Implementation Levels Of, Supports And Barriers To, And Influence Of The Essential Characteristics Of Effective Middle Schools In New Jersey Blue Ribbon Middle Schools

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IMPLEMENTATION LEVELS OF, SUPPORTS AND BARRIERS TO, AND INFLUENCE OF THE ESSENTIAL CHARACTERISTICS OF EFFECTIVE MIDDLE SCHOOLS IN NEW JERSEY BLUE RIBBON MIDDLE SCHOOLS

BY

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Submitted in partial fulfillment of the requirements of the Degree of Doctor of Education
Seton Hall University

2001
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Chapter I
INTRODUCTION

Creating effective schools in which an increasingly diverse student body learns and achieves at high levels has been the focus of reform efforts in the United States for over 150 years. Part of the national attention for more than 100 of these years has been reform to improve the quality of education for 10 to 14 year-olds, the period of transience. A focus of reform on the middle years has been prescient, for "the early adolescent years are crucial in determining the future success or failure of millions of American youth" (Carnegie Taskforce on Education of Young Adolescents, 1989, p. 10). Indeed, a growing and maturing body of knowledge over this time has supported the need for developmentally responsive schools for youngsters nearing adolescence (Jackson & Davis, 2000; Lipsitz, 1984).

Scholars and educators believed that the intellectual, social, physical, and emotional needs of young adolescents should determine educational programs for them (Wiles & Bondi, 1993). These leaders were supported by research that confirmed a broad range of developmental differences among and within youngsters at this formative stage (Moss, 1969). To address their needs, the junior high, a middle level school, emerged in 1909-1910 as a reform of the two-tiered elementary and secondary (8-4) school organization
extant since the mid-1800s (VanTil, Vars, & Lounsbury, 1967).

Educators identified educational purposes unique to transcents which justified the junior high school: integration, exploration, guidance, differentiation, socialization, and articulation (Gruhn & Douglass, 1956). Even so, communities most often adopted a three-tiered school organization, typically 6-3-3, for purposes of administrative convenience to address, for example, surging or dwindling enrollments (McEwin, Dickinson, & Jenkins, 1996).

Research into the 1960s found that the junior high schools had failed to implement the educational purposes which justified their creation, imitating instead the programs and practices of the senior high schools (Calhoun, 1983; Hansen & Hearn, 1971). Some attributed the failure to practical reasons that had dominated the creation of junior high schools (McQueen, 1972; Nickerson, 1966).

Local school districts and reform-minded educators conceived of a new school in the middle, one developmentally responsive to the unique academic and personal needs of young adolescents (Alexander, 1987; George & Alexander, 1993). Psychologists during this time also had determined the development of sixth and seventh graders more proximate than that of eighth and ninth graders so that the new middle schools represented a range of grade configurations, typically above grade four and
below grade nine (Leeper, 1974). The first middle schools appeared in the 1960s (Lounsbury, 1992). As they had for the junior high schools, the communities supported the middle schools more for convenience than educational theory (Beane, 1999; Johnston & Markle, 1986). Today, there are 16,000 middle schools nationwide, most in a 6-3-4 grade organization (Bradley & Manzo, 2000).

Studies of and the literature about the implementation rate of the essential characteristics of middle schools comprised a second stage of research and expert opinion. A majority cited a low level of implementation, hence a gap between the recommended characteristics and actual middle school practices which were not too different from those used in the junior and senior high (Binko & Lawlor, 1986; Brooks & Edwards, 1978; Butera, 1972; Dreibelbis, 1996; Pelner, Jackson, Kasak, Mulhall, Brand, & Flowers, 1997; Fry, 1994; Irvin, Valentine, & Clark, 1994; Jackson & Davis, 2000; Kopko, 1976; Minster, 1985; Munsell, 1984; Neighbors, 1998; Oakes, Quartz, Gong, Guiton, & Lipton, 1993; Riegle, 1971; Roseneau, 1975; Ross, 1989; Ruenzel, 1998; Russell, 1997; Seghers 1995; Urdan, Midgley, & Wood, 1995).

The implementation rate in middle schools identified as exemplary was higher than in non-exemplary middle schools but less than that described in the literature (Connors & Irvin, 1989; George & Oldaker, 1986; Gill, 1992; McGuire, 1995; Mowen, 1993; O’Connell, 1994; Prentice, 1990; Sheehan, 1989; Valentine, Clark, Nickerson, & Keefe, 1981; Weibling, 1997); however, by implementing more of the successful practices, the exemplary middle schools made significant contributions as models for middle school reform (McEwin, Dickinson, & Jenkins; 1996).

Survey data from two studies exemplified the low level of implementation. The National Association of Secondary
School Principals, as a follow-up to its 1981 study, reported on the responses of 570 administrators in all types of middle schools (Valentine, Clark, Irvin, Keefe, & Melton, 1993). Even when responsive practices were accepted, principals reported that characteristics associated with middle school reform were far from full implementation. Only 55% had exploratory programs; 36% had interdisciplinary programs, team teaching and intramural sports; 30% had implemented counseling and co-curricular activities; and 11% of the teachers had middle school certification. Irvin, Valentine, and Clark in 1994 commented on this study: "Much has yet to be accomplished before the typical middle school across the country has positively addressed each of the 10 essential elements" (p.58) found in the National Middle School Association’s (1982) This We Believe.

McEwin, Dickinson, and Jenkins (1996) compared data from their 1993 survey of a national, random, stratified sample of middle schools to earlier surveys conducted by Alexander (1968) in 1968 and by Alexander and McEwin (1989) in 1988. The research found “significant but limited” implementation of developmentally responsive practices and a “significant number of middle schools continue to follow unsuccessful and inappropriate practices such as departmentalization, rigid scheduling, and tracking, while failing to implement programs such as interdisciplinary team organization, flexible scheduling, and
interdisciplinary instruction" (p.156).

The continued reliance on inappropriate practices confirmed that the "volatile mismatch" (p.32) persisted between middle schools structures and programs and young adolescents' intellectual and social needs cited in the Carnegie Task Force on Education of Young Adolescents's report (1989). Eleven years later, Jackson and Davis's follow-up (2000) to this report still described a "poor fit" between the learning environment of a typical middle grades school and the intellectual and social needs of young adolescents" (p. 8). One middle schools reform expert pronounced that "many students in America's middle schools are [still] adrift" (Mizell as cited in Whitmire, 1998, p. 1).

Middle schools reform, centered around the characteristics of effective middle schools, had not been implemented, had been implemented incompletely or had been modified so much as to enervate the intended impact on improved student outcomes (Mizell, 1999; Sabo, 1995; Whitmire, 1998). Haycock and Ames (2000) concluded that middle schools reform had not produced more growth in student learning. Jackson and Davis (2000; see also Clark & Clark, 1993; Lewis & Norton, 2000; Ruenzel, 1998) summarized research and practice in implementing the essential middle school characteristics, which they called turning points design elements, this way: While structured changes in the 1990s responded well to students' affective
development, "relatively little has changed at the core of most students' school experience: curriculum, assessment, instruction" (p. 5). Indeed, "progress has been made, but there is much more ground to cover" (p. 6).

A comprehensive, integrated, on-going implementation of the characteristics, researchers and experts acknowledged, built the capacity and commitment needed to transform middle schools into developmentally responsive places of academic excellence and social equity still denied young adolescents (Alexander, 1986; Beane, 1999; Carnegie Task Force on Education of Young Adolescents, 1989; Cawelti, 1988; Erb, 2000; Erb & Stevenson, 1998; Felner, Jackson, Kasak, & Mulhall, 1997; Gable & Manning, 1997; Lipsitz, Jackson, & Austin, 1997; MacIver & Epstein, 1991; Morrison, 1978; Norton, 2000a; Oakes, et al., 1993; Quattrone, 1990; Urdan, Midgley, & Wood, 1995; VanZandt & Totten, 1995). Haycock and Ames (2000) observed that student outcomes improved the more schools implemented key features of effective middle schools.

A broader reform known as effective schools developed research over the past three decades which identified correlates, or characteristics, present in schools which made them exemplary places of achievement for students from all socio-economic backgrounds. The studies of Austin (1978), Brookover and Lezotte (1979), Edmonds (1979), Klitgaard and Hall, (1974), Phi Delta Kappa (1980), Rutter, Maughan, Mortimore, & Ouston (1979), and Weber (1971)
resulted in a number of correlates, many overlapping, but all interdependent programs, practices, expectations, beliefs, and relationships strongly associated with a supportive environment for academic success.

Alexander and George (1981), George and Shewey (1994), George, Stevenson, Thomason, and Beane (1992), Jackson and Davis (2000), Johnston (1984), Lake (1989), Shockley (1992), and Williamson, Johnston, and Kanthak (1995) found the correlates of effective schools related directly to or complemented the essential characteristics of effective middle schools. Researchers also extrapolated middle schools practices from effective schools studies (Johnston, Markle, & dePerez, 1984; Stefanich, 1984).

One program drew on the effective schools research in developing eight eligibility criteria and nine attributes to identify exemplary schools throughout the nation (Corcoran & Wilson, 1986; Heller & Montgomery, 1989). The U.S. Department of Education Elementary and Secondary School Recognition Program, known now as the Blue Ribbon Schools Program, moreover, worked with national-level associations so that middle schools designated as Blue Ribbon Schools were models of excellence, equity and developmental responsiveness (U.S. Department of Education, 1998), having also implemented at higher levels the essential characteristics of middle schools (Connors & Irvin, 1989). From the program's inception in 1982, middle schools personnel submitted applications either to the
elementary or to the secondary program; since 1999 middle schools participated only in the secondary recognition program which had been retitled Blue Ribbon Schools Program: Middle School and Secondary School.

The Blue Ribbon Schools process was found reliable in assessing the recognized schools' implementation of the middle school characteristics (Connors & Gill, 1991). Gill (1992) also stated that the higher implementation rate in exemplary schools of the characteristics of effective middle schools made the Blue Ribbon Schools exemplars for other reforming middle schools. Eight middle schools in New Jersey were designated Blue Ribbon Schools as part of the national recognition program for effective schools of excellence.

Purpose

This study sought to determine the level of implementation of the essential characteristics of middle schools, recommended in the literature, in New Jersey middle schools designated by the Blue Ribbon Schools Program as exemplary, and to identify the supports and barriers to implementation. A secondary purpose of the study was to determine the extent to which implementation of the essential characteristics of middle schools in New Jersey Blue Ribbon middle schools influenced teachers' taught curriculum, teaching strategies, and assessments.
Research Question

To what extent are the essential characteristics of effective middle schools being implemented in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

Subsidiary Questions

1. What are the supports to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

2. What are the barriers to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

3. To what extent has the implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools influenced the teachers' taught curriculum, teaching strategies, and assessments as perceived by teachers and principals?

4. Does a difference exist between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O'Connell (1994) national study?
Limitations

1. The study was limited to New Jersey middle schools designated exemplary through the U.S. Department of Education Blue Ribbon Schools Program. Not included were middle schools identified as exemplary through programs sponsored by other organizations.

2. The study was limited to results that were generalizable only to other Blue Ribbon middle schools.

3. The study was limited to findings based on the 13 essential characteristics of effective middle schools included in the survey and were not generalized to characteristics of middle schools excluded from the survey.

4. The study was limited to New Jersey Blue Ribbon middle schools whose teachers and principals represented a variety of personal and professional backgrounds, a situation that could have resulted in inconsistent responses.

Significance of the Study

Middle schools research had identified essential characteristics that collectively provided developmentally responsive programs and improved student outcomes. These characteristics, like the correlates of effective schools, were located in the schools and independent of social and economic conditions. Even so, research and the literature found low or ineffective levels of implementation in middle schools (Williamson & Johnston, 1999b) so that Jackson and
Davis (2000) pointed to the “inadequacy of educational opportunities and the pervasiveness of underachievement that virtually guarantee a diminished future for millions of young people” (p. 8).

Fewer than 50% of “schools that call themselves middle schools can demonstrate an effective and comprehensive implementation of the middle school concept” (George, 1999, pp. 4-5), a view also shared by Williamson and Johnston (1999a). Even with the threat of young adolescents at risk, middle schools had not integrated or not wanted to implement the determinants of effective middle school reform. This study contributed to the research of the reasons why middle school educators were not implementing that which had been determined effective practice (Bradley & Manzo, 2000).

Middle schools designated as Blue Ribbon, however, had been found more effective and among those whose implementation level of the essential characteristics had been the most complete. They represented what Stevenson and Erb (1998) called the developmental process of middle level reform:

It begins by teachers believing in and wanting to change. This is accompanied by creating opportunities for change and learning the skills necessary to support it. With a supportive environment and changes in practice, reforms get established. As these reforms are established they change the way a school
works and the way teachers and students experience school. Then, and only then can we expect to see real improvement in student performance and behavior. (p. 52)

Louis (2000) reasoned that exemplary middle schools were those that had been effective in "creating fundamental dispositions to teach and work in new ways" (p. 122) and had successfully navigated the political shoals of shifting and often incompatible demands.

New Jersey Blue Ribbon middle schools served as exemplars of this developmental reform and of the comprehensive implementation of the characteristics and their frequency of implementation. Studying this specific population addressed a thirty-year-old state and national concern (Daniel & Blount, 1992). Haycock and Ames (2000) observed that from schools that provided an education for students to succeed in the 21st century, "We must learn from these successful middle grades schools, or else we will be limiting the future life and career options of another generation of young people" (p. 65). The study provided information about the level of implementation of essential characteristics in effective middle schools successful in creating "school cultures with compatible norms, educational practices, and political relations" (Oakes, Quartz, Gong, Guiton, & Lipton, 1993, p. 475).

A description as perceived by teachers and principals of the supports and barriers to implementation would give
middle school reformers critical information in planning a course of action (Seghers, Kirby, & Meza, 1997) in the context of their schools. They could develop a base of supports to implementation and with information from this study mitigate or eschew barriers. Knowledge of the most frequently implemented characteristics, of those to be given highest priority, or combinations of characteristics or sequences could also serve reformers both in building the critical mass of characteristics needed for reform and in strategically organizing their integration (VanZandt & Totten, 1995).

The study added to the accumulated knowledge about the essential characteristics, their implementation, and supports and barriers to them. Neill (1999), Ross (1989), and Vazis (1992) studied obstacles to implementation. Dreibelbis (1996) and Neighbors (1998) looked at negative and positive factors affecting implementation. No one studied implementation supports and barriers in middle schools in New Jersey or in Blue Ribbon middle schools nationwide or in New Jersey in particular.

This study, which sought information about the perceived influence of the characteristics of effective middle schools on the taught curriculum, teaching strategies, and assessments, contributed to a third stage of middle schools research: a developing body of knowledge about student achievement associated with the comprehensive implementation of essential characteristics of effective
middle schools (George & Shewey, 1994; Henry, 1998; Lipsitz, Mizell, Jackson, & Austin, 1997; Seghers, Kirby, & Meza, 1997). Mergendollar (1993; see also Henry, 1998; Lipsitz, Mizell, Jackson, & Austin, 1997; Mizell, 1999; Williamson & Johnston, 1999a) believed that change in curricular and instructional practices had proceeded slowly with data seriously lacking. Purkey and Smith (1982) summed it up: "By critically studying academically effective schools we can identify characteristics that together create a school culture conducive to student achievement" (p. 6).

Definition of Terms

The definitions that follow were included to aid in comprehending and interpreting the study and to clarify terms should the study be replicated.

1. Continuous progress or non-graded: "An educational program designed to facilitate academic progress by individual students according to their ability to advance regardless of grade levels, peer group readiness, or other organizational limitations" (Riegle, 1971, p. 4).

2. Interdisciplinary teaching/team teaching: "A teaching process that relates the material and subject skills in one area to those in another subject area. Instruction is built around topics that use skills and concepts from more than one content areas and [two or more] teachers work together" (Dorman, 1984, p. 86).
3. **Flexible/block scheduling**: "Organization of the school day into units of time that may be utilized in various ways by the school staff. A block of time allows a teacher or a team of teachers to teach a class in two or more subject areas, with the teacher or team determining the relative amount of time to be devoted to each subject." (Wiles & Bondi, 1993, p. 331).

4. **Exploratory courses**: "Experiences designed to assist the student to broaden and develop his interests, and identify his aptitudes, strengths and weaknesses" (Jennings, 1985, p. 12).
Chapter II

REVIEW OF RESEARCH AND RELATED LITERATURE

A review of research and related literature produced a robust and dynamic context for the primary purpose of this study: to determine the degree to which the essential characteristics of effective middle schools had been implemented in New Jersey Blue Ribbon middle schools and the supports and barriers to their implementation. The review comprises four sections. Section one traces the emergence of middle schools. Section two presents the purposes for and philosophical rationale of middle schools. Section three identifies the essential characteristics of effective middle schools and incorporates the studies related to their implementation. Section four reviews the research about and correlates of effective schools followed by a summary that concludes the chapter.

The Emergence of the Middle School

Beginnings in Educational Reform

Popper (1967) wrote that the middle school was "an American borrowing of a European idea" (pp. 3-4), as Denmark had established a middle school in 1903. But the middle school in America had its beginnings in educational reform before that time, at the close of the 19th century
(Gruhn & Douglass, 1956; VanTil, Vars & Lounsbury, 1967). A series of national-level committees made up of college academics and later public school educators began to call for alternative structures to the prevailing but problematic 8-year elementary, 4-year secondary pattern of public education. With no articulation between the two levels (Gruhn & Douglass, 1956), Hough (1995) called the 8-4 plan an economic structure facilitating "the movement of children into the labor force" (p. 6). The Committee of Ten on Secondary School Studies, appointed in 1892 by the National Council on Education and chaired by Harvard President Charles W. Eliot, recommended both the study of high school subjects before grade nine, thereby strengthening course work, and the start of secondary education 2 years earlier in grades seven and eight (Calhoun, 1983; Gruhn & Douglass, 1956; Klingele, 1979; Koos, 1927). Both grades were viewed as repetitious of earlier schooling in the 8-4 organizational plan (Alexander & George, 1981; Brimm, 1969; Howard & Stoumbis, 1970).

In 1899 the National Education Association's (NEA) Committee on College Entrance Requirements recommended the 6-6 plan because a 6-year high school would provide more gradual transition and stronger programs for young adolescents whose changes in growth coincided more closely with grade seven (Lounsbury & Vars, 1978). It was in 1913 that the Committee on Economy of Time in Education proposed cutting public education by 2 years, thereby reducing the
college entrance age, and dividing the 6 secondary years into two parts (Gruhn & Douglass, 1956), the first report to suggest a junior high school organization (Clark & Clark, 1993).

Later in 1918 the NEA Commission on the Reorganization of Secondary Education described these parts as junior and senior periods, 3 years each. Still a subdivision of secondary education, the junior period should "attempt to help the pupil to explore his own aptitudes and to make at least provisional choice of the kinds of work to which he shall devote himself" (National Education Association, 1918, pp. 12-13). An introduction to departmentalization, electives, an opportunity to explore interests and abilities, and social responsibility were other functions denoted for the junior period (VanTil, Vars, & Lounsbury, 1967). These recommendations broadened the role of education beyond subject mastery to include vocational, citizenship, leisure and family membership activities (Clark & Clark, 1993).

According to Gruhn and Douglass (1956), the philosophy, administrative and organizational features of the junior high school were rooted in the reform efforts of the various national-level committees. Still, the initial motivation for a middle school was seated in practical considerations: economy of time and better and earlier preparation for college and work.
The Junior High School

Even as these national committees deliberated the 8-4 grade organization dominant into the early decades of the 20th century, a separate school, aligned along a 6-2-4 grade plan, opened in Richmond, Indiana, in 1895 (VanTil, Vars, & Lounsbury, 1967). Schools considered the first junior high schools, however, and organized along the 6-3-3 plan, opened in Columbus, Ohio, and Berkeley, California, in 1909 and 1910, respectively (Clark & Clark, 1993). The U.S. Bureau of Education defined a junior high school in these formative years as the organization of grades 7-8 or 7-9 in a high school or separate designed to provide for individual differences and to introduce prevocational work or subjects typically taught in the high school (Gruhn & Douglass, 1956). By 1920, 833 junior high schools had opened (Briggs, 1920; Melton, 1984), growing to 2372 in 1938 (Moss, 1969) to nearly 5000 throughout the country by 1960 with about 75% following the grades 7-8-9 pattern (Bosson & Cramer, 1965; Howard and Stoumbis, 1970; VanTil, Vars, & Lounsbury).

An examination over this time of the reasons for restructuring suggested mostly administrative and practical considerations (Calhoun, 1983; Lavenburg, 1963), a situation that Lounsbury (1992) said "far outweigh[s] educational factors as determinants of how schools are organized" (p. 7). Retention studies found that one-third of the elementary-age students had repeated a grade for
or more years. Gruhn and Douglass (1956; see also Moss, 1969) cited studies by Thorndike, Ayres, and Strayer between 1907 and 1911 that established a 50% dropout rate of students by grade 8, more than half of that number between grades 8 and 9. School officials would sometimes recommend the 6-3-3 plan for efficiency in the face of age distribution patterns and declining student enrollment.

Before too long advances in technology substituted machinery for child labor, a situation that led to less work for children (Klingele, 1979). This economic circumstance coupled with the enactment of child labor and revised compulsory education laws and a simultaneous call for universal secondary education (Kindred, 1968) reversed the student exodus by grade 8. Hough (1995) wrote that this situation created a need for the improved preparation of increasing numbers of adolescents going on to high school.

Conant (1960) reported that by 1930 75% of enrolled students continued into grade 9. Then discipline in the overcrowded secondary classrooms became a problem that a 6-3-3 plan relieved (Koos, 1927; Wiles & Bondi, 1993). A rising birth rate and accelerated immigration also contributed to a shortage of and overcrowding in existing schools, resulting in a 6-3-3 reorganization for economy, for efficient use of limited and often dated facilities (Alexander & Kealy, 1969; Association for Supervision and Curriculum Development, 1961; Briggs, 1920; Moss, 1969; VanTil, Vars, & Lounsbury, 1967) as well as for issues of
desegregation (George, Stevenson, Thomason, & Beane, 1992; Lounsbury & Vars, 1978). Communities that did approve construction of new high schools to alleviate overcrowding often moved grades 7-8-9 into the abandoned high school building as a cost-saver (Alexander & George, 1981; Lounsbury, 1992). Briggs and Lentz (as cited in VanTil, Vars, & Lounsbury, 1967) noted, too, that some school districts adopted the 6-3-3 plan for no other reason than to stay current.

Restructuring for administrative and practical reasons reorganized students rather than schools or programs; however, educational reasons influenced the nascent 6-3-3 reorganization as well. Prominent voices of progressive educators such as Nicholas Murray Butler, president of Columbia University; John Dewey; William Rainey Harper, president of the University of Chicago; and Hilda Taba as well as philosopher Alfred North Whitehead called for purposes and programs of junior high schools growing out of the interests, abilities, and needs of young adolescents (Kindred, 1968; Wiles & Bondi, 1993).

G. Stanley Hall (1905) published a two-volume work in which he had established adolescence as a distinct stage and described the abrupt mental, moral, social, emotional and physical changes accompanying early adolescence. The sociologist theorized that the future of humankind was determined by the education young students received during early adolescence (VanTil, Vars & Lounsbury, 1967). His
observation justified for many educators the need for a separate junior high level responsive to the unique needs and expanding interests of students in the throes of puberty, which Hall wrote was the most formative stage of growth (Calhoun, 1983; Clark & Clark, 1993; Lounsbury & Vars, 1978; VanTil, Vars, & Lounsbury), and which Davis (1924) reported began at age 12. This stage, which began two years earlier than thought, thus coincided with the ages of students in grades 7-8-9 (Moss, 1969).

Complementing Hall's work were studies by Cattell and Thorndike, both of whom found significant differences among and within individuals, especially at the junior high age, further supporting a school organized and programs designed specifically for young adolescents (as cited in Calhoun, 1983; Lounsbury & Vars, 1978; Moss, 1969). A separate junior high between elementary and secondary levels also smoothed the transition from student-centered elementary to subject-centered secondary classrooms, each with its own instructional methodology and focus and, in turn, deterred grade retention and dropping out for lack of interest in the program (Alexander & George, 1981; Bossing & Cramer, 1964; Briggs, 1920; Calhoun, 1983; Eichorn, 1966; Kindred, 1968; Klingele, 1979; Koos, 1927; Lounsbury, 1992). In the face of compulsory school attendance only to age 14 (later changed to 16), educators and others saw the need for vocational training and guidance to equip junior high boys with the complex, specialized skills required by work in
industry (Gruhn & Douglass, 1956; Koos, 1927; Moss, 1969; VanTil, Vars, & Lounsbury, 1967).

Assimilation of the large numbers of immigrant children into their newly adopted country called for citizenship education as part of a junior high school program (VanTil, Vars, & Lounsbury, 1967) as did attention to training in leisure time, moral education and, for some, social skills in the absence of family members distracted by long hours at work in highly populated, impersonal urban settings (Kindred, 1968; Lounsbury, 1992; Sizer, 1964). The 6-3-3 plan, educators and other advocates believed, kept more students in school because this reorganization enabled the development of a separate, expanded academic, vocational, social, and personal program best suited for the uniqueness of early adolescence (Lounsbury & Vars, 1978; Manning, 2000).

Allen, Splittgerber, and Manning (1993), Hansen and Hearn (1971), Manning (2000), and Popper (1967) called the junior high school the first middle school. The junior high school was born of conflicting roles: administrative issues of secondary course work introduced sooner and of starting college earlier as well as educational convictions of providing the best possible education to meet the individual and unique needs of young adolescents. The confluence of the larger social, psychological, economic, and physical factors surrounding educational changes arising at the onset of the 20th century produced a
critical mass that enabled educational reform. Lounsbury and Vars (1978) summed it up this way: "Though, at some points, the bases which supported the advent of the junior high school were not philosophically compatible, they were concomitant in time, and hence mutually responsive of reorganization" (p.17).

By the 1950s most communities building secondary schools considered the 6-3-3 plan a means of providing an effective education for young adolescents that the early advocates and national-level committees intended (Gruhn & Douglass, 1956). Gruhn and Douglass's definition of the junior high school as "an educational program which is designed to meet the needs, interests, and the abilities of boys and girls during early adolescence" (p. 4) emphasized the importance given to the program for adolescent youth rather than to the location of the grades (Conant, 1960); in fact, an earlier report by the National Education Association (1923) suggested that the junior high school, more than a regrouping of some elementary and secondary grades, functioned in unique and purposeful ways, many of which had been detailed in the Cardinal Principles (National Education Association, 1918).

To forge an identity for the junior high, Bennett (1919), Briggs (1920), Davis (1924), Koos (1920), the NEA (1923) and others developed statements of the specific purposes, also termed functions or goals, which VanTil, Vars, and Lounsbury (1967) aggregated under five headings:
1. effect economy in time through a downward extension of secondary education;
2. improve the holding power of the schools by providing for enriched activities, guidance, and a program built around the needs of the group;
3. improve articulation between elementary and secondary education;
4. make possible a program more suited to the nature of young adolescents; and
5. provide for exploration. (pp. 26-27)

Douglass (1938) and Montgomery (1940) noted the shifting emphases among the functions with several purposes such as economy of time, the retention of pupils, and vocational education no longer of importance over time. In the early 1940s Gruhn and Douglass (1956), studying the body of junior high school readings, wrote what became the definitive statement of modern junior high school functions which was subsequently reviewed and refined by specialists in the field; Wiles and Bondi (1993) explained each of the six purposes:

1. integration—to help students use the skills, attitudes, and understandings previously acquired and integrate them into effective and wholesome behavior;
2. exploration—to allow students the opportunity to explore particular interests so that they can have access to better choices and actions, both
vocational and academic. Students will develop a wide range of cultural, civic, social, recreational, and avocational interests;

3. guidance—to help students make satisfactory social, emotional, and psychological adjustments toward becoming mature personalities;

4. differentiation—to provide diverse educational opportunities and facilities in accord with varying student backgrounds, personalities, and other individual differences so that each pupil can achieve most economically and completely the ultimate aims of education;

5. socialization—to furnish learning experiences intended to prepare students for effective and satisfying participation in a complex social order as well as future changes in the social order; and

6. articulation—to provide for a gradual transition from preadolescent education to an educational program suited to the needs of adolescent girls and boys. (p. 7)

These functions redefined guidance, emphasized individualized differences, and added integration as a purpose while dropping others (Howard & Stoumbis, 1970). A study by Lounsbury (1954) in the 1950s delineated shifting emphases but constancy in the various purposes (see also Bossing & Cramer, 1965).

The perception of what junior high school should
provide students remained essentially the same into the 1960s (Oakes, Quartz, Guiton, & Lipton, 1993). Anderson and Van Dyke (as cited in Nickerson, 1966), Bossing and Cramer (as cited in Moss, 1969), and Faunce and Clute (as cited in Howard & Stoumbis, 1970) confirmed the earlier statements of the unique functions of the junior high school. Separate studies by Zdanowicz and Stuckwisch (as cited in Calhoun, 1983) also reaffirmed that the purposes "developed during the history of the junior high school to be applicable for the junior high school today" (p. 58), a view that Kindred (1968) supported. Only how the functions were implemented and accomplished changed over time (Gruhn, 1952). The research of Spagnoli (as cited in Calhoun, 1983) found that the overarching purpose of the junior high was to be considerate of young adolescents by providing a program that best met their needs, interests, and capabilities. Interested educators, however, had begun to acknowledge that nearly all of the functions rather than being distinct to grades 7-8-9 were shared by all levels of schooling and that the uniqueness lay in the manner in and extent to which the purposes were adapted to the young adolescent and modified in the context of a changing world (Nickerson, 1966; VanTil, Vars, & Lounsbury, 1967).

Four out of five age-eligible students attended schools organized along the 6-3-3 plan by 1960 (Alexander & George, 1981). Despite its acceptance, educational researchers wanted to know if the junior high as a school
in the middle lived up to the goals ascribed to it. The studies of Lounsbury and Marani, Howard, Hay, Buss, Henderson, and Cox found a disparity between the actual junior high school and its theoretical construct (as cited in Calhoun, 1983; Hansen & Hearn, 1971; Lounsbury, 1954) so that by the mid-1960s Woodring (1965) wrote that the 6-3-3 plan with a junior high school as the middle school was on its way out. Alexander and Kealy (1969), Grambs, Noyce, Patterson, and Robertson (1961), McQueen (1972), Nickerson (1966), and Wiles and Bondi (1986) attributed the gap between theory and practice to the junior high being shaped primarily by administrative expediency. Howard and Stoumbis (1970) called them stopgap measures such as economic or enrollment pressures with little or no concern for the functions, purposes, and goals derived from child and adolescent development. Nickerson (1966), and Wiles and Bondi (1993) found that the highly regimented junior high school curriculum had failed to achieve the student-focused school envisioned by the early proponents.

Other educators suggested additional reasons. The extension of secondary programs downward to grades 7 and 8 led to replication of senior high programs and practices in the junior high (Clark & Clark, 1993; Hull, 1965; Kindred, Wolotkiewicz, Mickelson, Coplein, & Dyson, 1976; Lounsbury & Vars, 1978; Moss, 1969). Some voiced concern about grade 9 with its limiting Carnegie units along with college and high school requirements as preempting programs responsive
to young adolescent needs (Grambs, Noyce, Patterson, & Robertson, 1961; Moss, 1969). Lounsbury (1992) saw as a handicap the lack of specially trained teachers most of whom prepared as subject specialists for the senior high school. Eichorn (1968), Moss (1969), Howard and Stoumbis (1970), and Overly, Kinghorn, and Preston (1972) talked about the criticism of offering highly sophisticated extra curricular activities and interscholastic athletics so that the junior high became a highly competitive social copy of the high school. At the same time many charged that the program lacked intellectual rigor in a post-Sputnik world, that students received a "playpen" education (George & Shewey, 1994; Howard & Stoumbis; Tanner, 1978). These authorities in addition to Coffland (1975) also believed the name itself linked the junior to the senior institution and implied subservience.

Klingele (1979) commented about the earlier physical development of youth so that eighth and ninth graders were less compatible than in preceding generations. Others pointed to inadequate facilities and lack of standards, regulations, and policies (VanTil, Vars, & Lounsbury, 1967). Dissatisfaction also arose because the junior high had not become the hoped for transitional school between the elementary and senior high school (Wiles and Bondi, 1993); the junior high school had failed in developing its own identity and clear purpose (Howard & Stoumbis, 1970; Melton, 1984) while the public lacked an understanding of
young adolescents and their needs (Alexander, 1986; George, Stevenson, Thomason, & Beane, 1992; Lounsbury & Marani, 1964; Manning, 1997; Melton, 1984;).

Reorganization to the 6-3-3 plan primarily to solve administrative issues deflected achievement of the original purpose for the junior high school: curriculum, instruction, and programs developmentally appropriate for the unique academic, social, and personal needs of young adolescents (Alexander & Kealy, 1969; Allen, Splittgerber, & Manning, 1993; Manning, 2000).

Some authorities in the 1960s saw the junior high school as inflexible, highly standardized, and a big educational blunder (Hull, 1965). Others took a moderate view by acknowledging its encouragement of experimentation such as block-of-time, core classes, and homeroom programs and by its avowed concern for affective education (Alexander & George, 1981; Howard & Stoumbis, 1970; Lounsbury, 1992). There was consensus, however, that the junior high school had provided a stronger curriculum, albeit patterned after the senior high, for better college and workplace preparation and, in doing so, kept increased numbers of students in school (Allen, Splittgerber, & Manning, 1993). Achieving two but not all of the imperatives of education for the middle grades (Alexander, 1984), however, set the stage for the middle school to emerge as an opportunity, once again, to achieve the unique goals intended for schools for young adolescents.
From Junior High to Middle School

While the middle school concept formed in the 1950s, the transition from the junior high school to middle school began in the mid-1960s to early 1970s (Moss, 1969). Both were seen as sharing a common purpose (Allen, Splittgerber, & Manning, 1993; Lounsbury & Vars, 1978) so that they were ultimately seen as a single movement spanning nearly one hundred years (Brooks & Edwards, 1978; Lounsbury, 1992). One authority called it the “longest running, most extensive educational reform effort of this century” (Lounsbury, 2000, p.194; see also George, 1999). Moss (1969), moreover, found parallels in their early histories.

Like junior high schools, middle schools first came into existence for administrative expediency. Among the practical reasons were the elimination of de facto segregation, consolidation because of declining secondary enrollments, and the alleviation of overcrowding in elementary schools (Alexander & George, 1981; Beane, 1999; Bradley & Manzo, 2000; Carducci, 1979; George & Oldaker, 1985; George, Stevenson, Thomason, & Beane, 1992; Goss, 1972; Howard & Stoumbis, 1970; Johnston & Markle, 1986; Lounsbury, 1992; Lounsbury & Vars, 1978; Nickerson, 1966; Valentine & Whitaker, 1997; Wiles & Bondi, 1993). Separate surveys conducted by Alexander (1968) and Brooks (1978) ranked the alleviation of crowded conditions first and second, respectively, among the top reasons for
establishing middle schools. Some districts even chose to imitate other schools (Wiles & Bondi). As recently as the early 1990s, 35% percent of principals responding to a survey identified administrative reasons such as enrollment trends as a primary motivation for creating a middle school in their districts (Valentine, Clark, Irvin, Keefe, & Melton, 1993).

Like the junior high school, broader forces that influenced educational reform also supported the emerging middle school. The writings of Kelley, Maslow and Rogers, among others, represented the thinking behind the humanistic movement of the 1960s and advanced a learner-centered education (as cited in Allen, Splittgerber, & Manning, 1993). The federal programs for disadvantaged youth, a centerpiece of Lyndon Johnson’s Great Society, advocated equality of learning opportunities and an individual’s right to achieve (Allen, Splittgerber, & Manning, 1993). The introduction of new knowledge spearheaded by academicians, in particular scientists and mathematicians, and the research of Piaget, Bruner, Erikson, Thornburg, Epstein, and Toepfer into human development and the brain gave support in public education to curriculum designed around unifying principles and core concepts, discovery learning, team-teaching, and non-graded classes (as cited in Rippa, 1988). Once again, the national climate enabled the reform that nurtured the emergence of the middle school.
The junior high had been born of reports from national committees; however, the middle school was the "most successful grass roots movement in American educational history" (George, 1999, p.3; see also Jackson & Davis, 2000). Middle schools were most frequently developed independently by local districts and their communities drawing on knowledge from other districts and from a growing number of early proponents (Jackson & Davis, 2000; McEwin, Dickinson, & Jenkins, 1996). It was William Alexander in 1963 at a junior high school conference at Cornell University who first spoke of the need for a new school in the middle (George & Alexander, 1993) followed by others such as Emmett Williams, John Lounsbury, Gordon Vars and Donald Eichorn. These leaders were joined later by Paul S. George, J. Howard Johnston, Conrad Toepfer, John Swaim, and Joan Lipsitz; all of whom believed that the middle school held the promise of achieving the imperative the junior high intended to but had not: provide educational programs responsive to the unique needs and interests of young adolescents in a seamless transition from elementary to high school (Alexander, 1987).

The emergence of middle schools in the early 1960s in Barriston, Illinois, Mt. Kisco and Plainview, New York, Upper St. Clair, Pennsylvania, and Saginaw, Michigan (George, Stevenson, Thomason, & Beane, 1992), and organized in a 5-3-4 or 4-4-4 pattern, were among the first to address the disparity between the educational organization
of grades and the young adolescents' earlier academic, social, emotional, and physical maturation (Eichorn, 1966; VanTil, Vars & Lounsbury, 1967), a situation which studies by Tanner (1962) corroborated. Shortly thereafter, Alexander (1968) formulated a working definition of a middle school as comprising at least three grades, not more than five, and including grades 6 and 7. Curtis (1968), Lee (1978), Mock (1970), Moss (1971), and Pumerantz (1969) contributed variations to this seminal definition. Kindred (1968) wrote that middle schools included grade 6, or grades 5 and 6, but excluded grade 9. Howard and Stoumbis (1970) characterized a middle school as one between elementary and high school whose curriculum and instruction did not mirror either level and included grades 6-7-8 or 5-6-7-8. Alexander and George (1981) subsequently defined middle school as comprised of “three to five years between elementary and high school focused on the educational needs of students in the in between years and designed for continuity of educational progress for all concerned” (p. 3). Today, most middle schools are organized around combinations of three or four grades above grade 4 and below grade 9 (Alexander, 1987; Williams, 1968).

in 1977 (Brooks & Edwards, 1978), and 4,807 in 1985 (Alexander, 1987). Ruenzel (1998) reported a total of 7,400 middle schools in 1993 while Mizell (2000) found nearly 12,000 middle schools with half in the 6-7-8 configuration. By the mid-1980s the 5-3-4 plan had become the most common form of middle school organization (Irvin, 1994). Brockett (1999) counted three middle schools for one junior high school by 1999.

From its grass roots beginnings, the number of middle schools grew rapidly from the mid-1980s to the present as reports and recommendations of state-commissioned task forces and subsequent legislation supported middle schools reform. Among them were California (California State Department of Education, 1987) and Maryland (Maryland Task Force, 1989). The National Middle School Association, founded in 1973, and the National Association of Secondary School Principals gave national attention to and provided powerful voices for student-centered middle schools through their conferences, research, and publications. It was the reports of these task forces as well as the surveys, studies, and monographs of the associations and research centers, for example The Center for Research on Elementary and Middle Schools at Johns Hopkins University and The Center for Early Adolescence at the University of North Carolina, that linked the middle school movement and the larger educational reform effort as did the work in the 1990s of the Edna McConnell Clark and the Kellogg
foundations as well as the Eli Lilly Endowment and
the Carnegie Council on Adolescent Development.

Purpose and Philosophy of Middle School Education

The promise of the middle school, like the junior high, was to increase program continuity, known also as bridging, articulation or transition, between the elementary and high school levels. It was also to address the core educational purposes and philosophy of education in the middle grades, much of which had been first suggested in the reports of the national-level committees at the dawn of the twentieth century, but left unfulfilled by the junior high (George, 1984; Lounsbury & Vars, 1978). Lounsbury (1992) called the middle school the "renaissance of the real junior high school" (p. 12) while Cuban (1992; see also Eichorn, 1973) saw the push for middle schools in "the tradition of reforming an earlier reform" (p. 229).

The middle school's growing acceptance, represented in surveys beginning in the 1960s that showed increasing numbers of middle and decreasing numbers of junior high schools (Alt & Choy, 2000; Bondi, 1972; Paglin & Fager, 1997), was based on its avowed focus on knowledge about and responsiveness to the developmental needs of young adolescent learners whose uniqueness was equally deserving of quality, targeted instruction, purposefully designed programs, and a differentiated educational setting as were elementary and high school students (Capelluti & Stokes,

That the characteristics of students in the in-between years were compatible was the core rationale for creating a middle school said Eichorn (1966), among the first to propose basing curricula on young adolescent growth and development. Not defined by grade span, the middle school was instead defined as an "educational response to the [intellectual and developmental] needs and characteristics of transients" (Mosenson, 1991, p. 9). Eichorn coined the neologism transescent for 10 to 14 year olds and called the unique period of development transescence, the latter which Eichorn defined as:

the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur precisely at the same chronological age in human development, the transescent designation is based on the many changes that appear prior to the puberty cycle to the time when the body gains a practical degree of stabilization over these complex pubescent changes.
In their description of the functions and philosophy of the middle school, Alexander et al. (1969) stressed continuity which they called bridging, and the individual needs of a unique and diverse group of youngsters. They saw it as:

a school providing a program planned for a range of older children and young adolescents that builds upon the elementary school’s program for earlier childhood and in turn is built upon by the high school’s program for adolescence. Specifically, it focuses on the educational needs of what we have termed the ‘in-between-ager’. (p. 5)

Alexander saw the middle school not as a recasting of the junior high but as an entirely new school organization that more readily supported the needed experimentation, innovation, and flexibility in curricula and programs than would modifying elements of the existing junior high school (Alexander, 1986; Eichorn, 1966). Nevertheless, he as well as later proponents believed the middle school should draw on the best purposes and functions of the junior high: integration, exploration, guidance, differentiation, socialization, and articulation (Alexander & George, 1981; ASCD, 1975; Eichorn, 1966; Kindred et al., 1976; Lounsbury & Vars, 1978; Moss, 1969; NMSA, 1982; Vars, 1984; Wiles & Bondi, 1981).

Gruhn and Douglass (1971) emphasized continuity,
knowledge of early adolescence, and developmental responsiveness in a more detailed statement. Middle school education should:

1. offer an educational program which is designed for the needs, interests, and abilities of a particular age group—the young adolescents;

2. challenge the intellectual abilities and interests of young adolescents by attracting well-qualified teachers, introducing new studies, and providing a program with more depth than is appropriate for pupils in the elementary school;

3. continue instruction begun in the elementary grades in the fundamental skills and basic knowledge which are essential to further learning, with emphasis on teaching them in more functional situations and in greater depth appropriate for young adolescents;

4. be concerned with all aspects of child growth and development—the intellectual, physical, emotional, character, citizenship, social, personal and cultural;

5. prepare young adolescents for more independence, self responsibility, and leadership as they participate increasingly in larger and more complex social groups and in the life of a larger school and civic community; and

6. emphasize general education for all pupils rather than specialized teaching directed toward
particular educational and vocational goals. (pp. 61-68)

In its 1977 report to the National Middle School Association, the Committee on Future Goals and Directions recommended a philosophy whose rationale was based on the needs of young adolescents rather than on a need to establish middle schools:

1. Every student should be well known as a person by at least one adult in the school who accepts responsibility for his/her guidance.

2. Every student should be helped to achieve optimum mastery of the skills of continued learning together with a commitment to their use and improvement.

3. Every student should have ample experience designed to develop decision-making and problem-solving skills.

4. Every student should acquire a functional body of fundamental knowledge.

5. Every student should have opportunities to explore and develop interests in aesthetic, leisure, career, and other aspects of life. (pp. 2-3)

In its position paper *This We Believe*, the National Middle School Association (1982) summarized what was believed by then to be a “considerable consensus” (Lounsbury, 1984, p. 170) about the functions and ideals of the middle school. The group’s purpose and philosophical
rationale also emanated from continuity as well as from human development and the learning needs of transcents:

1. The middle school is an educational response to the needs and characteristics of youngsters during trancence and, as such, deals with the full range of intellectual and developmental needs.

2. Young people going through the rapid growth and extensive maturation that occurs in early adolescence need an educational program that is distinctively different from either the elementary or the secondary model.

3. Existing programs for this age group have all too often lacked focus on transcent characteristics and needs.

4. Educators, school board members, parents, and citizens generally need to become more cognizant of this age group and what an effective educational program for this group requires.

5. No other age level is of more enduring importance because the determinants of one’s behavior as an adult, self-concept, learning interests and skills, and values largely are formed in this period of life.

6. The developmental diversity of this age group makes it especially difficult to organize an educational program that adequately meets the
needs of all.

7. The academic needs of middle school students are affected greatly by their physical, social, and emotional needs, which also must be addressed directly in the school program. (p. 18)

The work of Piaget, Havighurst, Erikson, Thornburg, and Tanner informed an expanding body of knowledge about the physical, emotional, social, and intellectual development of the transcient, all complex, intertwined behaviors and characteristics on which the purpose and philosophy of responsive middle schools were based (as cited in Milgram, 1992). Alexander et al. (1968), Mosenson (1991), and Wiles and Bondi (1993) each summarized the rapid growth and change between childhood and adulthood that Dorman (1984) explained this way:

1. physical—a six to eight year variability in increasing height/body breadth and depth/weight gain, sexual maturation, restlessness, hyperactivity and fatigue, overtaxing of digestive system with non-nutritious and fad foods;
2. emotional—see shades of grey, exaggerated response to anything sexual, desire for attention, conflict between the need for independence and security of adults, disregard of adult conventions;
3. social—affiliation broadened from family to peers, desire for social acceptance, group loyalty, regulation and independence, altruism; and
4. intellectual-pressure to succeed
academically, enjoyment of intellectual and
manipulative activities, heightened egocentrism,
and increased ability for abstract thinking. (pp.
3-5)

Moreover, Ames, Ilg, and Baker (1988) stated that a
middle schooler's intellectual development was influenced
by the wholeness of one's growth and development. Toepfer,
Arth, Bergmann, Johnston, and Lounsbury (1989) saw the
intellectual development as a primary goal that was reached
through the confluence of affective, emotional, and
personal-social development of transients.

Hill (1980) echoed their belief. He wrote about three
interacting factors that influenced transcient development.
Hill labeled the physical, emotional, social and
intellectual development as primary changes, which were
universal in emerging adolescents. The other two
interacting influencers were:

1. secondary changes, arising from the primary
changes, that were social and psychological aspects
of development—attachment as the disengagement from
parents and increased importance of peers yet
continued strong ties with parents, autonomy as
behavioral independence, sexuality ranging from
boy-girl conversation to intercourse, intimacy as
mutual disclosure of feelings/concerns/dreams,
achievement as thinking about a future based on a
person's own interests, and identity as
establishing a sense of uniqueness and of belonging
as well as a sense of past/present/future; and
2. contexts of early adolescence—the family, peers,
groups, school, and community as different,
overlapping ways by which pre- and young-
adolescents experience the primary changes. (p. 26)

Havinghurst (1953) identified a continuum of
developmental tasks of growth on which to build school
programs at all educational levels. The tasks were
subsumed under several levels of development. The levels
included late childhood and preadolescence and the tasks in
each mirrored those of Dorman, Mosenson, and Hill. Drawing
on the tasks, Wiles and Bondi (1993) suggested the
functions of middle schools in responding to developmental
needs:

1. social development and refinement, to facilitate
the acceptance of new roles and responsibilities,
to teach the interdependence of individuals in
society, to explore social values, to teach basic
communication and human relations skills;

2. promotion of physical and mental health, an
intensive program of exercise designed to develop
conditioning and coordination. An accompanying
component used to promote positive physical and
mental health practices. Basic sex education;

3. development of self-concept and self-acceptance, to
promote feelings of worth in all individuals, to accentuate strengths, to aid in development of realistic perceptions and expectations of self, to foster increased independence, to assist in values exploration, to explore and expand interests;

4. academic adequacy, to ensure literacy, to aid in the organization needed for academic achievement, to teach skills for continued learning, to introduce knowledge areas, to explore career potentials as they relate to interests, to develop independence and autonomy in learning, to foster critical thinking;

5. aesthetic stimulation, to develop latent talents in art, music, writing; to promote an understanding of human aesthetic achievement; to develop a capacity for the satisfying use of leisure time. (p. 14)

Dorman (1984) included seven developmental needs for middle school students in her Middle School Assessment Program:

1. The need for diversity. Young adolescents need diversity in their academic, personal, and social lives. They need different types of learning experiences and different relationships with many different types of people.

2. The need for self-exploration and self-definition. Young adolescents need chances to explore and
define who they are, what they believe, what they can do, and what they want to be.

3. The need for meaningful participation in school and community. This is a time in which young adolescents are beginning to think beyond themselves. They want to take part in their functioning social systems at school, in the family, and in the community.

4. The need for positive social interactions with both peers and adults. Young adolescents desire relationships with peers, parents, teachers, and other adults.

5. The need for physical activity. Young adolescents need physical activity. The home-school setting should be flexible enough to accommodate these diverse physical needs.

6. The need for competence and achievement. Young adolescents need opportunities for success which enable them to counter feelings of low self-esteem with feelings of competence and achievement.

7. The need for structure and clear limits. At a time when young adolescents are experiencing needs for independence, freedom, and self-regulation, they have a definite need for structure and limits. (pp. 10-13)

The interdependent needs called for curriculum and programs to complement the purpose and philosophy of the
middle school. Dorman (1984) suggested ways to respond holistically to transcents' personal and academic learning through:

1. diversity–variety and flexibility in curriculum, instruction, resources, schedules;

2. self-exploration/definition–programs that connected to students' developing capabilities, concerns, and interests with basic and exploratory courses and guidance that build identity;

3. participation–student voice in operating the school, e.g., clubs, activities, student council, projects, service learning;

4. positive social interaction–in relationship with adults, teachers, peers through small groups, advisor-advisee, informal contact with faculty;

5. physical activity–routine outlets for excess energy, lessons providing movement and kinesthetic activity;

6. competence and achievement–honest rewards and praise, academic emphasis and high expectations, self-evaluation, instructional variety, balance between core and exploratory courses and co-curricular activities; and

7. structure and clear limits–clearly stated limits mutually developed, collaboratively established learning goals, self-regulation, expectation of active participation. (pp. 10-13)

Lipsitz (1984) used the term developmentally
responsive in her study of schools, programs, and curriculum aligned with transcent needs and which were similar to those of Dorman (1984; see also Tye, 1985).

The Essential Characteristics of Middle Schools

Even with the expansion of knowledge about transcents and about developmentally responsive programs for them, many proponents for the junior high school and those for the middle school in the late 1960s and 1970s defended their grade configuration until researchers determined that neither the grade span nor the school designation assured a successful academic experience for young adolescents, that middle and junior highs were more alike than different (Hough, 1991; MacIver & Epstein, 1991). The research of Calhoun (1983) and Gatewood (1973) found that the junior high and the middle school differed little in academic achievement; they only differed in name. Johnston (1984) put it this way:

Grade configuration in and of itself doesn't seem to make any difference. This simple generalization, on the bases of research, can be made with confidence. And with a decisiveness that is rare in research...

There is little point in trying to show that one is better than another. We know it isn't. (p. 136)

Lipsitz, Mizell, Jackson, and Austin (1997) in their manifesto said that what makes a difference was that which occurred in the grades, not grade configuration. National
Middle School Association Executive Director Susan Swaim echoed these sentiments: The issue "is not the name over the school door and grade configuration, but what is going on that is appropriate for learning at this developmental stage." (Brockett, 1999, p.5; see also Allen, Splittgerber, & Manning, 1993; Ames, 2000; George, Stevenson, Thomason, & Beane, 1992; MacIver & Epstein, 1991).

Lounsbury (1991) observed that practically all middle school educators had joined "into a single cause...the cause of improving young adolescent education" (p. 63). Ames's (2000) inclusive definition of middle schools reflected this understanding: "'Middle-grades schools' refers to any school with two contiguous grades including grade seven" (p. 39).

Practitioners, researchers, and proponents of middle schools moved beyond counting the number of middle schools and charting their varying grade spans; instead they concentrated on the organizational structures and classroom practices (Clark & Clark, 1992). They looked to identify essential characteristics (termed elsewhere in the literature as attributes, concepts, design elements, earmarks, elements, features, guidelines, qualities, pillars, practices, processes) that contributed to effective middle schools designed to meet the needs of transients in developmentally responsive ways and which are common to middle schools in all their diverse
configurations, designs, and names. Klingele (1978) believed the identification and a description of the common characteristics increased understanding of the middle school and preceded what Cuban (1992) called second order reforms that would restructure the roles, responsibilities, and work conditions in middle schools.

A review of the essential characteristics, central to the purpose of this study, found overall agreement and a national consensus that was achieved "neither easily or [sic.] quickly (George & Shewey, 1994, p. 27)." Hough (1991) located the sources of the characteristics in the middle school rationales that embedded the assumptions and in the expert opinion of knowledgeable proponents as well as from experimentation, followed from the late 1970s on by observation of and research on effective middle school programs and practices.

The Association for Supervision and Curriculum Development (ASCD) published in 1961 The Junior High School We Need in which was described desirable characteristics common to effective junior highs; Alexander et al. (1969) identified the most salient of these which they said should be incorporated into middle schools and which Lounsbury (1996) confirmed: (a) moderate size, (b) block-of-time, (c) flexible scheduling, (d) teachers prepared for middle school instruction and for teaching the adolescent, (e) innovative instruction, (f) non-graded groups, (g) strong guidance services, and (h) differing teacher assignments.
Alexander and Williams (1965) proposed characteristics they termed guidelines for a model middle school that
Williams (1968) later expanded. Common characteristics to best serve transients effectively expanded those in the 1961 ASCD list to include: (a) planned gradualism, (b) emphasis on self-understanding, (c) independent study, (d) continuous progress, (e) multi-media materials, (f) individualization, (g) transition, (h) health/physical education appropriate for pre-adolescents, (i) social experiences, (j) exploration, (k) teacher teams, (l) flexible scheduling, (m) advisor-advisee program, (n) non-gradedness, (o) school structure, (p) innovation, and (q) block-of-time.

Alexander (1971) later wrote about implementing an educational program for the middle school that would overcome the junior high school's weaknesses. Twelve desirable characteristics were embedded in the statement:

1. a home base and teacher for every student to provide for continuing guidance and assistance to help him make the decisions he faces almost daily regarding special needs and learning opportunities;

2. a program of learning opportunities offering balanced attention to three major goals of the middle school: (a) personal development of the
between-ager, (b) skills of continued
learning, (c) effective use of appropriate
knowledge;
3. an instructional system focused on individual
progress with many curricular options and with
individualized instruction in appropriate areas;
4. the use of inter-team arrangements for cooperative
planning, instructing, and evaluating; and
5. a wide range of exploratory activities for the
socializing, interest-developing, and leisure-
enriching purposes of the bridge school. (pp. 9-10)

Alexander and George (1981) reconfirmed the delineation in
their earlier publications of essential characteristics
that included "most all of the various points" (p. 18) of
the ones already noted by others and organized their The
Exemplary Middle School around 12 in what they termed was a
"near consensus" (p. 18) on the characteristics:

1. A statement of philosophy and school goals that is
based on knowledge of the educational needs of boys
and girls of middle school age and is used in
school program planning and evaluation.

2. A system for school planning and evaluation which
is specifically designed for the middle school and
which involves all concerned in the school
community.
3. A curriculum plan for the middle school population that provides for their continuous progress, basic learning skills, use of organizational knowledge, personal development activities, and other curriculum goals as locally determined.

4. A program of guidance which assures the availability of help for each student from a faculty member well-known to the student.

5. An interdisciplinary teacher organization which provides for team planning, teaching, and evaluation, and for appropriate interdisciplinary units.

6. Use of methods of student grouping for instruction which facilitate multiage and other instructional arrangements to maximize continuous progress.

7. Block scheduling and other time arrangements to facilitate flexible and efficient use of time.

8. Planning and use of physical facilities to provide the flexible and varied program required for middle schoolers.

9. Instruction which utilizes a balanced variety of effective strategies and techniques to achieve continuous progress of each learner toward appropriate instructional objectives.
10. Appropriate roles for the various individuals and groups required for continued and dynamic leadership in the middle school, with a continuing program of staff development and renewal focused on the unique problems of middle school personnel.

11. A plan for evaluation of student progress and of the school itself to assure the achievement of the goals of the school.

12. Participation with other schools and with community groups in the continuing study of the middle school population and of the society as a whole to be responsive to changing needs and conditions of the future. (pp. 18-19)

Eichorn (1966) established two groupings, physical-cultural and analytic, under which he placed essential characteristics: (a) flexible scheduling, (b) independent study, (c) cooperative learning, (d) planned gradualism, (e) exploratory experiences, (f) physical education, (g) active and process learning, (h) non-gradedness, and (i) specifically trained teachers for middle school and middle school students.

The Montebello Unified School District (1969) in California prepared a booklet that outlined characteristics for elementary, intermediate, and high schools. Its
Program Characteristics for the Golden Age of Education repeated eight features from earlier lists and included five more for intermediate grades which for this district were grades 5-8: (a) measurable objectives, (b) individualized instruction, (c) innovation, (d) administrative team, (e) auxiliary personnel, (f) team teaching, (g) non-gradedness, (h) flexible scheduling, (i) transition, (j) school structure, (k) instructional learning center, (l) instructional resource center, (m) exploration, and (n) pupil personnel services center.

Kindred (1968) added basic reading instruction and extension as common characteristics to his list which replicated essential characteristics from earlier lists.

Georgiady, Reigle, and Romano (1973) identified 18 common characteristics which Georgiady and Romano (1992) reaffirmed almost 20 years later. Fifteen of the 18 duplicated earlier sources and named three more: (a) creative experiences, (b) evaluation, (c) community relations, (d) non-gradedness (continuous progress), (e) multi-media materials, (f) flexible schedules, (g) social experiences, (h) physical experiences, (i) intramural activities, (j) team teaching, (k) planned gradualism, (l) exploration/enrichment studies, (m) guidance services, (n) independent study, (o) basic skill repair and enrichment, (p) security, (q) student services, and (r) auxiliary
services.

A working group studying the emerging adolescent learner prepared for the Association for Supervision and Curriculum Development *The Middle School We Need* (1975). In 10 statements, the report described the middle school as an institution framed by the developmental characteristics and needs of transients with implications for middle school programs. Desirable characteristics for middle schools incorporated those from earlier lists, either stated, subsumed or implied:

1. A unique program adapted to the needs of the pre- and young adolescent experiences.

2. The widest possible range of intellectual, social, and physical experiences.

3. Opportunities for exploration and developmental skills needed by all while making allowances for individual learning patterns. It should maintain an atmosphere of basic respect for individual differences.

4. A climate that enables students to develop abilities, find facts, weigh evidence, draw conclusions, determine values, and that keeps their minds open to new facts.

5. Staff members who recognize and understand the students' needs, interests, backgrounds,
motivations, goals, as well as stresses, strains, frustrations, and fears.

6. A smooth educational transition between the elementary school and the high school while allowing for the physical and emotional changes taking place due to transcence.

7. An environment where the child, not the program, is most important and where the opportunity to succeed is ensured for all students.

8. Guidance in the development of mental processes and attitudes needed for constructive citizenship and the development of lifelong competencies and appreciations needed for effective use of leisure.

9. Competent instructional personnel who will strive to understand the students whom they serve and develop professional competencies which are both unique and applicable to the transcent student.

10. Facilities and time which allow students and teachers an opportunity to achieve the goals of the program to their fullest capabilities. (pp. 2-3)

Sale (1979) also delineated major desirable characteristics of the middle school as growing out of the emerging adolescent learner and that provided:

1. A custom-tailored program attuned to the growth and development characteristics of an emerging
adolescent learner. The environment should emphasize that the learner, not the program, is important.

2. An intellectually stimulating curriculum that is rich in options and exploratory experiences and that builds on learning acquired during the elementary school years rather than mimicking the secondary school program.

3. Instructional organization patterns that provide students with a smooth transition from elementary to secondary school, incorporating the security features of the self-contained classroom with the benefits of interaction with varied teachers.

4. A personalized health and physical education program that emphasizes physical fitness, personal hygiene, and carry-over sports for all as opposed to secondary school-type team sports aimed at a few students.

5. Career-based curricular experiences for all students that interrelate career exploration with all academic areas.

6. Competent teachers, administrators, guidance staff, and related school personnel specifically prepared to help the emerging adolescent learner.

7. Assistance to students in developing a personal
values system based on careful assessments
of various value positions in society. Assistance
in developing positive self-concepts should also be
provided to all students.

8. A school evaluation program that places primary
emphasis on assessment based on the progress a
student makes in relation to his own ability and
secondary emphasis on assessment in terms of the
norm.

9. Facilities and material resources adaptable to the
current needs of the emerging adolescent.

10. A school-community relations program that provides
for positive citizen involvement in and support of
school activities. (p. 6)

Wiles and Bondi (1981), expanding on the Alexander and
reaffirmed, included 20 characteristics of increased
specificity for an exemplary middle school:

1. A philosophy and objectives cooperatively developed
by community and staff are based on the uniqueness
of the middle school student and which express
their convictions on the purposes of the school,
how students learn, the content and methods of
instruction, desirable types of student activities,
and the outcomes to be attained.
2. Staff members, including administrators, teachers, and non-certificated personnel, who recognize and understand the uniqueness of the middle school student—their emotional, physical, and social problems and their fears and frustrations in trying to cope with all the changes facing them.

3. Auxiliary staffing: teacher aides, clerical aides, student and parent volunteers, community helpers.

4. An environment that assures opportunities for all students to succeed.

5. A curriculum that offers a general education with major emphasis placed on learning how to learn, with provisions for developing social and intellectual skills, and with opportunities for an extension of basic skills.

6. Learning experiences that assure articulation from elementary to high school by avoiding repetition and by providing for continuous progress that allows each individual to progress at his/her individual rate of progress.

7. Cooperative teaching that might include team teaching, team planning, interdisciplinary team planning and teaching.

8. An open climate that encourages students to develop
abilities in problem solving, to determine values, and to be receptive to new facts that might alter their conclusions.

9. A broad exploratory or personal interest program that supplements the art, music, home economics and industrial arts programs. Many electives should be open to transescent students to help them discover more about themselves, their interests, and the world around them.

10. Provisions for independent study with an available teacher who acts as a resource person and who assists the student in planning.

11. Opportunities for the expression of creative talents: music and dramatic programs, student newspapers, art, and other means of student expression in which students do most of the planning and carrying out of activities.

12. A multi-material approach as an integral part of all classes. If the needs and interests of individuals within a class within a class are met, a wide range of instructional materials are needed to care for the differences in progress. A single textbook does not recognize the wide physiological and intellectual range of middle school age students.
13. An attractive media center that not only offers a wide range of materials and guidance in using these materials, but provides opportunities for students to learn how to produce media for their own use in their classes.

14. Flexible class schedules that are based on the instructional needs of students for the various activities provided.

15. A strong intramural program that replaces the traditional highly competitive athletic programs that are inappropriate for transcient students. Stress should be placed on helping students understand and use their bodies.

16. Appropriate social experiences that provide for the unique needs of this age group and act as an extension of the formal curriculum—small and large group activities, clubs, "mixer" type dancing, and other such activities.

17. Appropriate guidance services that include teacher-pupil counseling and counseling from trained guidance counselors. Group counseling, as well as individual counseling, is highly effective and very important to a guidance program in the middle school.

18. Facilities that allow for a diversity of grouping
patterns and for student activities related to art, health and physical education, music, drama, and occupational exploration.

19. Continuous in-service education that stresses the unique personality development of the transescent student and the implications for learning.

20. A planned program of community relations that not only provides information about school program and activities but constantly involves parents and other community members in the decision-making process. (pp. 319-320)

Brown (1981) also named 20 key ingredients that incorporated characteristics cited by other proponents of middle school education: (a) grade organization, (b) team teaching, (c) instructional planning, (d) student groupings, (e) flexible scheduling, (f) continuous progress, (g) individualized instruction, (h) independent study, (i) instructional materials, (j) basic skills, (k) exploration, (l) creative experiences, (m) social development, (n) intramural sports, (o) focus on development, (p) individualized guidance, (q) home base programs, (r) values clarification, (s) student evaluation, and (t) transition from elementary to high school.

Merenbloom (1982) defined the effective middle school as one that:
1. responds to the physical, intellectual, social, emotional and moral needs of the young adolescent;
2. possesses a definite curriculum plan that integrates knowledge, skills, and personal development;
3. builds on the successes of elementary school and prepares students for high school;
4. uses teachers who can focus on the learning needs of adolescents through a variety of teaching techniques;
5. uses interdisciplinary teacher teams and block-of-time schedules;
6. uses a teacher adviser program;
7. stresses self-concept in the curricular and co-curricular programs for a positive climate;
8. provides schedule flexibility; and
9. emphasizes a guidance program focused on the welfare of each student. (pp. 8-12)

To these Merenbloom (1988) added:

1. has a set of documents to guide all aspects of the program;
2. actively involves parents in various aspects of the school experience; and
3. evaluates the program on a regular basis and makes changes that enhance the learning. (pp. 5-9)
The developing consensus about the common characteristics of middle schools, despite their name or grade variation, prompted the National Middle School Association in 1982 to publish *This We Believe*, later significantly revised and reissued in 1995. Both pamphlets delineated an essential vision and philosophy of middle schools as "an educational response to the needs and characteristics of youngsters during early adolescence" (NMSA, 1982, p. 18) and contributed a national voice to the developing consensus of the essential characteristics of what the NMSA called a "true" middle school. The 1982 document prescribed a fixed set of characteristics for rote implementation. The 1995 revision, however, described the characteristics in order to emphasize the importance of modifying them for local needs (Hough, 1997). Table 1 lists the NMSA 1982 prescriptive and 1995 descriptive characteristics. Jackson and Davis (2000) reinforced the shift from prescription to description because they believed implementation and organization of the characteristics that they termed design elements "depend on many factors unique to individual schools" (p. 25).

Like Alexander (1986), Lounsbury (1984) observed that "there is a considerable consensus on the educational practices and approaches that constitute what has come to be called 'the middle school concept'" (p. 2), but efforts
continued to achieve that consensus. The National Association of Secondary School Principals formed a Council on Middle Level Education which led in 1985 to its release of An Agenda for Excellence at the Middle Level. The report contained 12 broad concepts of the middle school whose explanations incorporated the desirable core characteristics centered on the 10 to 14 year old in any middle school: (a) core values to be transmitted to the student, (b) culture and climate of the school, (c) student development, (d) curriculum, (e) appropriate learning and instruction, (f) school organization, (g) school organization, (h) use of technology, (i) specially trained teachers, (j) transition, (k) preparation of principals, (l) connections with the public, and (m) client centeredness.

The national-level reports in the 1980s about the urgent need for educational improvement and recommendations for reform, among them A Nation at Risk (National Commission on Excellence in Education, 1983) and A Place Called School (Goodlad, 1983), focused upon elementary and secondary education (as cited in Education Commission of the States, 1983) but did not acknowledge the middle school as a distinct level of schooling (Jackson & Davis, 2000; Swaim, Needham, & Associates, 1984). This oversight (Clark & Clark, 1993; see also Oakes, et al., 1993; Williamson &
<table>
<thead>
<tr>
<th>Characteristics of Middle Schools</th>
<th>1985</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educators knowledgeable about and committed to transcents</td>
<td>Educators committed to young adolescents</td>
<td>A shared vision</td>
</tr>
<tr>
<td>A balanced curriculum based on transcent needs</td>
<td>High expectations for all</td>
<td>An adult advocate for every student</td>
</tr>
<tr>
<td>A range of organizational arrangements</td>
<td>Family and community partnerships</td>
<td>Curriculum that is challenging, integrative, exploratory</td>
</tr>
<tr>
<td>Varied instructional strategies</td>
<td>Varied teaching and learning approaches</td>
<td>Assessment and evaluation that promote learning</td>
</tr>
<tr>
<td>A full exploratory program</td>
<td>Flexible organizational structures</td>
<td>Programs and policies that foster health, wellness, and safety</td>
</tr>
<tr>
<td>Comprehensive advising and counseling</td>
<td>Cooperative planning</td>
<td>Comprehensive guidance and support services</td>
</tr>
<tr>
<td>Continuous progress for students</td>
<td>Positive school climate</td>
<td>A positive school climate</td>
</tr>
</tbody>
</table>
Johnston, 1999a) exemplified the need for middle schools not to "isolate themselves from the mainstream of educational reform" (p. 147). The subsequent critical response to these reports in state legislative action and through state task forces, however, connected the middle school to the larger educational reform and gave prominence to the need to identify characteristics for quality middle schools in relation to reform at the elementary, high school, and higher education levels (Williamson & Johnston, 1999b).

After one year of study and hearings, the California State Department of Education Middle Grade Task Force (1987) recommended 22 principles as part of a reform agenda for middle schools in California with specific recommendations that suggested the following essential characteristics: (a) core curriculum/core knowledge, (b) exploratory courses, (c) challenging/age-appropriate instruction including values development, (d) high expectation for all, (e) multi-media resources, (f) interdisciplinary instruction, (g) teachers trained for the middle years, (h) flexible scheduling, (i) teaming of teachers and students, (j) meta-cognitive and study strategies, (k) guidance and advisor-advisee relationships, (l) collegial decision-making, (m) transition, and (n) parent and community involvement. These characteristics
were also embedded in the recommendations for effective middle school education in Maryland, the result of two years of study by the Maryland Task Force on the Middle Learning Years (1989).

Kohut (1990) described attributes of effective middle schools and believed that a positive climate was also essential; he cautioned that the implementation of the following characteristics did not guarantee success: (a) flexible scheduling, (b) core curriculum, (c) exploratory experiences, (d) health and physical education, (e) creative experiences, (f) individualized instruction, (g) independent study, (h) school and community networking, (i) interdisciplinary teams, (j) knowledgeable and specifically trained teachers, (k) student advisement/advisories, (l) success for all students, (m) mastery of essential learning, and (n) shared decision-making.

Williamson and Johnston (1991) named common elements of effective middle schools:

1. a comprehensive academic program that stresses skills development for each student;

2. a program of exploratory and enrichment experiences;

3. the use of instructional methods appropriate to the age group: individualized instruction, variable group sizes, multi-media approaches, independent study programs, inquiry-oriented instruction;
4. flexibility in scheduling and student grouping;
5. cooperative planning and team teaching;
6. planned opportunities for teacher-student guidance; which may include a home base or advisor-advisee program.
7. cooperative instead of competitive activities;
8. at least some interdisciplinary or multidisciplinary studies;
9. emphasis on increasing the student’s independence, responsibility, and self-discipline;
10. opportunities for students to formulate personal values and standards;
11. physical and health education based solely on the needs of the students. (p. 72)

Mosensen (1991) named the elements a true middle school needed and saw them as interrelated: (a) knowledgeable educators committed to transcents, (b) balanced curriculum based on transcent needs, (c) range of organizational arrangements, (d) varied instructional strategies, (e) full exploratory program, (f) comprehensive advising and counseling, (g) continuous progress, (h) evaluation compatible with transcents, (i) cooperative planning, and (j) positive school climate.
Allen, Splittgerber, and Manning (1993) described four essential dimensions of an exemplary middle school: (a) curriculum-academic core, exploration, integrated/interdisciplinary, arts and physical education, career and technical education; (b) instruction-active learning/teaching roles, cooperative learning, interdisciplinary units and instructional technology; (c) organization interdisciplinary teams, flexible scheduling, variable grouping, school within a school, continuous progress; and (d) support services—guidance/advisor-advisee, health services, at-risk programs, learning community, home-school community.

Reform-minded groups outside but supportive of developmentally responsive education believed that the middle grades provided the last opportunity for young adolescents to develop academic purpose and commitment to educational goals; the groups produced reports that included essential characteristics centered on developmental needs. The Children’s Defense Fund (1988) in its blueprint named the following characteristics: (a) small unit size within a larger school (teams), (b) interdisciplinary teacher teams, (c) flexible scheduling, (d) independent/active learning, (e) high expectations, (f) advisories, (g) structured/safe environment, (h) continuous progress, (i) transition, and (j) parent involvement.
The Carnegie Task Force on Education of Young Adolescents (1989), also advocating reform, issued its *Turning Points: Preparing American Youth for the 21st Century* which called for systemic or whole-school instead of incremental reform in order to transform the organization, curriculum, and methods of instruction for the young adolescent. The report cited eight goals and suggested recommendations for their implementation. Taken together, they encompassed the essential characteristics of middle schools (Alexander & McEwin, 1989; Clark & Clark, 1990; George & Alexander, 1993).

Research (Clark & Clark, 1990; George & Alexander, 1993; Manning, 1993; Strahan, 1992) saw the comprehensive turning points list that described the desirable characteristics as a model of a consensus about them. Quattrone (1990; see also Peppard & Rottier, 1990) summarized the recommendations according to the *Turning Points* goals. These goals and recommendations are listed in Table 2.

While many knowledgeable middle school experts named essential characteristics, others surveyed the literature or conducted surveys of middle school practice as other ways to determine the characteristics of an effective middle schools. Binko and Lawlor (1986) in their survey of the literature identified 37 practices cited by various
authorities as important characteristics of the middle school. Twenty-four of these were extracted by teacher and administrator middle school participants in a Q-sort technique as the most important characteristics practiced. Table 3 contains these characteristics which Binko and Lawlor categorized into four groups: school climate, curriculum, teaching methods, and organization.

Alexander and McEwin (1989) in 1987-88 replicated and expanded a survey conducted by Alexander in 1968; drawing on information from both, they compressed Alexander's original 18 into one set of six critical characteristics essential for middle schools. These compacted characteristics resulted from the 1988 survey responses of actual practice:

1. an interdisciplinary organization, with a flexibly scheduled day;
2. an adequate guidance program, including a teacher advisory plan;
3. full-scale exploratory program;
4. curriculum provision for such broad goals and curriculum domains as personal development; continued learning skills, and basic knowledge areas;
<table>
<thead>
<tr>
<th>Turning points goals</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a community for learning</td>
<td>Creating smaller learning environments, forming teachers and students into teams, assigning an adult adviser to each students</td>
</tr>
<tr>
<td>Teaching a common core of knowledge</td>
<td>Teaching young adolescents to think critically, to develop healthful lifestyles, to be active citizens, to learn as well as to test successfully, integrating subject matter across disciplines</td>
</tr>
<tr>
<td>Ensuring success for all students</td>
<td>Using cooperative learning and flexible grouping, scheduling class period flexibly to maximize learning, expanding the structure of opportunity for learning</td>
</tr>
<tr>
<td>Empowering teachers and administrators</td>
<td>Giving teachers greater influence in the classroom, establishing building-governance committees, designing leaders for the teaching process</td>
</tr>
<tr>
<td>Preparing teachers for the middle grades</td>
<td>Developing expert teachers of young adolescents</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Turning points goals</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving academic performance through better health and fitness</td>
<td>Ensuring student access to health services, supporting school as health promoting environment</td>
</tr>
<tr>
<td>Re-engaging families in the education of young adolescents</td>
<td>Offering parents meaningful roles on school governance, keeping parents informed, offering families opportunities to support the learning process at home and at school</td>
</tr>
<tr>
<td>Connecting schools with communities</td>
<td>Placing students in youth services, ensuring student access to health and social services, supporting the middle grade education program, augmenting resources for teachers and students, expanding career guidance for students</td>
</tr>
</tbody>
</table>
### Table 3

**Middle School Characteristics Binko and Lawlor**

**Placed Into Four Categories**

<table>
<thead>
<tr>
<th>School climate</th>
<th>Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage creative ideas by students</td>
<td>Opportunities for gifted students</td>
</tr>
<tr>
<td>Learning activities tailored to the physical needs of adolescents</td>
<td>Curriculum emphasizing exploratory study</td>
</tr>
<tr>
<td>Learning activities tailored to the emotional needs of adolescents</td>
<td>Provision for special interest groups</td>
</tr>
<tr>
<td>Teachers assume role of counselors</td>
<td>Emphasis on basic academic skills</td>
</tr>
<tr>
<td>Development of moral values</td>
<td>Emphasis on personal interests</td>
</tr>
<tr>
<td>Encourage innovative ideas by teachers</td>
<td>Differentiate objectives according to ability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis on inquiry, problem solving, and higher cognitive skills</td>
<td>Written statement of school philosophy</td>
</tr>
<tr>
<td>Opportunities to work in laboratory settings</td>
<td>Emphasis on close working relationships between teachers and counselors</td>
</tr>
<tr>
<td>Emphasis on multi-media approach</td>
<td>Utilize interdisciplinary team teaching</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance between small and large group instruction</td>
<td>Utilize single discipline team teaching</td>
</tr>
<tr>
<td>Differentiate methods according to ability</td>
<td>Utilize non-graded approach</td>
</tr>
<tr>
<td>Progress according to student ability</td>
<td>Provide an adequate transition between elementary and high school</td>
</tr>
</tbody>
</table>
5. varied and effective instructional methodology for the age group; and

6. continued orientation and articulation for students, parents, and teachers. (pp. 84-85)

Epstein and MacIver (1993) studying middle school practice identified eight characteristics most frequently implemented in the middle schools surveyed: (a) interdisciplinary teams, (b) common planning time for teams, (c) flexible scheduling, (d) students assigned to the same homeroom or advisor throughout their tenure in middle school, (e) cooperative learning, (f) exploratory and mini-courses, (g) parent involvement in workshops on early adolescence, and (h) parents as volunteers.

In fact, national-level groups and influential researchers whose work on behalf of effective middle schools complemented and paralleled one another joined together in the 1990s to strengthen and advance middle school reform, in particular student outcomes. The National Forum to Accelerate Middle-Grades Reform (1999; see also George, 2000), made up of about 47 practitioners from associations, foundations and educational research institutions, developed the "Criteria for High-Performing Middle-Grades Schools," a detailed statement of effective middle schools that reflected the accepted middle school characteristics presented in Turning Points 2000 (Jackson &
Davis, 2000), using four broad categories for its 37 criteria: (a) responsive to the developmental needs of young adolescents, (b) academically excellent, (c) socially equitable, and (d) provision for organizational supports and structures.

Kanthak (1996) cited the following characteristics for high-achieving middle schools: (a) a challenging curriculum, (b) core curriculum, (c) integrated curriculum that focuses on the concerns of young adolescents, (d) exploratory experiences, (e) a focus on achievement, (f) specially trained teachers, (g) flexible schedules, (h) interdisciplinary teams, (i) comprehensive shared vision, (j) shared leadership style of decision-making, (k) social experience, and (l) social equity in learning and achievement.

George (1991) concluded that the 30 year conversation about what comprised the desirable characteristics of effective middle schools was over; national, state, local as well as middle school researchers and practitioners alike had accepted a common core of characteristics that included:

- advisory programs, interdisciplinary team organization, and exploratory emphasis on the curriculum combined with a core of common knowledge, flexible scheduling, active instruction, specially
trained teachers, shared decision-making among the professionals in the school, success for all students, health and physical education, and connecting the home and community with the education of the young adolescent. (p. 2)

George and Shewey (1994) subsequently refined the wording and described the core as "now a part of a solid national consensus about the most central features of effective schools for young adolescents" (p. 26), a belief which VanZandt and Totten (1995) echoed:

interdisciplinary team organization, advisory programs, flexible scheduling and grouping, enriched curriculum experiences, broadened opportunities for student recognition and success, more active instruction and learning, articulation to schools above and below, shared decision-making, parent and community involvement. (p. 26)

**Related Studies and Implementation**

As the consensus built around the essential characteristics that described an ideal middle school, acknowledged authorities and graduate students researched their level of implementation. A majority of the studies were state and regional with some national in scope. Most studies used surveys and interviews as primary methods to ascertain the present and desired levels of, as well as plans for, future implementation. Bohlinger (1977), Butera


Fry (1994), McGuire (1995), and Parker (1996) studied the importance of the characteristics in relationship to one another. Neighbors (1998) did also in Alabama public middle schools and additionally studied which of them best facilitated or impeded implementation. Dreilbelbis (1996), Neill (1999), Ross (1989), and Vazis (1992) looked at obstacles to implementation, and Dreibelbis also identified factors positively influencing their adoption based on principals’ perceptions in middle schools containing grade
7 in one Pennsylvania school region.

That implementation levels were limited was the conclusion of three studies conducted in New Jersey, ranked in the top 10 of states with the greatest number of schools to adopt the middle school concept during the first decade (Compton, 1976; Hunt, Berg, & Doyle, 1970). Their conclusions contributed to and corroborated research findings nationwide. Butera (1972) compiled a list of 53 observable characteristics from the literature from which he developed a survey instrument after the list had been reviewed by 33 authorities in middle school education. Butera concluded: "Most middle schools in the state of New Jersey do not possess an impressively high number of the observable characteristics proposed by the literature" (p. 168) judged desirable. Further, the same low level of implementation was constant in middle as well as 7-8 or 7-9 schools, leading Butera to conclude that reorganization of grade span "has not resulted in significant changes in the experiences provided" (p. 170) trancescents.

Kopko (1976) developed a Middle School Determination Questionnaire based on the characteristics recommended by a task force for middle schools in New Jersey; most of the characteristics reflected those identified as essential in the national consensus. Schools in the sample were placed into three implementation groups: low, moderate, and high. Eighty-seven percent fell into the 50% to 74% implementation range, the moderate category. Kopko found
"disparaging evidence indicat[ing]" that the "status relating to middle school education... is not optimal," the implementation rate "questionable," and the middle schools "not totally committed to the basic philosophy of middle school education" (pp. 145-146). He characterized the status of schools in New Jersey for transients as "middle school mediocrity" (p. 146) in the absence of innovative structures such as continuous progress and team teaching.

Although Sabo (1995) studied organizational climate and the quality of student life in 49 New Jersey middle schools, his interviews with selected principals gathered information about the level of implementation of middle school characteristics. He found great variability in implementation rates and concluded:

Disturbing was the absence of widespread use of recommended practices. Even though select middle school practices were better predictors of student attitudes towards their life in school than climate variables, no school in the study was implementing a comprehensive plan for a middle school. (p. 158)

Some doctoral students studied the implementation rate of characteristics in middle schools designated as exemplary through the U.S. Department of Education Elementary and Secondary School Recognition Programs, known more recently as the Blue Ribbon Schools Program. Most found a higher rate of implementation than in non-exemplary schools but less than full implementation. Sheehan (1989)
studied 16 exemplary middle schools across the country in relation to implementation levels in a random sampling of middle schools in Rhode Island. While the Rhode Island schools exhibited five of the 18 practiced extensively, 13 of the 18 had been institutionalized in the middle schools drawn from a list of 75 exemplary middle schools developed by Alexander and George (1981).

Prentice (1990) found a significantly higher level of implementation in exemplary middle schools in Michigan. Mowen (1993) did also when he compared Michigan exemplary middle schools with selected schools in Michigan designated as middle or junior high. McGuire (1995) subsequently found that the implementation rate of 18 essential characteristics in middle schools designated as exemplary in Michigan had not changed over time and was not significantly different from rates of national Blue Ribbon comparison groups; in addition, exemplary status did not significantly affect the rate of implementation.

O'Connell's study (1994) of the perceived and projected levels of implementation in 79 Blue Ribbon middle schools concluded that the 19 characteristics examined exhibited higher levels of implementation than in middle schools in other studies, but that "the actual levels of implementation are not as high as recommended in the literature by the experts in the field" (p. 131). Weibling's (1997) qualitative study looked at the perceived implementation of the National Middle School Association
criteria for excellence in three Oklahoma Blue Ribbon middle schools; she concluded that they demonstrated the characteristics of excellent schools in the middle; however, "they do not follow, to the letter, what most middle school writers/theorists recommend, but they have found what works for their community, parents, and students" (p. 73).

**Essential Characteristics Surveyed**

Many surveys of middle schools confirmed low rates of implementation, even in schools identified in the federal Blue Ribbon Schools Program, although implementation of the characteristics was higher in these exemplary middle schools (George & Shewey, 1994).

George and Oldaker (1986) surveyed central office and school administrators in 130 middle schools in 34 states whose schools had been acknowledged as exemplary based on several authoritative sources. Reported data revealed that these schools had adopted the essential characteristics of the middle school and their implementation had resulted in improved achievement, behavior, climate, morale, and staff development, attendance, and student self-esteem; however, high school teachers in the study could not distinguish between eighth graders from exemplary and non-exemplary schools, an ironic situation given the reported data (Hough, 1991).

Survey responses of 77 middle schools identified in
1987 as exemplary in the U.S. Department of Education Secondary School Recognition Program and a random, national sample of 87 non-exemplary middle schools found a one-third to one-half higher implementation rate of 10 characteristics developed from This We Believe (1982). Researchers Connors and Irvin (1989) thus found a higher level of "middle schoolness" in the Blue Ribbon middle schools.

Gill (1992) mailed a questionnaire to Blue Ribbon middle schools named in the 1990-91 U.S. Department of Education's exemplary schools search. Principals ranked the eight Turning Points (Carnegie Task Force on Education of Young Adolescents, 1989) recommendations in order of importance and scored the level of implementation in each school. Because the 51 respondents scored six as above average and two as average implementation, Gill suggested that the high rate of implementation made the exemplary schools models for other schools contemplating a move to the middle school concept.

A NASSP study (Valentine, Clark, Nickerson, & Keefe, 1981) of principals and programs in exemplary middle schools reported increased acceptance of the middle school as a bridge and unique programming as a reason for reorganization, yet scant implementation of desired characteristics while the traits of the junior high such as departmentalization, set class periods, ability grouping, interscholastic sports, and no specific teacher preparation
persisted. An NAASP follow-up study in all types of middle schools (Valentine, Clark, Irvin, Keefe, & Melton, 1993) found practices far from full implementation.

Several other surveys yielded information about the implementation rate of middle school characteristics. Alexander (1968) surveyed 10% of the middle schools in the United States and found that most had not implemented the essential characteristics. Twenty years later his and McEwin’s 1988 survey when compared to the 1968 survey acknowledged progress in their implementation, but that the majority of middle schools “on most characteristics have yet to provide features they need, and probably wish to have” (Alexander & McEwin, 1989, p. 44). The data from a 1993 survey of a national, random, stratified sample of middle schools (McEwin, Dickinson, & Jenkins, 1996) was compared with the 1968 and 1988 studies. The researchers found “significant but limited” movement toward implementation of developmentally responsive practices and “significant number of middle schools continue to follow unsuccessful and inappropriate practices such as departmentalization, rigid scheduling, and tracking, while failing to implement programs such as interdisciplinary team organization, flexible scheduling, and interdisciplinary instruction” (p. 156).

During the intervening years between these two studies, Brooks (1978) and Brooks and Edwards (1978) conducted national surveys of principals similar to
Alexander’s. The researchers reported that the number of middle schools quadrupled since 1968 but also found in the data a persistent absence of a distinctive identity in the face of continued application of junior and senior high school practices.

Morrison (1978) surveyed 39 middle schools throughout the New England and Mid-Atlantic states, identifying 33 essential characteristics during his visits to them. His recommendations suggested the absence or incomplete implementation of many characteristics of effective middle schools and the continued presence of high school practices. Erb (1980) found similar results in his study of 193 middle and junior high schools in Kansas.

Cawelti (1988) conducted a survey for the Association for Supervision and Curriculum Development that included middle schools with a variety of grade spans throughout the United States. Regardless of their organization, middle schools “did not address all the program characteristics recommended” (p. 1) for transcents; however, the middle schools containing grades 5 or 6 to 8 displayed the desirable characteristics more often, a finding similar to that of Valentine et al. (1993) cited earlier. That same year a Johns Hopkins Center for Research on Elementary and Middle Schools (CREMS) study supported Cawelti’s findings. CREMS researchers Epstein and MacIver (1989) studied grades 6-8 and 7-8 schools and asked 2,400 administrators nationwide to report on the use of responsive middle school
practices and their effects. The researchers concluded, "Few middle grades schools have implemented many of the practices recommended for the education of young adolescents, and even fewer of them have implemented them well" (p. 530). Even so, they predicted a 10% increase in future implementation levels. A contemporaneous CREMS study (Braddock, Wu, & McPartland, 1988) of school organizational and instructional practice drawn from survey responses of a national sampling of principals and teachers in the 1985-86 National Assessment of Educational Progress cited modifications in school name prevalent with actual changes in practices to reflect responsive characteristics present but not widely practiced.

Researchers visited middle schools and documented what they were really like from the perspective of students (Lounsbury & Clark, 1990; Lounsbury & Johnston, 1988; Lounsbury, Marani, & Compton, 1980). These shadow studies determined that students in most schools and classrooms experienced programs more like the traditional junior high. A very few embraced developmentally responsive programs and practices judged essential for successful middle schools, and researchers discovered that they were not functioning as intended.

In a comprehensive, continuing study linking desirable characteristics to student achievement, the Project on High Performance Learning Communities (Felner, Jackson, Kasak, Mulhall, Brand, & Flowers, 1997) monitored 97 middle
schools in Illinois, using criteria based on characteristics from *Turning Points* (Carnegie Task Force on Education of Young Adolescents, 1989) to place each into a high, partial, or low level implementation group. One preliminary finding was that even the high implementation schools were not fully transformed "particularly in terms of actual changes in classroom instruction at the classroom level" (p. 14), but that achievement gains in these schools showed "the kind of impact the implementation of the *Turning Points* recommendations could have on adolescents' achievement and adjustment" (p. 14). Jackson, one researcher in the study and principal author of *Turning Points*, along with Davis (2000) commented in the sequel *Turning Points 2000* (Jackson & Davis, 2000) that few of the proposed recommended characteristics were carried out in middle schools.

Russell (1997) studied implementation levels in 10 middle schools in relation to student achievement in an urban, Midwestern school district, surveying all certified professional staff and 2,373 eighth graders. Although some schools were further along in implementation, the transition to middle school practices had not been achieved district-wide.

**Effective Schools Research and Correlates**

Researchers studying the essential characteristics of middle schools drew upon the research protocol from a
broader educational reform effort known as the Effective Schools Movement (George & Shewey, 1994; Hough, 1991; Lake, 1989). Since the mid-1960s, a growing body of educational research about the characteristics of unusually effective schools, also cited in the literature as exemplary schools, school improvement, school effects, and school effectiveness, had developed (Austin & Reynolds, 1990; Squires, Huit, & Segars, 1983), impacted the emerging middle schools (McKay, 1995), and “made the research in school effectiveness clearly relevant to the concerns of those [middle school] educators” (George & Shewey, p. 11).

Effective schools research began as one response to the Coleman Report (as cited in Miller, 1983). James Coleman et al. (1966), finding near equity in educational resources for Black and White students, concluded that differences in achievement resulted from differences in the family socio-economic backgrounds of students; this strong, positive relationship, moreover, remained as students moved up the grades.

In reaction, many researchers conducted investigations into schools, believing that other school-related processes important to achievement but not part of the Coleman study (Coleman et al., 1966) could and did affect student outcomes and should be studied (George & Oldaker, 1985). Their studies uncovered several educational elements that impacted student achievement. Like those studying the
characteristics of effective middle schools, effective schools researchers assumed that all children could learn and that student achievement derived most of all from the nature of the schools students attended (House Committee on Education and Labor, 1987). Edmonds (1979) conducted several studies of schools serving the urban poor in the Midwest and concluded:

The large differences in performance between effective and ineffective schools could not be. . . attributed to differences in the social class and family background of pupils enrolled in the schools. (p. 23)

Several early researchers using achievement scores (see Klitgaard and Hall, 1974) examined urban elementary schools with heavy minority enrollment for attributes that made them effective, while controlling for family and economic factors within the socio-economic status (SES) categories (Cruickshank, 1986). Through nominations, Weber (1971) located four successful inner-city schools nationwide with high reading achievement. He found several characteristics associated with the students' high reading achievement and common to the four schools in his case study: strong leadership, high expectations, good atmosphere (e.g., order, purpose, quiet), emphasis on reading, and careful evaluation of pupil progress. Austin's study (1978) of 30 outlier schools and Wellisch, MacQueen, Carriere, and Duck's study (1978) of nine outliers receiving federal monies affirmed these findings,
especially the importance of strong leadership and a principal's interest in and concern about instruction, respectively.

Brookover, Beady, Flood, Schweitzer, and Wisenbaker (1979), studying school-related characteristics in relation to reading and math achievement in 91 randomly selected schools, found that students' sense of efficacy and a supportive school climate; high expectations for administrators, teachers, and students; a belief in student academic success; a consistent reward system for achievement; and strong principal leadership demarked high-from low-achieving schools.

Edmond's study (1979) of five effective elementary schools in Detroit and five in Lansing produced a set of correlates on which many others subsequently based effective schools reform: (a) a positive climate of high expectations, (b) strong administrative leadership, (c) an orderly but not rigid atmosphere, (d) an emphasis on basic skills, and (e) emphasis on student progress.

A Phi Delta Kappa study (1980) of successful urban elementary schools incorporated interviews, case studies, a review of research and evaluation studies, all of which determined several variables for effectiveness whose origins were within the schools and which were grouped under leadership, teaching personnel, and curriculum and instruction. Shoemaker and Fraser (1981) summed up the characteristic correlates:
1. Clearly stated curricular goals and objectives
2. Leadership style, behavior, and attitudes
3. Individualized instruction
4. Structured learning environments
5. Small adult/child ratios
6. Federal, state, and local funding for special programs
7. High levels of parent contact and parent involvement
8. Frequent staff development activities
9. Focus on goals and objectives. (p. 180)

Six journalists participating in a fellowship described the elements they found that contributed to successful urban, suburban, and rural elementary and secondary schools they visited (Brundage, 1980). Descriptors of effectiveness common to their separate articles in the report included strong principal leadership; high expectations for achievement and belief in student success; focus on learning and achievement; and well-prepared, caring teachers proud of their chosen work who ran disciplined though flexible classrooms.

One of the first studies of school effectiveness in secondary educational institutions was conducted over 5 years by Rutter, Maughan, Mortimore, Ouston, and Smith (1979) in 12 secondary schools in London, including junior high schools and which also confirmed "some of the central
components of the middle school concept" (George & Oldaker, 1985, p. 7). From this longitudinal study the researchers documented that schools with similar populations produced different levels of achievement and behavior. Seven measures were associated as correlates with positive outcomes: academic emphasis, skills of teachers, teachers' actions in lessons, rewards and punishments, pupil social conditions, responsibility and participation, and staff organization.

Rutter et al. (1979) looked at how these correlates, which they regrouped into four areas, contributed to the overall school environment or ethos, the norms and values which he suggested made a difference in student achievement and behavior in effective schools. First, group management in the classroom assumed student engagement and success in the lesson through advanced planning, time on task, and whole group instruction. Secondly, high expectations of students for achieving high academic standards of success, modeling by staff of expected behaviors that value children and teaching, and feedback which emphasized positive rewards and praise for work well done and punishment without humiliation communicated the school values and norms.

Next, consistency of values set by the principal with the participation and consensus of staff and students resulted in a coherency of purpose about expected behaviors of students, staff, and administrators. Finally, pupil
acceptance of school norms were positively
influenced by a pleasant environment, accessibility of
staff who set high expectations for and anticipated student
success, relevant out-of-school activities, and a
significant number of students in responsible roles.

Purkey and Smith's review (1983) of the effective
schools and related research led to a framework of nine
interdependent organizational and structural and four
process variables. The former nine facilitated the latter
four variables; these four shaped a school's climate, the
needed condition for academic effectiveness. The
organizational-structural variables included: school-site
management, instructional leadership, staff stability,
curriculum articulation and organization, school-wide staff
development, parental involvement and support, school-wide
recognition of academic success, maximized learning time,
and district support. The process variables for a climate
and culture supporting effectiveness were collaborative
planning and collegial relationships, sense of community,
clear goals and commonly shared expectations, and order and
discipline. Fullan (1985) suggested eight organizational
and four process factors associated with school
effectiveness similar to those of Purkey and Smith.

Mackenzie (1983) provided one of the most complete
syntheses of school effectiveness characteristics based on
a review of nine reviews of research. He divided the
attributes into leadership, efficacy, and efficiency, and
further differentiated core or fundamental from facilitating characteristics. Table 4 delineates MacKenzie’s synthesis.

In the same year, Joyce, Hersh, and McKibbin (1983) grouped 13 characteristics under two headings, social organization and instruction and curriculum. The former acknowledged the need for a quality social climate in order to support academic achievement and included: clear academic and social behavior, order and discipline, high expectations, teacher efficacy, pervasive caring, public rewards and incentives, administrative leadership, and community support. Features prominent in curriculum and instruction in effective schools included high academic learning time, frequent and monitored homework, a coherently organized curriculum, variety of teaching strategies, and opportunities for student responsibility.

Two years later, Murphy, Weill, Hallinger, and Mitman’s synthesis (1985) of the effective schools literature identified 14 characteristics of effective schools: tightly coupled curriculum, opportunity to learn, direct instruction, clear academic mission and direction, instructional leadership, frequent monitoring, structured staff development, opportunities for meaningful student involvement, widespread rewards and recognition, collaborative organizational processes, high expectations, home-school cooperation and support, safe and orderly environment, and student and staff cohesion and support.
Sharpe (1989) drew on experience in private industry to summarize common characteristics of three effective schools that Gilchrist (1989) visited as part of the U.S. Department of Education Secondary School Recognition Program; one was a middle school. Her connecting highly successful businesses and schools exemplified parallels supported by research (Corcoran & Wilson, 1986). She included a positive climate promoting a desire to care; a clear mission, goals, values and standards of performance; involvement by all people all the time; constant communication; contributions to the community; modeling; and evaluation.

Research and studies listed many characteristics of effective schools that overlapped and some that did not (Tursman, 1981); nevertheless, most research and expert opinion supported the presence of Edmonds's five correlates and agreed they were distinguishers between more or less effective schools (Levine, 1990; Lezotte, 1993; Lezotte & Levine, 1990; Mackenzie, 1983): (a) strong leadership of the principal characterized by substantial attention to the quality of instruction; (b) a pervasive and broadly understood instructional focus; (c) an orderly, safe climate conducive to teaching and learning; (d) teacher behaviors of high expectations and belief in all students
<table>
<thead>
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<th>MacKenzie’s Dimensions of Effective Schooling</th>
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<td><strong>Leadership dimensions</strong></td>
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<td>Positive climate and overall atmosphere</td>
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<td>Goal-focused activities toward clear, attainable and relevant objectives</td>
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<td>Teacher-directed classroom management and decision making</td>
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<td><strong>Efficacy dimensions</strong></td>
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<td>Core elements</td>
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<td>High and positive achievement expectations with a constant press for excellence</td>
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<td>Visible rewards for academic excellence and growth</td>
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<td>Cooperative activity and group interaction in the classroom</td>
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<td>Total staff involvement with school improvement</td>
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<td>Autonomy and flexibility to implement adaptive practices</td>
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<td>Appropriate levels of difficulty for learning tasks</td>
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<td>Teaching empathy, rapport, and personal interaction</td>
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(table continues)
Efficacy dimensions

Facilitating elements
- Emphasis on homework and study
- Positive accountability; acceptance of responsibility for learning outcomes
- Strategies to prevent nonpromotion of students
- Deemphasis of strict ability grouping; interaction with more accomplished peers

Efficiency dimensions

Core elements
- Effective use of instructional time; amount and intensity of engagement in school learning
- Orderly and disciplined school and classroom environments
- Continuous diagnosis, evaluation, and feedback
- Well-structured classroom activities
- Instruction guided by content coverage
- Schoolwide emphasis on basic and higher order skills

Facilitating elements
- Opportunities for individualized work
- Number and variety of opportunities to learn
obtaining at least minimum mastery; and (e) pupil achievement used as the measure for program evaluation. Research over time confirmed the presence of correlates of school effectiveness in both elementary and secondary schools beyond the urban elementary schoolhouses, originally the subject of early research (Brundage, 1980; Corcoran & Wilson, 1986; Lezotte & Levine, 1990; Lightfoot, 1983).

At the same time agreement about the definition of effective schools coalesced around student achievement and mastery of basic skills by all students. Lezottte (1993) defined it this way: "An effective school is one that can demonstrate the joint presence of quality (acceptable level of achievement) and equity (no differences in the distribution of that achievement among major subsets of the student population" (p. 3). His pithy definition encompassed the elements of Mace-Matluck's composite (1987) of several definitions found in the literature:

An effective school is one in which the conditions are such that student achievement data show that all students evidence an acceptable minimum mastery of those essential basic skills that are prerequisite at the next level of schooling. (p. 11)

Research confirmed the presence of some or all of the correlates of effective schools in the middle schools. It also determined the complementary nature of and direct
relationship between the correlates and the characteristics of effective middle schools (Alexander & George, 1981; George & Oldaker, 1985; Johnston, 1984; Johnston & Markle, 1986; Levine, Levine, & Eubanks, 1984; Manning, Lucking, & MacDonald, 1995; Shockley, 1992; Stefanich, 1984; Teddle & Virgillo, 1988). George (1983) saw "no conflict between the effective schools movement and the middle school concept" (p. 504). Jackson and Davis (2000) imagined an explanation of middle grades education this way: "Our goal is to create a school where there are no observable differences in performance by race, class, or any other group characteristic" (p. 227). Their Turning Points 2000 incorporated design elements, middle school characteristics combining research and practice, to achieve this goal.

Still, "a majority of the research to date...has not included a substantial number of middle schools determined to be excellent based on the characteristics identified in the effective schools research" (O'Connell, 1994, p. 62; see also George & Oldaker, 1985). When Hanes (1993) studied the characteristics of effective middle schools, including characteristics cited in both the middle and the effective schools literature, participants agreed on the characteristics needed to be effective, but not all of them were validated in practice.

Lipsitz (1984) conducted impressionistic case studies of four outlier middle schools that met strict criteria for
school effectiveness and for success. The middle schools exhibited an ability and willingness to adapt school practices to students' needs and interests; effected a positive environment as a desirable end in itself as well as a means of social and academic development; had clear understanding of the purposes of schooling in the middle grades; was led by a principal whose strong leadership had institutionalized a mutually-developed vision; conveyed a positive tone through a safe, well-cared for facility, a caring community of learners, students organized in smaller groups within a large building; possessed a shared number of norms such as high expectations of self and students, reciprocity in human growth and development; made effective use of standardized tests to diagnose achievement; adapted through flexible organization; and forged a strong connection to the community and with parents. Both Lipsitz and the Middle Grade Task Force (1987) noted, too, that effective middle schools studies pointed to adult expectations, school climate, and the nature of school leadership as significant determinants of student achievement.

Lake (1986) subsequently linked Rutter's ethos (Rutter et al., 1979) of caring, that is the school environment and the school as social organization, to several middle school characteristics such as advisories, interdisciplinary learning, co-curricular activities, and emphasis on student affective and personal development.
Johnston and dePerez (1984) confirmed Lipsitz's (1984) findings about successful middle schools in a study of middle schools identified as part of the U.S. Department of Education Secondary School Recognition Program. The researchers acknowledged the presence of 14 characteristics of effective schools in the middle schools evaluated for the Blue Ribbon program; furthermore, they identified four manipulable elements of the physical, academic, social-emotional, and organizational climates in them as fundamental conditions in which the characteristics were embedded. The characteristics were prerequisites of an effective school but resulted from these more complex cultural attributes that produced effectiveness.

Garvin (1986) also described what he called the "common denominators" of effective middle schools he visited as part of the 1983-84 national U.S. Department of Education's Blue Ribbon Schools Program of exemplary schools. They overlapped both the characteristics of effective middle and effective schools: clearly defined articulated mission, effective leadership, student-centered teachers, strong parent involvement, evaluation, and a caring environment from caring teachers.

Kerewsky's (1986) experiences as a site visitor to middle schools throughout the United States selected for review as part of the U.S. Department of Education's Blue Ribbon Schools Program of excellence elicited similar measures of effective schooling in the middle grades.
positive atmosphere, high expectations, personal involvement in excellence, well-kept facility, focus on student learning and achievement, time on task, supportive and involved parents and community, order and discipline, positive public image, strong focus on affective education and meta-cognitive strategies, and a caring, student-centered climate.

Acknowledged experts George, Stevenson, Thomason, and Beane (1992) described middle schools as different as each district, yet they shared the values and practices that made them exemplary. The characteristics they identified overlapped several correlates of effective schools: healthy growth and academic development; high expectations, positive climate and supportive environment, clear goals and mission, efficacy, collaboration, strong leadership. Even so, the implementation of both essential middle school characteristics and effective schools correlates in middle schools remained a work in progress.

When Williamson, Johnston, and Kanthak (1995) described the high-achieving middle school, they focused on elements required for both young adolescent learners and for student achievement, characteristics that echoed effective schools correlates: a culture that supports achievement, ongoing discussion about achievement, committing to a supportive structure, and providing an academically rigorous curriculum.
Blue Ribbon Schools

Some middle schools that did implement both had been recognized through the U.S. Department of Education's Blue Ribbon Schools (BRS) Program, begun in 1982 as one of various national programs that stimulated school improvement and identified effective, exemplary schools. Though originally focused on secondary schools and the nurturing of the best students (Lezotte & Levine, 1990; Zerchykor, 1985), the program later recognized schools "that are models of excellence and equity, schools that demonstrate a strong commitment to educational excellence for all students" (Blue Ribbon Schools Program, 1999, p. 1). Successful intellectual, social, moral, and physical development of students underlay the effectiveness of nationally recognized schools as was progress in attaining state and national education goals. The BRS program also partnered with the National Middle School Association and the National Association of Secondary School Principals so that effectiveness for middle school applicants was "consistent with developmentally appropriate middle school models" (U.S. Department of Education, 1998). Nine attributes common to exemplary schools in the BRS program were drawn from the effective schools research (Corcoran & Wilson, 1986; see also Heller & Montgomery, 1989) and included:

1. strong visionary leadership;
2. a sense of shared purpose among faculty, students,
parents and the community;
3. a school climate that is conducive to effective teaching and teacher growth and recognition;
4. an environment that conveys the message that all students can learn;
5. programs that challenge gifted, average, and at-risk students;
6. evidence of impressive academic achievement and responsible student behavior;
7. actively involved parents and broad community support;
8. a commitment to an ongoing program of student assessment and school improvement; and
9. a "can-do" attitude toward problem solving, preferring to view "problems" as "opportunities".
(U.S. Department of Education, 1991, p. 3)

In addition to these attributes, the BRS program focused on eight criteria of school effectiveness to determine eligibility:

1. student focus and support;
2. school organization and culture;
3. active teaching and learning;
4. professional community;
5. leadership and educational vitality;
6. learning-centered school contexts;
7. school, family, and community partnerships; and


These criteria, abstracted from effective schools research, addressed the centrality of student-teacher-content; the organizational, interpersonal, and cultural conditions for success; school-community relationships; and on-going evaluation. At the same time, they reflected the essential characteristics of effective middle schools. When Connors and Gill (1991) surveyed middle schools recognized in the BRS program in 1988-1989 and 1989-1990, they asked respondents to rate the reliability of the BRS process and application in conveying their school’s implementation of the essential characteristics of effective middle schools. Eighty-three percent ranked the BRS process as highly reliable for assessing their school’s effectiveness in implementing middle school characteristics. Sheehan (1989) saw exemplary schools functioning as a “collective standard for all [middle schools] to emulate” (p. 15), a belief about which Purkey and Smith (1982b) concurred.

Improved student outcomes were the endgame of effective schools research on which the Blue Ribbon Schools Program was founded. O’Connell (1994) underscored the importance of focusing attention on this body of research to frame the reforms in middle schools intended to positively impact student achievement. Lezotte (1982)
stated that effective schools "looks at the whole school, recognizes roles and relationships, and acknowledges the subtle yet powerful interactions that exist between and among the members of the school social system" (p. 63). Reynolds et al. (1994) noted that effective schools focused on the academic, social, and emotional growth of pupils. Similarly, Lipsitz (1984) identified the climate and culture, quality of life, student-centeredness, mission of excellence and developmental-appropriateness as descriptive of successful middle schools of excellence. Johnston and Perez (1984) saw the physical, academic, social-emotional, and organizational climate fundamental to middle schools of excellence.

Summary

The middle school had its origins in the junior high school that was developed at the turn of the 19th century primarily by national level committees for administrative expediency. A separate level between elementary and secondary grades, nevertheless, found justification from studies of the physical, social, psychological, and intellectual development of pre- and young-adolescents. When the junior high school failed to create an identity reflective of growth for the in-between-ager, local efforts combined with the voices of knowledgeable authorities to found middle schools developmentally responsive to
transcendents at the same time that they maintained academic excellence and equity. By the 1980s the middle school had eclipsed the junior high nationwide.

Educational researchers and experts studied grade spans and identified organizational and programmatic characteristics whose implementation supported a unique education for young adolescents. With some difficulty, a consensus of the characteristics had been achieved at the same time educators interested in middle schools determined that various grade configurations could successfully integrate the essential elements, notably grades 5 or 6-8.

The characteristics of effective middle schools were also found to be consistent with, complementary of, and directly related to the correlates described in the effective schools research. Studies of exemplary middle schools recognized in the Blue Ribbon Schools program determined a higher level of implementation of the essential middle school characteristics and the correlates of effective schools.

Even so, the higher implementation level in exemplary middle schools was incomplete and had not attained the desirable level suggested in the middle schools literature; moreover, the research for all types of middle schools described a disturbingly low implementation rate of the organizational and programmatic characteristics of effective middle schools. Though this was the case, the literature review confirmed that the essential
characteristics of middle schools implemented at higher levels in middle schools of excellence should serve as exemplars for all schools designed for transscents.
Chapter III

METHODOLOGY

In the Review of Research and Related Literature, the essential characteristics of effective middle schools had been identified, characteristics that developmentally responsive middle schools embraced to best meet the unique needs of young adolescents. From the beginning of the middle school movement in the late 1960s to the present, however, implementation rates had been low according to a majority of studies and surveys, with higher but not full implementation levels found in middle schools identified as excellent, including those in the federal Blue Ribbon Schools Program. Experts and advocates acknowledged middle schools to be in jeopardy if they failed to incorporate fully the desired characteristics.

The promise of middle schools responsive to young adolescent academic achievement and personal growth required a comprehensive implementation of the characteristics. Middle school administrators and teachers needed to expand the level of implementation and to understand that which supported or prevented implementation.
This evaluative study is both descriptive and quantitative. It was undertaken to determine which of the essential characteristics of middle schools had been implemented and to identify supports or barriers to implementation, drawing on the perceptions of teachers and principals in eight New Jersey Blue Ribbon middle schools of excellence. Additionally, the study determined the extent to which the implementation of the characteristics influenced what teachers chose to teach, what teaching strategies teachers chose to use, and what types of assessments teachers chose to administer.

Identification of the Essential Characteristics of Middle Schools

The research and literature review included many studies that used survey research to determine the implementation of the essential characteristics of effective middle schools. The content for the survey Dreibelbis developed for his 1996 study identified them based on a comparison of characteristics recommended in eight sources. The nationally known researchers who had published specific, comprehensive lists of characteristics spanning more than two decades consisted of Elliott Y. Merenbloom (1982); Paul S. George (1989); Larry L. Sale (1979); William M. Alexander and C.
Kenneth McEwin (1989); William M. Alexander and Paul S. George (1981); Thomas E. Gatewood and Charles A. Dilg (1975); Nicholas P. Georgiady, Jack D. Riegle, and Lewis G. Romano (1973); and Judy Reinhartz and Don M. Beach (1983). Three additional authorities in middle school education reviewed the questionnaire for internal validity that determined accuracy of the instrument not only in summarizing the essential characteristics from the national researchers' lists, but also in its ability to ascertain the implementation level in a school of the essential characteristics of effective middle schools. The experts included a middle school principal who presents topics centered on the middle school concept to national-level groups, a person who conducts educational and evaluative programs for middle school administrators, and a member of the Pennsylvania Middle School Association advisory board.

Dreibelbis (1996) synthesized closely-related characteristics recommended in the eight sources so that his list consisted of 13 essential characteristics: (a) appropriate teaching strategies/multi-material approach, (b) flexible/block scheduling, (c) interdisciplinary teams/team teaching, (d) exploratory courses, (e) emphasis on guidance/human relations/careers, (f) involvement/parent-community relations, (g) appropriate health and physical education
experiences, (h) planned knowledge-skills/personal development activities, (i) age-appropriate learner-centered outcomes, (j) advisory programs/increased student security, (k) gradual transition from elementary to secondary, (l) individualized learning and assessment/continuous progress or non-graded, and (m) specially trained teachers/staff development programs.

The list represented agreement by all eight of characteristic one: appropriate teaching strategies/multi-material approach. Seven of the eight agreed on characteristics two through seven: flexible/block scheduling, interdisciplinary teams/team teaching, exploratory courses, emphasis on guidance/human relations/careers, and involvement/parent-community relations. Five of the eight, a majority, included the remaining six characteristics on their lists: planned knowledge-skills/personal development activities, age-appropriate/learner-centered activities, advisory programs/increased student security, gradual transition from elementary to secondary, individualized learning and assessment/continuous progress or non-graded, and specially trained teachers/staff development. Not included were characteristics with less than majority agreement, fewer than five of the eight recognized sources.
The survey Neill developed for his 1999 study overlapped the characteristics Dreibelbis used but also included strong leadership, a clear shared mission, and a positive climate—three essential middle school characteristics that a significant number of scholars described in their research and surveys. The characteristics were also associated with the effective schools research and with the criteria for the federal Blue Ribbon Schools Program to identify schools of excellence and which the eight New Jersey Blue Ribbon middle schools satisfied, among other standards, to achieve national recognition. Survey items that addressed these three middle school characteristics, considered germane to this study of New Jersey Blue Ribbon middle schools, were subsumed into the research instrument.

Identification of Supports and Barriers to Implementation

Dreibelbis's (1996) survey contained an oral interview reviewed for internal validity by the same three experts who had examined the written component of the researcher's pretest. The oral interview contained statements the researcher compiled to explore both what had prevented implementation of essential middle school characteristics and what had contributed to their implementation. Respondents were also asked to add supports or barriers not listed.
Neill studied obstacles to implementation, incorporating into the survey instrument a list of barriers developed by Valentine et al. (1993). Respondents were asked to add barriers not listed.

Three items from Neill (1999) identifying barriers and not part of the Dreibelbis oral survey were also reworded as supports. The six were incorporated into the Dreibelbis (1996) survey, respectively, to become Parts B and C of the research instrument for this study. In addition, two statements framed as supports and barriers and named by more than 50% of the researchers in the literature review were included: lack of a complete or nearly complete implementation of all the characteristics of effective middle schools; and lack of a complete or nearly complete implementation of all the characteristics of effective middle schools followed by developing a full understanding of how they work together to improve learning and achievement.

Population

The Blue Ribbon Schools Program annually identifies schools that serve as models of excellence and equity and recognizes their success in advancing the intellectual, physical, emotional, social, and moral growth of all students as fundamental to that success. Since its start in 1982 the
program developed over time into a school improvement strategy that recognized exemplary schools achieving state and national goals through a comprehensive self-evaluation and long-term vision of education that nurtured student learning and development (Horenstein, 1993). Eight schools in the New Jersey population of middle schools were designated Blue Ribbon schools, one in 1990-91, two in 1994-96, one in 1997-98, and four in 1999-2000. Six of the schools serve grades 6-8; one serves grades 6-7; and one, grades 7-8. All eight were invited to participate in the study because the schools had achieved parity by meeting the eligibility and selection criteria for Blue Ribbon Schools recognition; moreover, research suggested that time was positively associated with implementation levels and the grade configurations in the eight schools likely had practices and programs specific to young adolescents. Seven New Jersey Blue Ribbon middle schools agreed to participate in the study. The district practice of the eighth middle school was not to participate in survey research.

Collection of Data

The name of a contact person in each school was obtained and a date set for the researcher to deliver a packet of materials to the seven New Jersey Blue Ribbon middle schools.
The packet included a cover letter to the principal listing packet contents, procedures for distributing the material and an explanation of the survey return procedure. Materials included a solicitation letter to the respondents—teachers and principals—explaining the purpose of the study, its confidentiality, school and respondent anonymity, the need for candid and independent responses, their contribution to the profession, a list of the 13 characteristics of effective middle schools, the return date and procedure for returning the completed surveys. Accompanying the letter to respondents was a copy of the Survey of Middle School Characteristics that incorporated directions for each of its three parts. A group of reminder notices and two sealed, slotted drop boxes to receive completed questionnaires and labeled Middle School Characteristics Surveys for placement on the main office counter and in the faculty room rounded out the packet.

Three days prior to the day the researcher picked up the boxes containing the completed surveys, the contact in each school was telephoned with a request to place the survey completion reminders in the staff mailboxes. The reminder reiterated the nature of the study, the importance of participation, and encouraged participation. Copies of the cover letter to the principal, cover letter to teachers, and
survey completion reminder are included, respectively, in Appendixes A, B, and C.

At the time the surveys were collected, the participation rate was calculated and this determined whether or not the survey process, as described earlier, would be repeated in the school. For schools in which a second survey was conducted, a second copy of the survey with a solicitation request was placed once again in each teacher's and principal's mailbox. The researcher picked up the second group of completed surveys 1 week later. A copy of the second survey cover letter is included as Appendix D.

Complete or abstracted results of the study were mailed to principals who requested them as part of the approval process to conduct the study.

Returns from rounds one and two totaled 165 surveys or a 30% response from the seven participating middle schools.

Instrument

The design for Part A of the Survey of Middle School Characteristics was modified from an instrument Munsell (1984) developed. As in Munsell, respondents first indicated for Response A the perceived level of implementation of essential middle school characteristics. Unlike Munsell, Response B was added to the survey to measure the influence
of the implementation of the middle school characteristics on curriculum, teaching strategies, and assessment: "Extent the characteristic has influenced what I teach, the teaching strategies I use, and the way I assess students."

A Likert scale of ordinal response options "not at all," "minimally," "moderately," and "extensively" framed Part A for Response A and Response B; however, a choice of NA was added to Response B—influence on respondents' curriculum, instruction, assessment—as a few items were not applicable to all teacher—respondents. Each of the two responses to each item was given a value between 1 and 4. A value of 0 was given to NA, not applicable, in Response B. The higher the number, the higher the perceived level of implementation and influence, respectively.

The items for Part A were drawn primarily from the written survey Dreibelbis (1996) prepared for his study. Modified for clarity and precision, the wording of the items was also integrated in five instances with the wording of similar items from the survey Neill (1999) developed for his study, with 11 items from Neill also added. Both Dreibelbis and Neill studied implementation levels of the essential characteristics of middle schools.

Parts B and C of the research instrument for this study were developed by Dreibelbis (1996) for the oral portion of
his survey that included factors supporting or preventing implementation of essential middle school characteristics, with wording adjustments made to all but one item. Three items from Neill (1999), who examined factors preventing implementation, were incorporated into the survey; moreover, three additional items identified as supports and barriers during the review of the research and related literature and confirmed by middle school expert Paul S. George (personal communication, February 20, 2001) rounded out Parts B and C.

Respondents used a Likert scale to indicate ordinal response options of "not a support," "moderate support," and "serious support" in Part B and "not a barrier," "moderate barrier," and "serious barrier" in Part C. The response to each item was given a value between 1 and 3. The higher the number, the higher the factor is a support or barrier, respectively.

Dreibelbis and Neill provided written permission for use of their surveys in whole, in part, or modified; their letters can be found in Appendixes E and F. Items 1-45 of the Survey of Middle School Characteristics were distributed among the 13 essential characteristics of middle schools used for this study. Dreibelbis determined that his synthesis and combining of like characteristics from the research and literature required several items in order to describe the
myriad dimensions of each comprehensive middle school characteristic. The essential characteristics and the items that described them are included in Appendix G.

The research instrument used in this study was first administered to a small group of middle school teachers and principals. The sampling was taken from the population of New Jersey Blue Ribbon middle schools in this study. The pilot determined respondent comprehension of the survey items, their understanding of the purpose of the survey, and the extent to which the survey enabled respondents to convey their perceptions about the essential characteristics of effective middle schools. A copy of the letter requesting participation in the survey pilot can be found in Appendix H.

Ten teachers and administrators returned the survey in the pilot study of Survey of Middle School Characteristics. The Statistical Package for the Social Sciences provided data from the pilot study to determine instrument reliability. Reliability coefficients exceeded .90 for Parts A and B, and was set at .84 for Part C. A reliability coefficient at or above .60 demarks acceptable consistency in measurement (Abrami, Cholmsky, & Gordon, 2001, p. 43).

Though this be so, modifications to the research instrument resulted from the pilot study. The wording of six items as well as the directions for Parts B and C were
changed to improve comprehension of them. A copy of the Survey of Middle School Characteristics is included as Appendix I.

Treatment of Data

An analysis of the survey data used descriptive statistics for the responses to the survey items. The research and subsidiary questions, hypotheses where appropriate, and method of analysis for each are explained in this section.

The research questions for this study and the strategies used for their analysis were as follows:

Research question. To what extent are the essential characteristics of effective middle schools being implemented in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

Method of analysis. Calculated for each item of present implementation level of middle school characteristics were mean response frequencies. Item means describing a characteristic were aggregated to calculate the composite mean for each of the 13 characteristics. The percentage of schools implementing each characteristic was calculated in relation to the mean range for each implementation level. Values for implementation were: 4.00 to 3.50—extensively,
3.49 to 2.50—moderately, 2.49 to 1.50—minimally, and 1.49 to 1.00—not at all.

Subsidiary question 1. What are the supports to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

Method of analysis. Calculated for each item describing a support to implementation of essential middle school characteristics were mean response frequencies. The percentage of responses in each support level was calculated in relation to the mean range for that level. Values for supports were: 3.00 to 2.50—serious support, 2.49 to 1.50—moderate support, 1.49 to 1.00—not a support.

Subsidiary question 2. What are the barriers to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals?

Method of analysis. Calculated for each item describing a barrier to implementation of essential middle school characteristics were mean response frequencies. The percentage of responses in each barrier level was calculated in relation to the mean range for that level. Values for barriers were: 3.00 to 2.50—serious barrier, 2.49 to 1.50—moderate barrier, 1.49 to 1.00—not a barrier.
Subsidiary question 3. To what extent has the implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools influenced the teachers' taught curriculum, teaching strategies, and assessments as perceived by teachers and principals?

Hypothesis. There is no influence of the implementation of the essential characteristics of effective middle schools on the teachers' taught curriculum, teaching strategies, and assessments.

Method of analysis. Calculated for each item of the influence of essential middle school characteristics were mean response frequencies. Item means describing a characteristic were used to calculate the composite mean influence for each of the 13 characteristics. The percentage of respondents influenced by each characteristic was calculated in relation to the mean range for each influence level. Values for level of influence were: 4.00 to 3.50—extensively, 3.49 to 2.50—moderately, 2.49 to 1.50—minimally, and 1.49 to 1.00—not at all.

A correlated t-test of paired, dependent samples was computed to determine statistical significance at the .05 level between the respondents' perceived level of implementation and perceived influence of implementation on
teachers' taught curriculum, teaching strategies and assessments.

**Subsidiary question 4.** Does a difference exist between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O'Connell (1994) national study of Blue Ribbon middle schools?

*Hypothesis.* There is no difference between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O'Connell (1994) national study of Blue Ribbon middle schools.

**Method of analysis.** Calculated for each item of present implementation level of middle school characteristics as perceived by New Jersey Blue Ribbon middle school principals were mean response frequencies. Item means describing a characteristic were aggregated to calculate the composite mean for each of the characteristics compared to means in the national study.

A one-sample t-test was computed for implementation level of each essential characteristic of effective middle schools with significance set at the .05 level. The
dependent variable for each t-test was the mean response for each of the essential characteristics of effective middle schools. The independent variable was group type—state (New Jersey) and national.
Chapter IV

PRESENTATION AND ANALYSIS OF DATA

Responses to the Survey of Middle School Characteristics provided data from New Jersey Blue Ribbon middle schools about the level of implementation of the essential characteristics of effective middle schools; the level of influence the characteristics had on the teachers' taught curriculum, teaching strategies, and assessments; the supports and barriers to implementation; and implementation levels in New Jersey in comparison to a national study of Blue Ribbon middle schools. These data are presented and analyzed in this chapter in relation to the research questions and hypotheses.

From the seven participating New Jersey Blue Ribbon middle schools, 165 of the 550 teachers and principals who received surveys returned them, a response rate of 30%. One hundred fifty-eight of 533 surveys distributed to teachers, or 30%, were returned while 7 of 17 distributed to principals and assistant principals, or 41%, were returned. The response rate represents +/- 7% based on a 95% level of confidence for small samples (Rea & Parker, 1997). Of the 165 respondents, 158 or 95.7% were teachers while 7 or 4.3% were administrators.

The Statistical Package for the Social Sciences provided data to determine instrument reliability based on the 165 completed surveys. Reliability coefficients were
.95 and .93 for Parts A and B, respectively, and was set at .95 for Part C. A reliability coefficient at or above .90 demarks "excellent consistency" in measurement (Abrami, Cholmsky, & Gordon, 2001, p. 43).

Level of Implementation

The purpose of the research question was to determine the extent to which the essential characteristics of effective middle schools were being implemented in New Jersey Blue Ribbon middle schools as perceived by teachers and principals. Mean response frequencies were calculated for each item with item means aggregated to calculate the composite mean for each of the 13 essential characteristics. The survey items that describe each characteristic are listed in Appendix G. The percentage of schools implementing each characteristic was calculated in relation to the mean range for each implementation level. Values for implementation were: 4.00 to 3.50—extensively, 3.49 to 2.50—moderately, 2.49 to 1.50—minimally, and 1.49 to 1.00—not at all. These data are presented in Table 5.

An analysis of data in Table 5 in terms of the mean responses to the extent to which the essential characteristics of effective middle schools are being implemented in New Jersey Blue Ribbon middle schools
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Frequency/Percentage of Schools Implementing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not at All  Minimally  Moderately Extensively</td>
</tr>
<tr>
<td>Appropriate teaching strategies/ multi-material approach</td>
<td>3.6154</td>
<td>4/2.5  47/30.1  105/67.3</td>
</tr>
<tr>
<td>Flexible/block scheduling</td>
<td>3.2199</td>
<td>7/4.9  18/12.6  54/37.5  65/45.2</td>
</tr>
<tr>
<td>Interdisciplinary teams/team teaching</td>
<td>3.4652</td>
<td>5/3.3  49/32.6  97/64.2</td>
</tr>
<tr>
<td>Exploratory courses</td>
<td>3.6306</td>
<td>6/3.8  27/17.2  124/78.9</td>
</tr>
<tr>
<td>Emphasis on guidance/human relations/careers</td>
<td>3.0959</td>
<td>19/14.3 65/48.8  49/36.9</td>
</tr>
<tr>
<td>Involvement/parent-community relations</td>
<td>3.1355</td>
<td>31/20.4 71/46.8  50/33.0</td>
</tr>
<tr>
<td>Appropriate health and physical education activities</td>
<td>3.2520</td>
<td>10/8.1  57/46.3  56/45.5</td>
</tr>
<tr>
<td>Gradual transition from elementary to secondary</td>
<td>3.3758</td>
<td>1/0.6  10/6.3  70/44.6  76/48.4</td>
</tr>
<tr>
<td>Planned knowledge-skills/ personal development activities</td>
<td>3.3354</td>
<td>8/5.1  62/39.3  88/55.7</td>
</tr>
<tr>
<td>Individualized learning/assessment/ continuous progress or non-graded</td>
<td>2.8504</td>
<td>2/1.2  42/26.9  91/58.3  21/13.5</td>
</tr>
<tr>
<td>Advisory programs/increased student security</td>
<td>3.1326</td>
<td>22/16.1 63/46.0  52/38.0</td>
</tr>
<tr>
<td>Specially trained teachers/staff development</td>
<td>3.3400</td>
<td>12/8.0  59/39.3  79/52.6</td>
</tr>
<tr>
<td>Age appropriate learner-centered outcomes</td>
<td>3.4046</td>
<td>1/0.7  9/5.9  48/31.6  94/61.8</td>
</tr>
</tbody>
</table>
identified all means as extensive to moderate implementation of the 13 characteristics. Teachers and principals reported a mean extensive implementation of exploratory courses and appropriate teaching strategies/multi-material approach.

Respondents reported a mean moderate implementation of flexible/block scheduling, interdisciplinary teams/team teaching, emphasis on guidance/human relations/careers, involvement/parent-community relations, appropriate health and physical education experiences, planned knowledge-skills/personal development activities, age-appropriate learner-centered outcomes, advisory programs/increased student security, gradual transition from elementary to secondary, individualized learning/assessment/continuous progress or non-graded, and specially trained teachers/staff development. None of the essential characteristics was determined to be at mean implementation levels of minimal or not at all.

Data in Table 5 also identified from teacher and principal responses the percentage of New Jersey Blue Ribbon middle schools actually implementing each of the 13 characteristics. Respondents reported the highest percentages of nine of the 13 or 69% of them present moderately or extensively: appropriate teaching strategies/multi-material approach, interdisciplinary teams/team teaching, exploratory courses, emphasis on guidance/human relations/careers, involvement/parent-
community relations, appropriate health and physical education experiences, planned knowledge-skills/personal development activities, advisory programs/increased student security, specially trained teachers/staff development.

The four characteristics of the 31% that respondents reported not present but in the lowest percentages in all New Jersey Blue Ribbon middle schools were flexible/block scheduling, gradual transition from elementary to secondary, age-appropriate learner-centered outcomes, and individualized learning/assessment/continuous progress or non-graded. However, the latter characteristic when present was the highest percentage of minimum implementation.

As well, the percentage data in Table 5 indicated which five of the 13 characteristics were most often implemented in the seven New Jersey Blue Ribbon middle schools. Between 56% and 79% of the respondents reported as extensively implemented appropriate teaching strategies/multi-material approach, interdisciplinary teams/team teaching, exploratory courses, planned knowledge-skills/personal development activities, and age-appropriate learner-centered outcomes. These five characteristics were also among the seven highest mean implementation levels.

Survey respondents identified the five characteristics as least often implemented. Between 46% and 58% of them reported moderate to minimal implementation of emphasis on
guidance/human relations/careers, involvement/parent-community relations, appropriate health and physical education activities, individualized learning/assessment/continuous progress or non-graded, and advisory programs/increased student security. These five characteristics were also among the six lowest mean implementation levels.

New Jersey Blue Ribbon middle schools reported implementation of the 13 characteristics at mean moderate to extensive levels; even so, not all were implementing the 13 characteristics at their highest levels in the seven schools. In fact, 20% indicated a minimal implementation of involvement/parent-community relations. Further, 17% and 28%, respectively, reported flexible/block scheduling and individualized learning/assessment/continuous progress or non-graded at minimal implementation to not at all.

Supports to Implementation

The purpose of subsidiary question 1 was to determine the supports to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals. Mean response frequencies were calculated for each item. Survey items 46 to 74 that describe the supports are listed in Appendix I. The percentage of frequencies in each support level was calculated in relation to the mean range for each support. Values for
supports were: 3.00 to 2.50—serious support, 2.49 to 1.50—moderate support, and 1.49 to 1.00—not a support. These data are presented in Table 6.

An analysis of the data in Table 6 in terms of mean responses identified all as serious to moderate supports to implementation of the 13 essential characteristics of effective middle schools. Teachers and principals reported a mean serious support of the following: teacher/principal/superintendent/school board/parent-community support of the middle school philosophy, sufficient student enrollment to justify a separate middle school program, appropriate certification to reorganize for an effective middle school program, ability/attitude/knowledge of faculty and administrators, support for common team planning time, a master plan that accommodated common team planning time, enough of the right people pushing to move from a junior high to a middle school philosophy, and the public viewing the middle school as different from an elementary or high school.

Respondents reported a mean moderate support for sufficient funding for teacher teams, sufficient funds for programs/teachers/well-equipped rooms/materials/resources, sufficient and appropriate space and physical facilities, a contract supporting move to a middle school, flexibility and autonomy because teachers were not shared with other
<table>
<thead>
<tr>
<th>Support</th>
<th>Mean</th>
<th>Not A Support</th>
<th>Frequency/Percentage of Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q46</td>
<td>2.68</td>
<td>51/31.9</td>
<td>109/68.1</td>
</tr>
<tr>
<td>Q47</td>
<td>2.79</td>
<td>26/16.1</td>
<td>131/81.4</td>
</tr>
<tr>
<td>Q48</td>
<td>2.55</td>
<td>55/36.2</td>
<td>90/69.2</td>
</tr>
<tr>
<td>Q49</td>
<td>2.57</td>
<td>56/36.4</td>
<td>93/60.4</td>
</tr>
<tr>
<td>Q50</td>
<td>2.55</td>
<td>59/38.8</td>
<td>88/67.9</td>
</tr>
<tr>
<td>Q51</td>
<td>2.79</td>
<td>22/14.8</td>
<td>122/81.9</td>
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<td>Q52</td>
<td>2.25</td>
<td>67/43.5</td>
<td>63/40.9</td>
</tr>
<tr>
<td>Q53</td>
<td>2.13</td>
<td>68/43.3</td>
<td>55/35.0</td>
</tr>
<tr>
<td>Q54</td>
<td>1.94</td>
<td>56/35.4</td>
<td>46/29.1</td>
</tr>
<tr>
<td>Q55</td>
<td>2.67</td>
<td>46/29.1</td>
<td>109/69.0</td>
</tr>
<tr>
<td>Q56</td>
<td>2.37</td>
<td>69/45.4</td>
<td>70/46.1</td>
</tr>
<tr>
<td>Q57</td>
<td>2.36</td>
<td>61/39.6</td>
<td>74/48.1</td>
</tr>
<tr>
<td>Q58</td>
<td>2.45</td>
<td>62/38.8</td>
<td>65/53.1</td>
</tr>
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<td>Q59</td>
<td>2.75</td>
<td>34/21.5</td>
<td>121/76.6</td>
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<td>Q60</td>
<td>2.53</td>
<td>47/29.2</td>
<td>100/62.1</td>
</tr>
<tr>
<td>Q61</td>
<td>2.54</td>
<td>40/25.8</td>
<td>99/63.9</td>
</tr>
<tr>
<td>Q62</td>
<td>2.30</td>
<td>59/37.8</td>
<td>72/46.2</td>
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<tr>
<td>Q63</td>
<td>2.40</td>
<td>54/35.3</td>
<td>80/52.3</td>
</tr>
<tr>
<td>Q64</td>
<td>2.39</td>
<td>69/47.3</td>
<td>67/45.9</td>
</tr>
<tr>
<td>Q65</td>
<td>2.22</td>
<td>54/41.0</td>
<td>80/40.3</td>
</tr>
<tr>
<td>Q66</td>
<td>2.51</td>
<td>59/38.0</td>
<td>58/56.3</td>
</tr>
<tr>
<td>Q67</td>
<td>2.44</td>
<td>66/43.0</td>
<td>75/50.3</td>
</tr>
<tr>
<td>Q68</td>
<td>2.37</td>
<td>65/44.2</td>
<td>68/46.3</td>
</tr>
<tr>
<td>Q69</td>
<td>2.09</td>
<td>80/53.7</td>
<td>41/27.5</td>
</tr>
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<td>Q70</td>
<td>2.38</td>
<td>66/43.7</td>
<td>71/47.0</td>
</tr>
<tr>
<td>Q71</td>
<td>2.15</td>
<td>67/46.5</td>
<td>49/34.0</td>
</tr>
<tr>
<td>Q72</td>
<td>2.25</td>
<td>68/45.0</td>
<td>60/39.7</td>
</tr>
<tr>
<td>Q73</td>
<td>2.50</td>
<td>54/35.1</td>
<td>85/57.4</td>
</tr>
<tr>
<td>Q74</td>
<td>2.19</td>
<td>70/48.6</td>
<td>51/35.4</td>
</tr>
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</table>
district schools, teacher/administrator stability, staff development, implementation followed by continued support of how the characteristics worked together to improve learning/achievement, complete or nearly complete implementation of the 13 characteristics, district-wide flexibility, change supported by staff, teachers more student- than subject-centered, teachers understood and trained in developmental/psychological characteristics of early adolescents, faculty support of guidance activities, willingness to give up time for home-base/advisory programs or exploratory courses, concern for assessing individuals rather than comparing student performance, and parent belief that middle schools should spend time on social and personal outcomes. None of the supports was determined to be at a mean level of not a support.

As well, the percentage data in Table 6 indicated which of the 29 were most often supports to implementation of the 13 characteristics of effective middle schools in the seven New Jersey Blue Ribbon middle schools. Between 68% and 82% of the respondents reported these five most frequently as serious supports: teacher support of the middle school philosophy, principal support of the middle school philosophy, sufficient student enrollment to justify a separate middle school program, appropriate certification to reorganize for an effective middle school program, and ability/attitude/knowledge of faculty and administrators. These five which were most often supports were also among
the five highest mean levels of support to implementation.

Survey respondents indicated the following as least often supports to implementation. Between 19% and 35% of them reported these five as not a support to implementation: sufficient funds for programs/teachers/well-equipped rooms/materials/resources, sufficient and appropriate space and physical facilities, district-wide flexibility, teachers understood and trained in developmental/psychological characteristics of early adolescents, and willingness to give up some academic time for home-base/advisory programs or exploratory courses. These five which were least often supports to implementation were also among the six lowest mean levels of support to implementation.

Barriers to Implementation

The purpose of subsidiary question 2 was to determine the barriers to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools as perceived by teachers and principals. Mean response frequencies were calculated for each item. Survey items 76 to 106 that describe the barriers are listed in Appendix I. The percentage of frequencies in each barrier level was calculated in relation to the mean range for each barrier. Values for barriers were: 3.00 to 2.50—serious barrier, 2.49 to 1.50—
moderate barrier, and 1.49 to 1.00—not a barrier. These data are presented in Table 7.

An analysis of the data in Table 7 in terms of mean responses identified all 31 as not a barrier or a moderate barrier to implementation of the 13 essential characteristics of effective middle schools. Teachers and administrators reported a mean not a barrier of the following: teacher/principal/superintendent/school board/parent-community not support the middle school philosophy, insufficient student enrollment to justify a separate middle school program, possession of inappropriate certification to reorganize for an effective middle school program, contract did not support move to a middle school, inflexibility and no autonomy because teachers were shared with other district schools, teacher/administrator turnover, variations in ability/attitude/knowledge of faculty and administrators, no support for common team planning time, a master plan that did not accommodate common team planning time, implementation of characteristics with incomplete understanding of how they work together to improve learning and achievement, lack of a complete or nearly complete implementation of the 13 characteristics, not enough of the right people pushing to move from a junior high to a middle school philosophy, staff resistant to change, teachers not trained in developmental/psychological characteristics of early adolescents, faculty did not support guidance activities, unwillingness to give
<table>
<thead>
<tr>
<th>Barrier</th>
<th>Mean</th>
<th>Not A Barrier</th>
<th>Moderate Barrier</th>
<th>Serious Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q76</td>
<td>1.26</td>
<td>120/70.4</td>
<td>26/17.0</td>
<td>7/4.6</td>
</tr>
<tr>
<td>Q77</td>
<td>1.33</td>
<td>141/91.6</td>
<td>6/3.9</td>
<td>7/4.5</td>
</tr>
<tr>
<td>Q78</td>
<td>1.17</td>
<td>128/85.3</td>
<td>18/12.0</td>
<td>4/2.7</td>
</tr>
<tr>
<td>Q79</td>
<td>1.19</td>
<td>125/84.5</td>
<td>18/12.2</td>
<td>5/3.4</td>
</tr>
<tr>
<td>Q80</td>
<td>1.29</td>
<td>114/76.0</td>
<td>28/18.7</td>
<td>8/5.3</td>
</tr>
<tr>
<td>Q81</td>
<td>1.16</td>
<td>133/88.7</td>
<td>10/6.7</td>
<td>7/4.7</td>
</tr>
<tr>
<td>Q82</td>
<td>1.81</td>
<td>68/44.2</td>
<td>48/31.2</td>
<td>38/24.7</td>
</tr>
<tr>
<td>Q83</td>
<td>1.70</td>
<td>73/47.4</td>
<td>54/35.1</td>
<td>27/17.5</td>
</tr>
<tr>
<td>Q84</td>
<td>1.86</td>
<td>58/37.9</td>
<td>58/38.9</td>
<td>37/24.2</td>
</tr>
<tr>
<td>Q85</td>
<td>2.00</td>
<td>53/34.9</td>
<td>46/30.3</td>
<td>53/34.9</td>
</tr>
<tr>
<td>Q86</td>
<td>1.23</td>
<td>122/79.2</td>
<td>29/18.8</td>
<td>3/1.9</td>
</tr>
<tr>
<td>Q87</td>
<td>1.35</td>
<td>109/72.7</td>
<td>30/20.0</td>
<td>11/7.3</td>
</tr>
<tr>
<td>Q88</td>
<td>1.40</td>
<td>99/65.6</td>
<td>43/28.5</td>
<td>9/6.0</td>
</tr>
<tr>
<td>Q89</td>
<td>1.49</td>
<td>89/58.2</td>
<td>53/34.6</td>
<td>11/7.2</td>
</tr>
<tr>
<td>Q90</td>
<td>1.45</td>
<td>94/61.6</td>
<td>47/30.9</td>
<td>11/7.2</td>
</tr>
<tr>
<td>Q91</td>
<td>1.41</td>
<td>100/65.4</td>
<td>43/28.1</td>
<td>10/6.5</td>
</tr>
<tr>
<td>Q92</td>
<td>1.49</td>
<td>94/63.1</td>
<td>37/24.8</td>
<td>18/12.1</td>
</tr>
<tr>
<td>Q93</td>
<td>1.55</td>
<td>85/55.2</td>
<td>54/35.1</td>
<td>15/9.7</td>
</tr>
<tr>
<td>Q94</td>
<td>1.46</td>
<td>90/61.6</td>
<td>45/30.6</td>
<td>11/7.5</td>
</tr>
<tr>
<td>Q95</td>
<td>1.44</td>
<td>69/50.5</td>
<td>51/34.7</td>
<td>7/4.8</td>
</tr>
<tr>
<td>Q96</td>
<td>1.51</td>
<td>89/59.3</td>
<td>45/30.0</td>
<td>16/10.7</td>
</tr>
<tr>
<td>Q97</td>
<td>1.36</td>
<td>107/72.8</td>
<td>31/20.8</td>
<td>11/7.4</td>
</tr>
<tr>
<td>Q98</td>
<td>1.45</td>
<td>92/61.3</td>
<td>49/32.7</td>
<td>9/6.0</td>
</tr>
<tr>
<td>Q99</td>
<td>1.51</td>
<td>86/57.3</td>
<td>52/34.7</td>
<td>12/8.0</td>
</tr>
<tr>
<td>Q100</td>
<td>1.48</td>
<td>89/55.7</td>
<td>48/32.2</td>
<td>12/8.1</td>
</tr>
<tr>
<td>Q101</td>
<td>1.27</td>
<td>116/75.8</td>
<td>32/20.9</td>
<td>5/3.3</td>
</tr>
<tr>
<td>Q102</td>
<td>1.42</td>
<td>92/62.2</td>
<td>50/33.8</td>
<td>6/4.1</td>
</tr>
<tr>
<td>Q103</td>
<td>1.65</td>
<td>67/44.7</td>
<td>68/45.3</td>
<td>15/10.0</td>
</tr>
<tr>
<td>Q104</td>
<td>1.33</td>
<td>106/72.1</td>
<td>33/22.4</td>
<td>8/5.4</td>
</tr>
<tr>
<td>Q105</td>
<td>1.51</td>
<td>81/57.0</td>
<td>49/34.5</td>
<td>12/8.5</td>
</tr>
<tr>
<td>Q106</td>
<td>1.36</td>
<td>97/68.8</td>
<td>37/26.2</td>
<td>7/5.0</td>
</tr>
</tbody>
</table>
up time for home-base/advisory programs or exploratory courses, public view of the middle school as just another elementary or high school, and parents not believe that middle schools should spend time on social and personal outcomes.

Respondents reported a mean moderate barrier for too many students in building to develop a creative/effective middle school program, insufficient funding for teacher teams, insufficient funds for programs/teachers/well-equipped rooms/materials/resources, insufficient and inappropriate space and physical facilities, insufficient staff development, lack of district-wide flexibility, teachers more subject- than student-centered, concern for norm-referenced testing that compared student performance rather than individual achievement, and public belief that a junior high and middle school program were the same. None of the barriers was determined to be at a mean level of serious barrier.

As well, the percentage data in Table 7 indicated which of the 31 were most often not a barrier to implementation of the 13 characteristics of effective middle schools in the seven New Jersey Blue Ribbon middle schools. Between 79% and 92% of the respondents reported these five as least often a barrier: principal/superintendent/school board not support the middle school philosophy, insufficient student enrollment to justify a separate middle school program, and possession of
inappropriate certification to reorganize for an effective middle school program. These five items which were least often a barrier were also the five lowest mean levels of barriers to implementation.

Survey respondents indicated the following as most often a barrier to implementation. Between 19% and 35% of them reported these four as most often a barrier to implementation: too many students in building to develop a creative/effective middle school program, insufficient funding for teacher teams, insufficient funds for programs/teachers/well-equipped rooms/materials/resources, insufficient and inappropriate space and physical facilities. These four items which were most often barriers to implementation were among the four lowest mean levels of support to implementation.

Level of Influence

The purpose of subsidiary question 3 was to determine the extent to which the implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools influenced the teachers’ taught curriculum, teaching strategies, and assessments as perceived by teachers and principals.

The hypothesis was that there is no influence of the implementation of the essential characteristics of effective middle schools on the teachers’ taught curriculum, teaching strategies, and assessments.
Mean response frequencies were calculated for each item with item means aggregated to calculate the composite mean for each of the 13 essential characteristics. The survey items that describe each characteristic are listed in Appendix G. The percentage of respondents influenced by each characteristic was calculated in relation to the mean range for each influence level. Values for influence were: 4.00 to 3.50—extensively, 3.49 to 2.50—moderately, 2.49 to 1.50—minimally, and 1.49 to 1.00—not at all. These data are presented in Table 8.

A correlated t-test of paired samples was conducted to determine statistical significance at .05 between the respondents' perceived level of implementation and perceived level of influence on teachers' taught curriculum, teaching strategies and assessments. Significance between the paired implementation and influence means was derived by application of a t-test to these dependent samples.

An analysis of data in Table 8 in terms of the mean responses to the extent to which the implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools influenced the teachers' taught curriculum, teaching strategies and assessments identified a predominantly mean moderate influence level. Teachers and principals reported a mean extensive influence of appropriate teaching strategies/
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Frequency/Percentage of Respondents Influenced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not at All</td>
</tr>
<tr>
<td>Appropriate teaching strategies/ multi-material approach</td>
<td>3.5957</td>
<td>--</td>
</tr>
<tr>
<td>Flexible/block scheduling</td>
<td>2.5102</td>
<td>13/11.7</td>
</tr>
<tr>
<td>Interdisciplinary teams/team teaching</td>
<td>3.0503</td>
<td>1/0.9</td>
</tr>
<tr>
<td>Exploratory courses</td>
<td>2.3861</td>
<td>5/4.6</td>
</tr>
<tr>
<td>Emphasis on guidance/human relations/careers</td>
<td>2.3796</td>
<td>11/1.4</td>
</tr>
<tr>
<td>Involvement/parent-community relations</td>
<td>2.5248</td>
<td>4/4.2</td>
</tr>
<tr>
<td>Appropriate health and physical education activities</td>
<td>1.1938</td>
<td>6/15.4</td>
</tr>
<tr>
<td>Gradual transition from elementary to secondary</td>
<td>3.2922</td>
<td>1/0.7</td>
</tr>
<tr>
<td>Planned knowledge-skills/ personal development activities</td>
<td>3.3129</td>
<td>--</td>
</tr>
<tr>
<td>Individualized learning/assessment/ continuous progress or non-graded</td>
<td>2.9194</td>
<td>1/0.8</td>
</tr>
<tr>
<td>Advisory programs/increased student security</td>
<td>2.9952</td>
<td>--</td>
</tr>
<tr>
<td>Specially trained teachers/staff development</td>
<td>3.0105</td>
<td>1/1.0</td>
</tr>
<tr>
<td>Age appropriate learner-centered outcomes</td>
<td>3.5625</td>
<td>--</td>
</tr>
</tbody>
</table>
multi-material approach and age-appropriate
learner-centered outcomes.

Respondents reported a mean moderate influence of
flexible/block scheduling, interdisciplinary teams/team
teaching, involvement/parent-community relations, gradual
transition from elementary to secondary, planned knowledge-
skills/personal development activities, individualized
learning/assessment/continuous progress or non-graded,
advisory programs/increased student security, and specially
trained teachers/staff development.

Teachers and administrators reported a mean minimal
influence of exploratory courses, and emphasis on guidance/
human relations/careers. The characteristic appropriate
health and physical education experiences was determined to
be a mean influence of not at all.

Data in Table 8 also identified from responses the
percentage of the New Jersey Blue Ribbon middle school
respondents whose taught curriculum, teaching strategies
and assessments were actually influenced by the
implementation of each of the 13 characteristics. Between
75% and 97% of the respondents reported 11 of the 13
characteristics or 85% as influential moderately to
extensively: appropriate teaching strategies/multi-material
approach, flexible/block scheduling, interdisciplinary
teams/team teaching, exploratory courses, emphasis on
guidance/human relations/careers, gradual transition from
elementary to secondary, planned knowledge-skills/personal
development activities, individualized learning/assessment/continuous progress or non-graded, advisory programs/increased student security, specially trained teachers/staff development, and age-appropriate learner-centered outcomes.

As well, the percentage data in Table 8 indicated which 5 of the 13 characteristics most often influenced teachers' taught curriculum, teaching strategies, and assessments in the seven New Jersey Blue Ribbon middle schools. Between 60% and 76% of the respondents reported as extensively influential appropriate teaching strategies/multi-material approach, planned knowledge-skills/personal development activities, age-appropriate learner-centered outcomes, interdisciplinary teams/team teaching, and specially trained teachers/staff development. These five most influential characteristics were also among the six highest mean levels of influence.

Between 19% and 30% of the sample determined these five as least influential on teachers' taught curriculum, teaching strategies, and assessments: emphasis on guidance/human relations/careers, involvement/parent-community relations, appropriate health and physical education activities, flexible/block scheduling, and exploratory courses. These five least influential characteristics were also among the five lowest mean levels of influence.

The paired-sample t-test determined whether the
implementation mean and influence mean of the 13 essential characteristics of effective middle schools as reported by the New Jersey teachers and principals were statistically significant. These data are presented in Table 9.

Data from the statistical analysis of 6 of the 13 characteristics suggested no significant difference between the perceived implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools and the perceived influence the characteristics had on the teachers' taught curriculum, teaching strategies and assessments. These characteristics were appropriate teaching strategies, emphasis on guidance/human relations/careers, gradual transition from elementary to secondary, planned knowledge-skills/personal development activities, advisory programs/increased student security, and specially trained teachers/staff development.

The null hypothesis, which suggested that there was no perceived influence of the 13 characteristics on teachers' taught curriculum, teaching strategies and assessments, was supported for these six characteristics. The analysis revealed that the respondents perceived no significant difference in terms of influence levels of characteristics on teachers' taught curriculum, teaching strategies and assessments. At .071, however, the characteristic emphasis on guidance/human relations/careers demonstrated a trend toward a significant difference.
### Table 9

**Comparison of Level of Implementation and Level of Influence**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Implementation</th>
<th>Influence</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate teaching strategies/multi-material approach</td>
<td>3.6309</td>
<td>3.6756</td>
<td>-1.523</td>
<td>.130</td>
<td></td>
</tr>
<tr>
<td>Flexible/block scheduling</td>
<td>3.2424</td>
<td>3.100</td>
<td>2.490</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary teams/team teaching</td>
<td>3.5067</td>
<td>3.4018</td>
<td>2.851</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>Exploratory courses</td>
<td>3.6296</td>
<td>3.2176</td>
<td>5.435</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Emphasis on guidance/human relations/careers</td>
<td>3.1319</td>
<td>3.0313</td>
<td>1.831</td>
<td>.071</td>
<td></td>
</tr>
<tr>
<td>Involvement/parent-community relations</td>
<td>3.2258</td>
<td>3.0065</td>
<td>5.149</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Appropriate health and physical education activities</td>
<td>3.4295</td>
<td>2.9423</td>
<td>3.705</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Gradual transition from elementary to secondary</td>
<td>3.4262</td>
<td>3.4238</td>
<td>.071</td>
<td>.944</td>
<td></td>
</tr>
<tr>
<td>Planned knowledge-skills/personal development activities</td>
<td>3.3878</td>
<td>3.4082</td>
<td>-.561</td>
<td>.576</td>
<td></td>
</tr>
<tr>
<td>Individualized learning/assessment/continuous progress or non-graded</td>
<td>2.9055</td>
<td>3.0656</td>
<td>-3.487</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Advisory programs/increased student security</td>
<td>3.2106</td>
<td>3.2729</td>
<td>-1.381</td>
<td>.171</td>
<td></td>
</tr>
<tr>
<td>Specially trained teachers/staff development</td>
<td>3.4632</td>
<td>3.4828</td>
<td>-.670</td>
<td>.505</td>
<td></td>
</tr>
<tr>
<td>Age appropriate learner-centered outcomes</td>
<td>3.4291</td>
<td>3.5709</td>
<td>-3.463</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

*Note. p < .05*
Data from the statistical analysis of 7 of the 13 characteristics suggested a significant influence of the implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools on the teachers' taught curriculum, teaching strategies and assessments. These characteristics were flexible/block scheduling, interdisciplinary teams/team teaching, exploratory courses, involvement/parent-community relations, appropriate health and physical activities, individualized learning/assessment/continuous progress or non-graded, and age appropriate learner-centered outcomes.

The null hypothesis, which suggested that there was no perceived influence of the 13 characteristics on teachers' taught curriculum, teaching strategies and assessments, was rejected for the seven characteristics. The analysis revealed that the respondents perceived a significant difference in terms of influence of the seven characteristics on teachers' taught curriculum, teaching strategies and assessments.

Level of Implementation in New Jersey and the Nation

The purpose of subsidiary question 4 was to determine if a difference existed between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O'Connell (1994) national study of Blue Ribbon middle schools. O'Connell's 1994
study examined 19 middle school characteristics with responses received from 79 principals nationwide. Eleven of the 19 characteristics matched this study to which seven New Jersey Blue Ribbon middle school principals responded.

The hypothesis was that there is no difference between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O’Connell (1994) national study of Blue Ribbon schools.

Mean response frequencies were calculated for each item as reported by New Jersey Blue Ribbon middle school principals with item means aggregated to calculate the composite mean for each of 11 essential characteristics. The survey items that describe each characteristic are listed in Appendix G. The aggregated means of matching middle school characteristics from the O’Connell study were reported as well. These data are presented in Table 10.

A one-sample t-test was computed for implementation level of each of 11 essential characteristic of effective middle schools with significance set at .05. The dependent variable for each t-test was the mean response for each of the essential characteristics of effective middle schools compared. The independent variable was group type—state (New Jersey) and national. These data are presented in Table 10.

An analysis of data in Table 10 in terms of the mean
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>National</th>
<th>Mean Range</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate teaching strategies/multi-material approach</td>
<td>3.8571</td>
<td>3.708</td>
<td>3.5007 - 4.2135</td>
<td>2.215</td>
<td>.069</td>
</tr>
<tr>
<td>Flexible/block scheduling</td>
<td>3.5000</td>
<td>2.883</td>
<td>2.3262 - 4.6738</td>
<td>2.575</td>
<td>.050</td>
</tr>
<tr>
<td>Interdisciplinary teams/team teaching</td>
<td>3.8571</td>
<td>3.196</td>
<td>3.5899 - 4.1234</td>
<td>13.090</td>
<td>.000</td>
</tr>
<tr>
<td>Exploratory courses</td>
<td>3.6429</td>
<td>3.506</td>
<td>2.5303 - 4.7555</td>
<td>.651</td>
<td>.539</td>
</tr>
<tr>
<td>Emphasis on guidance/human relations/careers</td>
<td>3.1786</td>
<td>3.392</td>
<td>2.1906 - 4.1666</td>
<td>-1.143</td>
<td>.297</td>
</tr>
<tr>
<td>Involvement/parent-community relations</td>
<td>3.4286</td>
<td>3.369</td>
<td>2.4106 - 4.4466</td>
<td>.310</td>
<td>.767</td>
</tr>
<tr>
<td>Appropriate health and physical education activities</td>
<td>3.4503</td>
<td>3.677</td>
<td>2.3899 - 4.5267</td>
<td>-1.003</td>
<td>.362</td>
</tr>
<tr>
<td>Gradual transition from elementary to secondary</td>
<td>3.7143</td>
<td>3.588</td>
<td>3.0017 - 4.4269</td>
<td>.938</td>
<td>.385</td>
</tr>
<tr>
<td>Individualized learning/assessment/continuous progress or non-graded</td>
<td>2.9048</td>
<td>2.898</td>
<td>1.9074 - 3.9022</td>
<td>.036</td>
<td>.973</td>
</tr>
<tr>
<td>Advisory programs/increased student security</td>
<td>3.1786</td>
<td>3.392</td>
<td>2.1906 - 4.1666</td>
<td>-1.143</td>
<td>.297</td>
</tr>
<tr>
<td>Specially trained teachers/staff development</td>
<td>3.6071</td>
<td>3.734</td>
<td>2.9709 - 4.2433</td>
<td>-1.055</td>
<td>.332</td>
</tr>
</tbody>
</table>

Note. p < .05
responses of the extent to which the essential characteristics of effective middle schools are being implemented in New Jersey Blue Ribbon middle schools and in the O'Connell national Blue Ribbon middle school sample identified all means in both as extensive to moderate implementation of the 11 characteristics compared. Principals reported a mean extensive implementation of appropriate teaching strategies/multi-material approach, exploratory courses, gradual transition from elementary to secondary, and specially trained teachers/staff development.

Both New Jersey and national sample principals reported a mean moderate implementation of emphasis on guidance/human relations/careers, involvement/parent-community relations, individualized learning/assessment/continuous progress or non-graded, and advisory programs/increased student security.

While New Jersey principals reported a mean extensive implementation of flexible/block scheduling and interdisciplinary teams/team teaching, Blue Ribbon middle school principals in the national study reported a mean moderate implementation level of these characteristics.

While the national study Blue Ribbon middle school principals reported a mean extensive implementation of appropriate health and physical education activities, their New Jersey counterparts reported this characteristic at a mean moderate level of implementation.
The mean level of implementation of 10 of the 11 essential characteristics in New Jersey Blue Ribbon middle schools were consistent, within two standard deviations, with the mean levels reported in the O'Connell (1994) national study. However, the mean of the characteristic interdisciplinary teams/team teaching was calculated as beyond two standard deviations and represented a higher implementation level in New Jersey Blue Ribbon middle schools than in the national study.

The one-sample t-test determined whether the means of the 11 essential characteristics of effective middle schools as reported by the New Jersey and by the national samples were statistically significant. Data from the statistical analysis of 10 of the 11 characteristics suggested no difference between New Jersey and national study principals in their perceptions of the implementation of the essential characteristics of effective middle schools in Blue Ribbon middle schools. These characteristics were appropriate teaching strategies/multi-material approach, flexible/block scheduling, exploratory courses, emphasis on guidance/human relations/careers, involvement/parent-community relations, appropriate health and physical education activities, gradual transition from elementary to secondary, individualized learning/assessment/continuous progress or non-graded, advisory programs/increased student security, and specially trained teachers/staff development.
The null hypothesis, which suggested that there was no difference between New Jersey and national study principals in perceived level of implementation, was supported for these 10 characteristics. The analysis revealed that the New Jersey respondents' perceptions and those in the national study were not significantly different in terms of implementation levels. At \( .069 \), however, the characteristic appropriate teaching strategies/multi-material approach demonstrated a trend toward a significant difference.

Data suggested a difference between New Jersey and national study principals in their perception of the implementation level of interdisciplinary teams/team teaching and in flexible/block scheduling in Blue Ribbon middle schools. The null hypothesis, which suggested that there was no difference between New Jersey and national study principals in perceived level of implementation, was rejected for these two characteristics of effective middle schools. The analysis revealed that the New Jersey respondents' perceptions and those in the national study were significantly different in terms of implementation levels.

Summary

The data presented in Chapter IV indicated that as a group the seven New Jersey Blue Ribbon middle schools implemented the essential characteristics of effective
middle schools from mean moderate to mean extensive levels. It was found that 9 of the 13 characteristics or 69% were implemented moderately, or extensively in all seven schools in the highest reported percentages. Five essential characteristics, among the seven highest mean implementation levels, were found most often implemented while the five least often implemented were among the six lowest mean implementation levels.

Collectively, teacher- and principal-respondents in the seven New Jersey Blue Ribbon middle schools identified the 29 supports to implementation of the essential characteristics of effective middle schools as mean serious to mean moderate support levels. The five found to be most often supports to implementation were also in the five highest mean support implementation levels. The five found to be least often supports to implementation were also in the six lowest mean support implementation levels.

Collectively, teacher- and principal-respondents in the seven New Jersey Blue Ribbon middle schools identified the 31 barriers to implementation of the essential characteristics of effective middle schools as mean not a barrier to mean moderate barrier levels. The five found to be least often a barrier to implementation were also in the five highest mean not a barrier to implementation levels. The four found to be most often a barrier to implementation were also in the four lowest mean serious barrier implementation levels.
The influence of the essential characteristics of effective middle schools on teachers' taught curriculum, teaching strategies, and assessments was reported predominantly at a mean moderate level. It was found that between 75% and 97% of the respondents were influenced moderately or extensively by 11 of the 13 characteristics. Five essential characteristics, all among the five highest influence means, were found most often influential while the five least influential were among the five lowest implementation means.

No significant differences between respondents' perceived level of implementation and their perceived level of influence of the essential characteristics on teachers' taught curriculum, teaching strategies, and assessments were found for six or 46% of the characteristics. The perceived implementation levels were significantly different from the perceived influence levels for seven or 54% of the characteristics.

A mean extensive to mean moderate implementation of the essential characteristics of effective middle schools was found when responses of New Jersey and a national sample of Blue Ribbon middle school principals were compared. Mean implementation levels in New Jersey of 10 of the 11 essential characteristics compared were consistent within two standard deviations of the mean levels in the national study.

For 10 of 11 or 91% of the essential characteristics,
no significant differences were found between the perceived level of implementation of New Jersey and national study Blue Ribbon middle school principals. The perceived implementation level was significantly different between the two groups for one characteristic or nine percent.
Chapter V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The challenge of providing transcendent developmentally responsive, educationally excellent, and socially equitable programs unique to them has remained unfulfilled (Jackson & Davis, 2000). As recently as 1999 George in an address titled "A Middle School—If You Can Keep It" said he could count the "number of really exemplary middle schools. . . on one hand" (p. 5) Beane (1999) reported the middle school concept, and the characteristics that form it, "under siege" (p. 9) while Erb (1999) acknowledged an escalation and intensification of criticism of middle schools at the start of the new century.

Lounsbury (2000), however, noted that the "purported academic failure of the middle school. . . is due to the fact that the tenets of the middle school have not been sufficiently implemented—not that these tenets have been implemented" (p. 194). Erb (1999) and Williamson and Johnston (1999) concurred as did George (1999): "Middle school educators have made incredibly positive changes almost everywhere else [in middle schools], except down deep in the daily experience of instruction in the classroom" (p. 10).

This study investigated these issues of implementation
and influence of the essential characteristics of effective middle schools. Chapter V presents a summary of the research procedures and findings, draws conclusions, and makes recommendations for further study.

Summary of Procedures

This study examined the implementation levels of the essential characteristics of effective middle schools using New Jersey Blue Ribbon middle schools as the sample, identified supports and barriers to implementation, and determined the level of influence the 13 characteristics had on teachers' taught curriculum, teaching strategies, and assessments.

These areas of inquiry were developed into one research and four subsidiary questions. The research question sought to determine the extent to which the essential characteristics of effective middle schools were implemented in New Jersey Blue Ribbon middle schools.

Subsidiary question 1 sought to identify the supports to implementation of the 13 characteristics on which the research centered. Subsidiary question 2 sought to identify the barriers to implementation of the 13 characteristics on which the research centered.

Subsidiary question 3 sought to determine the influence the characteristics had on the teachers' taught curriculum, teaching strategies, and assessments.
Subsidiary question 4 sought to determine the difference
between implementation levels in New Jersey Blue Ribbon middle schools and in a national study of Blue Ribbon middle schools.

Seven of the eight New Jersey Blue Ribbon middle schools comprised the sample. Survey research for this study provided the data that were analyzed using descriptive and quantitative statistics, in particular frequency distributions and analyses of variance. The framework for the Survey of Middle School Characteristics was developed by Munsell (1984) with survey items drawn primarily from the Dreibelbis (1996) as well as from the Neill (1999) studies. The survey was administered to teachers and principals.

Summary of Findings

Research question. To what extent are the essential characteristics of effective middle schools being implemented in New Jersey Blue Ribbon middle schools?

Data in Table 4 reported mean extensive implementation of two and mean moderate implementation of 11 essential characteristics. The highest percentage of teachers and principals reported 9 of the 13 characteristics present in the seven schools at moderate to extensive levels with individualized learning/assessment/continuous progress or non-graded determined as the highest percentage of minimal implementation.

Subsidiary question 1. What are the supports to
implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools?

Data in Table 6 reported mean serious for 12 and mean moderate for 17 supports. None of the 29 supports was identified as a mean not a support.

**Subsidiary question 2.** What are the barriers to implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools?

Data in Table 7 reported mean not a barrier for 22 and mean moderate barrier for 9 barriers. None of the 31 barriers was identified as a mean serious barrier.

**Subsidiary question 3.** To what extent has the implementation of the essential characteristics of effective middle schools influenced the teachers’ taught curriculum, tested curriculum, and assessments?

**Hypothesis.** There is no influence of the implementation of the essential characteristics of effective middle schools on the teachers’ taught curriculum, teaching strategies, and assessments.

Data in Table 8 reported mean extensive for two, mean moderate for eight, mean minimal for two, and mean not at all for one characteristic.

Data in Table 9 reported no significance found for the influence of six essential characteristics on teachers’ taught curriculum, teaching strategies, and assessments,
although guidance/human relations/careers demonstrated a trend toward significance. Significance was found for the influence of seven essential characteristics on teachers’ taught curriculum, teaching strategies, and assessments.

Subsidiary question 4. Does a difference exist between the implementation level of the essential characteristics of effective middle schools as perceived by principals in New Jersey Blue Ribbon middle schools and by principals in the O’Connell (1994) national study?

Hypothesis. There is no difference between the implementation level of the essential characteristics if effective middle schools as perceived by New Jersey and by a national sampling of Blue Ribbon middle schools principals.

Data in Table 10 reported mean extensive to mean moderate implementation, six at the former and five at the latter implementation levels of the 11 essential characteristics compared. Implementation levels in New Jersey Blue Ribbon middle schools for 10 of the 11 essential characteristics were consistent within two standard deviations of the levels determined in the national study.

No significant difference was seen between implementation levels in New Jersey and in the national study for 10 of the 11 essential characteristics with two of these characteristics exhibiting a trend toward significance. A significant difference was found between
New Jersey and national study principals in their perception of implementation levels for the characteristic interdisciplinary teams/team teaching.

Conclusions

Data from the research question indicated a higher implementation of the essential characteristics of effective middle schools in New Jersey Blue Ribbon middle schools than levels reported in non-recognized middle schools. In the latter, implementation studies and surveys cited in Chapter II found the characteristics absent, incomplete, or at best limited. Indeed, the regional and some national studies of Riegle (1971), Minster (1985), Ritzenthaler (1993), and Pagano (1989), among others, confirmed the less than full implementation of the essential characteristics as did Butera (1972), Kopko (1976), and Sabo (1995) in New Jersey. The surveys of Alexander and McEwin (1984), McEwin, Dickinson and Jenkins (1996), Cawelti (1988), and Lounsbury and Clark (1990), among others, corroborated the studies. Jackson (2000) said the "implementation of needed reforms has not gone far enough" (p. 2).

New Jersey Blue Ribbon middle schools of excellence identified through the secondary school recognition program substantiated the findings not only of a relatively higher percentage implementation of the characteristics, but also of a positive relationship between middle schools of
excellence and middle schools implementing the essential characteristics at higher levels. Chapter II identified Sheehan (1989), McGuire (1995), O'Connell (1994), and Weibling (1997) who studied middle schools designated as exemplary, most through the Blue Ribbon Schools Program. Each found implementation levels higher than in non-recognized middle schools but still at levels less than that described in the literature. This situation was confirmed by surveys such as those conducted by George and Oldaker (1986), Connors and Irvin (1989), Connors and Gill (1991), Valentine, Clark, Nickerson, and Keefe (1981), and Gill (1992).

Sheehan (1989) and McEwin, Dickinson, and Jenkins (1996) believed that Blue Ribbon middle schools served as models of excellence for middle school reform. The Blue Ribbon Schools Program identified from the effective schools research nine attributes and eight criteria for its schools of excellence program. The work of Kerewsky (1986), Garvin (1986), George and Shewey (1994), and Connors and Gill (1991) established the complementary nature of effective schools and middle schools research, a situation that made the former relevant to the study of middle schools of excellence. Researchers such as Johnston, Markle, and Perez (1984) and Stefanick (1984) also extrapolated middle school characteristics and practices from effective schools studies.

Data from the research question were also consistent
with the implementation studies in Blue Ribbon and middle schools of excellence of McGuire (1995), Mowen (1993), Munsell (1984), Prentice (1990), and Sheehan (1989). These studies reported overall a moderate to extensive implementation of comparable characteristics. This suggested that improvements in middle schools desirous of excellence should focus on the characteristics determined to be essential by research and by experts.

Although data about New Jersey Blue Ribbon middle schools confirmed higher implementation levels, they also corroborated the less than full implementation cited in Chapter II. Sheehan (1989) Weibling (1997), O’Connell (1996), George and Oldaker (1985), and Hanes (1993) determined that the shared characteristics were not validated in practice. Eleven of the 13 essential characteristics identified by experts as components of effective middle schools were not implemented at extensive levels in the seven schools, a situation that suggested noteworthy differences in actual implementation among these schools also recognized for excellence. It should be noted that four of the seven New Jersey middle schools achieved Blue Ribbon status prior to the federal program’s refinement to address specific qualities of middle schools and their students.

Data from subsidiary question 1 indicated that the New Jersey Blue Ribbon middle schools identified high levels of support for implementation of the essential
characteristics. The supports positively affecting implementation most often were people-centered (acceptance of the middle school concept by the various constituencies, attitude/ability/knowledge), and need-based (sufficient enrollment and appropriate credentials) while those that least often supported implementation were foremost fiscal-, facility-, and policy-related. These data were consistent with the Dreibelbis (1996) study that examined supports to implementation.

Data from subsidiary question 2 indicated that the New Jersey Blue Ribbon middle schools identified no serious barriers to implementation of the essential characteristics. The barriers affecting implementation least often were people-centered (middle school concept not accepted by the principal/superintendent/school board) and need-based (insufficient enrollment and inappropriate credentials) while those most often barriers to implementation were foremost fiscal-, facility-, enrollment-related.

Support of the middle school philosophy was least often a barrier and most often a support. This suggested the importance middle school leaders in New Jersey placed on articulating a strong vision of the middle school concept shared by all who have an interest in developing a common school culture.

Neighbors (1998) and Dreibelbis (1996) studied that which impeded implementation in Alabama middle schools and
in the Lancaster, Pennsylvania, middle schools, respectively; Neill (1999), Ross (1989), and Vazis (1992) also examined obstacles to implementation. These findings were consistent with those of Dreiblebis (1996) who identified, among others, fiscal and facility as most often barriers. Neill (1999) cited fiscal as one “most often” barrier, among others, as did Vazis (1992) and Ross (1989).

Data from subsidiary question 3 indicated that New Jersey Blue Ribbon middle schools identified overall moderate but some extensive influence of the essential characteristics on teachers' taught curriculum, teaching strategies, and assessments. This suggested that while the essential characteristics for effective middle schools may be in place, implementation to influence students in their classrooms may require a sharper focus as well as teachers who believe in the middle school concept and a school climate and learning environment that support them.

This research was consistent with information in the literature review. George and Shewey (1994), Lipsitz, Mizell, Jackson, and Austin (1997) and Seghers, Kirby and Meza (1997) were among the first researchers to examine the essential characteristics of effective middle schools in relationship to improved student outcomes. Mergendollar (1993) Henry (1998), and Mizell (1999), among others however, believed with Williamson and Johnston (1999) that even when "the essential elements and desired characteristics were implemented, nothing [in the classroom
and in classroom practice] really changed" (p. 1).
O'Connell (1994) stressed the importance of focusing
attention on the research into the essential
characteristics to frame the reforms in middle schools
intended to positively impact student achievement.

The characteristics influencing curriculum,
strategies, and assessments most often were those most
proximate to the teacher and to the classroom (appropriate
instructional techniques/materials, planned curriculum
content, special training/staff development, age-
appropriate learner-centered outcomes, and
interdisciplinary teams/team teaching). At the same time
the characteristics cited as least often influential were
distanced from the regular education teacher and the
classroom (guidance/careers, appropriate health and
physical education activities, exploratory courses, and
flexible/block scheduling). That the latter three
characteristics along with interdisciplinary teams/team
teaching, involvement/parent-community relations,
individualized learning/assessment/continuous progress or
non-graded, and age-appropriate learner-centered outcomes
represented a significant difference between perceptions of
implementation and influence suggested some
misunderstanding or lack of understanding by respondents,
predominantly teachers, of the middle school
characteristics and their potential impact on curriculum,
teaching and assessment.
Data from subsidiary question 4 indicated that the implementation of the essential characteristics in New Jersey Blue Ribbon middle schools was at levels consistent with and substantiated the O'Connell (1994) national study of Blue Ribbon middle schools. O'Connell's study of 79 Blue Ribbon middle schools found higher implementation levels of the essential characteristics but less than experts and the literature recommended.

Although the seven New Jersey schools of excellence implemented the essential characteristics at comparably higher levels, they demonstrated a trend toward higher implementation than the national sample of the characteristic appropriate teaching strategies/multi-materials approach; moreover, New Jersey Blue Ribbon middle schools implemented the characteristics flexible/block scheduling and interdisciplinary teams/team teaching at significantly higher levels.

That New Jersey's extensive implementation of four characteristics is consistent with the nation's suggested these as characteristics which non-recognized middle schools might look to first to realize a fuller implementation as Felner et al. (1997) believed that some characteristics served as building blocks for other characteristics. Beyond this, the developmental nature of reform suggested that the New Jersey Blue Ribbon middle schools because of their extensive implementation of flexible/block scheduling and interdisciplinary teams/team-
teaching, two characteristics that Mertens and others (1999) and Felner and others (1997) said seemed to have the greatest influence on student achievement, should serve as sites to determine that which enabled this full implementation; O'Connell (1994) had reported moderate implementation across the nation. Finally, the higher implementation of more of the characteristics of effective middle schools in New Jersey Blue Ribbon middles schools resulted in a critical mass larger than that reported by Blue Ribbon middle schools across the nation. This situation suggested New Jersey Blue Ribbon middle schools as sites for studying the integrative implementation of and the relationships among the characteristics, both of which Lipsitz (1997) found necessary to produce significant results in student performance.

Recommendations for Further Study

Studies in middle level education abound even as the literature portends an indeterminate future for schools in the middle. Resilient and optimistic, middle school reformers believe that "middle grades education is ripe for a great leap forward" (Jackson & Davis, 2000, p. 17). To realize middle schools of excellence that are developmentally responsive and equitable and whose primary purpose is the intellectual development of early adolescents calls for further research. Recommendations for further study of the "most extensive educational reform
effort of this century" (Lounsbury, 2000, p. 193) follow.

1. Successful implementation of the essential characteristics of effective middle schools requires a faculty and administration fully conversant with the characteristics. Research into how knowledgeable teachers and principals are of the essential characteristics would inform the discourse in middle school education.

2. The successful implementation of the essential characteristics suggests an understanding of their interrelatedness and interdependency, yet there is scant information about how they interact with one another. There is a need for research into how together the characteristics influence and reinforce one another.

3. This study examined perceptions of the characteristics' influence on classroom curriculum, instruction and assessment. There is a need for qualitative research such as case studies that target specific characteristics in relation to teachers' classroom practice over time.

4. The literature suggested that the further along and the more comprehensive the implementation is of the essential characteristics the greater the impact on student achievement. If the primary purpose of middle schools is the intellectual development of early adolescents, then further study of this relationship is needed.

5. Staff development was identified as an essential characteristic of effective middle schools. At the same
time research found that some characteristics were building blocks to others. If this be the case, then further research is needed into the influence sustained, job-embedded staff development has on building teacher knowledge of all the characteristics for more effective middle schools.

6. Specially trained teachers was a characteristic determined to be moderately implemented and moderately influenced classroom practice. Research is needed on the impact middle-level certification as a state requirement has on implementation of the middle school concept and on curriculum, instruction and assessment for transients.

7. Survey research that has teachers and administrators as respondents just begins to get at the issues posed in the research questions that, for example, framed this research. A study that includes support staff, students, parents and community would provide additional data about implementation levels and influence of the essential characteristics in middle schools.

8. Implementation levels of the essential characteristics are related to the context of each middle school. A study of which least often implemented characteristic would affect the implemented characteristics the most if it were implemented would help build the capacity for a successful program for transients.

9. Studies of other elements of the middle school such as grade span, school climate, administrator and teacher
experience, length of time a school has been implementing the middle school concept, location of the school, administrator and teacher preparation, and staff stability could serve as independent variables that would provide a more complete understanding of the implementation levels and influence on classroom practice.
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Appendix A

Cover Letter to Principals
April 2001

Middle School Administrator
New Jersey Blue Ribbon Middle School

Dear Middle School Administrator:

For my dissertation research in the Department of Educational Administration and Supervision at Seton Hall University, I am studying the implementation levels of and barriers and supports to the implementation of the essential characteristics of effective middle schools in the Blue Ribbon middle schools in New Jersey. A second interest is the influence the essential characteristics have on what teachers teach, the teaching strategies teachers use, and the ways teachers assess student learning. Implementation studies in New Jersey middle schools were last conducted in mid-1970s, and no one has researched barriers and supports to implementation or the influence of the characteristics on curriculum, instruction, and assessment in New Jersey. The characteristics in the study appear on the reverse side of this letter.

Either you or the central administration has given written permission to conduct the study in your school. This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subject's privacy, welfare, civil liberties, and rights. The Chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the Office is (973) 275-2974.

The purpose of this letter is to request your participation in the study by completing the attached Survey of Middle School Characteristics. The survey takes about 30 minutes or less to complete. This research and its success depend upon the participation of teachers and administrators in New Jersey Blue Ribbon middle schools, their knowledge, and candid responses. Completion and return of the survey to the sealed, secure drop box provided in both the main office and the faculty room indicate your understanding of the study and willingness to participate.

Participation in the study is voluntary, confidential, and anonymous. No demographic information is requested about you or your school. To assure anonymity do not write your name or your school's name on the survey. Information will be reported in the dissertation, the abstract, and the summary in aggregate form only and anonymously, not by individual, school, or district. A copy of the abstract or summary will be mailed to you upon request.

If possible, I encourage you to complete the survey right now and return it to a secure drop box, one located in the main office and one located in the faculty room. The drop boxes will be collected one week from the date you received this solicitation letter and survey in your mailbox.

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Participation in the study will increase the demands on your already full schedule, but I believe this study will provide information important for New Jersey and the nation. Know that the professional courtesy you have extended by participating is appreciated and acknowledged with sincere thanks. I will be happy to answer any questions about the survey or the research study. You can call me at (609) 252-9360, (732) 452-4956, or send an e-mail to BIGCBSCAT@aol.com

Professionally,

Robert Ranta

Essential Characteristics of Effective Middle Schools

Appropriate teaching strategies/multi-material approach
Flexible/block scheduling
Interdisciplinary teams/team teaching
Exploratory courses
Emphasis on guidance/human relations/careers
Involvement/parent-community relations
Appropriate health and physical education experiences
Planned knowledge-skills/personal development activities
Age-appropriate, learner-centered outcomes
Advisory programs/increased student security
Gradual transition from elementary to secondary
Individualized learning/assessment/continuous progress or non-graded
Specially trained teachers/staff development
Appendix B

Cover Letter to Teachers
Middle School Teacher
New Jersey Blue Ribbon Middle School

Dear Middle School Teacher:

For my dissertation research in the Department of Educational Administration and Supervision at Seton Hall University, I am studying the implementation levels of and barriers and supports to the implementation of the essential characteristics of effective middle schools in the Blue Ribbon middle schools in New Jersey. A second interest is the influence the essential characteristics have on what teachers teach, the teaching strategies teachers use, and the ways teachers assess student learning. Implementation studies in New Jersey middle schools were last conducted in mid-1970s, and no one has researched barriers and supports to implementation or the influence of the characteristics on curriculum, instruction, and assessment in New Jersey. The characteristics in the study appear on the reverse side of this letter.

I have spoken informally with your principal and have been given written permission by the principal or the central administration to conduct the study in your school. This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subject’s privacy, welfare, civil liberties, and rights. The Chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the Office is (973) 275-2974.

The purpose of this letter is to request your participation in the study by completing the attached Survey of Middle School Characteristics. The survey takes about 30 minutes or less to complete. This research and its success depend upon the participation of teachers and administrators in New Jersey Blue Ribbon middle schools, their knowledge, and candid responses. Completion and return of the survey to the sealed, secure drop box provided in both the main office and the faculty room indicate your understanding of the study and willingness to participate.

Participation in the study is voluntary, confidential, and anonymous. No demographic information is requested about you or your school. To assure anonymity do not write your name or your school’s name on the survey. Information will be reported in the dissertation, the abstract, and the summary in aggregate form only and anonymously, not by individual, school, or district. A copy of the abstract or summary will be mailed to the principal upon request.

If possible, I encourage you to complete the survey right now and return it to a secure drop box, one located in the main office and one located in the faculty room. The drop boxes will be collected one week from the date you received this solicitation letter and survey in your mailbox.

-over-
Participation in the study will increase the demands on your already full schedule, but I believe this study will provide information important for New Jersey and the nation. Know that the professional courtesy you have extended by participating is appreciated and acknowledged with sincere thanks. I will be happy to answer any questions about the survey or the research study. You can call me at (609) 252-9360, (732) 452-4956, or send an e-mail to BIGCBSCAT@aol.com.

Professionally,

Robert Ranta

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**Essential Characteristics of Effective Middle Schools**

- Appropriate teaching strategies/multi-material approach
- Flexible/block scheduling
- Interdisciplinary teams/team teaching
- Exploratory courses
- Emphasis on guidance/human relations/careers
- Involvement/parent-community relations
- Appropriate health and physical education experiences
- Planned knowledge-skills/personal development activities
- Age-appropriate, learner-centered outcomes
- Advisory programs/increased student security
- Gradual transition from elementary to secondary
- Individualized learning/assessment/continuous progress or non-graded
- Specially trained teachers/staff development
Appendix C

Survey Completion Reminder
Survey of Middle School Characteristics

The *Survey of Middle School Characteristics* will be picked up in three days. If you have not completed one, I encourage you to do so. Extra copies are available next to the survey drop box in the faculty room if the one given you cannot be located.

If you have already completed a survey, thank you.                    Robert Ranta, Seton Hall
                                                               Doctoral Student
Appendix D

Second Survey Cover Letter
--SURVEY COMPLETION--

Your Professional Cooperation Is Requested

Recently, faculty and administrators of New Jersey’s eight Blue Ribbon middle schools were asked to complete a Survey of Middle School Characteristics. The response rate from the first request was good but insufficient. A 50% combined survey return rate is required for me to continue this dissertation study.

As a professional courtesy to me, I am again requesting your cooperation by completing the attached survey. Details are explained in the cover letter.

If you already completed a survey during the first round, thank you for participating.

April 2001

Middle School Teacher/Principal
New Jersey Blue Ribbon Middle School

Dear Middle School Teacher/Principal:

For my dissertation research in the Department of Educational Administration and Supervision at Seton Hall University, I am studying the implementation levels of and barriers and supports to the implementation of the essential characteristics of effective middle schools in the Blue Ribbon middle schools in New Jersey. A second interest is the influence the essential characteristics have on what teachers teach, the teaching strategies teachers use, and the ways teachers assess student learning. Implementation studies in New Jersey middle schools were last conducted in mid-1970s, and no one has researched barriers and supports to implementation or the influence of the characteristics on curriculum, instruction, and assessment in New Jersey. The characteristics in the study appear on the reverse side of this letter.

I have been given written permission by the principal or the central administration to conduct the study in your school. This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subject’s privacy, welfare, civil liberties, and rights. The Chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the Office is (973) 275-2974.

The purpose of this letter is to request your participation in the study by completing the attached Survey of Middle School Characteristics. The survey takes about 30 minutes or less to complete. This research and its success depend upon the participation of teachers and administrators in New Jersey Blue Ribbon middle schools, their knowledge, and candid responses. Completion and return of the survey to the sealed, secure drop box provided in both the main office and the faculty room indicate your understanding of the study and willingness to participate.

-over-
Participation in the study is voluntary, confidential, and anonymous. No demographic information is requested about you or your school. To assure anonymity do not write your name or your school's name on the survey. Information will be reported in the dissertation, the abstract, and the summary in aggregate form only and anonymously, not by individual, school, or district. A copy of the abstract or summary will be mailed to the principal upon request.

If possible, I encourage you to complete the survey right now and return it to a secure drop box, one located in the main office and one located in the faculty room. The drop boxes will be collected one week from the date you received this solicitation letter and survey in your mailbox.

Participation in the study will increase the demands on your already full schedule, but I believe this study will provide information important for New Jersey and the nation. Know that the professional courtesy you have extended by participating is appreciated and acknowledged with sincere thanks. I will be happy to answer any questions about the survey or the research study. You can call me at (609) 252-9360, (732) 452-4956, or send an e-mail to BIGCBSCAT@iol.com

Professionally,

Robert Ranta

Essential Characteristics of Effective Middle Schools

Appropriate teaching strategies/multi-material approach
Flexible/block scheduling
Interdisciplinary teams/team teaching
Exploratory courses
Emphasis on guidance/human relations/careers
Involvement/parent-community relations
Appropriate health and physical education experiences
Planned knowledge-skills/personal development activities
Age-appropriate, learner-centered outcomes
Advisory programs/increased student security
Gradual transition from elementary to secondary
Individualized learning/assessment/continuous progress or non-graded
Specially trained teachers/staff development
Appendix E

Approval Letter From Dreibelbis
Subj: Permission to use "Survey" granted

Date: Thu, 3 Aug 2000 7:48:23 AM Eastern Daylight Time

From: Eric Dreibelbis <eric_dreibelbis@pvsd.k12.pa.us>
To: "BIGCBSCAT@aol.com" <BIGCBSCAT@aol.com>

Robert,

Glad to hear again from you and that you are progressing on your work. I am pleased to hear that the survey I developed is of use to you and have no reservations with you using it.

The survey has been used in some of our I.U. #13 districts for an IU wide school evaluation we do. Similar to the Middle States, we have our own system for K-12 school evaluations. The survey for middle schools has become the guide to assessing that particular set of characteristics unique to middle schools and has worked quite well. I hope it provides the info you too are looking to collect.

When you get finished, I'd appreciate reading an abstract, etc. that summarized your findings to keep up on what you have in NJ.

Best wishes with the rest of your study and feel free to contact me with any additional requests. Sorry for the delay, but we were on vacation in Canada for two weeks.

Eric

Eric P. Dreibelbis, Ed.D.
Dir. of Curriculum & Instruction
Pequea Valley School District
Phone: 717.768.5530
Fax: 717.768.7176
e-mail: eric_dreibelbis@pvsd.k12.pa.us
Appendix F

Approval Letter From Neill
Appendix G

Item Directory for the Survey of

Middle School Characteristics
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate teaching strategies/multi-material approach</td>
<td>11, 12, 13</td>
</tr>
<tr>
<td>Flexible/block scheduling</td>
<td>18, 19, 20</td>
</tr>
<tr>
<td>Interdisciplinary teams/team teaching</td>
<td>14, 15, 16, 17</td>
</tr>
<tr>
<td>Exploratory courses</td>
<td>21, 22</td>
</tr>
<tr>
<td>Emphasis on guidance/human relations/careers</td>
<td>27, 28, 29, 30</td>
</tr>
<tr>
<td>Involvement/parent-community relations</td>
<td>41, 42, 43, 44, 45</td>
</tr>
<tr>
<td>Appropriate health and physical education activities</td>
<td>23, 24, 25, 26</td>
</tr>
<tr>
<td>Gradual transition from elementary to secondary</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>Planned knowledge-skills/personal development activities</td>
<td>9, 10</td>
</tr>
<tr>
<td>Individualized learning/assessment/continuous progress or non-graded</td>
<td>6, 7, 8</td>
</tr>
<tr>
<td>Advisory programs/ increased student security</td>
<td>31, 32, 33, 34, 35, 36</td>
</tr>
<tr>
<td>Specially trained teachers/staff development</td>
<td>37, 38, 39, 40</td>
</tr>
<tr>
<td>Age-appropriate learner-centered outcomes</td>
<td>4, 5</td>
</tr>
</tbody>
</table>
Appendix H

Pilot Survey Participation Letter
Field Test Participant

Dear Participant:

For my dissertation study, I am looking at the implementation levels of and the supports and barriers to implementing the essential characteristics of effective middle schools in the eight Blue Ribbon middle schools in New Jersey. Part of the study also looks at the influence of the essential middle school characteristics on what teachers teach, the teaching strategies teachers select, and the assessments teachers use.

To continue the study requires a field test of the survey respondents will be asked to complete. I am respectfully requesting your participation in the field test. The one purpose of the field test is to refine the survey instrument based on responses you may make. Neither you nor your school will be identified in any way; participation in the field test is anonymous and confidential.

Here is what needs to be done:

1. At the top of the first survey page, write the time you began to complete the survey.

Complete the survey, following the directions for each of the three parts.

At the top of the first survey page, write the time you finished the survey.

2. Identify by underlining any wording or circling any item that is unclear. Write down any comments which might improve clarity and understanding.

3. Place the completed survey in the envelope provided and return it to your principal’s secretary. I will pick up the surveys on Friday afternoon, March 2, 2001.

Thank you for helping me with this important part of my study; your participation in the field test is appreciated.

Professionally,

Robert Ranta
Doctoral Student
Seton Hall University
Appendix I

Survey of Middle School Characteristics
Survey of Middle School Characteristics
Part A

Directions: Each statement requires two responses. For Response A circle the number that best describes the extent to which the characteristic or practice is presently being implemented in your middle school. For Response B, teachers should circle the response that best describes the extent to which each characteristic or practice has influenced what you teach, the teaching strategies you use, and the way you assess student learning. For Response B, administrators should circle the response that best describes the extent to which each characteristic or practice has influenced what teachers teach, the strategies teachers use, and the way teachers assess student learning.

<table>
<thead>
<tr>
<th>Characteristic / Practice</th>
<th>Extent the characteristic is implemented and practiced in my school.</th>
<th>Extent the characteristic has influenced what I teach, the teaching strategies I use, and the way I assess student learning.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at All</td>
<td>Minimally</td>
</tr>
<tr>
<td>1. Program builds upon elementary experiences, prepares students for high school, and includes orientation and transition programs.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. The secure feeling students found in their self-contained elementary classroom is maintained and combined with high school benefits of interaction with a variety of teachers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Program is oriented toward broadening experiences for students instead of specialized training for them.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Program responds to the unique physical, intellectual, social, emotional and moral needs of early adolescents.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Emphasis in program is placed on importance of the learner as the central focus.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Assessment of student is based upon individual progress made in comparison to the student's own ability.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Alternate forms of assessment (e.g., portfolios, demonstrations, self-evaluation) are available for students to display learning.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Characteristic / Practice</td>
<td>Extent the characteristic is implemented and practiced in my school.</td>
<td>Extent the characteristic has influenced what I teach, the teaching strategies I use, and the way I assess student learning.</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Not at All</td>
<td>Minimal</td>
</tr>
<tr>
<td>Program is organized so that progress toward achieving learning goals is at each student’s own rate; students may cross grades and learn with others of different ages.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>An intellectually stimulating and challenging program, based on rigorous standards widely known in the school, is in place and provides for sequential growth in multiple areas (e.g., knowledge, concepts, skills, talents, abilities, values, discoveries.)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Curriculum addresses issues and skills that are relevant to early adolescent learners.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>A variety of teaching strategies is used regularly (e.g., cooperative learning, demonstration, discovery, hands-on activities, role playing, traditional lecture, team-teaching).</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teaching strategies provide academic, physical, social, and emotional experiences appropriate for early adolescent learners.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Multiple materials are used in instruction to stimulate the diverse learning styles of students.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Program has created smaller learning environments (e.g., teams, houses, schools-within-a school).</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Students are organized into heterogeneous groups of varying size according to purpose designed to empower them to become actively engaged in their own learning.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Characteristic / Practice</td>
<td>Extent the characteristic is implemented and practiced in my school.</td>
<td>Extent the characteristic has influenced what I teach, the teaching strategies I use, and the way I assess student learning.</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Response A</td>
<td>Response B</td>
</tr>
<tr>
<td></td>
<td>Not at All</td>
<td>Minimally</td>
</tr>
<tr>
<td>16. Teachers are teamed to plan instruction for a specific group of students.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>17. Teams involve teachers from multiple subject areas.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18. Blocks of common teaching time are provided for teams of basic subject teachers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19. Teams of basic subject teachers have control over their blocks of teaching time to accommodate special projects or activities requiring longer or shorter units of time.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20. Teachers of a team share a specific group of students, a common planning time and space to plan and evaluate programs or meet parents and students.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21. A variety of courses is available, outside the basic subjects, for students to apply learned knowledge in the fine and practical arts (e.g., music, art, theater, industrial arts, family/consumer sciences, physical education) and in world languages.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22. Students are provided experiences in all subject areas offered in the school program.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23. Health and physical education programs are personalized for each student, emphasizing personal hygiene and physical fitness to improve cardiovascular fitness, coordination, agility and strength.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. Health and physical education program is customized to physical characteristics of early adolescent development.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Characteristic / Practice</td>
<td>Extent the characteristic is implemented and practiced in my school.</td>
<td>Extent the characteristic has influenced what I teach, the teaching strategies I use, and the way I assess student learning.</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Response A</td>
<td>Response B</td>
</tr>
<tr>
<td></td>
<td>Not at All</td>
<td>Minimally</td>
</tr>
<tr>
<td>25. Intramural activities are available for each student.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. Program emphasizes lifelong physical activities such as dance, movement and leisure-time activities.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27. Program emphasizes student social and emotional growth and provides staff trained to direct these experiences and to assist students.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28. Emphasis is placed on guidance and counseling functions by all staff members for the students.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>29. Counselors coordinate support services and serve as a resource to teams, teachers, and for classroom activities.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30. Possible career choices are presented to students by counselors and are integrated within the curriculum.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>31. Some type of home-base program is provided for students which stresses importance of self concept and promotes a positive climate for interaction with peers.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32. Each student has available a faculty member who knows the student well to provide help, personal attention and advice.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33. Students are led to know and feel comfortable with a small number of peers rather than being exposed to many less frequently.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34. School environment is positive and promotes a sense of community in which individual differences are recognized and accepted with respect and dignity.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Characteristic / Practice</td>
<td>Response A</td>
<td>Response B</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>35. School environment is inviting and caring, and encourages learning, initiative, and student risk-taking.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>36. School environment is safe and free of violence, substance abuse, and threatening behaviors.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>37. The principal is recognized as the instructional leader in the building.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>38. Teachers are employed who know and focus on the developmental uniqueness of early adolescents.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>39. Teachers, administrators, and counselors have been specifically trained to help early adolescents and strive to better serve the needs of these unique learners.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>40. Continuous staff development exists to further develop teachers’ skills.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>41. Students, faculty, administrators, family and community members are involved in development of a shared mission statement.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>42. Students, faculty, administrators, family and community members participate in the design and evaluation of the program.</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>43. Opportunities are available for parents to watch or participate in activities of the school (e.g., plays, sports, student programs)</td>
<td>1 2 3 4</td>
<td>NA 1 2 3 4</td>
</tr>
<tr>
<td>Characteristic / Practice</td>
<td>Response A</td>
<td>Response B</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>Not at All</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Minimally</td>
<td>Not at All</td>
</tr>
<tr>
<td>44. Multiple forms of information and feedback provide two-way connections between the school, home and community.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>45. School seeks partnerships with business, social service agencies, and other organizations.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Please continue to Part B on the next page.
Survey of Middle School Characteristics  
Part B

Directions: Listed below are several factors that could be considered supports to implementation of the characteristics of developmentally responsive middle schools. Please circle the number that best describes the extent to which each factor (1) has not been a support, (2) has been a moderate support, or (3) has been a serious support to implementation.

<table>
<thead>
<tr>
<th>Support</th>
<th>Not a Support</th>
<th>Moderate Support</th>
<th>Serious Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. Teachers supported the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47. Principal supported the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>48. Superintendent supported the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>49. School board supported the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>50. Parents and/or community supported the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>51. Had sufficient number of students to justify a separate program between elementary and high school</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>52. Sufficient funding was present to provide the number of teachers needed for teacher teams</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>53. Had sufficient funds to finance, for example, creative, exploratory programs, certified teachers, well-equipped rooms, needed materials and resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>54. Building had sufficient and appropriate space and physical facilities to run a stimulating middle school program (e.g., exploratory courses, physical experiences for all, advisory programs, wide range of basic subject offerings)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>55. Teachers possessed appropriate certifications to reorganize for an effective middle school program</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>56. Contract supported change to middle school (e.g., reassigning teachers to positions that would provide more appropriate staffing for a middle school program)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>57. Teachers not shared with high school or elementary school, a situation that permitted flexibility and autonomy in middle school scheduling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>58. Teacher and/or administrator stability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>59. Ability, attitude and knowledge of faculty and administrators</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>60. Support was present for common planning time for teachers teams</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Support</td>
<td>Not a Support</td>
<td>Moderate Support</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>61.</td>
<td>Master schedule accommodated common planning time for basic subject teachers</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>62.</td>
<td>Staff development training was available to provide teachers with understanding and appreciation of middle school programs for early adolescents</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>63.</td>
<td>Implementation began by putting the characteristics of effective middle schools in place and continued over time to develop a complete understanding of how they work together to improve student learning and achievement</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>64.</td>
<td>Complete or nearly complete implementation of all the characteristics of effective middle schools</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>65.</td>
<td>District-wide flexibility, i.e., schools not have to conform to same policy in same way</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>66.</td>
<td>Enough of the right people were pushing to move away from a junior high philosophy to a middle school philosophy</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>67.</td>
<td>Staff supported change</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>68.</td>
<td>Teachers were more student-centered and less subject-centered</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>69.</td>
<td>Teachers understood and were trained in the developmental and psychological characteristics of early adolescents</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>70.</td>
<td>Faculty supported guidance activities for early adolescents</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>71.</td>
<td>Teachers were willing to give up some academic time for home-base/advisory programs or exploratory courses</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>72.</td>
<td>Concern strong for assessment of individual achievement of learning outcomes rather than for norm-referenced comparison of student performance</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>73.</td>
<td>Public viewed middle school different from elementary or high school</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>74.</td>
<td>Parents believed schools should devote time to personal and social outcomes</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Please add other factors that you believe were supports for your school being able to implement the middle school characteristics you have:

---

Please continue to Part C on the next page.
### Survey of Middle Characteristics
### Part C

**Directions:** Listed below are several factors that could be considered barriers to implementation of the characteristics of developmentally responsive middle schools. Please circle the number that best describes the extent to which each factor (1) has not been a barrier, (2) has been a moderate barrier, or (3) has been a serious barrier to implementation.

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Not a Barrier</th>
<th>Moderate Barrier</th>
<th>Serious Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>76. Teachers did not support the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77. Principal did not support the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78. Superintendent did not support the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79. School board did not support the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80. Parents and/or community did not support the middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81. Not enough students to justify a separate program between elementary and high school</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82. Too many students in the building to develop a creative, effective middle school program</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>83. Funding could not provide the number of teachers needed for teacher teams</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>84. Insufficient or no funds to finance, for example, creative, exploratory programs, certified teachers, well-equipped rooms, needed materials and resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>85. Building had insufficient or inappropriate space and physical facilities to run a stimulating middle school program (e.g., exploratory courses, physical experiences for all, advisory programs, wide range of basic subject offerings)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>86. Teachers did not possess appropriate certifications to reorganize for an effective middle school program</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>87. Contract posed problems (e.g., prevented reassigning teachers to positions that would provide more appropriate staffing for a middle school program)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>88. Teachers shared with high school or elementary school, a situation that prevented flexibility and autonomy in middle school scheduling</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>89. Teacher and/or administrator turnover</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>90. Variations in the ability, attitude and knowledge of faculty and/or administrators</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>91. No support was present for common planning time for teacher teams</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>92. Master schedule could not accommodate common planning time for basic subject teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Barrier</td>
<td>Not a Barrier</td>
<td>Moderate Barrier</td>
<td>Serious Barrier</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>---------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>93. Staff development training was insufficient to provide teachers with understanding and appreciation of middle school programs for early adolescents</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>94. Implementation ended at putting the characteristics of effective middle schools in place, and did not proceed over time to develop a complete understanding of how they work together to improve student learning and achievement</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>95. Lack of a complete or nearly complete implementation of all the characteristics of effective middle schools</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>96. Lack of district-wide flexibility, i.e., all schools conform to same policy in same way</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>97. Not enough of the right people to move away from a junior high philosophy to a middle school philosophy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>98. Staff was resistant to change</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>99. Teachers were too subject-centered and less student-centered</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>100. Teachers did not understand or were not trained in the developmental and psychological characteristics of early adolescents</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>101. Faculty did not support having guidance activities for early adolescents</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>102. Teachers were unwilling to give up some academic time for home-base/advisory programs or exploratory courses</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>103. Concern was too strong for norm-referenced testing that compared students rather than for assessment of individual achievement</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>104. Public viewed middle school as just another elementary or high school</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>105. Public thought a junior high program and a middle school program were the same</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>106. Parents did not believe that middle school should devote time to personal and social outcomes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Please add other factors that you believe were barriers for your school to implementation of the middle school characteristics:

107.

Thank you for completing the survey and for participating in this research study. Your response and the responses from your school will remain anonymous and confidential. Put the survey in the drop box in the main office or faculty room.