THE CRITICAL COMPONENTS OF A MIDDLE SCHOOL PHYSICAL EDUCATION PROGRAM, AS DETERMINED BY PRACTICING SPECIALISTS

by

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B.Ed., University of Victoria, 1986

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF ARTS

in the School of Physical Education

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ABSTRACT

Middle school physical education teachers, middle school physical education department heads, and physical education consultants in districts with middle schools were surveyed to determine the critical components of a middle school physical education program. Three main purposes were established for this study. They were: (a) to determine the critical components of a middle school physical education program, (b) to see if educators in different roles differed significantly in their views about middle school literature, and (c) to decide if current middle school physical education programs are consistent with middle school research.

Results showed agreement with 24 of 30 statements related to middle school physical education programs. Subject responses by role did not differ significantly in the majority of cases. When group comparisons by inservice background were done responses differed significantly on 9 of 30 statements. Open ended question responses were coded to show ways in which current programs are addressing identified middle school needs.

The coded responses together with the rating scale summaries revealed eight critical components for a middle school physical education program, these were (a) teachers' educational background, (b) the use of specialist teachers, (c) how curriculum is organized, (d) ways to accommodate individual differences, (e) providing opportunities for practice, (f) supportive grading practices, (g) curriculum content, and (h) relevance to students. When grouped by role, middle school physical education specialists did not differ significantly in their views about middle school literature. Significant differences were shown in some cases based on subjects' educational background. Respondent programs were shown to be consistent with middle school research.

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ACKNOWLEDGMENTS

The assistance of Dr. Rick Bell and Dr. David Turkington have been greatly appreciated in the preparation of this thesis

DEDICATION

This is dedicated to my parents, Erle and Beth for their continued support and to my wife Lynn who gave me the encouragement to pursue this project.

The Critical Components of a Middle School Physical Education Program, as Determined by Practicing Experts

Middle schools originated thirty years ago in an attempt to meet the specific needs of early adolescents. "Middle schools were designed to replace the junior high school, which instead of functioning as an appropriate transition between elementary and high school had become a junior version of the high school" (Placek, 1992, p. 330). The importance of a functional transition from elementary to secondary school has been gaining educational support since its inception (Carnegie Council on Adolescent Development [C.C.A.D.], 1989, George & Oldaker, 1985, & Merenbloom, 1988). The emerging emphasis on middle school research, as evidenced by the Carnegie Council on Adolescent Development (1989), has changed how individuals view the traditional structure of education. Previous educational research has focused on either elementary or secondary settings, largely ignoring the existence of middle schools. Within middle school research the focus has tended to be on issues of the school as a whole while specific areas, such as physical education, are ignored. As a result, a gap has emerged between general middle school knowledge and the physical education programs that are offered.

Turning Points: Preparing American Youth for the 21st Century (C.C.A.D., 1989), established eight recommendations for improving middle schools. Key among the recommendations is the suggestion to "improve academic performance through fostering the health and fitness of young adolescents" (C.C.A.D., 1989, p. 9). For the first time, the unique contributions of middle schools to the intellectual, physical, social, and emotional needs of young adolescents have been defined (C.C.A.D., 1989). The unique needs of young adolescents guide decisions about structure and organization in middle schools. At no other time during their education are students' needs and abilities spread out over such a broad range (California State Department of Education [C.S.D.E.], 1987). Physical education has been a component of the middle school movement since its inception, although it was "not a prime topic of interest" (Placek, 1992, p. 333). Recent research attempts have begun to provide direction for physical education teachers and

schools, however, little congruency has been established between the general literature on middle schools and physical education specifically.

The study of middle school physical education is relatively new and as such has not been able to define a program focus. "The number of articles in *Physical Educator* and the *Journal of Physical Education, Recreation, and Dance* since 1985 [to 1992] can be counted on one hand" (Placek, 1992, p. 333). Available middle school physical education literature does not provide the general overview needed to assist in the development of physical education. Instead it has focused on specific curricular issues (Batesky, 1991 & Rikard & Woods, 1993). By obtaining agreement on the critical components of a middle school physical education program, teachers may be provided relevant background information to support program change and development. Without an agreed upon purpose and direction it is difficult to ensure that programs will consistently meet the needs of young adolescent learners.

The importance attributed to physical education (Merenbloom, 1988, Epstein, 1990, & Valentine, 1993) establishes a need to understand how programs can be implemented and structured to support the growth and development of young adolescents. Determining the critical components of a middle school physical education program is a necessary first step. In addition to defining the critical components, determining if educator groups (teachers, department heads and district coordinators) differ significantly on the components chosen has not been done. Discrepancies between the three educator groups may present difficulties for the implementation of program change due to differing opinions regarding the most appropriate change.

This study offers an opportunity to gain insight into the components that constitute a middle school physical education program and provides the first step toward an accepted understanding and direction for middle school physical education programs. In addition, many schools and districts are adopting the middle school concept as a logical transitional step in a student's education (Epstein, 1990). Understanding the program components allows the development of programs that will meet the unique developmental needs of students.

Current middle school physical education literature does not provide a clear program direction. Without a consistent approach it is difficult to determine how individuals acting in different capacities (teachers, department heads, and district consultants) view middle school physical

education. Physical education currently exists as a separate entity within the middle school and, as such, the degree to which physical education programs support middle school philosophy is unknown. The association of research to practical experience may assist in providing a direction for developing and supporting middle school physical education programs.

Purpose of the Study

This study had three main purposes. The first was to determine the critical components of a middle school physical education program based on information obtained from practicing physical educators. The second was to validate current middle school thought expressed in the literature. The third purpose was to determine if groups of "specialists", made up of middle school physical education teachers, middle school physical education department heads, and district physical education consultants who work in districts with middle schools, differed significantly in their responses to survey statements.

Research Questions

Three questions about middle school physical education were addressed through this research. They were (a) what are the critical components of a middle school physical education program, (b) do "specialists" in different roles differ significantly in their views about middle school literature, and (c) are current middle school physical education programs consistent with middle school research?

Operational Definitions

Middle Schools:

For the purposes of this study middle schools represent those educational institutions that enroll students in grades six, seven, and eight.

Specialists:

Specialists in this study were individuals currently working as middle school physical education teachers, middle school physical education department heads or district physical education consultants who work in districts with middle schools.

Critical Components:

The critical components of a middle school physical education program are those components derived from the literature and listed in the survey instrument (Appendix C) that are most strongly supported by the "specialists".

Limitations

Many school districts in British Columbia and across Canada do not use a middle school structure. Instead a more traditional junior high school model exists. Junior high school programs represent different populations of students and therefore different developmental needs. Because of the different structural models in districts it was difficult to attain a large sample size. Within British Columbia there are approximately fifteen districts out of seventy-five that have middle schools (Lawson, 1994). Of those fifteen districts only two have district physical education consultants. For these reasons the sample size was small in comparison to middle school program studies of a more general nature. Extending the possible subject population to other provinces in Western Canada helped to increase the sample size. Survey validation was carried out by a variety of sources that represent expertise in different areas related to this study because no middle school physical education specialists were available for consultation.

Delimitations

Districts employing middle school configurations other than the grade six to eight model, were not surveyed because of the discrepancy between student populations. Grade six to eight schools represent the most common structure for middle schools (Valentine, 1993). In order to achieve the largest, standardized group size the most common structure was chosen. Due to time limitations and availability of contacts in provinces beyond Manitoba only middle schools within the four western provinces were surveyed.

Assumptions

This study focused on middle school physical education programs and assumed that the teachers, department heads, and district physical education consultants understood the unique qualities of middle school learners and programs. It was assumed that the sample group would provide information representative of all middle school physical education programs that utilize a grade six to eight model. It was further assumed that understanding about program needs would be consistent between provinces. Curriculum focuses may vary depending upon provincial mandates but the essential beliefs and structure of programs remained constant. Each of the survey respondents were assumed to have an interest in developing and strengthening the programs that they offered within their school or district.

Literature Review

Defining Middle Schools

Middle schools designed to address the needs and characteristics of early adolescents have existed in one form or another for nearly thirty years. "Middle schools were designed to replace the junior high school, which instead of functioning as an appropriate transition between elementary and high school had become a junior version of the high school" (Placek, 1992, p. 330). Middle schools have often been the forgotten entity in educational research. The majority of literature pertains to secondary or elementary education. This is slowly changing as more educators realize the potential contributions that middle schools can make to the development of early adolescents.

Middle schools most commonly include grade 6, 7, and 8 students. The literature also denotes other groupings that exist, including grades 5 to 8 and grades 7, 8 (Epstein, 1990). Initiated in the mid-sixties for reasons not always related to the needs of young learners, such as, declining enrollment and court orders, the middle school concept has grown rapidly as an accepted structural change (George & Oldaker, 1985). Many of the initial reasons for middle schools allowed growth to be sustained even without an adequate definition of a middle school. Research in the past several years has attempted to focus on what constitutes a successful and effective middle school. "Even after 30 years, middle school educators continue to debate both appropriate structure and appropriate curriculum" (Placek, 1992, p. 330). Despite the on-going debate researchers are finally beginning to reach agreement on the critical attributes of middle schools. The needs and abilities of early adolescent learners, sometimes referred to as "transescents" (Eichorn, 1966, p. 7), are central to the developing philosophy of middle schools. The unique physical, social, emotional, and intellectual needs of transescents guide decisions about structure and organization. At no other time during their education are students' needs and abilities so varied (California State Department of Education [C.S.D.E.], 1987). Due in large part to the unique needs of students, middle schools continue to increase and improve upon their effectiveness.

While literature related to the middle schools begins to increase at a rapid rate, physical education in to middle schools is still largely ignored. The "information gap" that exists between elementary and secondary physical education indicates a need for more research to support middle school programs. Like the junior high schools the middle school physical education programs seem to be a "watered down" version of their senior counterparts. The result is little carry over from the elementary programs and a shift from developmental needs to increased sport skill. Without sufficient research support about the unique contributions of middle schools, many questions remain to be answered about middle school physical education programs. What are the critical components of middle school physical education programs? What should their unique contribution be to the development of young adolescents? What role should middle schools play in the physical development of young adolescents? In order to answer these questions available information must be obtained from the middle school literature as well as the existing middle school physical education literature.

Characteristics of the Middle School Learner

Young adolescent learners represent a unique combination of needs and developmental characteristics that support the rationale for specific schools. The transition phase young adolescents progress through is marked by rapid change in many areas, including, physical, social, emotional, and intellectual development (C.S.D.E., 1987, & Garvin, 1990). Assisting early adolescents with the many changes they face has become a partial responsibility of schools. In order to meet the demands of young adolescent learners the middle school structure must be flexible enough to attend to the unique developmental pattern of each individual. The rate and time at which adolescents pass through these stages of development will vary greatly from individual to individual (B.C. Ministry of Education [B.C.M.E.], 1994).

Adolescent development represents a wide range of changes that occur during a relatively short period of time. Capitalizing on these changes through the use of educational strategies such as, appropriate curriculum organization and instructional techniques, can and should have a positive lifelong influence on the learner. The challenge represented by these changes for teachers is to understand individual student development and match that understanding with appropriate strategies to assist learning. Young

adolescent development can be categorized into five main areas, intellectual, physical, psychological, social, and moral and ethical development (C.S.D.E., 1987, & Garvin, 1990). Many of the changes that occur are inter-related, however, they are separated here for clarity.

Intellectual Development

The California State Department of Education (1987) examined what makes an effective middle school in a report titled *Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools* . In that report the process for intellectual development in young adolescents was described within the context of middle schools. It is during the middle school years, age 10 to 14, that significant intellectual growth occurs.

As students develop their intellectual capacity they move from concrete thinking processes into abstract thought and develop the ability to see through a situation and to examine it more closely. Intellectual growth for early adolescents is characterized by three advances in thought, thought becomes (a) more abstract, (b) hypothetical, and (c) more logical (Cobb, 1995). Through abstract thought adolescents are able to think of things in terms of class membership and are even able to classify the classes. Hypothetical thought allows adolescents to think of things that are possible, but not real (Flavell, Miller, & Miller, 1993). Finally, logical thought develops to allow adolescents to compare one thought against another. Adolescents know that thoughts can be checked against personal knowledge for logical consistency (Osherson & Markman, 1975).

According to Piaget (1952) and his "Stage Theory of Intelligence", thought develops over four stages. The fourth stage, "formal operational thought", relates primarily to adolescents and allows them to think of abstract ideas and consider hypothetical situations. Formal operational thought appears to develop slowly throughout adolescence. Within the four stages of intelligence, Piaget suggested two factors that influence cognitive development and account for the gradual growth of understanding. The first is assimilation, which allows individuals to relate something new to what they already know, and the second accommodation which allows individuals to change what they already know as they explore something new (Piaget, 1952).

As thought processes develop in adolescents a series of changes are experienced. David Elkind (1978), suggests that frequently teenagers fail to

see the obvious, not because the task is too hard for them, but because they have made a simple task more complicated than it actually is. He refers to this tendency as pseudostupidity. This can be very discouraging to a young adolescent who may feel stupid due to their inability to come up with the obvious answer. Egocentrism becomes another problem for adolescents as they frequently lose perspective as to what concerns them and what concerns others. Elkind refers to this loss of perspective as the "imaginary audience". Adolescents can have the feeling that every one is watching and thinking about them. This ability to think about thinking, which is truly abstract thought, may explain why adolescents have such exaggerated feelings of self-consciousness.

Adolescents enter a period of new emotions that are generated by their ability to think in different ways. "How one feels depends on the interpretations one gives to the experience" (Cobb, 1995, p. 192). Adolescents no longer simply consider what a situation appears to be but also what it might be. This new capability for abstract thought may have much to do with the heightened emotional state that many adolescents find themselves in. The ability of adolescents to consider the possibilities of many situations affects more than their emotions. It also allows them to argue better than children can. Adolescents are able to test thoughts against other thoughts instead of against facts as children do.

As adolescent thought continues to develop individuals begin to see that knowledge does not simply come from knowing facts. They begin to realize that factual information can be interpreted in more than one way. This new found understanding leads to skepticism as adolescents begin to doubt ever really knowing anything (Boyes & Chandler, 1992).

Physical Development

Perhaps the most visible of changes that young adolescents go through relates to physical growth and development. Early adolescence is marked by rapid maturational changes that encompass increased weight, height, heart size, lung capacity, muscular strength, and sexual maturation. These changes are the result of puberty which signals the onset of the growth and maturation of the reproductive system. The timing of change begins between 8 and 12 for girls and between 9 and 13 for boys (Garvin, 1990). It is possible for one adolescent to be almost fully mature, before another even begins to

develop, yet each will experience the events of puberty in roughly the same order (Tanner, 1974).

The fact that these changes do not occur at the same time for all students suggests a need to understand an individuals characteristics and abilities. The onset of the rapid maturational process represents a significant difference in ability levels for students of the same age. Ultimately this may represent significant changes to curriculum and instruction in physical education. Differences not only exist between the maturation rates of boys and girls but for members of the same gender as well. One of the first visible signs of growth for girls is the appearance of pubic hair, with breasts developing around the same time. Girls tend to be taller than boys for the first two years of puberty and are more advanced in their physical development. Bone growth tends to occur faster than muscular development, resulting in a lack of coordination and awkwardness. These growth patterns give young adolescent girls a characteristic look: relatively long legs, slender bodies, wide shoulders, and narrow hips (Faust, 1983). The greatest variability between boys and girls in size and physiological development tends to occur around age thirteen (C.S.D.E., 1987).

The growth spurt for males can begin anywhere from age 10 to age 16. Boys grow for a longer time than girls and reach their peak rate in growth two years later than girls (Cobb, 1995). In addition to differences in muscle mass, males also develop larger hearts and lungs, can carry more oxygen in their blood, and can dispose of the chemical by-products of exercise more efficiently than females (Peterson & Taylor, 1980).

"The variety of growth patterns frequently engenders anxiety about the normality of one's own development; deviation from cultural models of physical efficiency and physical attractiveness tend to upset boys and girls respectively" (Garvin, 1990, p. 3). In general, young adolescents demonstrate poor levels of endurance, strength, and flexibility. They tend to be fatter and unhealthier than other groups (Garvin). Extreme restlessness and a need for daily physical activity to release energy also characterize this group. The trend is for young adolescents to tire easily and recover quickly (Pangrazzi & Darst, 1994). Coupled with this is that young adolescents do not like to admit that they are tired and as a result may over-exert themselves and demonstrate chronic fatigue.

Psychological Development

Garvin (1990) describes many of the psychological factors that affect young adolescents, such as rapid emotional shifts, sensitivity, and an emerging self-identity. The most crucial element of adolescent psychological development is the creation of a self-identity (Cobb, 1995). Erikson (1968) defined identity as a sense of self that is achieved through examining and committing to the roles and pursuits that define an adult in our society. In addition an individuals perception of self includes how others view them and the importance that others attach to the values and accomplishments of an individual (Patterson, Sochting, & Marcia, 1992).

During adolescence, individuals progress beyond the identities they held as children, which for the most part are determined by the attitudes and behaviours of their parents. Adolescence helps individuals develop a sense of self as new interests, values and choices begin to shape who they are. The process of developing a self-identity means that adolescents must be willing to take risks and live with uncertainty. Much of the uncertainty comes from exploring possibilities and options in life that differ from those chosen by one's parents (Cobb, 1995).

As adolescents develop the intellectual ability to think abstractly, their self-identity also becomes more abstract. The capacity for self-reflection allows adolescents to think of themselves in terms of psychological characteristics; "they appreciate subtlety and nuance" (Cobb, 1995, p. 382). The increased experience that adolescents have with decision making also contributes to their developing self-concept. Self-concept is the set of beliefs that adolescents have about themselves.

Along with the developing self-identity, self-esteem plays a significant role in adolescent development. Self-esteem is a measure of how good one feels about the beliefs they have of themselves. Self-esteem is an adolescent's overall positive or negative evaluation of themselves (Simmons & Blyth, 1987). Many factors such as popularity or attractiveness affect self-esteem.

As adolescents develop their sense of self a variety of behaviours become visible. These behaviours include becoming easily offended and sensitivity to criticisms of their shortcomings. Simple occurrences often become exaggerated and are made out to be unique happenings. Words such as moody, restless, self-conscious, and introspective describe observed adolescent behaviours (C.S.D.E., 1987).

Social Development

Caught in the middle;: Educational reform for young adolescents in California Public Schools (C.S.D.E., 1987) describes the social development shown by young adolescents. Social development becomes an increasingly important factor as students progress through adolescence and begin to assert their autonomy. An intense need to be with peers, often to the detriment of family relationships develops during this stage. The relationships with parents and peers are the central focus of adolescent social development.

Relationships with parents remain close during adolescence even though at times it appears that parent and child are growing apart. During adolescence conflicts with parents become more frequent but do not prevent adolescents and parents from remaining close. "Adolescents who are the most autonomous are also most likely to say that their parents remain an important influence in their lives, and that they continue to seek their advice" (Fuligni & Eccles, 1993, p. 627). Conflict often arises as adolescents attempt to assert their autonomy by becoming more responsible for their decisions. Conflict is generally related to household duties where parents attempt to assert their authority over adolescents. Autonomy is a much larger issue for early adolescents than for late adolescents as they press for greater inclusion in decision making. Parents may either facilitate or hinder the growth of autonomy in adolescents depending upon the ability of the parent to give increased responsibility (Pardeck & Pardeck, 1990).

As relationships with parents change so do adolescent relationships with peers. Friends become an important source of development for adolescents as they seek support for their developing self-identity. Adolescents experiment with new behaviours as they determine what is acceptable and what is not. "Adolescents try on new behaviours much as they do clothes on a shopping spree" (Cobb, 1995, p. 256). Friends are useful means of reflecting how an individual might appear to others.

Friendships also provide strong influences on the development of self-esteem for adolescents. Friends help adolescents feel good about themselves, in this respect it is more important than being popular. Being popular helps adolescents feel socially competent but does not assist in the development of self-esteem the way friends do (Hartup, 1993). Adolescent friendships help to affirm an individual's sense of self as they can enjoy "being real" with others.

Friendships change as individuals grow older. During early adolescence the focus of friendships is on being accepted. Adolescent self-esteem is strongly related to how peers react. Relationships during early adolescence are characterized by fear of rejection and ridicule, and "jockeying" for position in friendships (Parker & Gottman, 1989).

Insecurity in relationships with peers is best reflected by adolescent interaction through gossiping. Gossiping is an important component of adolescent social development as it discloses the attitudes and beliefs that a peer group values (Parker & Gottman, 1989). The importance of understanding peer group values is essential when adolescents are fearful of rejection.

Another component of adolescent social development is the establishment of relationships. During the middle school years adolescents begin dating. The developing sexual identity of adolescents begins to manifest itself in the form of dating. While dating serves a variety of purposes for the adolescent, including recreation, it also presents an opportunity for increased social development. Dating can be filled with awkward moments as adolescents fear rejection and are uncertain how to act.

Moral/Ethical Development

As adolescents assert their independence and begin making decisions for themselves they also look at the standards by which those decisions are made. These standards are represented in the values and beliefs that adolescents hold. "Changing roles, untrodden rights, and uncharted responsibilities create a compelling need for a system of values to guide decisions" (Cobb, 1995, p. 490). The development of these values or ethics occurs as adolescents test childhood beliefs against new situations as they gain self-identity.

Adolescent moral development is not easily understood. A variety of theories have been discussed in the literature, including: "social cognitive theory, derived from the environmental model; Kohlberg's and Gilligan's approaches, reflecting organismic assumptions; and Freud's psychoanalytic interpretation" (Cobb, 1995, p.497). Each of these theories deals with stages that individuals progress through as they develop standards of right and wrong. These four theories of moral development show the adolescent self-identity increasing as standards of behavior and conduct are internalized. Standards may come from parents, the community, school, or peers. As the

level of moral development increases adolescents are better able to reason their choices and are less reliant upon others.

Adolescent moral and ethical development is characterized by more complex questions about life and the world outside of school, grappling with difficult moral and ethical questions without having the background to answer them, and a prevailing idealistic sense as evidenced by a sense of fairness in human relationships (C.S.D.E., 1987).

Middle School Literature

Middle school literature has increased rapidly within the past decade as researchers examine important issues. The central theme in much of the middle school research has been the effectiveness of middle schools and how the needs of young adolescents can best be met within them. Perhaps the most cited reference among recent articles is *Turning Points: Preparing American Youth for the 21st Century* (Carnegie Council on Adolescent Development [C.C.A.D.], 1989). The Carnegie task force examined closely the education of young adolescents, resulting in eight recommendations that have provided the impetus for many middle school changes. The recommendations of the task force have the potential to "vastly improve the educational experience of all middle grade students, but will most benefit those at risk of being left behind" (C.C.A.D., 1989, p. 9). The eight recommendations pertaining to the education of young adolescents are: a) small communities of learning, b) a core academic program, c) success for all students, d) the empowerment of teachers and administrators to make decisions about experiences for middle grade students, e) staffing middle grade schools with teachers who are expert at teaching young adolescents, f) improving academic performance by fostering health and fitness, g) re-engaging families in the education of young adolescents, h) and connecting schools with their communities (C.C.A.D., 1989). Organizational strategies must reflect these recommendations to ensure a successful environment for the education of young adolescents. Central to middle school philosophy are student needs and all related decisions must be based upon what is best for them.

Not until recently has any degree of consensus been gained in defining the effective characteristics of a middle school. Any definition must be rooted in the commitment to the needs of youth who are in transition from

childhood to adolescence. "Stated simply, the middle school is an educational response to the needs and characteristics of youngsters during transescence and, as such, deals with the full range of intellectual and developmental needs" (Lounsbury, 1982, p.37). A number of common factors have emerged throughout the literature that describe the essential characteristics of an effective middle school. These factors are succinctly written in *Turning Points: Preparing American Youth For the 21st Century* (C.C.A.D., 1989). Merenbloom (1988) lists seven key factors that influence the effectiveness of middle schools. They are: (a) the leadership role of the principal in establishing the climate for learning to occur as well as a sense of order and discipline; (b) a clear emphasis on achievement and individual growth; (c) providing teachers with control over instructional decisions and ways of monitoring student progress; (d) teachers must be knowledgeable, caring and committed as they make decisions related to appropriate curriculum, instructional strategies, and assessment and evaluation techniques; (e) high expectations must be consistently conveyed and supported; (f) clear goals and objectives must be known to all that are involved with the school; (g) parental involvement is essential in supporting the schools priorities, and staff development.

Based upon philosophical beliefs about middle schools and developmental needs of early adolescents, Merenbloom (1988) suggested several organizational characteristics. The developmental characteristics of early adolescents must be considered in planning. Curriculum should be organized to include knowledge, skill, and personal development activities. The program of studies must be clearly defined and should allow for student exploration and growth. Middle schools must build upon the strengths of elementary school and prepare students for secondary school. Teaming is an essential component of effective middle schools which allows teachers to use a large block of time to deliver the instructional program. This also allows teachers the opportunity to understand their students well. The "school within a school" concept (Merenbloom, 1988; C.S.D.E., 1987; Epstein, 1990), suggests that the number of teacher contacts a student makes in a day should be reduced to allow significant relationships to develop. Teachers and staff members must fulfill a limited role as guidance counselors for the students in their care. As relationships develop students will seek advice from adults with whom they have strong relationships. This can only be done in an

environment where a few students are understood by a caring adult. The school program must also be flexible to allow for the changing needs of students to be met on a daily, weekly, or monthly basis. Parental involvement in the school is fast becoming an important component in the establishment of a positive learning environment. Finally, a process for evaluating the program on a regular basis must be in place so that changes may be made to ensure that student needs are being met.

Linking Physical Education to Middle School Philosophy

Physical education must take advantage of emerging middle school literature in order for it to gain its own identity and become a transitional focal point between elementary and secondary school. The Carnegie Council on Adolescent Development (1989), in establishing its recommendations for improving middle schools, has for the first time, defined the unique contributions of middle schools. In conjunction with other middle school literature, *Turning Points* suggests that middle schools must be different in order to support the physical, social, intellectual, and emotional changes faced by young adolescents.

Direction is slowly being provided to schools and teachers about how physical education programs should be structured but the link between middle school research and physical education has not yet been established. The few available research articles related to middle school physical education make it even more difficult to bridge the gap with middle school philosophy. Middle school physical education must take advantage of existing literature to re-examine its structure to ensure that it is meeting the needs of young adolescent learners. "We must be willing at least to entertain a totally different image of physical education" (Placek, 1992, p. 339).

Middle School Physical Education Literature

Few researchers have focused on middle school physical education. Literature searches have turned up relatively few research articles. "The number of articles in *Physical Educator* and the *Journal of Physical Education, Recreation and Dance* since 1985 [to 1992] addressing middle school physical education can be counted on one hand (Placek, 1992, p. 333). The *Middle School Journal* seems to provide more information than either of these two "physical education journals". Physical education does stand to

gain from the increased emphasis on middle schools. As a result of the meager amount of research supporting the content of middle school physical education the majority of program decisions are being made on practical experiences.

Middle school physical education articles have tended to deal primarily with issues of curriculum, likely because this is the area of primary concern to physical educators (Batesky, 1991; Placek, 1992; Rikard & Woods, 1993). Little congruency seems to exist between general middle school research and that of physical education. Merenbloom (1988), Beane (1990), Epstein (1990), and Valentine (1993) refer to the importance of physical education in their work on middle schools but do little more than acknowledge its importance. Despite the general support for physical education, relatively little is understood about how programs should be structured to support the overall objectives of the middle school or how to best meet the needs of adolescent learners.

Literature on the developmental characteristics of early adolescents and the direction for middle schools in general, have been linked to create a series of beliefs for effective and responsive physical education programs. These beliefs (see Figure 1) were presented at the American Alliance for Health Physical Education, Recreation, and Dance conference in March, 1994 by R.P. Pangrazzi and P. Darst and represent a compilation of information derived from a variety of sources (C.S.D.E., 1987; Garvin, 1990; Pangrazzi & Darst, 1994). These points suggest some of the components that may support quality physical education programs at the middle school level.

The general curriculum model used in middle school physical education is a "junior" version of what occurs at the secondary level. Secondary models are primarily based on multi-sport activities, where units are selected from a range of sport related activities. The main concern is that students are instructed in major sport areas and are not provided with many of the opportunities suggested as key in middle school physical education programs (Table 1).

Table 1

Beliefs About Middle School Learners in Physical Education

- the program should accommodate individual differences and acknowledge that students skill performance varies and will likely decrease during this time period due to many factors, including body growth and maturity.

- full game play should not constitute a major focus of the program because students have not yet developed mature motor patterns.

- instruction and assessment techniques based on process will improve skill levels.

- perfection does not occur in physical performance and students should not be held to an "adult" level.

- learning does not occur during full game activities as only mature (over-learned) skills are used.

- appropriate modifications of sport activities are an essential means of allowing students to achieve success, games do not have to be played in their purest form.

- students at the middle school level recover rapidly from activity with short levels of endurance, these two understandings are accommodated during lessons.

- pre and post tests are ineffective in determining fitness and skill improvement at this level as there is a linear relationship between growth and performance improvement.

- physical performance varies day to day as a result of factors such as fatigue, stress, sickness, and allergies.

(Pangrazzi & Darst, 1994)

Curriculum

Merenbloom (1988) describes a curriculum model with required and elective elements in a variety of movement categories. The units are organized so that not all activities are required in each year. Instead, a selection of activities is made based on the developmental level of the learner. The underlying theory is that some activities are better suited to the different developmental periods encountered by young adolescents. Batesky (1993) suggests a similar approach to curricular organization that allows for exposure to a broad range of activities and to more time devoted to skill development. Batesky's model, which "cycles" activities over a three year period, is similar to Merenbloom's model with one main exception. All grades are instructed in the same activities over the course of one year. In subsequent years curriculum is structured around different activities, thereby allowing a three year program of activities. After three years the rotation starts again so that all grades receive instruction in each activity over the course of their three year middle school experience. Utilizing a curriculum model similar to what Batesky (1993) proposes, permits middle school physical education to be utilized as a comprehensive three year program as opposed to three one year programs. This allows exposure to a wide range of activities as well as in-depth coverage of activity areas. In *Rethinking Middle School Physical Education Curriculum: An Integrated, Thematic Approach,* Placek (1992), suggests that physical education reform must move beyond simply changing what is taught and the length of each unit. "We should imagine and then work toward a middle school curriculum in which physical education becomes integral to the interdisciplinary core of the middle schools" (Placek, 1992, p. 336). Five conceptions of middle school physical education curriculum are suggested that lead, in varying degrees, to a greater inclusion of physical education into the core curriculum of the school (see Table 2).

Pedagogy

Rikard and Woods (1993) and Herkowitz (1978) describe instructional models that accommodate individual differences. The different rates of student development are provided for through a series of progressions that foster skill development in a success oriented environment. Experiences are provided that engage learners at an appropriate level and motivate student

Table 2

Conceptions of middle school physical education curriculum

Conception 1: Separate and Unequal

Interdisciplinary core courses taught by specialists (usually science, math, language arts, and social studies.

P.E. is a special subject grounded in traditional activity units, taught and scheduled separately from any core subjects.

Conception 2: Separate but Thematic

Interdisciplinary core courses taught by specialists.

P.E. is a special subject developed around themes deemed important to middle school students.

Conception 3: Separate but Contributing

Interdisciplinary core courses taught by specialists.

P.E. teaches part of a core course or develops a unit that is integrated into other courses.

Variations:

A. P.E. teacher initiates and teaches an occasional unit.

B. Built in structurally to use P.E. teacher's strengths (content knowledge or process).

Conception 4: Separate but Parallel

Interdisciplinary core courses taught by specialists.

P.E. uses themes from core courses and develops a unit or series of units using those themes.

Conception 5: Integrated Into the Core Curriculum

P.E. teachers and P.E. are part of the core interdisciplinary curriculum.

(Placek, 1992, p. 337)

involvement. Rikard and Woods (1993) describe three goals in developing appropriate middle school physical education programs, that include: in-depth instruction, fitness knowledge and its application, and engagement in activities of risk and novel interest.

The fact that students learn in different ways and at different rates (B.C.M.E, 1994) suggests a need for teachers to be prepared with a variety of instructional approaches. Appropriate strategies depend upon the type of activity, the developmental needs of the learners and the learning environment. Muska Mosston (1986) describes a "spectrum" of instructional styles that progress from the teachers as the focal point of instruction to the student at the center. At the center of each instructional style is the need to engage students in appropriately structured instruction and practice. The "spectrum" does not indicate that one style is better than another, only that each has its own place in reaching a specific set of objectives. Each style contributes to the evolution of the learner as an independent person (Mosston & Ashworth, 1986). The "spectrum" assists learners in becoming independent thinkers, able to make decisions about their own physical development. Instructional styles are grouped into two clusters, one with the teacher playing a dominant role, the other with the role of the learner as dominant. This "discovery threshold" that learners progress through as they are provided more autonomy in the decisions they make is an important one in the development of self-identity for adolescents. The importance of a variety of instructional strategies transcends simply improved physical skills but also supports the personal development of the learner.

Students must have opportunities to practice their skills in a progressive and non-threatening environment. The use of "lead-up" and "small-aside" games are essential in bridging the gap between skill practice and game play. Too often young adolescents perform in "adult games" without adequate skills for participation. The inevitable lack of success and frustration that occurs causes strong negative feelings about participation. Educators need to create an environment where students feel free to risk and attempt new skills. Through this process young adolescents may be supported in learning about their bodies and working through the physical changes that confront them without feeling sensitive.

Assessment and Evaluation

The link between assessment and evaluation, curriculum and the instructional process is crucial. Unfortunately assessment and evaluation are not mentioned often in articles about middle school physical education. Authors have instead tended to focus on "what is to be taught" and not on the provision of appropriate feedback. Many students become "turned off" physical activity because of the lack of attention paid to assessment and evaluation, and the way in which it occurs. Often feedback is provided that is inappropriate to the learning environment, such as non-specific or negative feedback. Augmented feedback must be provided to the learner to assist in the development of motor ability (Schmidt, 1991). Through the use of appropriate feedback students are able to adjust their motor performance and develop a more skilled approach. Summative evaluations may also cause problems in that most teachers test for outcome success. This is incongruent with instructional segments where process is emphasized. Students are unable to meet the criteria of a particular skill and therefore perform poorly. In establishing assessment and evaluation techniques that support adolescent learning students should be involved, when appropriate, in setting criteria. Greater emphasis on process testing, which determines if a student has learned the necessary characteristics of the skill, also needs to be considered. Finally, instructors should consider adjusting motor skill tests to accommodate varying developmental levels of adolescents. If Herkowitz' (1978) model is followed from instruction through to evaluation, different skill components may be altered to make performance more or less challenging. If student abilities are at different levels on the developmental continuum then it is unfair to assume that all students will perform the same task. Herkowitz' model tests the assumption that all students must perform at an adult level.

Conclusion

Middle schools are intended to meet the transitional needs of young adolescents as they move from childhood to adolescence. Middle school students display a variety of conflicting characteristics as they struggle to make sense of themselves and the world around them. The middle school can be an effective bridge between the comfort of the elementary school and the freedom of the secondary school.

The school in the middle has constantly been pulled between elementary and secondary schools; unable to find a place for itself. Recently, researchers have defined many commonly held beliefs about middle schools and the implications they represent to the organizational structure.

> Several points seem clear. *Turning Points* and other middle school literature insist that middle schools should be different from other schools: student-centered, not subject-matter centered, and meeting the needs of young adolescents as they undergo rapid physical, social, intellectual, and emotional changes (Placek, 1992, p. 335).

Utilizing the many and varied characteristics of the young adolescent learner as a central focus, middle schools have developed a unique philosophy and supportive organization. The range of student needs must be attended to in a supportive environment that accepts their place on the developmental continuum. Middle schools emphasize five characteristics associated with an effective individual. They include, (a) an intellectually reflective person, (b) a person en route to a lifetime of meaningful work, (c) a good citizen, (d) a caring and ethical individual, and (e) being healthy (C.C.A.D., 1989). These characteristics help guide the middle school philosophy which in part suggests that student learning occurs best in small communities within the larger context of the school, and that a core instructional program provides for success and improvement fostered by health and fitness. Teachers and administrators are trained and empowered to deliver a meaningful educational experience to young adolescent learners. The larger educational community of parents, business, and the local community must also be actively involved in middle schools (C.C.A.D., 1989).

Physical education plays an important and significant role within the middle school setting (Merenbloom, 1988; Epstein, 1990; Valentine, 1993). The minimal amount of research done on middle school physical education provides conflicting theories about the role it should play within the school environment. Physical education theories, while focused mostly on curriculum, suggest an organization that is linked strongly to the core curricula of the school but still provides students with exposure to a variety of movement categories as well as in-depth instruction. Understanding physical education should go beyond issues of curriculum and address many of the factors confronted by the school as a whole. The link between physical education and middle school philosophy will ensure an important place in

the education of an adolescent. Physical education can no longer afford to be a "stand-alone". It must become a major contributor to the education and development of all students.

Understanding the physical education program in a middle school is a complicated process. A first step in that process is to understand the underlying intent of the program. A broad philosophy upon which programs may be developed must represent a range of understandings and needs that can apply in a variety of circumstances to a variety of learners. The concepts in the literature provide the broad context within which physical education may establish itself as a program suited to the needs of its learners. The critical components of a middle school physical education program will support the establishment of a unique program, different from elementary and secondary schools. For many educators, these ideas will represent a paradigm shift and will likely cause some anxiety as "entrenched" ideals are challenged. The prospect of increased anxiety does not negate the need to establish common understandings. Change is never easy and must be undertaken slowly if it is to be successful. The first step must be the establishment of clearly defined and broadly accepted understandings.

Several factors emerge from the literature that may be keys to the direction of physical education within the middle school environment. These factors may be reflected in the following points, (a) physical education should create an identity for itself and not be a "small" version of a secondary program, (b) physical education should become a three year experience for learners, (c) the relevance of the curriculum should be shown, (d) a variety of instructional strategies should be used to address the diverse needs of young adolescent learners, (e) provision for "in-depth" practice should be made, (f) a flexible schedule should allow for both long and short periods of instruction, (g) a variety of assessment and evaluation procedures should be used that are linked to the instructional process, (h) parents should become more involved in the education of their children, (i) programs should attend to the developmental needs of young adolescents (physical, emotional, etc.).

Methods

Participants and Setting

This study surveyed middle school physical education teachers, department heads and district physical education consultants in order to identify the critical components of a middle school physical education program. Subjects were selected based upon their position as either a middle school physical education teacher, middle school physical education department head or physical education consultant in a district with middle schools. Only middle schools with a grade six to eight configuration were considered to ensure consistency within the sample. Subjects were chosen from the four Western Canadian provinces provided they met the preceding criteria. Approval for the study was granted by the Committee for Human Subjects (see Appendix C) and participants were guaranteed anonymity.

A total of 43 (39%) responses were received from the 111 surveys distributed. Twenty-seven were from teachers, 11 from department heads, and 5 from consultants. Responses were also broken down by gender with 18 female returns and 25 male. Responses by province revealed 21 from British Columbia, 13 from Manitoba, and 9 from Saskatchewan.

Development of the Survey Instrument

The survey was intended to measure the degree of importance "specialists" associated with each program component. The program components identified in the survey were developed based on information available in current middle school literature. Survey questions were clearly and concisely written in order to limit variation in response.

The survey instrument was divided into three sections, general information, a rating scale, and open questions (see Appendix B). Section I asked for background information regarding subject experience in education and middle schools, as well as information about educational background. A four point Likert scale was used in Section II to determine each respondent's level of support for the listed statements. The four point scale was chosen to provide feedback regarding the varying degree to which each statement was being used in the subject's middle school physical education program. A sufficient range of respondent choice was provided by the four point scale while forcing subjects to make a choice between: one, "strongly disagree"; two,

"disagree"; three, "agree"; and four, "strongly agree". Each statement in the survey was derived from literature on middle schools and middle school physical education.

Section III was a series of open ended questions that allowed respondents to add information that they felt was not presented in the first two sections of the survey. This facilitated a sharing of ideas and strategies that are being used by individuals to support their programs. The responses were coded and analyzed.

Validity and Reliability

Validity of the survey questionnaire was established by a peer review panel comprised of experts in physical education, survey research, and middle schools. The experts were selected based on their experience working with physical education programs, survey construction, and middle school physical education.

A test/re-test carried out on a small group of specialists was used to determine reliability of the survey questionnaire. Specialists were chosen to do the test/re-test to ensure that subject responses were consistent between trials. Correlation coefficients were calculated (see Table 3) to determine the

Table 3:
Correlation Coefficient for Test/Re-Test Reliability

Statement #	Correlation (r)	Statement #	Correlation (r)	Statement #	Correlation (r)
1	.91	11	1.00	21	.98
2	.87	12	.85	22	.86
3	.96	13	.89	23	.87
4	.86	14	.96	24	.90
5	.95	15	.65	25	.95
6	1.00	16	.98	26	.91
7	.98	17	.85	27	.98
8	.79	18	.95	28	.98
9	.87	19	.87	29	.95
10	.90	20	.98	30	.96

strength of relationship between test and re-test responses. A correlation of .85 was chosen as the minimum acceptable correlation. Statements 8 (r = .79) and 15 (r = .65) were re-written and submitted to the test group again. The follow-up correlations for statement 8 (r = .89) and 15 (r = .88) showed reliability coefficients within the acceptable range.

Data Collection

Pre-contact was made in each of the four Western Canadian provinces to determine possible subjects, either by phone to district representatives or by fax to schools directly (see Appendix D). The survey was distributed to subjects by mail with a cover letter and instructions for completion (see Appendix A and Appendix B). A stamped, return envelope was provided. Follow-up telephone calls were used to gain additional returns.

Data Analysis

Section I provided information related to the background of respondents. The respondent background information provided profile information about the subject group and allowed the responses to be categorized by role and educational background.

Results from Section II were analyzed using descriptive statistics. This analysis provided the mean and standard deviation for each statement. In addition results were classified by respondent role for each statement and by educational background for each statement. Group comparisons for Section II were carried out by means of an independent t test to determine if responses differed significantly based on role and educational background. A response range for each point on the scale was established to ensure consistency in interpreting results. These ranges were, strongly disagree, 1.0 to 1.49; disagree, 1.5 to 2.49; undecided, 2.5; agree, 2.51 to 3.49; and strongly agree, 3.5 to 4.0. Statements that were completely supported had responses selected in only the 3 or 4 category. Similarly, a response considered to be completely rejected would have responses in only the 1 or 2 category

Section III of the survey questionnaire asked for responses to open-ended questions. The process for analyzing involved the examination of each response and it's subsequent separation into individual statements. A statement was defined as a single thought which was consistent with a single idea (Bell, Barrett & Allison, 1985). To determine reliability for identifying

individual statements a second coder analyzed a number of randomly chosen responses. The two coded sections were then compared and analyzed using a point by point agreement ratio to determine an inter-coder reliability coefficient (Kazdin, 1982). The level of acceptability was set at 80%. The inter-coder reliability coefficient was 93.2%.

Each of the separate statements were then grouped according to similarity in content by scanning for relationships. A second reliability check was done using the same process for determining statement reliability. The reliability coefficient was 85.7%. Outstanding statements, those that were not initially coded, were used to modify existing categories or create new ones. Statements were re-coded one week later. Those that were grouped differently were individually examined and placed into an appropriate category. After all statements were grouped, a label for the group was determined based on the content of the statements within.

Results and Discussion

The results and discussion section is structured to parallel the survey questionnaire. In the questionnaire Section I focused on demographic information about the subjects, including information about their educational background. In Section II subjects were asked to respond to 30 statements, using a rating scale from 1, strongly disagree, to 4, strongly agree. The statements were designed to follow key elements determined from the middle school literature. Section II focused primarily on two of the research questions (a) do specialists in different roles differ significantly in their views about middle school literature, and (b) are current middle school physical education programs consistent with middle school research. Responses to open ended questions in Section III were coded and used to determine how closely aligned to the middle school literature subjects' physical education programs were. The responses in Section II and Section III form the basis for determining what the subjects termed as the critical components of middle school physical education.

Section I: General Information

Demographic Results:

Section I of the survey questionnaire dealt with general background information about the respondents including location, current role, years teaching, and educational background. This information was obtained in order to develop a concise profile of the population responding to the survey. The information provides additional ways in which to explore and interpret data from each of the later sections.

Out of 111 middle school physical education surveys sent out, a total of 43 (38.7%) returns were received. The largest portion of responses, 27 (62.8%), were from teachers, followed by 11 (25.6%) department heads, and 5 (11.6%) consultants. Responses by gender were determined to be 18 (41.9%) female and 25 (58.1%) male. Based on provincial representation the majority of responses came from British Columbia with 21 (48.8%), followed by Manitoba, 13 (30.2%) and Saskatchewan, 9 (20.9%). Alberta was not included in the study because no information on districts with middle schools was available. Respondents had been teaching on average for 3.2 years in general and 2.2 years at the middle school level in particular.

Demographic Discussion:

The highest number of responses (21, n=43) were received from British Columbia. This was likely due to the greater ease with which middle school information was gained. A stronger network of contacts and resources exists in British Columbia than were available in either Saskatchewan or Manitoba. No questionnaires were sent or received from Alberta as no schools were identified in the middle school category. Contact was attempted but the information received indicated that no middle schools existed. The low number of returns (43 of a possible 111) was not unexpected as only a few middle schools exist in Western Canada that enroll grade 6, 7 and 8 students. Similarly, when subjects were grouped by role, it was not unexpected that there was a small number of consultants represented as there are very few in Western Canada and even fewer still that work in districts with a middle school organization.

Subject Educational Background Results:

Section I of the survey asked subjects about their pre-service and inservice educational background. Twenty-eight subjects (65.1%) (see Table 4) indicated that they had no pre-service education specific to middle schools. Thirty-two subjects (74.4%), indicated that they had received no specialist

Table 4:

Subject Educational Background by Role (N = 43)

Role	M. S. Pre		M. S. P.E. Pre		M. S. Ins		M. S. P.E. Ins	
	Yes	No	Yes	No	Yes	No	Yes	No
Teacher	9	18	8	19	23	4	19	8
Dept. Heads	5	6	3	8	8	3	8	3
Consult-ants	1	4	0	5	5	0	5	0

Note. M.S.Pre means Middle School Preservice Education, M.S.P.E.Pre means Middle School Physical Education Preservice Education, M.S.Ins means Middle School Inservice Education, and M.S.P.E.Ins means Middle School Physical Education Inservice Education.

education in physical education at the middle school level. Subjects that had received middle school physical education pre-service education were further asked to indicate the institution and courses taken. Four of the seven

responses listed courses taken as part of their specialist program at the University of Victoria. Subjects were also asked about their level of inservice education relative to middle schools. Thirty-six (83.7%) respondents indicated that they had taken part in some form of inservice. Slightly fewer subjects, 32 (74.4%), indicated that they had taken specific inservice sessions related to middle school physical education. When asked to comment about their inservice activities, 6 of 22 subjects indicated that their middle school inservice came as a result of attending the National Middle Years Conference in Portland, Oregon in October of 1995.

Subject Educational Background Discussion:

Results from Table 4 revealed that few teachers (25.6%) received any pre-service teacher education from universities or colleges specific to middle schools. With only a few school districts in each of the three provinces subscribing to the middle school concept, it would appear that few, if any, specific courses at teacher-education institutions have been established. Some comments were recorded that identified university courses for middle schools. The course titles, however suggested that they were more general in nature with only references to the middle grades.

When asked about pre-service education specific to middle school physical education, 65.1% said that they had not received any. Of the few subject responses recorded, five (12%) pointed to courses taken at the University of Victoria as part of an under-graduate degree. No specific courses were identified by the subjects, only general comments such as "U.Vic., many". The recorded comments did not seem to support the assertion that subjects had received any pre-service education specific to middle school physical education. Upon further inquiry it was determined that neither the University of Victoria nor the University of British Columbia offer specific physical education courses at the middle school level (Bell, 1995, Wilson, 1995). It appears that those respondents that indicated yes to pre-service education felt that information gained in general courses was preparing them for teaching at the middle school level.

Results from Table 4 show that 74.4% of respondents had been involved in some form of in-service professional development related specifically to middle schools. Responses indicating the type of inservice were specific and focused on sessions such as evaluation, problem-solving, middle

level philosophy, and teaming. Many comments (30%) indicated that subjects had attended conferences specific to middle schools as a form of inservice education. When asked to comment on inservice opportunities specific to middle school physical education 83.7% of respondents said that they had participated in some type of activity. Respondents were able to provide more detailed answers related to inservice than they were in relation to preservice. Activities such as "assessment, evaluation, and reporting in the middle grades (district workshop)" were offered as examples of the type of inservice.

The difference between pre-service training and inservice training suggests that greater efforts are being made through inservice to address the need for professional development at the middle school level. The increased support for the middle school concept (C.C.A.D., 1989, George & Oldaker, 1985, & Merenbloom, 1988) is evidenced by the number of inservice opportunities that are available and attended by educators. Pre-service education, in the form of specific courses for middle schools, is not prevalent for currently practicing educators, inservice education is. Specific educational opportunities should be made available for educators as part of the their preservice and inservice professional development so that "teachers for the middle grades are specifically prepared to teach young adolescents" (C.C.A.D., 1989, p. 36). Districts with middle schools need to continue to push for and provide increased opportunity for their teachers to develop in relation to middle schools. This pressure seems to be felt by the teacher preparation institutes as they review their programs and begin discussions about meeting the specific needs of middle school educators (MacNaughton, 1996). Teacher education institutions should offer courses specific to middle school organization. In particular courses need to provide understandings about the specific needs of young adolescents, the ways in which middle schools are structured to support these needs, and how particular subject areas may be organized to further support young adolescent development. Courses specific to physical education should also be considered so that the unique nature of young adolescent learners is echoed in program structures.

The majority of respondents have been involved in middle school inservice and middle school physical education inservice. These results are important because they indicate that respondents have acted on a need for information related to middle school instruction. While involvement in inservice is shown to be consistent for all respondent groups the use that

information plays may differ. Teachers require new information in order to support the needs of their students, while department heads must be able to plan changes to their school program based on current research. Consultants are faced with the need to facilitate change in understanding and practice within both groups.

Section II: Level of Agreement With Middle School Literature

Results

Statements in Section II were designed to reflect current thought in middle school literature, as well as to determine the level of support given to each statement by respondents. The statements represented such areas as middle school philosophy, young adolescent developmental needs, and curriculum and pedagogy related to middle school physical education. The section structure was designed to determine the degree of support in schools for key elements in the literature. Subjects were asked to rate their level of agreement on a four point Likert scale from one, strongly disagree, to four strongly agree, for each statement. In addition, the identification of individual responses by role and educational background enabled the statements to be analyzed for significant differences among groups.

All subject responses to Section II were analyzed through raw score, mean and standard deviation for each statement (see Table 5). Subjects responded to some of the statements by circling the area between two points. These are shown in Table 5 as "undecided". Due to the small sample size, all responses were accepted and used during calculations. The summary of responses shown in Table 5 reveal 15 of 30 statements with a minimum of one response in each rating scale category. Subject ratings for 11 of the 15 statements show a mean response value between 2.1 and 2.7 with a standard deviation greater than 0.7. The standard deviation for these eleven statements indicates that the average could change from one of agreement to one of disagreement, or vice versa. Three statements received complete support, either a three or a four chosen on the rating scale, from all subjects. Subject responses to six statements indicated lack of support for the information content. The six negative responses are not as strong in their opposition as the three positive statements are in their support.

Table 5:

Raw Score Response, Mean, and Standard Deviation By Statement (N = 43)

Statement	Raw Score Response					Mean	Standard Dev.
	Str. Dis	Disagree	Undecide	Agree	Str. Agree		
1	--	--	--	17	26	3.61	.50
2	--	7	--	29	7	3.00	.58
3	--	2	2	12	27	3.56	.62
4	--	5	--	21	17	3.27	.66
5	--	6	--	22	15	3.21	.68
6	--	--	--	12	31	3.72	.45
7	4	11	1	22	5	2.66	.81
8	--	--	--	32	11	3.26	.44
9	4	23	--	14	2	2.33	.72
10	1	9	3	26	4	2.80	.62
11	7	17	1	15	3	2.34	.84
12	2	1	1	25	14	3.20	.72
13	1	--	4	24	14	3.23	.63
14	9	21	1	11	1	2.11	.75
15	1	19	--	14	9	2.72	.83
16	--	15	3	20	5	2.73	.65
17	--	15	3	20	5	2.73	.65
18	1	14	--	19	9	2.84	.79
19	--	2	--	24	17	3.35	.57
20	--	7	--	22	14	3.16	.69
21	2	5	--	24	12	3.07	.77
22	9	23	--	9	2	2.09	.78
23	8	14	2	12	7	2.44	.98
24	4	14	3	16	6	2.59	.84
25	--	2	--	15	26	3.56	.59
26	22	16	1	4	--	1.59	.68
27	2	13	1	18	9	2.80	.83
28	3	13	3	21	3	2.59	.72
29	4	5	--	31	3	2.77	.72
30	--	9	1	25	8	2.97	.64

Note. "Undecided" was not a category provided on the questionnaire, but has been included here because some subjects responded using it.
A dash means that there were no recorded responses in the category.

Table 6:

Mean, Standard Deviation by role and t Probability for teacher and department head Comparisons.

Statement	Teacher (n=27)		Department Head (n=11)		t prob. (for teachers and dept. heads)	Consultant (n=5)	
	Mean	Stand. Dev.	Mean	Stand. Dev.		Mean	Stand. Dev
1	3.48	.51	3.73	.47	.18	4.00	.00
2	2.89	.58	3.28	.47	.06	3.00	.71
3	3.44	.68	3.73	.47	.22	3.80	.45
4	3.17	.67	3.64	.51	.04*	3.00	.71
5	3.07	.67	3.64	.51	.02*	3.00	.71
6	3.78	.42	3.46	.52	.05*	4.00	.00
7	2.83	.91	2.27	.47	.06	2.60	.55
8	3.37	.49	3.09	.30	.09	3.00	.00
9	2.33	.83	2.36	.51	.91	2.20	.45
10	2.69	.59	3.00	.63	.15	3.00	.71
11	2.13	.80	2.46	.82	.27	3.20	.45
12	3.06	.74	3.36	.67	.24	3.60	.55
13	3.19	.71	3.36	.51	.45	3.20	.45
14	2.06	.76	2.00	.78	.84	2.60	.55
15	2.59	.84	3.00	.78	.18	2.80	.84
16	2.65	.53	2.82	.87	.47	3.00	.71
17	2.65	.53	2.82	.87	.47	3.00	.71
18	2.89	.75	2.64	.92	.39	3.00	.71
19	3.33	.62	3.27	.47	.77	3.60	.55
20	3.15	.77	3.27	.47	.62	3.00	.71
21	3.07	.92	3.09	.30	.95	3.00	.71
22	2.04	.81	2.36	.81	.27	1.80	.45
23	2.33	.99	2.55	1.04	.56	2.80	.84
24	2.61	.91	2.73	.79	.71	2.20	.45
25	3.48	.64	3.55	.52	.77	4.00	.00
26	1.65	.71	1.27	.47	.11	2.00	.71
27	2.72	.86	3.09	.83	.23	2.60	.55
28	2.32	.71	3.09	.30	.00*	3.00	.71
29	2.63	.79	3.09	.30	.07	2.80	.84
30	3.02	.71	3.00	.45	.94	2.60	.55

* $p \leq .05$

Each survey response was categorized by the current role of the respondent as a teacher, department head, or consultant. The information in Table 6 shows the mean and standard deviation by role as well as the significant difference between teacher and department head responses (t

probability) for each statement. A standard deviation greater than 0.8 was reported for 9 statements attributed to teacher responses. Department heads had seven statements with a standard deviation greater than 0.8. One statement regarding the decrease of student skill level due to rapid growth, had a standard deviation of 1.04. Consultants' results showed three statements with a standard deviation greater than 0.8.

Differences in statement response between teachers and department heads were further analyzed using a one-way t test ($p \leq .05$) to determine if significant differences existed between groups. T-test results revealed significant differences in group responses for four statements (see Table 6): statement four (t prob. = .04) which asked about programs focusing on different developmental levels; statement five (t prob. = .02) regarding physical education supporting the overall philosophy of the middle school; statement six (t prob. = .05) referring to student learning at it's best during modified activities; and statement 28 (t prob. = .00) which suggested that the primary program focus should be on developing adolescent fitness levels.

Responses were re-grouped based on educational background, as determined in Section I, for further analysis. Two subject groups, those responding yes and those responding no, were created for each of the four educational categories, (a) middle school pre-service education (MSPre), (b) middle school physical education pre-service education (MSPEPre), (c) middle school inservice education (MSIns), and (d) middle school physical education inservice education (MSPEIns). The results in Table 7 indicate the mean response by group to each statement, as well as the t probability using a pooled variance model t-test ($p \leq 0.05$). Statement 24, fundamental principles of movement are reinforced in each instructional unit and statement 27, opportunities for "in-depth" instruction are provided, show significantly different responses in each education category. Statements 6, students learn best when activities are modified to meet individual student needs, 23, the physical education program is structured as a three year program, and 29, the physical education program provides students with information about maintaining personal health, show significant difference in responses for the two inservice categories only . In each case where significant difference is shown, the respondents with educational training agree more strongly to the statement than do those without middle school education.

Table 7:

Mean Response by Educational Background (Yes/No) to Each Statement and Pooled Variance Model t-test.

State-ment	MSPEPre			MSPre			MSPEIns			MSIns		
	Yes ($\bar{x}$) n=11	No ($\bar{x}$) n=32	t prob.	Yes ($\bar{x}$) n=15	No ($\bar{x}$) n=28	t prob.	Yes ($\bar{x}$) n=32	No ($\bar{x}$) n=11	t prob.	Yes ($\bar{x}$) n=36	No ($\bar{x}$) n=7	t prob.
1	3.55	3.63	.65	3.60	3.61	.97	3.72	3.27	.01*	3.61	3.57	.85
2	3.09	2.97	.55	3.07	2.97	.59	3.09	2.73	.07	3.08	2.57	.03*
3	3.50	3.58	.72	3.47	3.61	.49	3.53	3.64	.63	3.57	3.50	.79
4	3.50	3.19	.18	3.63	3.07	.01*	3.42	2.82	.01*	3.32	3.00	.24
5	3.36	3.16	.39	3.33	3.14	.38	3.28	3.00	.24	3.22	3.14	.78
6	3.82	3.69	.42	3.67	3.75	.57	3.81	3.46	.02*	3.81	3.29	.00*
7	2.91	2.58	.25	2.67	2.66	.98	2.72	2.50	.45	2.74	2.29	.18
8	3.37	3.22	.35	3.27	3.25	.91	3.25	3.27	.89	3.28	3.14	.47
9	2.27	3.22	.78	2.40	2.29	.62	2.41	2.09	.21	2.42	1.89	.06
10	3.00	2.73	.22	3.13	2.63	.01*	2.97	2.32	.00*	2.89	2.36	.04*
11	2.36	2.33	.91	2.07	2.48	.12	2.41	2.14	.36	2.40	2.00	.25
12	3.09	3.23	.57	3.23	3.18	.82	3.23	3.09	.57	3.24	3.00	.43
13	3.36	3.19	.43	3.27	3.21	.80	3.27	3.14	.56	3.24	3.21	.93
14	2.46	1.98	.07	2.13	2.09	.86	2.19	1.87	.22	2.10	2.14	.89
15	3.18	2.56	.03*	2.93	2.61	.22	2.69	2.82	.66	2.72	2.71	.98
16	2.77	2.72	.82	2.70	2.75	.81	2.72	2.77	.82	2.76	2.57	.48
17	3.00	2.64	.11	2.80	2.70	.62	2.81	2.50	.17	2.82	2.29	.05*
18	2.82	2.84	.93	2.73	2.89	.53	2.91	2.64	.33	2.86	2.71	.66
19	3.36	3.34	.92	3.53	3.25	.12	3.44	3.09	.08	3.39	3.14	.30
20	3.46	3.06	.10	3.20	3.14	.80	3.28	2.82	.05*	3.19	3.00	.50
21	3.55	2.91	.02*	3.13	3.04	.70	3.19	2.73	.09	3.11	2.86	.43
22	2.09	2.09	.99	2.13	2.07	.81	2.22	1.73	.07	2.19	1.57	.05*
23	2.68	2.36	.35	2.63	2.34	.35	2.70	1.68	.00*	2.58	1.71	.03*
24	3.14	2.41	.01*	3.10	2.32	.00*	2.80	2.00	.01*	2.76	1.71	.00*
25	3.46	3.59	.51	3.53	3.57	.84	3.56	3.55	.94	3.58	3.43	.53
26	1.64	1.58	.81	1.73	1.52	.32	1.61	1.55	.79	1.60	1.57	.93
27	3.55	2.55	.00*	3.13	2.63	.05*	3.00	2.23	.01*	2.92	2.21	.04*
28	2.46	2.64	.47	2.77	2.50	.25	2.70	2.27	.09	2.63	2.43	.51
29	3.00	2.69	.22	2.93	2.68	.27	2.91	2.36	.03*	2.86	2.29	.05*
30	3.18	2.89	.20	3.13	2.88	.21	3.03	2.77	.25	2.99	2.86	.63

Note. M.S.Pre means Middle School Preservice Education, M.S.P.E.Pre means Middle School Physical Education Preservice Education, M.S.Ins means Middle School Inservice Education, and M.S.P.E.Ins means Middle School Physical Education Inservice Education.

* $p \leq .05$

Section II: Level of Agreement With Middle School Literature Discussion

Of the 30 statements listed in the questionnaire only three, numbers one, six, and eight, received complete respondent support, with either agree (3) or strongly agree (4) indicated on the rating scale (see Table 5). Subjects unanimously agreed that young adolescent children go through a period of rapid change as they move from childhood to adolescence (C.C.S.D., 1987, & Garvin, 1990). A key component of adolescent change is the moral and ethical development an individual goes through (Cobb, 1995). Young adolescents use emerging "standards" by which they judge their decisions. The development of these ethical standards occur as young adolescents test childhood beliefs against new situations and gain self-identity (Cobb). All subjects felt that their current programs supported moral and ethical development as a component of instruction. The third statement to which subjects fully agreed suggests that instructional practice should allow for the modification of activities to meet the individual developmental needs of each student. Rikard and Woods (1993), Mosston and Ashworth (1986), and Herkowitz (1978) have described instructional models that support the notion of accommodating individual differences. Each model indicates a need to provide experiences that engage learners at an appropriate level through the use of such ideas as "lead-up" and "small-aside" games and the use of a variety of instructional strategies.

The questionnaire focused on current middle school physical education practice to determine the prevalence of related research components being used. Based on the varied responses it is suggested that physical education programs in middle schools do not consistently reflect current thought. The gap that appears to exist between "practice" and "thought" may be attributed to the relatively limited amount of middle school physical education literature available or completed (Placek, 1992). Some subjects indicated that their responses were not fully based on what they believed but rather what they felt their programs were offering. While it would be worthwhile to determine respondent's thoughts, the questionnaire was intentionally structured to determine the relationship between middle school literature and actual practice.

No statements were completely rejected by respondents (only 1 or 2 chosen), however, some statements did lack support. Six of 30 statements

received a mean score of 2.49 or less. Three of the questions that were not supported were related to two key recommendations from *Turing Points: Preparing American Youth for the 21st Century* (C.C.A.D., 1989). The first of the recommendations suggested that teachers should be provided with opportunities to "know" their students well. This may be accomplished by maintaining the same student group for their entire three year middle school experience. Responses did not suggest support for the need of young adolescents to have significant relationships with caring adults through programs that allow teachers time and opportunity to develop these relationships (Merenbloom, 1988, C.S.D.E., 1987, & Epstein, 1990). The nature of current middle school physical education is such that students may only see their physical education instructor three times a week on average, with new groups of students forming each year. This does not support educators as they attempt to create significant relationships with their students. The second recommendation suggested that instruction should be linked to a core academic program. The idea was not agreed to, with 32 subjects indicating that they either disagreed or strongly disagreed (mean = 2.09) with statement 22. Placek (1992) suggested that physical education curriculum revision needs to be more than just the re-thinking of old organizers and should instead become integral to the interdisciplinary core of middle schools. It appears that respondents are reticent to change curriculum that is traditionally taught in favour of something different such as integration with the core curricula, suggested by Placek's "Conception 5" (see Table 2). Alternative approaches to scheduling and structuring curriculum have also been offered by Merenbloom (1988), and Batesky (1993). An alternative structure suggested in statement 23 that organizes curriculum on a three year program rather than three, one year programs was not agreed to (mean = 2.44). It appears that the disagreement is not with the concept but rather that it is a component of current programs.

Question 11, suggested that a student's skill level may decrease during their middle school years due to bones growing at a faster rate than muscles, resulting in a lack of coordination and awkwardness (Pangrazzi & Darst, 1994). Subjects did not agree with this statement (mean = 2.34). In most cases a student's physical skills will progressively develop during their middle school years, however, the potential for skill levels to decrease may need to be a consideration for planning. By not acknowledge the possibility of a

decreased level of physical skill, educators may be unfairly assessing and evaluating student development. The assessment and evaluation process may become unfair if it fails to take into account the variety of student developmental levels.

When asked to respond to the statement "your middle school physical education classes do not include 'full' game participation as a component of instruction" (statement 14), subjects disagreed (mean = 2.11). Pangrazzi and Darst (1994) suggested that students will only use well-learned skills in games rather than risk looking foolish in front of their peers. Therefore, "full game" play should not be a major focus of the instructional program because students have not yet developed mature motor patterns. This may suggest that "full game" participation does have a place in the instructional program. Failure to strongly disagree with the statement indicates that it may not be the main or only component of instruction.

When examining the survey responses by role teachers had the largest number of survey statements with a standard deviation of .8 or higher, followed by department heads, and consultants (see Table 6). This deviation from the mean by nearly a full point on a four point scale suggests that many of the questions could easily shift from agree to disagree, or vice versa. The variability of responses reveals a lack of consistency in practice as it relates to middle school physical education. Response variability is undesirable as it fails to support a consistent set of program components for middle school physical education.

Of the 30 survey questions in section II only four showed a significant difference in response between teachers and department heads (see Table 6). Statement four, which suggested that middle school physical education activities should be appropriate to the developmental level of the students, Statement five, offered that middle school philosophy should be supported through the physical education program, and Statement six, which focused on modifying activities to meet individual needs, show a significant difference but only vary between agree and strongly agree. For both statements department heads strongly agreed. Of particular importance was the significant difference shown for statement 28, which offered fitness development as the primary focus of a middle school physical education program.

Statement 28 focused on the development of student levels of physical fitness through physical education programs. The improvement of academic performance through health and fitness was cited as one of eight key elements for middle schools (C.C.A.D, 1989), and yet teachers indicated that fitness was not their primary program focus. A discrepancy between average teacher responses (mean = 2.32) and those of department heads (mean = 3.09) is shown in Table 6. Consultants, although not included in the test for significant difference because of their low number, showed agreement with the statement (mean = 3.00). Response differences may be due to department heads and consultants believing that middle school physical education programs should be developing fitness levels, and teachers suggesting that present programs do not. The difference in opinions shown by role suggests the need for a clearly articulated middle school physical education vision and set of goals. The vision, which might include fitness development, would act as a guide around which the program may be organized.

Group comparisons, based on the level of respondent pre-service and inservice education for middle schools and middle school physical education, show significant differences in response to particular statements. Group comparisons show that for Statements 24 and 27 a significant difference based on educational background exists (see Table 7). In all cases subjects with some form of preservice or inservice middle school education agreed with the statements, while those without similar education disagreed or only minimally agreed. A few respondent comments suggested that they did not know what the fundamental movement concepts refered to in statement 24 were. Current literature (Rikard & Woods, 1993, and Placek, 1992) shows a necessity to link fundamental movement concepts between units and to provide opportunities for "in-depth" instruction. These results are important because they show a clear difference between groups, based on educational background, for two key concepts in the organization of middle school physical education.

When comparing subjects with inservice education, the number of statements that showed significant difference in responses more than doubled from that of pre-service (see Table 7). Nine statements for middle school physical education and general middle school inservice were shown to have significant differences. This suggests that the research being shared through inservice activities is creating an information gap between those with

relevant education and those without. Subjects that have received some form of inservice training were consistently more supportive of the literature than subjects with no inservice training.

Section III: Open Questions

In order to allow subjects an opportunity to add information that they felt was not presented in the rating scale section, a series of open ended questions was designed. Each of the ten open ended questions relate to a particular aspect of middle school physical education. Each response was coded and recorded in tables. Each table corresponds to the appropriate question number and is examined individually in the results section. Through the coding of subject responses, categories emerged that describe key aspects of current practice. The tables in this section show four results (a) the category that emerged as a result of the coding, (b) the number of teachers that made statements in relation to each category, (c) the number of statements made in each category, and (d) the percentage of statements represented in that category. Because subject responses were divided into individual statements, more than one statement may have been recorded by a single subject. There were not cases recorded that showed a category to be dominated by a single subject. Each category reflected a balance of statements from a variety of subjects.

Question 1 Results:

Table 8 shows the main features that distinguish elementary and secondary physical education programs from those of middle schools. Subject responses by role; teachers (15), department heads (7) and consultants (2), showed curriculum organization to be highly commented upon. Teachers (13) and department heads (3) also supported instructional strategies in their responses. For department heads (3) and consultants (3) teacher training emerged as an important category, but not for teachers. The category focusing on facility differences received only marginal support from department heads (1).

Table 8:

Characteristics That Distinguish Middle School Physical Education From Elementary or Secondary Physical Education (Section III, Question 1)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Instruct. Strat's	11	13	3	3	0	0
Curric. Org.	14	15	5	7	2	2
Teacher Educ.	2	2	3	3	2	3
Athletic	3	4	1	1	0	0
Transition	1	1	1	1	0	0
Assess. & Eval.	13	15	1	2	0	0
Facilities	0	0	1	1	0	0
Indiv. Student Devel.	3	3	0	0	1	1
No Diff.	2	3	0	0	0	0
Time Allocation	1	2	3	3	0	0

Question 1 Discussion:

Ten categories (see Table 8) emerged in response to question one regarding the characteristics that distinguish a middle school physical education program from that of an elementary or secondary program. The organization of curriculum was the greatest distinguishing factor between the levels. Responses in this category suggested such things as increased exposure to a variety of activities, specified programs by grade level to allow for developmental progression and in-depth instruction. Some responses suggested that not all activities from each movement category needed to be dealt with each year, rather, over the course of the students' three year middle school experience they would be involved in a variety of different activities. These responses supported statement number 23 in Section II of the survey and is consistent with Batesky's (1993) model for "cycles" of activities over a three year period. Batesky's model suggests an organization for the delivery of curriculum that allows for both "in-depth" instruction and a wide variety of experiences. This response category suggests that educators are thinking of

the types and organization of activities that are most appropriate to middle school students.

Teacher (13) and department head (3) responses suggest that instructional strategies that allowed for variety in approach to activities, and some choice of activities within the physical education program were important differences between elementary, middle, and secondary schools. There were no comments, however, to indicate that the curriculum being offered was significantly different than that at either of the other two levels. In addition, teachers and department heads felt that instructional strategies that support small, lead-up type games rather than full versions of games should be used regularly to facilitate student involvement and learning. Rickard and Woods (1993), Mosston (1986), and Herkowitz (1978) assert that a variety of instructional strategies are needed to meet the individual needs of students. This was supported by teacher and department head comments. This is important as it identifies instructional strategies as a key component of middle school physical education. Muska Mosston (1986) has offered a "spectrum" of instructional styles that progress from the teacher as the focal point of instruction to the student being at the center. Each instructional style is characterized by the need to engage students in appropriately structured instruction and practice. Each style contributes to the evolution of the learner as an independent person (Mosston & Ashworth, 1986). The "spectrum" assists learners in becoming independent thinkers, able to make decisions about their own physical development. Instructional styles are grouped into two clusters, one with the teacher playing a dominant role, the other with the learner's role as dominant. This "discovery threshold" that learners move across provides more autonomy in decision making and is important in the development of self-identity for adolescents.

Teacher (2) and consultant (3) comments identified teacher education as a critical difference between school levels. Most respondents had received little pre-service teacher education specific to middle schools or middle school physical education despite a recommendation from the Carnegie Council on Adolescent Development (1989) suggesting the need for teachers who are experts in teaching young adolescents. In addition, comments pointed to middle schools being staffed by a mix of specialist and generalist physical education teachers. This is different from many elementary systems that use generalist teachers and many secondary schools that use only specialists. The

staffing arrangement means that department heads and consultants are heavily relied upon to organize programs and provide instructional support for generalist teachers to ensure that quality programs are delivered in all physical education classes.

The category related to facilities, received only 1 department head comment. This suggests that this was not a critical difference between educational levels. Neither the teacher nor the consultant group recorded any comments related to facilities.

Question 2 Results

Table 9 shows the categories that developed in response to the question about accommodating individual student development. All three respondent groups, teachers (7), department heads (4), and consultants (2), indicated that the methods used to assess and evaluate students assisted in accommodating individual development. Teachers (7) and department heads (4) felt that student choice was a means of accommodating individuals. Teachers (11) were the only group to rate instructional variety highly. Inclusion of students with special needs gained only four teacher responses and none from the other two respondent groups.

Table 9:

How Middle School Physical Education Programs Accommodate Individual Student Development (Section III, question 2)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Program Modif.	5	5	0	0	1	1
Student Choice	5	7	4	4	1	1
Instruct. Variety	9	11	1	1	1	1
Inclusion	4	4	0	0	0	0
Not Done	3	3	0	0	2	2
Individ-ualization	4	6	2	3	0	0
Assess. & Eval.	6	7	4	4	2	2

Question 2 Discussion:

Due to the different rates of growth that young adolescents go through, the necessity for a program that accommodates individual student differences is critical. Table 9 shows six categories that describe the types of activities subjects use in their programs to support student individual needs. Overall, assessment and evaluation was the most highly commented upon category by all three groups. Practices such as self-evaluation, measuring improvement on an individual basis, student willingness, cooperation, and peer-interactions were suggested as ways in which assessment and evaluation practices could support individual student differences. Many comments focused on basic concepts and ignored more fundamental practices such as individualizing the assessment tool used (Herkowitz, 1978) or having students assist in setting the criteria for the task to be completed or at least being aware of what the criteria are.

Student choice emerged as a category that accommodated individual differences. This was supported by seven teacher responses and four department head responses. Both groups suggested that students were permitted to choose the activity that they would like to be involved in. Student choice allows students to select activities that are appropriate to their needs.

Teachers were the only group to support instructional variety with 11 of their responses. They suggested such strategies as using small groups and grouping by ability. A variety of instructional strategies and the use of adaptations are supported by Vatterot and Yard (1993) who suggest that an instructional environment responsive to the developmental needs of young adolescents is important.

Some teacher comments (4) indicated that the inclusion of students with special needs was an important contributor to accommodating individual student needs. Department Heads and consultant did not comment on this category. This strategy deals only with those students that have a discernible difference and fails to address the individual needs of all students.

Two consultant responses suggested that individual differences were not being accommodated in middle school physical education programs. The majority of teacher/department head comments however, indicated that they felt their programs were meeting individual student needs. Only three

teacher responses and no department head comments suggested individual student needs were not being accommodated. It is unclear whether the difference between consultant beliefs and those of teachers and department heads are based on differing philosophies or a differing definition of "accommodating".

Question 3 Results

When asked to describe ways in which students were required to be active outside of regular physical education class time eight teacher responses and three consultant responses revealed that students were not asked to do this (see Table 10). Department heads (4) stated that athletic opportunities were provided to allow for out of class activity. Support materials to assist students with activity beyond the instructional environment were only marginally supported by teachers (1) and not by the other two respondent groups. Eight teacher responses described encouragement as the only way that students were asked to do activity out of class.

Table 10:

Ways In Which Students Are Asked to Practice Movement Skills Outside of Physical Education Class (Section III, question 3)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Not Asked	8	8	1	1	3	3
Athletic Opport.	4	4	4	4	0	0
Student Recording	3	4	2	2	1	1
Encour-aged	6	8	2	2	1	1
Support Material	1	1	0	0	0	0
Formally Assessed	1	1	1	1	1	1
Make-ups	1	2	0	0	0	0

Question 3 Discussion

The concept of asking students to practice movement skills outside of class time did not receive much support from subjects. The categories that emerged focused on practices that required minimal teacher involvement in work done outside the physical education class. These categories included such things as, providing athletic opportunities for students and encouraging students to be active. Although, these two categories provide opportunity for activity, students are not directly asked to utilize them in practicing their movement skills. Some subjects said that students were not asked to practice at all. Only 44 comments were recorded for this question, compared to 85 comments for question one. The relatively low number of comments suggests that many other respondents may be doing nothing and simply chose not to answer the question to save time. Three statements indicated that no formal request and assessment was done on student work outside of the physical education class. If students are expected to develop and internalize skills taught in class, increased opportunity for "in-depth" practice must be granted (Batesky, 1992), yet those responding have not addressed this need beyond the instructional setting.

Question 4 Results:

When asked to describe ways that middle school physical education programs supported the guidance needs of students (see Table 11), teachers (8), department heads (2) and consultants (2) said that discussions were a way of accomplishing this. Department heads (5) suggested that teacher interest was the primary means of supporting student guidance needs. Consultants (2) felt that the guidance needs of young adolescents were not met through the physical education program. "Home-based" guidance structures were not supported by department heads or consultants as a means of student support and only minimally supported by teachers (2).

Table 11:

How Middle School Physical Education Teachers Participate in the Guidance Needs of Young Adolescents (Section III, question 4)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Teacher Interest	2	4	3	5	1	1
Counselor Support	1	1	0	0	1	1
Home-Base Guidance	2	2	0	0	0	0
Role Model	2	2	1	1	0	0
Curric. Comp-onent	6	7	1	1	1	1
Disc-ussions	4	8	1	2	1	2
Encour-agement	3	5	0	0	0	0
Class Organiz.	4	5	2	2	0	0
None	3	3	0	0	2	2

Question 4 Discussion:

Merenbloom (1988) and Epstein (1990) suggest the need for teachers to fulfill a limited role as guidance counselors for students in their care. Question four asked how schools were providing for this need to create strong and caring relationships between physical education staff and students. All three groups indicated that informal discussions, those that happen outside the formal instructional setting, were used with students (see Table 11). Teacher interest, meaning that it is up to the teacher to make the necessary contacts with the students, accounted for five of the department head statements. Consultant responses (2) indicated that physical educators were not meeting student guidance needs. The nature of the categories that emerged from the subject's suggests that the main determinant of support for student guidance needs is the personality of the teacher. A total of nine statements from all groups indicated that guidance issues were a curricular component of their programs. The "limited role as guidance counselors" referred to by Merenbloom, the California State Department of Education

(1987), and Epstein is not shown to be a formal component of respondents' physical education programs.

Question 5 Results

When asked how parents/guardians were used to support student learning of physical skills 19 of 38 statements (see Table 12) suggested that parents were not asked. Those teacher (4) and department head (1) statements that did show some parent involvement focused primarily on supporting athletic and intramural opportunities. The majority of responses by teachers (5), department heads (5) an consultants (1) indicated parent involvement only through informal contact.

Table 12:

How Parents/Guardians Are Used to Support Student Learning of Physical Skills (Section III, question 5)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
No	14	14	2	2	3	3
Contact Only	4	5	3	5	1	1
Athletic/ Intra-mural Support	4	4	1	1	0	0
Yes - In Class	2	2	1	1	0	0

Question 5 Discussion:

The report from the Carnegie Council on Adolescent Development (1989) revealed the need to re-engage families in the education of young adolescents. Merenbloom (1988), suggests that parental involvement is essential in supporting a school's priorities. The involvement of parents as partners in their child's education is important in order for learning to be supported and reinforced in the home environment. Based on the premise that parental involvement is essential in a middle school, question five asked respondents to indicate how their programs used parents/guardians to

support student skill learning in physical education. Approximately half of respondent statements indicated that parents/guardians were not asked to support student learning (see Table 12). Many statements suggested that parental involvement was limited to making contact with parents in some form or another (eg, phone or note) to discuss student progress. It is evident that few of the physical education programs actively engage the resources of the family to support skill, knowledge, and attitude acquisition in physical education. This untapped source of support links closely to the previous issue of assigning movement practice outside class time.

Question 6 Results:

Table 13 shows the categories that emerged when respondents were asked to describe if and how critical thinking was included in the physical education program. Statements from teachers (7), department heads (3), and consultants (3) identified critical thinking as a curricular focus area. Other statements suggested that teachers (12) and department heads (2) thought that critical thinking was developed through game strategies. Teachers (4) and department heads (4) said that critical thinking was not addressed. No consultant statements were recorded in the "no" category.

Table 13:

How Critical Thinking is Developed as a Component of a Middle School Physical Education Program (Section III, question 6)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Indiv./ Peer Analysis	2	3	0	0	2	4
Game Strategy	12	12	2	2	0	0
Curric. Focus	5	7	3	3	3	3
No	4	4	4	4	0	0

Question 6 Discussion:

Critical thinking has become an important aspect of an individual's education (B.C. Ministry of Education [B.C.M.E.], 1995, and Woods & Book, 1995). The interpretation of factual information in more than one way is a skill that begins to develop during the middle school years and therefore needs to be supported through the instructional process (Boyes & Chandler, 1992). When respondents were asked how their programs supported the development of critical thinking seven teacher responses, three department head responses, and three consultant responses indicated that it was a curricular focus in their program through situations that were set up to support critical thought. Game strategy emerged as a category through which teachers and department heads felt that critical thinking was developed. Game strategy, it is suggested, allows students to critically evaluate the results of potential offensive or defensive behaviours. It is unclear if teachers actively instruct the process of critical thinking in relation to game strategy or if it is assumed to occur because of the nature of the activity. A large number of department head statements (4) indicated that no critical thinking skills were actively instructed in their programs. The nature of physical education makes it a conducive environment for the instruction of critical thinking skills (Woods & Book, 1995). This is true because students are forced to think about the results of their actions in relation to the outcome of the game or activity. Based on subject responses (see Table 13) critical thinking is not given much direct instruction. It seems that respondents hope student ability for critical thought will develop indirectly through other learning and processes in place during the physical education program.

Question 7 Results:

When asked about their basis for student grading 13 teacher statements and three department head statements (see Table 14) supported work habits as a basis for grading students in physical education. Consultant statements did not support the "work habit" category. Statements related to student attitude evaluation were the most prevalent with 31 teachers, seven department heads, and two consultants statements being recorded in this category. Consultant (4) statements show that they believe no consistent format for evaluation exists. Teachers and department heads did not have statements in this category. One statement was unable to be classified in this section.

Table 14:

Basis For Student Grading in Middle School Physical Education (Section III, question 7)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Attitude	27	31	5	7	2	2
Work Habits	9	13	2	3	0	0
Fitness	5	6	3	3	1	1
Know-ledge	15	15	4	4	2	2
Skill	14	17	5	5	2	2
Self- Eval.	1	1	0	0	0	0
Student Devel.	1	1	0	0	0	0
Not Consis-tent	0	0	0	0	3	4

Note. One Statement was not classified

Question 7 Discussion:

The basis for grading students in middle school physical education deserves attention for it is through the student's grade that much of their attitude towards physical education is developed (B.C.M.E., 1995). Table 14 shows that 13 teacher statements and three department head statements focus on work habits as a means of determining a students letter grade. This is important because it indicates that some physical educators are still basing a student's grade on their work habits instead of their performance in relation to the set criteria. Work habits, which are not an indicator of student performance in relation to knowledge, skill, and attitude outcomes, should be reported separately from the letter grade (B.C.M.E., 1995). "Assessment is based upon clearly defined educational goals. There are distinctly defined criteria for determining student progress and achievement. Student achievement is based upon individual progress relative to the goals and objectives" (National Association of Sport and Physical Education [N.A.S.P.E.], 1995, p.11). This apparent contradiction between current evaluation practice and recommended practice has likely evolved from teacher need. Teachers have relied upon the evaluation and reporting

process to manage student behaviour, while new practice suggests that behaviour must be reported separately. Many teachers may still be evaluating work habits because they are unaware of the changes or because a better method of student behaviour management is not readily available. The majority of statements from teachers (31), department heads (7), and consultants (2) referred to the evaluation of student attitudes. This is an important area of evaluation because of the desire to impart positive lifelong attitudes about physical activity. It is equally important in the instructional process. While it is clear that respondents feel attitudes are an important area to assess it is unclear if they feel it is an equally important area to instruct. Consultant statements (4) showed that they believe consistent evaluation processes are not being used within schools. Inconsistent assessment and evaluation processes contribute to poor student attitudes about physical education and contradict, rather than support, the intent to develop positive lifelong attitudes (B.C.M.E., 1995).

Question 8 Results:

Table 15 shows respondent answers to the statement, "middle school physical education should focus on sport-related skill instruction." Responses focused on three main categories. Teachers (10), department heads (8), and consultants (3) agreed with the statement, saying sport was their main focus. Teachers (22), department heads (3), and consultants (3) said that an alternative focus to sport was essential. Only the teacher group (6) suggested that a balance of activities that included sport was important.

Table 15:

Focus of a Middle School Physical Education Program as it Relates to Sport (Section III, question 8)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Balance (incl. sport)	5	6	0	0	0	0
Alternate Focus	16	22	3	3	3	3
Yes - Main Focus	8	10	7	8	2	3

Question 8 Discussion:

Some middle school research (Placek, 1992) suggests that physical education curriculum should be more than just sport instruction. It should be linked closely to the educational core curricula of the school. Subjects were asked to respond to a statement that suggested the main focus of middle school physical education should be on sport-related skill instruction. Most responses (see Table 15) agreed with the statement and did not suggest alternative options such as a link to the central educational components of the school in other core curriculum areas. This is important because it shows physical education to be focused more on the development of sport ability than on supporting young adolescent developmental needs and fosters the continued fragmentation of learning. Many teacher (22), department head (3), and consultant (3) responses, disagreed with the statement and suggested that an alternative focus was needed. Alternatives included options such as, movement education, fitness and well-being, and healthy living, which indicate a move toward a stronger and more rounded curriculum, but do not consider the program as "separate but parallel" or "integrated into the core curriculum (Placek, p. 337). The separation of student learning into discrete subject areas continues the fragmentation of learning as students learn small pieces of knowledge in isolated settings. Placek suggests that greater links to knowledge from other curricular areas is a necessary component of physical education so that the relevance of learning is clearly established.

Question 9 Results:

Table 16 shows the three groups' feelings about making physical education relevant to their students. All three groups, teachers (9), department heads (5), and consultants (4), said that describing the relationship of activity to an individual's lifestyle was important. Teacher statements supported the ideas of describing the benefits of physical education (8) and reinforcing that physical education is fun (5). Department heads created relevancy for their students by focusing their statements on the relationship of physical education to sport (4) and the organization of the curriculum (7). Four department head statements indicated that their programs did not clearly establish the relevancy of physical education for students. Only three

teacher statements indicated the need for students to acquire activity skills for a changing society. Neither the department head nor consultant group indicated this.

Table 16:

How Physical Education is Made Relevant to Middle School Physical Education Students (Section III, question 9)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Does Not	2	2	4	4	0	0
Adol-escent Change	4	4	0	0	0	0
Benefits	5	8	1	1	0	0
Fun	5	5	0	0	0	0
Teacher Value	2	3	0	0	0	0
Relat-ion to Life-style	9	9	4	5	4	4
Changes in Society	3	3	0	0	0	0
Relation to Sport	3	4	3	4	0	0
Curric. Org.	0	0	4	7	0	0
Reflection	0	0	0	0	2	2

Question 9 Discussion:

Question nine asked subjects how they create relevancy for students in their programs. Ten categories emerged (see Table 16) that described aspects of the program ranging from, the benefits of physical activity to the relationship of physical activity to lifestyle. Few responses suggested that the physical education instructional process created relevant learning links to other areas of a student's life, either within or outside school. The organization of curriculum emerged as an important category for department heads (7). It was felt that the way in which curriculum was organized and which activities were offered greater relevance to a student's lifestyle could be demonstrated. Linking lifelong activities to a base of fundamental skills chosen from a wide

range of activities was suggested as an important curricular feature that would support the relevance of learning in physical education.

Question 10 Results:

Table 17 reveals additional areas of concern for middle school physical education. Teachers (2) and departments heads (5) made several statements related to gender issues in physical education. Nearly one quarter of teacher statements (4) related to the value of physical education for a lifetime. Department head statements (9) identified the issue of specialist

Table 17:

Additional Areas of Focus for Middle School Physical Education Programs (Section III, question 10)

Category	Teachers		Department Heads		Consultants	
	No. of Tchrs.	No. of State-ments	No. of D.H.'s	No. of State-ments	No. of Consul-tants	No. of State-ments
Daily	2	2	1	1	0	0
Lifetime Activ-ities	2	4	0	0	0	0
Fitness Devel.	2	2	0	0	0	0
Survey Support	6	6	0	0	0	0
Gender Issues	2	2	3	5	0	0
Specialist vs. Generalist	1	1	7	9	1	1
Program Devel.	0	0	3	3	0	0
District Coord.	0	0	1	1	0	0
Research Needed	0	0	0	0	2	2
Facilities	0	0	0	0	1	1
Discussion vs. Activity	0	0	0	0	1	1

teachers versus generalist teachers in the instruction of physical education. Two consultant statements suggested a need for further research in the area of middle school physical education.

Question 10 Discussion:

The final survey question allowed respondents to add any comments or issues that they felt were not addressed through the questionnaire. Eleven categories emerged (see Table 17). Gender issues (two teacher comments, five department head comments) were linked to some statements. The gender issue focused concerns on "girls [being] harder to convince to get active" due to concerns over appearance and lack of interest in the activities being offered. This issue is associated with questions in Sections I and II of the survey related to addressing the individual needs of students, whereby, gender as well as ability differences should be accommodated in physical education. Many department head statements (9) commented on the issue of generalist versus specialist teachers in middle school physical education. It is likely an issue at all levels but is raised in relation to middle schools because of the unique nature of instruction and content that must be undertaken. It is suggested that generalist teachers may not instruct as effectively as specialist teachers because of lack of interest or lack of ability. This is important to department heads because they are, in most cases, the ones charged with organizing the department. Part of that organization requires a large amount of support for generalists because they do not have the same personal level of expertise to rely upon that specialists have.

Conclusions

Based upon the data gathered from the research questionnaire and the information obtained through middle school literature several conclusions can be drawn about each of the three research questions.

A. What are the critical components of a middle school physical education program?

Results of this study indicate the following critical components of a middle school physical education program:

(a) Educational background:
Few middle school physical educators have received any pre-service education specifically related to middle school physical education. Most expertise is gained through specific inservice workshops and through teaching. Therefore, teachers with an educational background specific to young adolescents and middle school physical education is a critical middle school physical education component.

(b) Specialist Teachers:
Survey results support the need for specialist teachers in middle school physical education and in the needs of young adolescents. Middle school physical education, therefore, requires teachers that are not only educated in the specific needs of young adolescent students, but also teachers that have the skills and knowledge to deliver a quality middle school physical education program.

(c) Curriculum Organization:
The organization of middle school physical education curriculum is critical for providing students with a broad range of curricular opportunities throughout their middle school experience. Results support middle school physical education programs that provide both in-depth instruction and variety in curricular organization.

(d) Accommodation of Individual Differences:
The need to accommodate individual student differences and needs emerged as a critical component of a middle school physical education program. Strategies to support this include a variety of instructional and assessment/evaluation practices that support the physical, intellectual, psychological, social, and moral/ethical development of young adolescents.

(e) Grading Practices:
The way in which students are assessed and evaluated in physical education is a critical component of a middle school physical education program. Assessment, evaluation, and reporting practices should relate to clear and achievable learning outcomes. Assessment, evaluation and reporting practices should support and foster student success in physical education.

(f) Curriculum Content:
What is taught in middle school physical education must be considered during program planning. Middle school physical education should focus on a broader range of movement opportunities than just "sport-based" activities. Suggestions include a broad range of activities that include sport as well as alternative approaches such as movement education, which provides an understanding of the fundamental aspects which underlie all movement.

(g) Relevance:
Middle school physical education programs should be clearly relevant to young adolescents. This relevance may be related to personal needs or to other learning that occurs within the school.

B. Do educators in different roles differ significantly in their views about middle school literature?

(a) Results from Section II of the survey questionnaire suggest that teachers and department heads differed significantly on only four statements. Differences existed in relation to providing activities that were appropriate for the developmental level of the students, support for the overall philosophy of the school, modifying activities to support student learning, and the program focusing primarily on fitness development. Therefore, middle school physical education teachers and department heads, in most cases, did not differ significantly in their view of middle school literature.

(b) When responses were analyzed by educational background, nearly one third of the statements (9, n=30) showed a significant difference based on inservice education. The original research question suggested that no significant difference would exist between groups of respondents based on their role, it failed to take into account differences based on educational background.

C. Are current middle school physical education programs consistent with middle school research?

The programs described by subjects in this research do appear to be consistent with middle school physical education research. Results show that the average of subject responses is consistent with middle school research.

Recommendations for Further Research

The amount of literature currently available on middle school physical education is not extensive (Placek, 1992), however, attempts are being made by various organizations such as the American Alliance for Health, Physical Education, Recreation, and Dance through there position paper on "Appropriate Practices For Middle School Physical Education" (1995). This type of information is needed to support the unique learning experiences required by young adolescents and should be continued.

As a result of the research conducted in this thesis two key areas emerge in need of further research. The first is to explore the relationship of

educational background to practicing educator's understanding of middle school physical education theory further. This question could be examined more deeply to determine which type of education, pre-service or inservice, would best support the needs of physical educators in instructing young adolescents.

The second area for further research would involve the difference between educator beliefs and the realities of current programs. Some respondents suggested that their responses were based on what was currently happening within their department. These "current happenings" did not necessarily reflect their personal beliefs about what was most appropriate for young adolescent students. Investigating the difference between theory and practice would extend research question number three which focused on current middle school physical education programs being consistent with middle school research. This would help determine if educators believe the research but have not translated it into program changes. Further research could assist in understanding the barriers to program change. This would be an important step in aligning existing programs with middle school physical education literature. A slight variation may include determining if practicing teachers' beliefs align with recommendations from the literature, rather than current practice.

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APPENDIX A

SAMPLE SURVEY COVER LETTER

May 23, 1995

Subject Address

Dear . . .

Middle schools have been in operation for nearly thirty years in Canada and the U. S. With recent school district initiatives to utilize the middle school concept, a corresponding increase in research has also been noted. Absent from the new research in middle schools is an understanding of physical education programs at that level. For this reason the following survey has been developed. The components listed in the body of the survey have been culled from the literature on middle schools in general and the research done on middle school physical education thus far.

The purpose of this study is to determine the "critical" components of middle school physical education programs. Through the research process, an attempt to validate current literature will also be made. In addition, it will be determined if groups (teachers, department heads, district consultants) differ significantly in their responses to the survey questions.

Please spend the few minutes required to answer this survey and mail it by June 23, 1995. Most of the questions require that you circle a number indicating your choice; some open-ended questions have been included to provide you with the opportunity to express your own thoughts. The questionnaire asks you to identify a few facts about yourself, but no other identifying data is requested. This will ensure that your responses remain anonymous. Your participation in this research is completely voluntary and will remain confidential.

Please return the completed questionnaire in the envelope provided so that responses may be tabulated and analyzed. If you are interested in the findings of this research please call Scott Stinson at (604) 652-7330. Thank you very much for your time and assistance. Your responses will help establish a common base of understanding for middle school physical education.

Sincerely,

Scott Stinson
Graduate Student,
University of Victoria

Rick Bell,
Associate Dean of Education,
University of Victoria

APPENDIX B

SAMPLE SURVEY QUESTIONNAIRE

SURVEY QUESTIONNAIRE

SECTION I: GENERAL INFORMATION

This section will be used for analysis purposes only and will not allow individual responses to be identified. Please indicate your response to the following background information.

1. Your current role related to middle schools:
   Teacher ☐ Department Head ☐ District Consultant ☐

2. The province within which your school is located:
   British Columbia ☐ Alberta ☐ Saskatchewan ☐ Manitoba ☐

3. Gender: Female ☐ Male ☐

4. Number of years that you have been involved in teaching:
   1-2 yrs. ☐ 3-9 yrs. ☐ 10-14 yrs. ☐
   15-19 yrs ☐ 20 + yrs. ☐

5. Number of years that you have been teaching middle school physical education:
   1-2 yrs. ☐ 3-9 yrs. ☐ 10-14 yrs. ☐
   15-19 yrs ☐ 20 + yrs. ☐

6. A) Have you received any pre-service training specific to middle school physical education?
   Yes ☐ No ☐
   If yes, please list courses and institution(s) or agencies: _____
   _____
   _____

   B) Have you received any pre-service training specific to middle schools?
   Yes ☐ No ☐
   If yes, please list courses and institution(s) or agencies: _____
   _____
   _____

7. A) Have you been involved in any inservice or professional development activities related to middle school physical education?
   Yes ☐ No ☐
   If yes, please provide a brief description of the activity: _____
   _____
   _____

   B) Have you been involved in any inservice or professional development activities related to middle schools?
   Yes ☐ No ☐
   If yes, please provide a brief description of the activity: _____
   _____
   _____

SECTION II: RATING SCALE

On a scale of one (strongly disagree) to four (strongly agree) indicate the strength of your agreement or disagreement to each of the statements. Please circle your response on the appropriate scale under each statement.

1) A period of rapid change accompanies early adolescence (transition from childhood to adolescence).

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

2) Your middle school physical education program accommodates the rapid change that accompanies early adolescence.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

3) Middle school physical education should be taught by trained physical education specialists.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

4) Your middle school physical education program focuses on activities appropriate to the developmental level of your students.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

5) Your middle school physical education program is structured to support the overall philosophy of the school.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

6) Students learn best when you modify activities to meet the needs of the individual student.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7) Student activity in small groups is your main instructional strategy.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

8). In supporting student development, you use ethical issues (such as Fairplay) as a program component for instruction.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

9). Your physical education program is structured to allow teachers time and opportunity to clearly understand the needs of each of student.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

10). Your physical education curriculum units are linked together with a unified set of relationships, concepts and information (e.g. force absorption used in catching an object, or moving into a space).

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

11). Middle school students' skill performance will likely decrease during their middle school years due to rapid growth.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

12). Your students skill development is enhanced when instruction, assessment, and evaluation techniques focus on the skill technique rather than the performance.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

13). Your instruction is organized to reflect the fact that perfection does not occur in physical performance.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

14). Your middle school physical education classes do not include "full" game participation as a component of instruction.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

15). Students do not risk using newly learned skills in full game situations, instead they rely on mature (over-learned) skills.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

16) Early adolescent students tire easily and recover quickly from physical activity.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

17). Your middle school physical education program accommodates the fact that students tire easily and recover quickly.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

18). Pre and Post-testing of student ability is not used in your student evaluations at the middle school level.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

19). Physical performance of students varies from day to day as a result of a variety of factors (e.g. fatigue, stress, allergies, and sickness).

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

20). You choose curricular activities from a wide range of movement categories (e.g. games, dance, gymnastics).

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

21). Your physical education program is structured to allow for both required and selected activities.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

22). Your middle school physical education program uses themes that relate to the "core curricula" of the school (i.e., P.E. uses themes from core courses and develops a unit with those themes).

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

23). Physical education at your school is structured as a three year program, in which students experience different but related activities in each of their three years.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

24). Fundamental principles of movement (e.g. sending, receiving, evading) are reinforced in each instructional unit.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

25). Middle school physical education teachers should be trained specialists in the needs (e.g. physical, social, emotional, intellectual) of young adolescents.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

26). Middle school physical education teachers at your school maintain the same student group throughout the students' three middle school years.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

27). Opportunities for "in-depth" instruction (i.e. 12 or more lessons) are provided for within your physical education program structure.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

28). Your middle school physical education program focuses primarily on the development of young adolescent fitness levels.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

29). Your middle school physical education program provides students with information about maintaining personal health.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

30). You are prepared with a variety of instructional strategies in order to address a diverse range of student learning needs.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

SECTION II: OPEN QUESTIONS

In the following set of questions please provide a brief answer that focuses on your perceptions of a middle school physical education program.

1. List some characteristics that distinguish your middle school physical education from an elementary or secondary physical education program.

_____

_____

_____

_____

_____

_____

_____

_____

2. Describe how your middle school physical education program accommodates individual student development.

3. In what ways are students in your classes asked to practice movement skills outside of class time (i.e.. homework)? In these cases how do you hold them accountable?

4. Tell how you as a middle school physical education teacher assist in the guidance needs of young adolescents?

5. Are parents/guardians utilized to support student skill learning in your school? If yes, please provide some examples of how you accommodate this.

6. Is critical thinking a component of your middle school physical education program? Why or why not?

7. On what do you base the grading of students in your physical education classes?

8. Please respond to the following statement: "middle school physical education should focus on sport-related skill instruction".

9. Describe how physical education is made relevant to students in your classes.

10. Please provide any additional comments or suggestions that you may have.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank-you for your assistance in this process. Please feel assured that the information you have provided will be treated in a confidential manner.

APPENDIX C

CERTIFICATE OF APPROVAL FOR RESEARCH INVOLVING HUMAN SUBJECTS

OFFICE OF RESEARCH ADMINISTRATION

UNIVERSITY OF VICTORIA

Certificate of Approval

University of Victoria
Committee on Research and Other Activities
Involving Human Subjects

Principal Investigator	Department	Supervisor
Scott Stinson **Grad Student**	**Physical Education**	**Dr. R. Bell**

Co-Investigators:

Title: ***The Critical Components of Middle School Physical Education Programs as Determined by Practicing Experts***

Project No.	Start Date	End Date	Approval Date
145-95	**23 May 95**	**31 Jul 95**	**23 May 95**

Certification

This is to certify that the University of Victoria Ethics Review Committee on Research and Other Activities Involving Human Subjects has examined the research proposal and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the University of Victoria Research Regulation Involving Human Subjects.

[redacted]

Michael Corcoran,
Associate Dean, Research

Alex McAuley,
Associate Vice-President, Research

This Certificate of Approval is valid for the above term provided there is no change in the procedures. One year extensions may be granted provided there are no changes in the procedures.

P.O. Box 1700, Victoria, B.C., Canada V8W 2Y2 Telephone (604) 721-7973, Fax (604) 721-8960

APPENDIX D

SAMPLE REQUEST FOR CONTACT INFORMATION

Scott Stinson,
Phone: (604)652-7330
Fax: (604)652-7360

To:	Journey Middle School		
Attention:	Physical Education Subject Chair/Dept. Head		
Date:	April 18, 1995		
Number of Pages:	One	**Fax Number:**	954-1825

Message:

My name is Scott Stinson and I am the Physical Education and Practical Arts Consultant for Saanich School District. Our District has used the middle school concept for a number of years and is interested in establishing a network of middle school physical education in the province. To support that goal I am trying to identify the names of individuals instructing physical education at the middle school level. I would very much appreciate it if you could fax me a list of staff at your school that is currently teaching physical education. In addition I am conducting a survey to determine the critical components of a middle school physical education program and I would like to involve your staff in obtaining results.

As the year is fast coming to an end I would appreciate it if you could forward the names to me before the end of this week so that I can send out the surveys. My fax number is: (604)652-7360. I appreciate your assistance in this and will forward a copy of the list when it is complete.

Thanks,

Scott Stinson,
PE/Practical Arts Consultant,
School District #63 (Saanich)

VITA

Surname: Stinson Given Names: Scott Brian
Place of Birth: Cranbrook, B.C. Date of Birth: Aug., 9, 1963

Educational Institutions Attended:

University of Victoria	1981 to 1986
University of Victoria	1991 to 1996

Degrees Awarded:

B.Ed. (Secondary)	University of Victoria	1986

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Title of Thesis: THE CRITICAL COMPONENTS OF A MIDDLE SCHOOL PHYSICAL EDUCATION PROGRAM, AS DETERMINED BY PRACTICING EXPERTS

Author: 

SCOTT BRIAN STINSON

(Name in Block Letters)

APRIL 29, 1996

(Date)