (1.57)	102.0	2.56 (1.24)	89.64	3915.0	.113
Commun. Sports	2.48 (1.45)	98.7	2.24 (1.20)	92.65	4215.0	.435

Importance of Physical Education

To obtain an awareness of student and parent perception relative to the importance of physical education, four questions were asked. They included, indicating the high school grades in which P.E. should be required, rating the goals of physical education, overall importance of physical education to total high school education, and rating the importance of physical education as compared to other school subjects.

The student group and parent group responded to the question, "Should P.E. be required at each grade level in high school?" The three grade levels (10, 11, 12) were listed and the subjects responded to each grade level with

"yes" or "no". Analysis of the data (see Table 21) reveals that the student group and parent group are very united in their views toward physical education being required during grade 10. Eighty-five percent (158) of the student group and 83% (72) of the parent group believe physical education should be required during the grade 10 year. Parents and students responded significantly different ($p < .05$) regarding the requirement of physical education in grade 11 and in grade 12. The parent group was more supportive to physical education being required in grade 11 and in grade 12 as compared to the student group. The data (see Table 21) reveals that 67% (58) of parents responded "yes" to compulsory physical education in grade 11 and 54% (47) responded "yes" to compulsory physical education in grade 12. Only 37% (71) of the students responded "yes" to compulsory physical education in grade 11 and 23% (44) of the students responded "yes" to compulsory physical education in grade 12.

Table 21

Student and Parent Support of Physical Education as a Required Course During Each High School Grade

Year	Students	Parents	Chi-Sq	p
Grade 10	85% (158)	83% (72)	.0001	1.0000
Grade 11	37% (71)	67% (58)	18.493	.00002*
Grade 12	23% (44)	54% (47)	23.250	.00001*

*Denotes significant difference $p < .05$

By comparison, the grade 11 students surveyed by Carre et al. (1980) showed greater support for physical education at each grade level; 97% for grade 10, 77% for grade 11, and 51% at grade 12. Green (1990) reported that 39% of the students stated that physical education should be required each year in high school. Students did not have the opportunity to respond to each grade level, making a direct comparison impossible. An Australian study by Sparks and Webb (1991) of year 12 students reported that 41% of the students responded that physical education should be compulsory. The low support of physical education by students in both Canada and Australia, especially during the final years, is definitely cause for concern.

In comparing the parent results to a recent American study by Tannehill et al. (1994), the parent group that responded to the survey at Bowness High showed more support for physical education as a requirement during the high school years. Tannehill et al. reported the following parent support for compulsory physical education, 63% for grade 10, 46% for grade 11, and 37% for grade 12. In contrast, an earlier American study by Stewart and Green (1987) reported greater support for physical education than the Bowness High parent group. Stewart and Green reported that 87% of the parents felt that physical education should be a required school subject, 69% of the parents felt it should be required at each grade level. A public poll by

Gillam (1986) in the state of Alabama also reported a higher public perception of the importance of physical education than the Bowness High parent group, with 74% indicating that P.E. should be required in all grade levels of high school.

The data (see Table 22) were also analyzed to determine if the responses between the male student group and female student group were different regarding physical education as a required subject during each school year. The students were very united in the support they indicated for physical education as a requirement during grade 10; 87% (77) of the males and 83% (81) of the females said, "yes". The males and females responded significantly different ($p < .05$) toward physical education being required during grade 11. The male group was indifferent, 46% (41) said "yes"; whereas the female group was significantly less supportive, 31% (30) said "yes". As for the final school year, 28% (25) of the males said, "yes" and 20% (20) of the females said, "yes". The female student group consistently showed less support for physical education as a required course in all the high school years as compared to the male student group.

Knowledge and understanding required for maintaining a healthy and active lifestyle.

Personal Fitness

Developing social skills (e.g., cooperation, responsibility, leadership)

Developing physical skills

Examination of the mean values of both the student group and parent group reveals that both groups perceived that all the

Table 22

Student Support of Physical Education as a Required Course During Each High School Year

Grade	Males	Females	Chi-Sq	p
Grade 10	87% (77)	83% (81)	0.277	.598
Grade 11	46% (41)	31% (30)	4.097	.043*
Grade 12	28% (25)	20% (20)	1.417	.234

*Denotes significant difference $p < .05$

Goals of Physical Education

The parent group and student group rated the goals of physical education using the following 4-point scale:

4 = Very Important

3 = Important

2 = Somewhat Important

1 = Not Important

The goals rated by the parents were those recommended by Alberta Education (1988) in the "Curriculum Guide Physical Education Grades 7-12" and were identified in the student and parent questionnaire as follows:

Developing a positive attitude toward physical activity.

Knowledge and understanding required for maintaining a healthy and active lifestyle.

Personal Fitness

Developing social skills (e.g., cooperation, responsibility, leadership)

Developing physical skills

Examination of the mean values of both the student group and parent group reveals that both groups perceived that all the

goals of physical education are "important" or "very important". Both groups seem to "want it all" in physical education with some goals identified as a little more or little less important. The desire to "get it all" is consistent with previous parent and student surveys (Carre et al, 1980; Stewart & Green, 1987; Stewart, Green, & Huelskamp, 1991).

Statistical analysis of the data indicated that three significant differences ($p < .05$) existed between the student group and parent group and two significant differences ($p < .05$) were identified between student gender groups. Data from the student group and parent group is presented in Table 23, and the data for the male student group and the female student group is presented in Table 24. Using mean values for comparison, the parents rated attitude and knowledge as the most important. The students rated fitness and attitude as most important. Parents' mean value for attitude development was 3.7 as compared to 3.37 for the students'. The development of physical skills was rated the lowest by both the parent group and student group, although the student group rated the development of physical skills significantly ($p < .05$) higher than the parent group.

Table 23

Parent and Student Perceived Importance of the Goals of Physical Education by Mean Values

Goals	Students		Parents		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
Attitude	3.37 (.84)	129.47	3.70 (.61)	159.82	6454.0	.0007*
Knowledge	3.26 (.84)	129.47	3.59 (.62)	159.01	6524.5	.0018*
Fitness	3.65 (.77)	131.34	3.51 (.69)	144.71	7038.5	.1445
Social	3.26 (.83)	131.34	3.26 (3.36)	144.73	7766.5	.3789
Skills	3.25 (.78)	145.87	3.00 (.85)	122.49	6828.5	.0148*

*Denotes significant difference $p < .05$

Analysis of the student data (see Table 24) toward the goals of physical education reveals that the female student group consistently rated the goals of physical education higher than the male student group with the exception of skill development. The higher ratings by the female student group produced two significant gender differences ($p < .05$) for the goals of knowledge and social.

both the students and parents included:

- (1) Reduce stress (e.g., "less stress", "relieving stress", "you get to take a break from written work and it relieves stress", "positive energy release", "to energize between long periods of sitting and relieves stress")
- (2) Development of self-confidence/self-image (e.g., "personal satisfaction, building self-esteem, feeling good")

Table 24

Male and Female Student Groups Perceived Importance of the Goals of Physical Education by Mean Values

Goal	Males		Females		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
Attitude	3.26 (.89)	89.94	3.46 (.77)	100.50	4000.0	.140
Knowledge	3.06 (.83)	81.41	3.40 (.81)	108.18	3232.0	.0003*
Fitness	3.30 (.79)	89.34	3.42 (.75)	97.31	3946.5	.264
Social	3.12 (.88)	87.13	3.40 (.76)	103.04	3746.5	.030*
Skills	3.25 (.77)	94.79	3.25 (.80)	95.19	4436.0	.956

*Denotes significant difference $p < .05$

The parent group and student group were permitted to indicate "other" goals of physical education they felt were important. Twenty five percent (22) of the parents and 17% (33) of the students provided additional goals. Some of these goals were an expansion or rewording of the goals presented to the students and parents in the questionnaire. The additional goals for physical education identified by both the students and parents included:

- (1) Reduce stress (e.g., "less stress", "relieving stress", "you get to take a break from written work and it relieves stress", "positive energy release", "to energize between long periods of sitting and relieves stress")
- (2) Development of self-confidence/self-image (e.g., "personal satisfaction, building self esteem, feeling good

about yourself", "high self-esteem", "learning to like and improve yourself", "confidence in yourself", "a strong self awareness") revealed a significant difference (p<.05)

(3) Fun or enjoyment (e.g., "having fun", "happiness", "having a lot of fun", "fun") importance on physical

The parent group and the female student group also indicated exposure to various activities/sports as an important goal of physical education (e.g., "try different activities", "learn various physical activities", "exposure to wide range of sports to decide what one likes as an adult", "widen experience"). The desire expressed by both the student group and the parent group for physical education to strive to meet a lengthy list of goals challenges physical educators to explore a variety of curriculum models and to attempt to prioritize the goals.

Overall Importance of Physical Education to High School Education

To determine student and parent perception of the overall importance of physical education to the total high school education, parents were asked, "How important do you believe physical education is to your son/daughter's total high school education?" Students were asked, "How important is physical education to your total high school education?" The student group and parent group responded using the following scaled response: very important (4), important (3), somewhat important (2), and not important (1). Sixty-two percent (117) of the students and 74% (64) of the

parents responded that physical education was important or very important. Analysis of the mean values of the data (see Table 25) revealed a significant difference ($p < .05$) between the student group (2.70) and a parent group (3.05). The parent group placed more importance on physical education within the total educational experience than the student group.

Table 25

Students and Parents Perception of the Importance of Physical Education by Mean Values

Group	Mean	S.D.	Mean Rank
Students	2.70	.93	130.07
Parents	3.05	.95	158.51

Mann Whitney U = 6,568 $p = .004$

Tannehill et al. (1994) also asked students and parents the above questions and reported that 57% of the students and 51% of the parents responded that physical education was important or very important to the students' total high school education. Junior and senior high school students surveyed by Tannehill and Zakrajsek (1993) reported that 57% felt physical education was important; no gender difference was observed. Analysis of the data (see Table 26) for the two student groups from Bowness High School also revealed no significant gender difference. Only two of 36 students surveyed by Carlson (1994) valued physical education. The majority of the students had decided that physical education

was not a "real" subject; based on the minimal time allotted for physical education, grading procedures, perceived lack of learning and close association with sport and play.

Table 26 indicates that both groups perceived math, English,

Male and Female Students Perception of the Importance of Physical Education by Mean Values

Group	Mean	S.D.	Mean Rank
Males	2.60	.99	90.96
Females	2.80	.86	99.58

Mann Whitney U = 4091.5 p=.256

Physical Education Compared to Other High School Subjects

In an attempt to determine the status of physical education as compared to the other school subjects the student group and parent group rated each of the subjects using the following scale.

5 = A lot less important than P.E.

4 = Less important than P.E.

3 = As important as P.E.

2 = More important than P.E.

1 = A lot more important than P.E.

Means were calculated for both groups to indicate relative importance as compared to physical education. For interpretation purposes a low mean (1 to 2.49) indicates that the subject was more important than P.E. and a high mean (3.5 to 5) indicates that the subject was perceived as less important than physical education. Means that cluster

in the middle (2.5 to 3.49) indicate that the subject was perceived as equal in importance to physical education.

The mean values of the parent group and the student group indicates that both groups perceived math, English, science, and social studies as more important than physical education. French and music were perceived to be equal in importance to physical education. Art and foods were the only subjects perceived as less important than physical education. Drama was perceived to be equal in importance to physical education by the student group but less important than physical education by the parent group. Analysis of the data (see Table 27) indicated only one significant difference ($p < .05$) between the parent group and student group in the perception of the importance of physical education as compared to other high school subjects. The significant difference in student and parent perception was toward the subject "computers". Parents deemed computers significantly ($p < .05$) more important than the students; they perceived computers as more important than physical education. The results indicated that students regard computers as less important than physical education. With the increase in home computers, students may be more inclined to learn computer skills on their own time. As with other studies (Goodlad, 1984; Tannehill et al., 1994) physical education does not rank as high in importance as other high school subjects.

Table 27

Student and Parent Perceptions of the Importance of Physical Education as Compared to Other Subjects by Mean Values

Subject	Students		Parents		U	p
	Mean (S.D.)	Mean Rank	Mean (S.D.)	Mean Rank		
Math	1.82 (1.18)	139.44	1.56 (.78)	130.15	7451.5	.311
English	1.92 (1.17)	140.92	1.66 (.86)	128.48	7308.0	.189
Science	1.90 (1.18)	138.39	1.74 (.86)	135.59	7968.0	.767
Social	2.09 (1.26)	138.43	1.89 (.90)	133.94	7824.5	.643
Computers	2.70 (1.23)	147.33	2.23 (.91)	119.33	6553.5	.005*
French	3.07 (1.41)	137.13	3.08 (1.27)	138.31	8014.0	.906
Music	3.53 (1.25)	136.98	3.51 (.97)	132.17	7484.5	.630
Art	3.62 (1.34)	140.30	3.63 (.97)	132.95	7693.0	.462
Drama	3.43 (1.27)	130.68	3.72 (.97)	145.99	6971.0	.122
Foods	3.72 (1.20)	139.60	3.65 (.86)	127.98	7180.5	.239

* Denotes significant difference $p < .05$

Note: Max. score is 5 (5=a lot less important than P.E.)

Parent Only Responses

The parent/guardian questionnaire included four questions regarding the Bowness High School P.E. program that only the parents responded. These included awareness of the current program, awareness of evaluation, identification of least important and most important

activities, and parent interest in being involved in the physical education program.

Three questions required only a "yes" or "no" response, with the parent responses indicated on Table 28. Following are the questions as they appeared on the questionnaire.

Question #6: "Without consulting your son/daughter, are you aware of what your son/daughter learned or is learning in physical education at Bowness High School?"

Question #7: "Without consulting your son/daughter, are you aware of how your son/daughters' physical education grades were determined?"

Question # 16: "Would you be interested in being involved with the P.E. program at Bowness High (e.g., two times a year for activities such as videotaping, outdoor trips, fitness centre supervision)?"

Table 28

Parent Responses to Questions #6, #7, and #16 by Frequency and Percentages

Question	Yes %,freq.	No %,freq.
Q6 Awareness of P.E. Program	68% (59)	32% (28)
Q7 Awareness of P.E. Evaluation	40% (35)	60% (52)
Q16 Interest in P.E. Volunteer	38% (33)	61% (53)

Sixty-eight percent (59) of the parent group indicated that they were aware of what their son or daughter had learned in physical education at Bowness High School. This was slightly higher than Tannehill et al. (1994) reported

from the Ohio study which 63% of the parents indicated awareness of the physical education program. Sheehy (1993) interviewed 27 parents of grade five students and reported that the parents had minimal accurate information about what was happening in the physical education program. The parents thought they were aware, but were often inconsistent and inaccurate in their remarks. Sheehy noted that a number of parents interviewed knew "absolutely nothing" about the child's physical education program and because of their own perception of its unimportance did not make any attempts to acquire any information. Based on the parental responses the Bowness High parents tended to be better informed than parents in previous studies.

Only 40% of the Bowness parent group indicated they were aware of how the physical education grades were determined. The lack of parents indicating awareness about the evaluation process was not surprising, as only 37% of the male student group agreed or strongly agreed that they had a thorough understanding of how the mark was determined (see Appendix D).

Parent interest in being involved in the physical education program at Bowness High was reassuring as 38% (33) of the parent group indicated they were interested in volunteering. A group of parent volunteers for physical education could potentially be physical education's strongest advocate and a very valuable resource.

Parents were asked to identify the three most and three least important activities taught in physical education. The parents were supplied with a list of eight activities as listed below.

- (1) Aquatics (e.g., swimming, snorkeling, water safety)
- (2) Dance (e.g., social, jazz, line)
- (3) Fitness and fitness activities (e.g., jogging, aerobics, weight training, power walking)
- (4) Games (e.g., recreational, low organizational, cooperative)
- (5) Gymnastics
- (6) Individual sports (e.g., badminton, archery, bowling, track and field, tennis)
- (7) Outdoor activities (e.g., backpacking, canoeing, skiing, scuba, wall climbing)
- (8) Team sports (e.g., basketball, flag football, soccer, softball, volleyball)

Data revealed that the activities most valued in physical education by the parent group were fitness (74%, 64), team sports (63%, 55), and individual sports (51%, 44) (see Table 29). This was consistent with data reported by Tannehill et al. (1994) relative to the overall rank order for the three most important activities. However, the percentages reported by Tannehill et al. were much lower, 26% for fitness, 25% for teams sports, and 17% for individual activities. The activities perceived to be most important by the parents are not the activities identified by the students as being of greatest interest (see Table

12). Students expressed most interest in outdoor pursuits and then target games and team games. The fitness module ranked only seventh out of nine in expressed student interest. Parents' perception of what activities are most important in physical education did not reflect expressed student interest.

An examination of parental responses to a previous question, "what should be added to the physical education program that was not offered in your high school program?", revealed the addition of lifetime leisure pursuits with only a few mentioning team sports. This may indicate that most parents experienced team sports and therefore expect more of the same for their children.

Table 29

Parent Group Perception of Most Important P.E. Activities by Frequency and Percentages in Rank Order

Activity	Percentage	Frequency
Fitness	74%	64
Team Sports	63%	55
Individual Sports	51%	44
Aquatics	33%	29
Games	32%	28
Outdoor Activities	32%	28
Dance	12%	10
Gymnastics	7%	6

The activities most devalued by the parent group were gymnastics (77%, 67), dance (68%, 59), and aquatics (47%, 41). Examination of Table 29 reveals that the activities

appear in almost reverse order as compared to Table 30. Both student groups expressed interest in the addition of aquatics to the P.E. 10 program and the P.E. 20/30 modules; however, the parent group rated aquatics as third least important. The request for aquatics in P.E. 10 received the most responses by both males and females and it was the most frequently requested addition to the P.E. 20/30 modules by the female student group.

Table 30

Parent Group Perceptions of Least Important P.E. Activities by Percentages and Frequency in Rank Order

Activity	Percentages	Frequency
Gymnastics	77%	67
Dance	68%	59
Aquatics	41%	36
Games	41%	28
Outdoor Activities	28%	24
Team Sports	18%	16
Fitness	9%	8
Individual Activities	9%	8

Student and Parent Suggestions for Improving the P.E. Program

The final question presented to both the student group and the parent group was an open-response question asking for any suggestions or comments that could help improve the physical education program at Bowness High. Forty-six percent (90) of the students and 40% (35) of the parents responded. The students provided a multitude of suggestions

with the most frequent being a request for more variety (16), going outside the school more (9), and more student choice (7). Additional suggestions were very diverse, from increasing the temperature of the gymnasium to fewer tests to more games and less instruction. Students appeared to have picked up on some of the suggestions mentioned in the questionnaire such as alternative scheduling of physical education, module offerings, and organizational patterns and mentioned them in their suggestions/comments. A summary of the suggestions provided by the students is provided in Table 31. Many of the student responses were positive comments toward the program/modules (12) and did not offer any actual suggestion. These included comments such as, "I think it's great here at Bowness! No problems", "I think the P.E. program is perfect the way it is, it gives a chance for physical fitness during half a year and a choice for the rest of high school", and "The P.E. at Bowness High is done very well". Five of the student comments were in reference to the athletic program with suggestions to add the following teams: track, soccer, martial arts, and snowboarding and to change the division Bowness High School competes in.

It appears that if physical educators can provide students with sufficient variety, choice, and take advantage of opportunities outside of the school a greater percentage of

Table 31

Male and Female Student Suggestions for Improving the P.E. Program by Frequency Expressed

Suggestions	M	F
More variety	11	5
Go outside the school more	6	3
More choice	4	3
Full year P.E. and more P.E.	1	5
Schedule P.E. outside the timetable	1	4
Keep the P.E. 20/30 modules	-	5
Eliminate the Bowness Run	4	-
P.E. shouldn't be required	2	2
Less strict dress code and changing policy	-	3
More one-on-one instruction and help	1	2
More games, less instruction	3	-
Fewer tests	-	2
Better availability for timetabling modules	-	1
Punishment for students acting up	-	1
10 minute cool down at end of class	-	1
P.E. 10 should have choice of 3 or 5 credits	-	1
Make it more fun	-	1
Less strict teachers	-	1
Don't mark skill, mark effort	-	1
Go back to the old system	1	-
Increase the temperature of the gym	-	1
Make it tougher	-	1

It appears that if physical educators can provide students with sufficient variety, choice, and take advantage of opportunities outside of the school a greater percentage of

the students will have their program needs met or exceeded in physical education.

The suggestions and comments from the parent group were extremely diverse with no common focus being evident. Some of the comments were almost complete opposites to others such as: "P.E. should be mandatory for all grades" compared to "P.E. shouldn't be compulsory". Another contrast was, "More teaching, less play" compared to "Make it fun, no pressure". A summary of the suggestions that parents provided is included in Table 32. Three of the parent comments were in reference to the athletic program requesting increased promotion of the athletic teams and the addition of a track and a soccer team. Two of the parents commented that they were not aware of what was happening in physical education and so they could not offer any suggestions.

Make P.E. completely elective	1
Roll the students and do what they say	1
Eliminate running on cement, potentially harmful	1

Summary

The information provided by the questionnaire from the student group and the parent group provides a good understanding of the student and parent perceptions toward the physical education program at Bowness High School. The students and parents have identified numerous areas of contentment, as well as areas for changes. Overall, the

Table 32

Parent Suggestions for Improving the P.E. Program at Bowness High School

<u>Suggestions</u>	<u>Freq</u>
P.E. should be mandatory for all grades	4
Encourage lifelong activities	4
Make it fun, no pressure	4
More opportunity for girls	3
Must be active, billiards is not P.E.	3
Focus more on fitness	2
Make P.E. more interesting and meaningful	2
More teaching and less playing	2
Provide outdoor activities in summer & winter	2
Increase parental involvement	1
P.E. should be year-round	1
Bring in sport celebrities	1
Grant credits for community activity	1
Teach skills but don't grade them	1
Decrease emphasis on skills	1
Make P.E. completely elective	1
Poll the students and do what they say	1
Eliminate running on cement..potentially harmful	1

Summary

The information provided by the questionnaire from the student group and the parent group provides a good understanding of the student and parent perceptions toward the physical education program at Bowness High School. The students and parents have identified numerous areas of contentment, as well as areas for changes. Overall, the

parents tended to have a more favorable perception of physical education as compared to the students in the areas of the importance of physical education and alternative scheduling of physical education. The perception of the female student group toward the physical education program tended to be more favorable than the perception expressed by the male student group.

Overview of the Study

The intent of this study was to identify and investigate the student and parent perceptions toward physical education at Bowness High School. By involving students and parents in a consultative role, valuable information can be gained to help direct future programs. To provide programs that are relevant and meaningful, an understanding of student needs and expectations is vital.

A 33-item student questionnaire and 17-item parent questionnaire were developed for the study. The student questionnaire queried the students regarding their perception toward the P.E. 10 program, P.E. 20/30 modules, reasons for electing or not electing additional physical education, goals of physical education, and the importance of physical education. Parents were asked to share their

Chapter 5

Summary

This chapter includes an overview of the study, summary of results, implications of the study for physical educators at Bowness High School, and recommendations for future research. The students and parents have provided some very important and valuable information as revealed in the previous chapter. What did they say and what does this really mean for Bowness High?

Overview of the Study

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perceptions of their own high school physical education program and their perceptions of the current high school physical education program at Bowness High School, goals of physical education, and the importance of physical education. Grade 10 and grade 11 students (190) were selected through the random selection of eight classes to complete a student questionnaire. Each student in the sample population took a parent/guardian questionnaire home, of which 87 were returned, resulting in a return rate of 46%. Data were entered and analysed using S.P.S.S. (Version 5.0) to determine perceptions of the students and parents, and to determine if significant differences existed between the male and female student groups and between the parent group and total student group. Frequency data were analysed using chi-square and mean values were analysed using the Mann Whitney test.

Summary of Results

The conclusions presented in this study are drawn from the data gathered from students and parents at Bowness High School; they should only be generalized to the population of Bowness High School from which the sample population was drawn.

(1) Results indicated that the overall perception of the female student group toward Physical Education 10 was significantly more positive as compared with the male student group. Six significant gender differences were

observed concerning the Physical Education 10 program. Significantly more females than males indicated that the P.E. 10 program/teachers ...

- allowed them to work on personal goals
- provided equal opportunity for boys and girls
- provided opportunity for student choice and input
- included some new skills and activities
- provided them with a thorough understanding of how their mark was determined
- used a fair grading procedure

(2) In reference to the Physical Education 10 program the majority of the males and females enjoyed the program, would choose to take P.E. if it was not required and prefer physical education to be semestered. The desired class composition preferred by both groups was a combination of some co-ed and some segregated classes. Both males and females would like to see numerous additions to the current P.E. 10 program with swimming, billiards, and skiing the most requested by both groups. The females also recommended the inclusion of dance as one of their top three requests.

(3) In regards to the elective physical education program at Bowness High School, both student groups expressed overwhelming support of the P.E. 20/30 module system. Students expressed interest in all the modules currently offered with outdoor pursuits, target games, team sports, and racquet sports of greatest interest. The females

expressed significantly more interest in outdoor pursuits, sports medicine, and the fitness module than the males. Males and females would like to see a winter outdoor pursuits module added. Martial art is also a top request by the males with the females requesting aquatics and dance.

(4) Both males and females show similar intention toward and reasons for electing additional physical education. The main two reasons given by males and females for selecting additional physical education were that they enjoyed the activity and to keep in shape. Females also appreciated the choice of activities and the stress release from the classroom. The main two reasons males and females do not elect additional physical education was due to a lack of time and the importance of other subjects.

(5) In response to scheduling physical education outside of the regular timetable; males and females are most interested in a personalized fitness course and a summer program. The females expressed significantly more interest than the males for a physical education course during the lunchtime and weekends. Parents expressed significantly more support than students expressed interest for the alternative scheduling options. Parents were most supportive of the personalized fitness option and early morning class.

(6) In regards to course challenge assessment, the male and female students and parents were undecided whether students should receive credit for physical education for activities.

participation outside of the classroom.

(7) A large majority of both the male and female students and parents perceived that physical education should be compulsory during grade 10. Significantly more males than females perceived that physical education should be compulsory during grade 11. Parents showed significantly more support for physical education as a required course during grade 11 and 12 than the students.

(8) Overall, parents are more positive toward the physical education program, the goals, and the importance of physical education than the students. They perceived that physical education was significantly more important to a students' high school education than did the students.

(9) In reference to the goals of physical education, the parents, male students, and female students value all the goals (attitude, knowledge, fitness, social, skills) as being important. Parents rate the development of attitude and knowledge as significantly more important than the students. The students rate skill development significantly more important than the parents.

(10) Activities most valued by parents were fitness, team sports, and individual sports, with gymnastics and dance least valued.

(11) Students suggested that the physical education program could be improved by providing greater student choice or input, increased variety, and more out of school activities.

Implications for Bowness High School and expectations.

Based on the responses provided by the students and parents about the physical education program at Bowness, the following suggestions are provided to enhance the current program at Bowness High School. The list of suggestions is very extensive reflecting the "attitude" required for successful educational reform; think big, start small (Fullan, 1991). Small, tightly focused, highly specific, and immediate practical changes have a much better chance of successful adoption and implementation than vague and multidirectional projects. The intent, therefore, is not to attempt to act upon all the suggestions at once but rather select a few that appear most "doable" and will be met with the least resistance. The most satisfying achievements will be realized through a collaborative team effort. Based on the results of this study the implications for Bowness High School are:

- (1) Continue with the P.E. 10 program in the segregated class format. Explore and provide a few coeducational opportunities when it will still allow for the educational outcomes to be achieved.
- (2) Add additional P.E. 20/30 modules that were most frequently recommended by the students; aquatics, winter outdoor pursuits, and dance.
- (3) Encourage greater student input, especially in the P.E. 10 program. Actively listen to the student voice to get a

better understanding of their needs and expectations.

Increased student decision-making can be best integrated by exploring and adopting curriculum models that are more student-centred.

(4) Demystify the evaluation process for the students and parents. This may include involving students in the assessment process, adopting an expanded report card for physical education, or exploring various alternative assessment strategies.

(5) Integrate a cognitive dimension to the activity-based program so students have a better understanding of the importance and benefits of being physically active.

(6) Investigate what the students have done in their previous years of physical education to avoid the "been there, done that" syndrome. Articulation with the junior high feeder schools and student self-report are effective means of determining what students have done in junior high.

(7) Examine the logistics and pursue the possibility of a personalized fitness program that allows for physical education outside of the regular timetable. Integrate the use of technology to decrease the demand time required of the teacher coordinating the program. Involve parents, administrators, or other teachers in the supervision of the fitness centre.

(8) Increase public relations. Let the community know what is happening within the physical education program.

Suggestions include: regular newsletter submissions, presentations, open houses, displays, announcements, etc.

(9) Involve parents as volunteers in the physical education program.

(10) Continue to assess the perceptions of students and parents through formal and informal means.

Recommendations for Future Research

Based on the results of this study it is recommended that studies be conducted on the following topics or processes.

(1) Qualitative research to provide greater depth of parent and student perceptions toward physical education.

(2) Student perceptions toward teacher behaviour.

(3) Longitudinal studies to determine trends in perception toward physical education.

Conclusion

It is obvious from this study that the needs and expectations of students are very diverse and thus challenges educators to individualize programs instead of fitting students into the program. By adopting a proactive approach and listening to the students and parents, physical educators will be able to help determine the future for physical education rather than leaving the decision to others. Failure to listen and maintaining the status quo in a rapidly changing society may lead physical education

closer to extinction or as Wilcox (1987) called it "fizz-ed".

Education is more than just teaching and learning; it is a business. A leading manufacturer has adopted the slogan "Innovate or Die". Educators too, are in the customer service business and if they cannot deliver the students will go elsewhere. This is especially true with the "open school" policy (Alberta Education, 1994b) which allows students and parents to select their school of choice. Students and parents that "shop" for schooling have traditionally based their decision on the availability of one or more of the following programs: academics, athletics, fine arts, vocational, and foreign languages. With the right attitude, thinking the seemingly impossible, and collaborative team work physical educators could provide an exemplary program and have students lining up to get into the school because of the superb physical education program.

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(BOWNESS HIGH SCHOOL) APPENDIX A

To: _____

From: Ms. Beverley Robinson

Re: Teacher Consent Form

As part of my master's program at the University of Victoria I am conducting a research project at Bowness High School. The purpose of my study is to assess student and parent perceptions toward the physical education program at Bowness High School. The information gathered should be very useful to Bowness High School in determining the direction of future physical education programs. Data will be collected through the use of a student and a parent questionnaire. The study sample will include four randomly selected classes of 10th graders (N=100) and four randomly selected classes of 11th graders (N=100). Your period _____ class has been randomly selected to participate in the study. Your consent in allowing me to administer the questionnaire to this class would be most appreciated.

The questionnaires will take approximately 15-20 minutes to complete. Student participation is completely voluntary and they have the right to withdraw at anytime. The decision to participate or not to participate will have no effect on their grades at Bowness High. After students complete their surveys, parent questionnaires will be distributed to the students with the request that they be returned the following week to the student services office.

I also need your cooperation in providing a class list of all those students who were present and took part in the study. This list will be given to Irene (secretary of student services) who will check off the student's name when they have returned the parent questionnaire. A follow-up by

phone to parents who (BOWNESS HIGH SCHOOL) not been returned
will occur after 10 days. To encourage students to return

To: _____ an incentive program will be
introduced which allows each student who returns the parent

From: Ms. Beverley Robinson various draw prizes for gift
certificates at the school cafeteria.

Re: Teacher Consent Form nonoyalty as names are not

requested on the questionnaires and all class lists and draw

As part on my master's program at the University of
Victoria I am conducting a research project at Bowness High
School. The purpose of my study is to assess student and
parent perceptions toward the physical education program at
Bowness High School. The information gathered should be
very useful to Bowness High School in determining the
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selected classes of 10th graders (N=100) and four randomly
selected classes of 11th graders (N=100). Your period
_____ class has been randomly selected to participate in
the study. Your consent in allowing me to administer the
questionnaire to this class would be most appreciated.

The questionnaire will take approximately 15-20 minutes
to complete. Student participation is completely voluntary
and they have the right to withdraw at anytime. The
decision to participate or not to participate will have no
effect on their grades at Bowness High. After students
complete their surveys, parent questionnaires will be
distributed to the students with the request that they be
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I also need your cooperation in providing a class list
of all those students who were present and took part in the
study. This list will be given to Irene (secretary of
student services) who will check off the student's name when
they have returned the parent questionnaire. A follow-up by

phone to parents whose questionnaire has not been returned will occur after 10 days. To encourage students to return the parent questionnaire an incentive program will be introduced which allows each student who returns the parent survey to be eligible for numerous draw prizes for gift certificates at the school cafeteria.

Subjects are guaranteed anonymity as names are not requested on the questionnaires and all class lists and draw prize entry forms will be destroyed after the follow-up to parents is complete. Confidentiality of data will be maintained through all stages of the study. The study has been approved by the University of Victoria; the Calgary Board of Education; and our school administration.

I will be pleased to answer any questions you have concerning the study. Please contact me at the school in the physical education department office or call me at home 253-2402.

I have read and understand the preceding information. In signing this form I give consent for the administration of the physical education questionnaire to my period _____ class at a convenient time between January 16-20, 1995.

Signature of Teacher

Date

(Please return this form to my mailbox in the main office as soon as possible)

STUDENT QUESTIONNAIRE INSTRUCTIONS

APPENDIX B

Instructions:

As part of my Master's degree from the University of Victoria I am conducting a research project at Bowness High. I am interested in finding out what students and parents think about the physical education program at Bowness High School. Your comments and suggestions will be most valuable in the development of future physical education courses at Bowness. This _____ class has been randomly selected to participate in the study by completing a 15-20 minute questionnaire and then taking a parent questionnaire home. Your participation is completely voluntary and you have the right to withdraw at anytime. Your comments will be held in confidence. It would be appreciated if you would take a few minutes to answer this questionnaire. Do not put your name on the questionnaire and write your answers directly onto the questionnaire. When you have finished, turn your questionnaire over and they will be collected when everyone is finished.

(Collect student questionnaires and distribute parent questionnaires)

Please take the parent/guardian questionnaire home and have your parent or guardian complete it within a week. You will then bring it back to the school and hand it into the secretary at the student services office. When you bring back the parent questionnaire, you are eligible for draw prizes for gift certificates at the Bowness Cafeteria ranging in value from \$5. to \$10. The student and parent views are very important at Bowness High. Thank you for your participation.

STUDENT QUESTIONNAIRE INSTRUCTIONS**Instructions:**

As part of my Master's degree from the University of Victoria I am conducting a research project at Bowness High School. I am interested in finding out what students and parents think about the physical education program at Bowness High School. Your comments and suggestions will be most valuable in the development of future physical education courses at Bowness. This _____ class has been randomly selected to participate in the study by completing a 15-20 minute questionnaire and then taking a parent questionnaire home. Your participation is completely voluntary and you have the right to withdraw at anytime. Your comments will be held in confidence. It would be appreciated if you would take a few minutes to answer this questionnaire. Do not put your name on the questionnaire and write your answers directly onto the questionnaire. When you have finished, turn your questionnaire over and they will be collected when everyone is finished.

(Collect student questionnaires and distribute parent questionnaires)

Please take the parent/guardian questionnaire home and have your parent or guardian complete it within a week. You will then bring it back to the school and hand it into the secretary at the student services office. When you bring back the parent questionnaire, you are eligible for draw prizes for gift certificates at the Bowness Cafeteria ranging in value from \$5. to \$10. The student and parent views are very important at Bowness High. Thank you for your participation.

BOWNESS HIGH SCHOOL

STUDENT QUESTIONNAIRE--PHYSICAL EDUCATION

Please take a few minutes to complete the following questionnaire. Participation is completely voluntary. Your honest opinions and suggestions will be most valuable in the development of future physical education programs at Bowness High. Your response will be kept confidential.

• Gender: Male Female

• Grade: 10 11 12

• Are you or have you been on any Bowness High school teams?

yes, list sports: no

• Are you involved with organized community or club sports, teams, or activities outside the school?

yes, list activities: no

• Are you taking P.E. during this school year, Sept., 1994 to June, 1995?

yes---P.E. 10

yes---P.E.20/30 modules

no

For questions 6 to 19 choose one of the following responses:

Part 1: Reflections on P.E. 10

1. Did you enjoy P.E. 10?

yes

no

2. Would you choose to take P.E. 10 if you did not have to?

yes---5 credits

yes---3 credits

no

3. Should P.E. 10 be non-semestered allowing for P.E. to be taken three times a week for the entire year?

yes

no

4. The class composition of P.E. 10 should be:

(select one only)

segregated classes; boys only and girls only

co-ed; boys and girls in each class

a combination; some co-ed and some segregated

classes

5. What activities do you recommend be added to the P.E. 10 program?

For questions 6 to 19 choose one of the following responses:

20. The following activities (20 items) are offered in the P.E. program. Which are of interest to you?
 Choose an answer for each item.
- 5 = strongly agree (SA)
 4 = agree (A)
 3 = undecided (U)
 2 = disagree (D)
 1 = strongly disagree (SD)

Physical education credit should be granted to:

SA A U D SD

6. students who participate on school teams..5..4..3..2..1
7. students who participate on community teams or sport clubs outside of school.....5..4..3..2..1

The Physical Education 10 program at Bowness:

8. has influenced me to be physically active during my leisure time.....5..4..3..2..1
9. has helped me to understand the importance of being physically active.....5..4..3..2..1
10. allowed me to work on some of my personal goals.....5..4..3..2..1
11. should have spent more time on maintaining and improving fitness.....5..4..3..2..1
12. provided equal opportunity for boys and girls.....5..4..3..2..1
13. was well organized.....5..4..3..2..1
14. was personally meaningful and relevant.....5..4..3..2..1
15. provided sufficient opportunity for student choice and input.....5..4..3..2..1
16. included some new skills and activities... 5..4..3..2..1

The physical education teachers at Bowness:

17. provided me with a thorough understanding of how my mark was determined.....5..4..3..2..1
18. used a fair grading procedure.....5..4..3..2..1
19. provided me with enough time to practice the skills I was taught.....5..4..3..2..1

Part 2: P.E. 20/30 Program

20. The following modules (3 credits) are offered in the P.E. 20/30 program at Bowness High. Which are of interest to you? Choose as many as you like.

- Team sports
- Sports medicine
- Fitness for Life (personalized fitness)
- Racquet sports (squash, racquetball, badminton)
- Golf, Tennis, Curling
- Power skating and non-contact hockey
- Target games (archery, bowling, curling, billiards)
- Career opportunities in sport
- Outdoor Pursuits (wall climbing, backpacking, canoeing)

21. What other activities would you like to see added to the above list for the P.E. 20/30 program?

22. The old P.E. 20/30 program (5 credits) consisted of the following core activities: tennis, golf, curling, court sports, badminton, and team sports.

If you had a choice would you sign-up to take the old P.E. 20 or 30 program rather than the above P.E. 20/30 modules which were introduced this year?

- yes no

23. Do you plan to take P.E. during the next school year; Sept. '95 to June '96? yes no

Why or why not? _____

24. Does lack of time in the school timetable due to the large number of required courses for high school graduation and/or the number of courses required for your chosen career limit you from taking additional P.E. courses?

yes

no

25. Would you be interested in taking P.E. as a summer course (3 credits) for three weeks during July or August?

yes...choose as many as you like from the list below

27. Would you be interested in taking a P.E. course (3 credits) during two lunch-hours a week and two to three week-ends during the summer?

mountain biking

cycle touring

backpacking

rowing

squash/racquetball

tennis

basketball

football

volleyball

other, specify _____

no

no

Part 3: The Importance of Physical Education

26. Would you be interested in taking a sport specific P.E. class (3 credits) at 7:50 a.m.?

yes...choose as many as you like from the list below

badminton

basketball

other, specify _____

no

27. Would you be interested in taking a P.E. course (3 credits) during two lunch-hours a week and two to three week-ends during the semester?

yes...choose as many as you like from the list below

backpacking

cross country skiing

other, specify _____

no

28. Would you be interested in taking a personalized fitness P.E. course (3 credits) that allows you to work-out in the school fitness centre during a time convenient for you (e.g. lunch-time, after-school, or during spares)?

yes

no

Part 3: The Importance of Physical Education

29. What do you believe are the most important benefits or goals of physical education? Rate each of the following goals. (Place a "X" in the column of your choice.)

Goals of Physical Education	Very Important (4)	Important (3)	Somewhat Important (2)	Not Important (1)
Developing a positive attitude towards physical activity				
Knowledge and understanding required for maintaining a healthy and active lifestyle				
Personal fitness				
Developing social skills (e.g. cooperation, responsibility, leadership)				
Developing physical skills				
Other benefits, please list				

30. How important is physical education to your total high school education? very important

important

somewhat important

not important

31. Should P.E. be required at each grade level in high school?

	yes	no
Grade 10		
Grade 11		
Grade 12		

32. How important is physical education for you compared to other school subjects? Rate each subject listed below. (Place a "X" in the column of your choice.)

	A lot less important than P.E.	Less important than P.E.	As important as P.E.	More important than P.E.	A lot more important than P.E.
Art					
Computers					
Drama					
English					
Foods					
French					
Math					
Music					
Science					
Social Studies					
Others, List:					

33. Please add any other comments or suggestions that could help improve the physical education program at Bowness High. (Use reverse side if required.)

Thank you for your time and input.

APPENDIX C

January 15, 1995

Dear Parents/Guardians:

Your perception is very important to Bowness High School. By working with parents we can better meet the educational challenges of today and the future. I am acting upon this belief in my graduate research which is part of the requirements for a masters degree through the University of Victoria. My research involves assessing the views of students and their parents towards physical education at Bowness High School. The information gathered should be very useful in determining the future direction of physical education at Bowness High.

Eight classes of students and their parents from Bowness High were randomly selected to participate in this study. Your assistance in filling out and having your son or daughter return the questionnaire to the Student Services office by January 27th will be of great value. Your responses will remain confidential and no individual taking part in the study will be identified. The research project has received approval from the University of Victoria, the Calgary Board of Education, and the administration and physical education department at Bowness High School.

The questionnaire will require approximately 15 minutes to complete. I appreciate the donation of your time, in assisting my colleagues and myself in gaining greater insight into the views of parents within the Bowness community. A summary of the findings will be shared with the community in the spring newsletter and at an evening presentation at the school.

I thank you in advance, for your cooperation in completing this questionnaire. If you have any questions about the research project or specific questions on the questionnaire please do not hesitate to contact me at school (286-5093) or home (293-2492).

Sincerely,

Ms. Seaverley Robinson
University of Victoria Graduate Student
Bowness High School Teacher

(BOWNESS LETTER HEAD)

January 15, 1995

Dear Parents/Guardians:

Your perception is very important to Bowness High School. By working with parents we can better meet the educational challenges of today and the future. I am acting upon this belief in my graduate research which is part of the requirements for a masters degree through the University of Victoria. My research involves assessing the views of students and their parents towards physical education at Bowness High School. The information gathered should be very useful in determining the future direction of physical education at Bowness High.

Eight classes of students and their parents from Bowness High were randomly selected to participate in this study. Your assistance in filling out and having your son or daughter return the questionnaire to the Student Services office by January 27th will be of great value. Your responses will remain confidential and no individual taking part in the study will be identified. The research project has received approval from the University of Victoria, the Calgary Board of Education, and the administration and physical education department at Bowness High School.

The questionnaire will require approximately 15 minutes to complete. I appreciate the donation of your time, in assisting my colleagues and myself in gaining greater insight into the views of parents within the Bowness community. A summary of the findings will be shared with the community in the spring newsletter and at an evening presentation at the school.

I thank you in advance, for your cooperation in completing this questionnaire. If you have any questions about the research project or specific questions on the questionnaire please do not hesitate to contact me at school (286-5092) or home (253-2402).

Sincerely,

Ms. Beverley Robinson
University of Victoria Graduate Student
Bowness High School Teacher

BOWNESS HIGH SCHOOL

Parent/Guardian Questionnaire--Physical Education

Please take a few minutes to complete the following questionnaire and have your son or daughter return it to the Student Services office at Bowness High School by Friday, January 27, 1995. Your honest opinions and suggestions will be most valuable in the development of future physical education programs at Bowness High. Your response will be kept confidential. (The return of the completed questionnaire is very important and your son or daughter will be eligible for numerous draw prizes for gift certificates once the questionnaire is returned.)

- Gender of parent/guardian completing this questionnaire
 Male Female Both parents/guardians
- Gender of student who brought this questionnaire home
 Male Female
- Grade level of student who brought this questionnaire home
 10 11 12

Physical Education on this questionnaire refers to the classes where a variety of physical activities are taught during regular school hours. It does not include school athletics or intramural sports.

Part 1: Physical Education Background: Questions 1 through 5 refer to **YOUR OWN** high school physical education experiences.

1. Indicate the grades in which YOU took physical education.

	yes	no
Grade 10		
Grade 11		
Grade 12		

2. Did YOU enjoy physical education during your high school years? yes no

3. Were YOUR experiences in high school physical education helpful in stimulating you to be physically active as an adult? yes no

4. If YOU went back to high school today would you sign up for the same type of physical education program you received while in high school?

yes no

5. Which activities were not offered in your high school physical education program that you would strongly recommend be included today?

Part 2: Perceptions of Bowness Physical Education Program

6. Without consulting your son/daughter, are you aware of what your son/daughter learned or is learning in physical education at Bowness High School?

yes no

7. Without consulting your son/daughter, are you aware of how your son/daughters' physical education grades were determined?

yes no

8. Should P.E. credit be granted to students who participate on school teams?

strongly agree

agree

undecided

disagree

strongly disagree

9. Should P.E. credit be granted to students who participate on community teams or sport clubs outside of school?

- strongly agree
- agree
- undecided
- disagree
- strongly disagree

10. What do you believe are the most important benefits or goals of physical education for your son/daughter? Rate each of the following goals. (Place a "X" in the column of your choice)

Goals of Physical Education	Very Important (4)	Important (3)	Somewhat Important (2)	Not Important (1)
Developing a positive attitude towards physical activity				
Knowledge and understanding required for maintaining a healthy and active lifestyle				
Personal fitness				
Developing social skills (e.g. cooperation, responsibility, leadership)				
Developing physical skills				
Other benefits, please list				

11. Additional scheduling of physical education has been suggested in order to accommodate students who are unable to take P.E. during grade 11 and 12 due to lack of time in the school timetable. Lack of time is usually the result of the large number of required courses for high school graduation and/or the number of courses required for various careers.

Would you support the following physical education scheduling options at Bowness High?

	yes	no
Summer course for three weeks during July or August (e.g. mountain biking, cycle touring, backpacking, rowing, volleyball, football)		
'Sport-specific' morning class--7:50 a.m. (e.g. badminton, basketball)		
Semestered course occurring during two lunch-hours per week with two or three weekends (e.g. backpacking, cross country skiing)		
Personalized fitness course scheduled at a time convenient for students. (e.g. lunch-time, during spares, after-school)		

12. Many skills and activities are taught in physical education. Which do you think are the three most, and three least, important for your son/daughter as listed below?

X = most important (select three)-put an "X" on 3 lines

O = least important (select three)-put a "O" on 3 lines

- _____ (a) Aquatics (swimming, snorkelling, water safety)
- _____ (b) Dance (e.g. social, jazz, line)
- _____ (c) Fitness and fitness activities (e.g. jogging, aerobics, weight training, power walking)
- _____ (d) Games (e.g. recreational, low organizational, cooperative)
- _____ (e) Gymnastics
- _____ (f) Individual sports (e.g. badminton, archery, bowling, track and field, tennis)
- _____ (g) Outdoor activities (e.g. backpacking, canoeing, skiing, scuba, wall climbing)
- _____ (h) Team Sports (e.g. basketball, flag football, Soccer, softball, volleyball)

Part 3: The importance of Physical Education

13. How important do you believe physical education is to your son/daughter's total high school education?

very important

important

somewhat important

not important

14. How important is physical education compared to your son/daughter's other school subjects? Rate each subject listed below. (Place a "X" in the column of your choice.)

	A lot less important than P.E.	Less important than P.E.	As important as P.E.	More important than P.E.	A lot more important than P.E.
Art					
Computers					
Drama					
English					
Foods					
French					
Math					
Music					
Science					
Social Studies					
Others, List:					

15. Should P.E. be required at each grade level in high school?

	yes	no
Grade 10		
Grade 11		
Grade 12		

16. Would you be interested in being involved with the P.E. program at Bowness High (e.g. two times a year for activities such as videotaping, outdoor trips, fitness centre supervision)?

yes

no

17. Please add any other comments or suggestions that could help improve the physical education program at Bowness High.

Thank you for your time and input. Results of this research project will be shared with the community in the spring newsletter and at an evening presentation at the school.

RAW DATA RESPONSES
 (Displayed as Percentages)

Q#	1	2	3	4	5
Males	11 (12.2%)	17 (18.9%)	19 (21.1%)	28 (31.2%)	15 (16.7%)
Females -1*	1 (1%)	18 (16.2%)	20 (20.2%)	52 (52.5%)	10 (10.1%)
Total Students	12 (33%)	35 (18%)	39 (21%)	80 (42%)	25 (13%)
Q#5					
Males	8 (8.9%)	24 (26.7%)	31 (36.7%)	17 (18.9%)	8 (8.9%)
Females	3 (3%)	41 (41%)	30 (30%)	16 (16%)	10 (10%)
Total Students	11 (5.8%)	65 (34.2%)	61 (33.2%)	33 (17.4%)	18 (9.5%)
Q#10					
Males	4 (4.4%)	17 (21.1%)	19 (21.1%)	34 (37.8%)	14 (15.6%)
Females	3 (2%)	12 (12%)	16 (16%)	52 (52%)	18 (18%)
Total Students	6 (3.2%)	31 (16.3%)	35 (18.4%)	86 (45.3%)	32 (16.8%)
Q#11					
Males	8 (8.9%)	24 (26.7%)	31 (36.7%)	17 (18.9%)	8 (8.9%)
Females	3 (3%)	41 (41%)	30 (30%)	16 (16%)	10 (10%)
Total Students	11 (5.8%)	65 (34.2%)	61 (33.2%)	33 (17.4%)	18 (9.5%)
Q#13					
Males	1 (0.9%)	8 (8.7%)	23 (25.6%)	31 (34.4%)	23 (25.6%)
Females -1*	1 (1%)	4 (4%)	19 (19.2%)	43 (43.4%)	32 (32.3%)
Total Students	2 (1.7%)	12 (6.2%)	42 (22.2%)	74 (39.2%)	55 (28.1%)
Q#12					
Males	3 (3.6%)	8 (6.7%)	12 (13.7%)	41 (45.6%)	26 (28.9%)
Females	-	3 (3%)	13 (13%)	60 (60%)	25 (27%)
Total Students	3 (2.6%)	11 (4.2%)	25 (11.2%)	101 (53.2%)	51 (26.5%)
Q#14					
Males	4 (6.7%)	8 (12%)	20 (32.2%)	40 (44.4%)	15 (16.7%)
Females	1 (1%)	4 (4%)	34 (24%)	49 (49%)	23 (22%)
Total Students	5 (3.7%)	12 (8.8%)	54 (38.2%)	89 (66.8%)	38 (28.5%)

* Missing Responses

RAW DATA FOR SCALED RESPONSES
(Displayed by Frequency and Percentage)

Q#8	1	2	3	4	5
Males	11 (12.2%)	17 (18.9%)	19 (21.1%)	28 (31.1%)	15 (16.7%)
Females --1*	1 (1%)	16 (16.2%)	20 (20.2%)	52 (52.5%)	10 (10.1%)
Total Students	12 (33%)	33 (18%)	39 (21%)	80 (42%)	25 (13%)
Q#9					
Males	8 (8.9%)	24 (26.7%)	33 (36.7%)	17 (18.9%)	8 (8.9%)
Females	3 (3%)	41 (41%)	30 (30%)	16 (16%)	10 (10%)
Total Students	11 (5.8%)	65 (34.2%)	63 (33.2%)	33 (17.4%)	18 (9.5%)
Q#10					
Males	4 (4.4%)	19 (21.1%)	19 (21.1%)	34 (37.8%)	14 (15.6%)
Females	2 (2%)	12 (12%)	16 (16%)	52 (52%)	18 (18%)
Total Students	6 (3.2%)	31 (16.3%)	35 (18.4%)	86 (45.3%)	32 (16.8%)
Q#11					
Males	8 (8.9%)	24 (26.7%)	33 (36.7%)	17 (18.9%)	8 (8.9%)
Females	3 (3%)	41 (41%)	30 (30%)	16 (16%)	10 (10%)
Total Students	11 (5.8%)	65 (34.2%)	63 (33.2%)	33 (17.4%)	18 (9.5%)
Q#12					
Males	5 (5.6%)	8 (8.9%)	23 (25.6%)	31 (34.4%)	23 (25.6%)
Females--1*	1 (1%)	4 (4%)	19 (19.2%)	43 (43.4%)	32 (32.3%)
Total Students	6 (3.2%)	12 (6.3%)	42 (22. 2%)	74 (39.2%)	55 (29.1%)
Q#13					
Males	5 (5.6%)	6 (6.7%)	12 (13.3%)	41 (45.6%)	26 (28.9%)
Females	--	2 (2%)	13 (13%)	60 (60%)	25 (25%)
Total Students	5 (2.6%)	4 (4.2%)	25 (13.2%)	101 (53.2%)	51 (26.8%)
Q#14					
Males	6 (6.7%)	9 (10%)	20 (22.2%)	40 (44.4%)	15 (16.7%)
Females	1 (1%)	4 (4%)	24 (24%)	49 (49%)	22 (22%)
Total Students	7 (3.7%)	13 (6.8%)	44 (23.2%)	89 (46.8%)	37 (19.5%)

* Missing Responses

RAW DATA FOR SCALED RESPONSES CONTINUED

Q#15	1	2	3	4	5
Males	12 (13.3%)	21 (23.3%)	20 (22.2%)	25 (27.8%)	12 (13.3%)
Females	--	13 (13%)	17 (17%)	40 (40%)	30 (30%)
Total Students	12 (6.3%)	34 (17.9%)	37 (19.5%)	65 (34.2%)	42 (22.1%)
Q#16					
Males	8 (9.1%)	13 (14.8%)	12 (13.6%)	37 (42%)	18 (20.5%)
Females	--	6 (6%)	7 (7%)	60 (60%)	27 (27%)
Total Students	8 (4.3%)	19 (10.1%)	19 (10.1%)	97 (51.6%)	45 (23.9%)
Q#17					
Males	11 (12.2%)	22 (24.4%)	11 (12.2%)	33 (36.7%)	13 (14.4%)
Females	1 (1%)	4 (4%)	8 (8%)	45 (45%)	42 (42%)
Total Students	12 (6.3%)	26 (13.7%)	19 (10%)	78 (41.1%)	55 (28.9%)
Q#18					
Males	5 (5.6%)	11 (12.2%)	19 (21.1%)	38 (42.2%)	17 (18.9%)
Females	4 (4%)	3 (3%)	7 (7%)	43 (43%)	43 (43%)
Total Students	9 (4.7%)	14 (7.4%)	26 (13.7%)	81 (42.6%)	60 (31.6%)
Q#19					
Males	5 (5.6%)	11 (12.2%)	19 (21.1%)	38 (42.2%)	17 (18.9%)
Females	4 (4%)	3 (3%)	7 (7%)	43 (43%)	43 (43%)
Total Students	9 (4.7%)	14 (7.4%)	26 (13.7%)	81 (42.6%)	60 (31.6%)
<u>P.E.Credit for Teams</u>					
Males	27 (30%)	12 (13.3%)	13 (14.4%)	17 (18.%)	21 (23.3%)
Females	27 (27%)	22 (22%)	25 (25%)	20 (20%)	6 (6%)
Total Students	54 (28%)	34 (18%)	38 (20%)	37 (20%)	27 (14%)
Total Parents	12 (13.8%)	20 (23%)	14 (16.1%)	29 (33.3%)	12 (13.8%)
<u>P.E. Credit for Community Activities</u>					
Males	33 (36.7%)	18 (20%)	15 (16.7%)	11 (12.2%)	13 (14.4%)
Females	33 (33%)	32 (32%)	20 (20%)	8 (8%)	7 (7%)
Total Students	66 (35%)	50 (26%)	35 (18%)	19 (10%)	20 (11%)
Total Parents	25 (28.7%)	23 (26.4%)	14 (16.1%)	18 (20.7%)	7 (8%)

RAW DATA FOR SCALED RESPONSES CONTINUED
Goals and Importance of Physical Education

<u>Attitude</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Males	5 (5.6%)	12 (13.3%)	27 (30%)	46 (51%)
Females	3 (3%)	8 (8%)	29 (29%)	60 (60%)
Total Students	8 (4.2%)	20 (10.5%)	56 (29.5%)	106 (55.8%)
Total Parents	2 (2.3%)	1 (1.1%)	18 (20.7%)	66 (75.9%)
<u>Knowledge</u>				
Males	4 (4.4%)	16 (17.8%)	41 (45.6%)	29 (32.2%)
Females	4 (4%)	8 (8%)	28 (28%)	60 (60%)
Total Students	8 (4.2%)	24 (12.6%)	69 (36.3%)	89 (46.8%)
Total Parents	2 (2.3%)	--	30 (34.5%)	55 (63.2%)
<u>Fitness</u>				
Males	3 (3.4%)	9 (10.1%)	35 (39.3%)	42 (47.2%)
Females	2 (2.1%)	9 (9.3%)	32 (33%)	54 (55.7%)
Total Students-4*	5 (2.7%)	18 (9.7%)	67 (36%)	96 (51.6%)
Total Parents--3*	2 (2.3%)	3 (3.4%)	29 (33.3%)	50 (57.5%)
<u>Social</u>				
Males	4 (4.4%)	18 (20%)	31 (34.4%)	37 (41.1%)
Females	4 (4%)	5 (5%)	39 (39%)	52 (52%)
Total Students	8 (4.2%)	23 (12.1%)	70 (36.8%)	89 (46.8%)
Total Parents	2 (2.3%)	11 (12.6%)	28 (32.2%)	46 (52.9%)
<u>Skills</u>				
Males	3 (3.3%)	9 (10%)	40 (44.4%)	38 (42.2%)
Females--1*	3 (3%)	13 (13.1%)	39 (39.4%)	44 (44.4%)
Total Students	6 (3.2%)	22 (11.6%)	79 (41.8%)	82 (43.4%)
Total Parents	4 (4.6%)	19 (21.8%)	37 (42.5%)	27 (31%)
<u>Overall Importance of Physical Education</u>				
Males	16 (17.8%)	20 (22.2%)	37 (41.1%)	17 (18.9%)
Females	6 (6%)	31 (31%)	40 (40%)	23 (23%)
Total Students	22 (11.6%)	51 (26.8%)	77 (40.5%)	40 (21.1%)
Total Parents	7 (8%)	16 (18.4%)	30 (34.5%)	34 (39.1%)

*Missing Responses

RAW DATA FOR SCALED RESPONSES CONTINUED

<u>French</u>	1	2	3	4	5
Males	12 (13.3%)	10 (11.1%)	23 (25.6%)	14 (15.6%)	31 (34.4%)
Females-2*	19 (19.5%)	30 (30.6%)	23 (23.5%)	12 (12.2%)	13 (14.3%)
Total Student	31 (16.5%)	40 (21.3%)	46 (24.5%)	26 (13.8%)	45 (23.9%)
Total Parent-1*	13 (14.9%)	13 (14.9%)	27 (31%)	20 (23%)	13 (14.9%)
<u>Math</u>					
Males-2*	47 (53.4%)	20 (22.7%)	8 (9.1%)	4 (4.5%)	9 (10.2%)
Females-2*	57 (58.2%)	23 (23.5%)	11 (11.2%)	4 (4.1%)	3 (3.1%)
Total Student	104 (55.9%)	43 (23.1%)	19 (10.2%)	8 (4.3%)	12 (6.5%)
Total Parent-1*	50 (57.5%)	26 (29.9%)	9 (10.3%)	--	1 (1.1%)
<u>Music</u>					
Males-3*	9 (10.3%)	8 (9.2%)	18 (20.7%)	20 (23%)	32 (36.8%)
Females	4 (4%)	19 (19%)	32 (32%)	21 (21%)	24 (24%)
Total Student	13 (7%)	27 (14.4%)	50 (26.7%)	41 (21.9%)	56 (29.9%)
Total Parent	3 (3.4%)	6 (6.9%)	33 (37.9%)	28 (32.2%)	13 (14.9%)
<u>Science</u>					
Males-1*	43 (48.3%)	20 (22.5%)	12 (13.5%)	5 (5.6%)	9 (10.1%)
Females-2*	53 (54.1%)	25 (25.5%)	15 (15.3%)	2 (2%)	3 (3.1%)
Total Student	96 (51.3%)	45 (24.1%)	27 (14.4%)	7 (3.7%)	12 (6.4%)
Total Parent	42 (48.3%)	29 (33.3%)	14 (16.1%)	1 (1.1%)	1 (1.1%)
<u>Social</u>					
Males	33 (37.5%)	24 (27.3%)	12 (13.6%)	9 (10.2%)	10 (11.4%)
Females	48 (49%)	25 (25.5%)	18 (18.4%)	1 (1%)	6 (6.1%)
Total Student	81 (43.5%)	49 (26.3%)	30 (16.1%)	10 (5.4%)	16 (18.6%)
Total Parent	34 (39.1%)	33 (37.9%)	18 (20.7%)	--	2 (2.3%)

*Missing Responses

VITA

Surname: Robinson

Given Names: Beverley Ann

Place of Birth: Rimbey, Alberta, Canada

Educational Institutions Attended:

University of Calgary	1982 to 1985
University of Alberta	1977 to 1979
Red Deer College	1975 to 1977

Degrees Awarded:

B. Ed.	University of Calgary	1985
B.P.E.	University of Alberta	1979

Publications:

Robinson, B.A. and Turkington, D. (1994). Do you involve students in the assessment of student performance in physical education? CAHPER Journal, 60(2), 18-22.

Robinson, B.A. and Turkington, D. (1992). Individualizing Instruction...What, Why, and How???...in Physical Education, Runner, 30(4), 29-31.

Author

Beverley Ann Robinson

August 17, 1994

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Title of Thesis:

Student and Parent Perceptions of High School Physical
Education

Author



Beverley Ann Robinson
August 17, 1995