Middle level practices and teachers' perceptions of school climate in Nevada

Cathy Andrews

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UMI®
MIDDLE LEVEL PRACTICES AND
TEACHERS’ PERCEPTIONS OF
SCHOOL CLIMATE
IN NEVADA

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A dissertation submitted in partial fulfillment
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May 2000

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Doctor of Education, Curriculum & Instruction, College of Education

Examination Committee Chair

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ABSTRACT

Middle Level Practices and Teachers’ Perceptions of School Climate in Nevada

by

Cathy Andrews

Dr. Rebecca Mills, Examination Committee Chair
Professor of Curriculum and Instruction
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This study was designed to determine the extent to which recommended middle level practices have been implemented in Nevada’s middle level schools and whether statistically significant differences in teachers’ perceptions of school climate existed between schools that reported high levels of implementation of middle level practices when compared to schools that reported low levels of implementation. The Middle Level Practices Index (MSPI) was designed to measure the level of implementation of 18 middle level practices recognized in literature as being effective responsive practices appropriate to meet the identified needs of young adolescents (Riegle, 1971). The principal of each middle level school in Nevada was asked to complete the MSPI, and principals from 45 of 66 middle level schools completed and returned the survey. Results from the MSPI were used to identify schools with
highest and lowest levels of implementation of middle level practices. Overall levels of implementation ranged from 76% to 35%.

The National Association of Secondary School Principals (NASSP) School Climate survey was used to determine teachers' perceptions of school climate in the high and low implementation schools. A causal-comparative study of teachers' perceptions of school climate between high and low implementation schools revealed greater teacher satisfaction on each of 10 climate subscales in high implementation schools, but the differences were not statistically significant.

The results of this study suggest that middle level schools in Nevada should increase the levels of implementation of middle level practices if they are to reap the benefits of educational programs described in research literature that effectively address identified developmental needs of young adolescents. The fact that teachers' perceptions of their schools' climate were greater in schools with high levels of implementation of middle level practices compared to the perceptions of teachers in low implementation schools seems to reinforce this conclusion.
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CHAPTER 1

INTRODUCTION

According to the Carnegie Council on Adolescent Development (1989), one in four American youth is at risk for reaching adulthood without being adequately prepared to meet the requirements of the workplace, commitments to family and friends, and the responsibilities of participation in society. They reported that 7 million of the 28 million adolescents ages 10-17 were at serious risk for school failure, substance abuse, and early unprotected sexual encounters, and they estimated that another 7 million were at moderate risk.

"At risk" status refers to students who possess one or more of the characteristics associated with educational disadvantage or school failure (Hafner, Ingels, Schneider, Stevenson, & Owings, 1990). In the National Educational Longitudinal Study of 1988—A Profile of the American Eighth Grader (Hafner et al.), students were considered at risk if they (a) came from a single parent home or a home with an annual family income of less than $15,000, (b) were home alone for more than three hours a day, (c) had parents who had not earned a high school diploma or siblings who had dropped out of school, or (d) were not proficient in English. The study reported that 53% of the sample had no risk factors, 26% had one of these risk factors, and 20% had two or more of these risk factors. These findings mirror those reported by the Carnegie Council on Adolescent Development (1989). Additionally, Hafner et al. (1990) reported that students with two or more risk
factors were six times as likely as students without risk factors to fail to graduate from high school and twice as likely to be in the lowest quartile on achievement tests.

In 1998, the National Center for Education Statistics (Wirt et al., 1998) reported that little has changed since Hafner et al. (1990) published their report. Between 1972 and 1996, Blacks and Hispanics were still more likely than Whites to drop out of school, although the dropout rate for Blacks decreased at a faster rate than that for Whites. During this same 24-year period, students from low income families were still more likely to drop out of school than were students from middle and high income families, and high school students whose parents did not finish high school were twice as likely to drop out as students whose parents had some college education.

The Carnegie Council on Adolescent Development (1989) referred to the middle school as “the last best chance to make a difference” in the lives of early adolescents and made strong recommendations for restructuring education at the middle level—recommendations so strong that schools in every state began to implement reform (George & Alexander, 1993). In the state of Nevada, a subsequent publication, Right in the Middle (1990), proposed that middle level education in the state adopt practices recommended by the Carnegie Council on Adolescent Development (1989) and specific middle level organizational patterns and responsive practices identified by educators as being effective in exemplary middle schools (Clark & Clark, 1994; George & Alexander, 1993; George, Stevenson, Thomason, & Beane, 1992; Mac Iver & Epstein, 1991; Merenbloom, 1996; Riegle, 1971).

Concurrently, schools in Clark County, the largest county in Nevada, were experiencing a population boom, and facilities' needs necessitated grade-
level reconfiguration from K-5, 6, 7-9, and 10-12 to K-5, 6-8, and 9-12. As a result of these influences, the number of separate middle level schools housing students in grades 5-9 in Nevada has increased from 43 in 1990-91 to 67 in 1998-99 (Nevada Department of Education, 1998; 1999).

Not unlike the rest of the country, Nevada faces challenges in supporting young adolescents. In 1997-98, the high school drop-out rate in Nevada was the second highest drop-out rate in the country (WE CAN, Inc., 1998).

Meanwhile, the birth rate among teenage girls and the high rate of teen suicides are two other statistics for adolescents in Nevada that are as alarming as the drop-out rate. Since 1985, the rate of births to teens ages 15 to 17 in Nevada has doubled the increase in the national rate (WE CAN, Inc.), making Nevada's teen birth rate the 12th highest in the nation at 42.1 births per 1,000 in 1996 (Ventura, Matthews, & Curtin, 1998). Indeed, this number continues to increase. In 1997, births to girls ages 15 to 17 in Nevada totaled 1,362, compared to a total of 1,259 in 1996 (WE CAN, Inc., 1998).

In 1997, the total number of teen suicides in Nevada was 395, a rate of 25.8 per 100,000 (Ventura, Anderson, Martin, & Smith, 1997b). This makes Nevada's suicide rate the highest in the nation at more than double the national rate of 11.3 per 100,000 for children ages 5-14 (Ventura, Anderson, Martin, & Smith, 1997a). If students who commit or attempt to commit suicide were in schools specifically organized to provide them with opportunities to interact with caring adults who are trained student advisors, perhaps these students would have reached out to an adult with their problems or perhaps an adult would have noticed warning signs and obtained professional help for the troubled student. All too often, young adolescents do not have ample opportunities to interact with adults and benefit from the guidance of teacher advisors or
professional school counselors because schools are large, impersonal places (Carnegie Council on Adolescent Development, 1989).

Considering the high drop-out, teen pregnancy, and suicide rates in Nevada, it seems that school personnel and governing boards would be eager to examine effective middle level schools for the purpose of identifying middle level practices that contribute to a positive school climate and optimal learning environment. However, despite the importance of this time in a child's life and the rapid increase in the number of middle level schools in Nevada, neither the level of implementation of middle level practices nor the relationship between the levels of implementation and school climate had been documented. This study addressed both issues.

Statement of the Problem

This study examined the relationship between the level of implementation of recommended middle level practices and school climate in Nevada's middle level schools that separately house students in grades five through nine exclusively.

Research Questions

This study was designed to address the following research questions:

1. To what extent are recommended middle level practices implemented in Nevada's middle level schools?

2. Do statistically significant differences in teachers' perceptions of school climate exist between middle level schools that reported higher levels of implementation of middle level practices when compared to schools that reported lower levels of implementation?

Definitions

To assist the reader with interpreting the information contained in this
study and to facilitate replication, the following definitions of terms are included:

1. **Middle level school** is defined as a separate school designed to meet the special needs of young adolescents in an organizational structure that encompasses any combination of grades five through nine, wherein developmentally appropriate curricula and programs are used to create learning experiences that are both relevant and interactive (Atwater, 1996; Clark & Clark, 1994). Throughout the United States, the 6-8 grade configuration is the most common, followed by 7-8 and 7-9, respectively (Clark & Clark; George & Alexander, 1993).

2. **Junior high school** refers to schools which traditionally house students in grades 7-9 and are organized like senior high schools, that is by subject area with designated class periods on a fixed schedule, without a designated purpose for meeting the developmental needs of young adolescents (Atwater, 1996; Clark & Clark, 1994; George & Alexander, 1993).

3. **Planned gradualism** is defined as the planned organizational, curricular, and extra-curricular programs included in middle schools designed to gradually and systematically transition students from the self-contained classroom setting in the elementary school to the departmentalized, one-subject-per-classroom high school model (Clark & Clark, 1994; Riegle, 1971; Thomas & Bass, 1972).

4. **Traditional schedule** refers to a school day that has single-subject class periods for equal amounts of time (Clark & Clark, 1994). The time and schedule for classes taught is usually determined by the administration, not the classroom teacher (George & Alexander, 1993).

5. **Flexible schedule** refers to a school day that is organized to provide teachers with the opportunity to use allocated blocks of time in the manner and for the length of time that they believe to be beneficial to the instructional
programs they have designed (George & Alexander, 1993).

6. **Continuous progress** is defined as an educational program designed to allow each student to progress academically based on ability and level of readiness based on an index of social, physical, mental, and academic maturity rather than grade level, age, peer readiness, or other organizational limitations (Alexander & Williams, 1965; Clark & Clark, 1997; George & Alexander, 1993; Riegle, 1971).

7. **Exploratory experiences** are elective courses designed to encourage and develop students' capacities in areas such as music, art, writing, and speech and to develop students' interests and aptitudes (Clark & Clark, 1994; Gruhn, 1970; Riegle, 1971; Thomas & Bass, 1992).

**Background**

If middle level schools are to successfully bridge the gap between elementary school and high school, the components of an exemplary middle level school must be different from what students received in elementary school and what they will receive in high school but not so different as to make the transition any more difficult (George & Alexander, 1993). Key practices that are more likely to be included in middle level schools than other grade levels include (a) interdisciplinary teams of teachers, (b) common planning time for teams, (c) flexible scheduling, (d) a homeroom and teacher advisory program, (e) cooperative learning, (f) exploratory courses, and (g) parental involvement in workshops on early adolescence and as school volunteers (George & Alexander). However, organizing schools to include middle level practices does not guarantee an effective middle level school (Lounsbury & Clark, 1990; Mac Iver, 1990).

To be effective, an exemplary middle level school must have a strong
sense of purpose to ensure that the organizational and instructional practices in
the school are appropriate to the needs of young adolescents (Lipsitz, 1984). In
a study of four exemplary middle level schools, Lipsitz identified as their most
striking feature a willingness and ability to adapt all school practices to the
intellectual, biological, and social differences of their students. In addition,
clarity of purpose, principals with vision, and a positive school climate were
important contributing factors.

George and Oldaker (1985) surveyed central office staff and principals of
160 middle level schools in 34 states designated by reputation to be successful
to determine the degree to which recommended middle level practices were
perceived to be effective. A majority of the schools reported that the inclusion of
middle level practices had resulted in (a) consistent academic achievement;
(b) a decrease in discipline problems, (c) improvement in students' emotional
well-being, creativity, and confidence in self-directed learning; and (d) a strong
belief that students' self-concept and social development benefited from middle
level programs. Improvement in school learning climate, faculty morale, and
parental involvement and support were also reported.

The authors concluded from this study that middle level schools that
achieve a reputation as being very successful have similar program
components that are distinctly different from those in elementary and high
schools, including recommended practices cited in literature supporting
changes in middle grades education since the early 1950s. They also reported
that all aspects of the middle level school program are positively affected by
these components, especially academic achievement, student behavior, school
learning climate, faculty morale, and staff development.

Johnston (1985) identified four types of climate present in exemplary
middle level schools: physical, academic, organizational, and social-emotional. Physical climate, designated as the least important of the four, was characterized by buildings that (a) were bright and well-maintained without evidence of damaged equipment, (b) were uniformly clean, and (c) lacked graffiti. Academic climate was characterized by (a) recognition and reward of academic achievement, (b) high but reasonable expectations where failure is tolerated, (c) school conversations that focused on academics, (d) wise use of time by teachers, and (e) academics that serve as the basis for leisurely pursuits. Organizational climate included (a) rules that were clear, reasonable, and few in number; (b) a student council that was advisory- and service-oriented; (c) students who knew how to influence school policy and procedures and believed they could; and (d) teachers who were involved in making major decisions. Schools with effective social-emotional climates (a) were welcoming, supportive, and encouraging; (b) provided security; (c) fostered trust among students, parents, teachers, administrators, and the community; (d) anticipated and fulfilled students' needs; and (e) were orderly.

Today, while effective practices have been identified and, indeed, are in place in many middle level schools, some educators maintain that not much has really changed (Eichhom, 1991) except in schools where a high level of commitment exists (George & Alexander, 1993) which leads to a very positive school climate (Clark & Clark, 1994). By examining the relationship between the level of implementation of recommended middle level organizational practices and school climate, researchers can determine whether a strong commitment to these practices results in school processes that elicit a positive, productive school climate.
Purpose

The goal of the initial phase of this study was to identify the level of implementation of recommended middle level practices in Nevada's middle level schools. Between 1990 and 1999, the number of middle level schools in Nevada increased from 43 to 67 (Nevada Department of Education, 1998; 1999). The extent, however, to which these schools implemented recommended middle level practices designed to meet the needs of young adolescents had not yet been determined.

Once the level of implementation of recommended middle level practices in Nevada's middle level schools was identified, the second goal of the study was to assess teachers' perceptions of school climate in selected middle level schools in Nevada that had high or low levels of implementation of middle level practices and to determine whether there were statistically significant differences in their perceptions of school climate.

Importance

This study was important because a comprehensive survey had not been conducted in Nevada to determine the level of implementation of recommended middle level practices or whether teachers perceived the practices to be effective for meeting the needs of young adolescents. The Carnegie Council on Adolescent Development (1989) referred to middle level education as the last best chance to make a difference in the lives of young adolescents and set them on a positive course in life. In a state that is growing as rapidly as Nevada, it was important to obtain as much information as possible about middle level practices in order to facilitate planning and decision-making by the Nevada State Board of Education, school districts, and school personnel to improve educational programs and student achievement.
Nature of the Study

This study replicated one conducted in 1992 in the state of Oklahoma by Thomas and Bass. In their study, Thomas and Bass examined the relationship between the degree of implementation of recommended middle level practices and school climate as perceived by teachers in middle level schools in Oklahoma with a grade configuration that included any combination of grades 5-9. The Middle School Practices Index (MSPI), a survey instrument developed by Riegle (1971), was completed by principals of middle level schools. Results were then used to identify groups of schools with high and low levels of implementation.

In Oklahoma, faculty from each of 12 participating middle level schools that had high and low levels of implementation of middle level practices completed the National Association of Secondary School Principals (NASSP) School Climate Survey. A subsequent analysis was completed to determine whether statistically significant differences existed between the perceptions of school climate reported by teachers in schools with high levels of implementation of middle level practices compared to low implementation schools. The high level of implementation schools scored higher on 7 of 10 school climate indicators, and differences for two of the groups were statistically significant at the .05 level. Thomas and Bass (1992) concluded, based on this analysis, that a positive school climate was related to a high level of implementation of recommended middle level practices.

In this replication, principals of Nevada's middle level schools that served students in some combination of grades five through nine in a separate facility from other grade levels were asked to complete the MSPI (Riegle, 1971; Thomas & Bass, 1992) to determine the levels of implementation of middle level
practices. The index was intended to measure the level of implementation of middle level practices recognized in the literature as being effective responsive practices appropriate to meet the identified needs of young adolescents.

Using the data from principals who completed and returned the MSPI, schools with the highest and lowest levels of implementation of middle level practices were identified. A copy of the NASSP School Climate Survey was sent to teachers in each of the schools in the high and low implementation school groups. The purpose of this survey phase was to determine teachers' perceptions of their school's climate. Data from climate surveys completed by teachers in the high and low implementation school groups were compared to determine whether there was a statistically significant difference in teachers' perceptions of school climate between the two groups.

Scope and Limitations

The first phase of this study, determining the level of implementation of middle level practices in Nevada's middle level schools, was limited to surveying principals of middle level schools in Nevada that separately house students in some combination of grades five through nine exclusively. While there are other schools in Nevada that house students in grades five through nine, those that included other grade levels were excluded because middle level programs that are housed in a separate school facility are believed to be more likely to make special accommodations to meet the needs and characteristics of early adolescents, including a unique program and curriculum (Clark & Clark, 1994). This means that if middle level grades are included with either the elementary school or the high school, the program for young adolescents is often neglected, and this is especially true when middle grades are included with the high school (Gruhn, 1970).
In the second phase of the study, the survey of teachers to determine their perceptions of school climate was limited to schools identified as having the highest and lowest levels of implementation of middle level practices of those whose principals responded to the MSPI. The number of teachers surveyed was limited to those in schools determined to be significantly different with regard to high and low levels of implementation of middle level practices.

The reliability and validity of this study may be limited because both instruments used to collect data are self-reporting instruments. While falsifying data in an educational context is rare because there is seldom a motive for faking information (Hopkins, Stanley, & Hopkins, 1990), the principals and teachers who completed these surveys may have enhanced their responses based on the information they believed the researcher wanted or the picture of their school that they wished to portray.

The developmental needs of young adolescents have been well documented in research literature. As the knowledge about their needs has increased, middle level educators have sought to identify responsive educational practices in order to meet young adolescents' developmental needs and concurrently provide them with the academic and social skills necessary to become responsible citizens. This body of literature is reviewed in the following chapter.
CHAPTER 2

LITERATURE REVIEW

The goals of this literature review were to acquaint the reader with middle level practices that are accepted by educators as being responsive to the identified needs of young adolescents and the importance of evaluating them with regard to school climate as an indicator of their effectiveness as perceived by teachers. To achieve these goals, this literature review includes (a) a description of the developmental changes that occur in young adolescents and the implications for curricula and instruction, (b) a history of the evolution of reform in middle level education to illustrate how recommended middle level practices were developed, (c) a description of recommended middle level practices, and (d) a discussion of the relationship between the implementation of middle level practices and school climate in support of the contention that middle level schools in which personnel are committed to implementing programs that meet the identified needs of young adolescents have positive school climates and effective learning environments (Connors & Irvin, 1989; Jackson, 1990; Johnston, 1985; Scales, 1996).

Characteristics of Young Adolescents

and Implications for Instruction

The characteristics that all children at this stage of adolescent development have in common are their diversity and lack of sameness (Lounsbury, 1991; Toepfer, 1991). Young adolescents experience similar
physical, social, emotional, and intellectual developmental changes at a very different rate as they navigate their way through early adolescence—the greatest period of growth and change in their lives (Atwater, 1996; Elkind, 1981a). This diversity increases as they matriculate from grades five through nine, and it decreases as they mature to young adulthood (Clark & Clark, 1994; Epstein & Peterson, 1991; Toepfer, 1991). These diverse physical, social, emotional, and intellectual characteristics have implications for developing the kinds of programs that provide appropriately high expectations and options for successful learning for all students regardless of an individual's current level of development (Clark & Clark, 1994; Elkind, 1989). The literature on the developmental characteristics of young adolescents and implications for developmentally-appropriate practices is summarized in the following section.

**Physical Characteristics**

A major factor that distinguishes early adolescence from childhood is the onset of puberty (Atwater, 1996). Marked by a period of rapid growth second only to that experienced during the first year of life, young adolescents experience a growth spurt during which skeletal and muscular changes triggered by changes in hormone levels result in rapid changes in height and weight (Atwater). Girls mature more rapidly than boys, sometimes as much as two years faster, and they may begin puberty as early as 8 1/2 years of age or as late as age 15 (Clark & Clark, 1994; Elkind, 1974; George & Alexander, 1993). Boys, on the other hand, enter puberty at approximately age 14 and may not end this stage of development until age 20 (Clark & Clark, 1994).

According to Atwater (1996) and Elkind (1974), adolescent growth patterns during puberty follow a sequential pattern. The first area to grow and reach maturity in young adolescents is the head and face, and especially the
nose. The next area to experience rapid growth are the hands and feet.

Increased height comes primarily from an increase in body length as children's arms and legs increased dramatically during childhood, with arms four times longer and legs five times longer than at birth; however, growth in body length is the longest growth process of all during adolescence. Shoulder growth in girls reaches the peak prior to the spurt in height, but their hips grow after this. In boys, peak shoulder growth occurs after the spurt in height. Compared to boys, girls experience a greater gain in body fat, and body fat increases at three times the rate of lean body mass. Boys, on the other hand, develop muscle cells at a rapid rate and experience a reduction in body fat.

During puberty, young adolescents are very concerned about their body image and how they feel about their bodies manifests itself into feelings that may include but are not limited to (a) undue concern about how others perceive them, (b) envy toward individuals who are more mature and seemingly more sophisticated, and (c) concern because they have not matured at the same rate as their peers (Atwater, 1996; Elkind, 1974). Behaviors exhibited as a result of these physical changes may include a short attention span, restlessness, and rapid fluctuations between fatigue and increased energy (Levy, 1984).

Curriculum must be organized to reflect consideration of these physical developmental characteristics (Beane, 1993; Clark & Clark, 1994; Scales, 1996). Experts recommend that young adolescents have daily physical education classes because of their increased energy levels (George & Alexander, 1993; Scales, 1996). Classroom teachers should break the class period and/or lesson into 10-15 minute learning activities to accommodate restlessness, fatigue, and short attention spans (George & Alexander, 1993; Scales, 1996). Health and sex education curricula should inform students of
normal changes that are occurring in their development at this age thereby helping them to better cope with concerns about their own growth and development, and especially the development of their sexual organs and the awareness of their own sexuality (Elkind, 1974).

Social Characteristics

Socially, young adolescents seek group membership and are beginning to recognize one another according to sex and ethnic orientation (Beane, 1993; Clark & Clark, 1994; Elkind, 1974; Scales, 1996). Their self-concept is fragile, and they have a need to talk about anything and everything with anyone who will listen (Wigfield & Eccles, 1994). At a time when their sexual identity is emerging, they are struggling to define their own identity, and peer groups play an important role in this process (Atwater, 1996; Elkind, 1974).

Young adolescents continue to identify with their parents, usually less about personal concerns than when they were children and more about matters involving decisions about finances, education, and career plans, but they turn to peer groups for advice on personal, day-to-day matters such as style of dress, with whom to associate, which groups to join, and what social events to attend (Atwater, 1996; Elkind, 1974). Most young adolescents belong to two types of groups, cliques and crowds. Cliqueness are small groups that meet informally to share ideas and feelings, usually in the halls or lunch room at school (Atwater, 1996). Crowds are larger groups that meet primarily for organized social activities like dances and parties (Atwater, 1996). Elkind (1974) divided cliques into three groups: socials, grinds, and baddies or hoods. The social students dress well, date, and participate in school politics and organizations. The grinds are those students who are concerned about intellectual pursuits and who are solitary or only have friends with common interests. The baddies or
hoods are not interested in school, wear extreme clothing, tend to fight, and get into trouble both in and out of the school setting. As students move through early adolescence, peer groups evolve from unisexual cliques to heterosexual crowds of mixed cliques, and this facilitates their transition to the heterosexual gender roles they will experience as adults (Atwater, 1996; Elkind, 1974).

Advisor-advisee programs tied to a homeroom period included in the school day may enable students to (a) understand the changes that are occurring to them and their peers, (b) voice and discuss their feelings and concerns, and (c) realize that they are not the only ones experiencing this difficult period of early adolescence (Alexander, 1988; Beane, 1986; Bergmann, 1991; Elkind, 1974; Plötzik & George, 1989; Scales, 1996). For example, teachers could read a short narrative about young adolescents who are experiencing difficulty and have students discuss a variety of ways in which the characters could resolve their problem. As their advisor, the teacher should help students to understand that the problems experienced by young adolescents in the narrative relate to their lives and that what they learn from this discussion could be used to help them when they encounter a similar situation.

Classroom teachers should structure lessons to include group work for the purpose of fostering peer acceptance as they work and achieve together (Beane, 1986, 1993; Urdan, Midgley, & Wood, 1995). Teachers should develop lessons that allow students to explore feelings and decision-making and provide young adolescents with opportunities to connect with other students and share their concerns and experiences. For example, in social studies and/or English classes, students could research a day in the life of a 13-year-old in the geographic region being studied, including correspondence.
via internet, paper/pencil, hands-on projects, and so forth (Beane, 1986, 1991; Urdan et al., 1995). Realizing that students in other countries are similar to them helps young adolescents to realize that they are not as different as they thought, and it should make it easier for them to cope with changes in their own lives.

Organizing students and teachers into interdisciplinary teams provides students with group identity and fosters the development of relationships with adults and peers at school. Team activities should be planned to provide students with opportunities to work and play with peers and to express themselves in unique ways as they search for their identity and new levels of sophistication; for example, intramural activities like bowling or team days with a theme such as wearing wild hair styles or mismatched clothing could be planned (Plodzik & George, 1989). Classroom teachers should provide students with opportunities for success that include authentic learning activities and the satisfaction of completing a job well to improve students' self-concept (Beane, 1991, 1993). For example, students could plan and participate in community service projects or work on group projects together in the classroom relative to units of study in the curriculum (Scales, 1996). Young adolescents are concerned about social issues but often do not act to facilitate reform (Elkind, 1974). Structuring lessons to include community service projects would show young adolescents that their efforts can facilitate change.

**Emotional Characteristics**

The emotional characteristics of young adolescents can be described in terms of needs: (a) the need for reward and recognition, (b) the need for achievement and success, (c) the need for security and affection, and (d) the need for fun and adventure (Bergmann, 1991). To best meet students' needs
for reward, recognition, achievement, and success, Plodzik and George (1989) recommended that teachers (a) use praise and positive reinforcement for authentic achievement, (b) display student work in the classroom and halls, and (c) organize learning tasks to accommodate student work groups in which an end product is the result and about which they are eager to talk with peers and adults to demonstrate and explain their learning. The need for security and affection coupled with their quest for fun and adventure can be met through frequent full-team activities such as picnics, field trips, and intramural sports activities that are fun and adventurous for all to develop a sense of family, security, affection, and group cohesiveness (Scales, 1996).

**Intellectual Characteristics**

Piaget (1980) purported that children function in concrete areas between ages 7 through 11 and move to abstract between 11 and 15, but all students are different as they make these transitions (Atwater, 1996; Elkind, 1981a). Some young adolescents may be able to reason when given verbal problems, analyze their own thinking, understand metaphors, and reason scientifically (Elkind, 1974). Others, however, cannot readily integrate information learned in separate subjects and learn best when they can see the importance of facts, skills, and information between school and their lives (Beane, 1991, 1993; George & Alexander, 1993).

To accommodate differences in students’ cognitive development at this age, lessons developed by teachers should include concrete examples to illustrate abstract ideas and concepts. Teachers should identify their students’ cognitive levels of development and structure lessons that are appropriate to each student’s cognitive level and alter teaching and learning strategies to assist students in advancing their cognitive levels from concrete to abstract.
The relationship between disciplines and ideas should be emphasized (Beane, 1991, 1993), and lessons should be planned to address different learning styles and right-left brain activities (George & Alexander, 1993). Students should be actively involved in the learning process through authentic learning tasks and real assessments exemplified through the use of portfolios, hands-on activities, and collaborative projects (Beane, 1993; Clark & Clark, 1994; Elkind, 1989; Urdan et al., 1995). When students can see their work and explain what they have learned to peers and adults, they will realize that they have learned something new and are capable of mastering new concepts and ideas, and this awareness of their ability to learn helps students gain self-confidence and develop a positive self-concept (Beane, 1993; Clark & Clark, 1994; Urdan et al., 1995).

Elkind (1981b) believed that behaviors typical of young adolescents which adults attribute to bad attitudes result instead from intellectual immaturity as described by Piaget (1980). The four behaviors typical of young adolescents and described by Elkind are pseudostupidity, apparent hypocrisy, responses to an imaginary audience, and the personal fable.

In pseudostupidity, young adolescents are able to conceive alternatives but are not always able to prioritize and decide which choice is most appropriate. The result is that they often appear stupid because they cannot make a decision, or they look for devious motives in the behavior of those around them.

Apparent hypocrisy in young adolescents refers to their ability to recognize abstract rules of behavior even though they lack the experience to see the relevance of the rules to their behavior. They recognize that rules apply to everyone, but they cannot recognize that rules also apply to their behavior.
While young adolescents are able to think about other people's thinking, they are unable to distinguish between what is of interest to others and what is of interest to them as individuals. As a result, young adolescents are extremely self-conscious and believe that everything that they perceive to be wrong with them is as important and noticeable to everyone else (their imaginary audience) as it is to them. Because of this feeling that they are always the focus of everyone's attention, they believe that natural laws which pertain to others do not pertain to them. For example, they may know that if one has unprotected sex a pregnancy might be the result, but they do not believe that it can happen to them. This is a personal fable.

For adults who are not aware of the cognitive levels of development in young adolescents and the behaviors that manifest as a result, dealing with these behaviors can be very frustrating (Elkind, 1981b). To facilitate learning and help students make the transition from concrete to abstract thinking, it is important, therefore, that middle level schools employ teachers who are knowledgeable about these developmental stages of young adolescents and trained to address them in a positive manner (Carnegie Council on Adolescent Development, 1989).

Clearly, young adolescents are at a difficult stage of development in their lives where they need the support and understanding of adults at home and in school. It is imperative, therefore, that middle level schools employ adults who are professionally trained to work with young adolescents and developmentally appropriate programs that will help students successfully transition from childhood to adolescence and early adulthood (Carnegie Council on Adolescent Development, 1989; Elkind, 1989).
History of Middle Level Education Reform

The junior high school originated in 1910 and spread rapidly. By the early 1950s, however, junior high schools were criticized for being carbon copies of the high school and for not meeting the needs of children at the middle level of development for which they were designed (Elchhom, 1991). Citing such factors as earlier maturation levels of adolescents, changes in society that promoted early sophistication of youth, and changes in family structures that resulted in increased insecurities in adolescents, educators called for systemic change in the junior high school that would provide programs designed to meet the identified needs of young adolescents (Elkind, 1981a; Riegle, 1971).

Gruhn and Douglass (1971) called for the inclusion of the six functions at the junior high to facilitate the implementation of educational practices responsive to the needs of young adolescents: (a) integration, (b) exploration, (c) guidance, (d) differentiation, (e) socialization, and (f) articulation. Integration referred to the importance of relating subject areas to real life to encourage the development of effective and wholesome behavior. Exploration called for the inclusion of classes that allowed students to discover and explore their aptitudes, abilities, and interests. Guidance highlighted the need for students at this age level to have teachers and guidance counselors in the school who were trained to help them make informed choices about their education, careers, and personal lives. Differentiation referred to the need to provide different educational facilities and opportunities to accommodate the different backgrounds and needs of students. Opportunities for developing social skills should be provided through supervised activities that encourage students to socialize with one another and to learn how to fit into society. To ensure that
students successfully transition from the elementary setting to the high school, personnel in the junior high should develop programs suited to the needs and interests of young adolescents.

However, before suggested changes in existing junior high schools could be implemented, Sputnik occurred and the United States government was shocked that the Russians had preceded Americans into space (Wiles & Bondi, 1993). In response to this incident, educators decided that science and math classes formerly taught in high school only would be moved into the junior high school. As a result, algebra moved to the eighth grade with increased science and foreign language at the expense of programs that would be designed specifically for young adolescents (Clark & Clark, 1994). This set the reform movement back almost before it really had a chance to begin.

In the 1960s, with the mass exodus of families from urban areas to the suburbs and the children of the post-war baby boom rapidly approaching puberty, the demand for more junior high schools opened the door once again for reform. The most evident reform at that time was grade level reconfiguration (Epstein, 1990). Previously, junior high schools had been organized primarily to include grades 7-9, but this was changed to 6-8 based on research that revealed that children were reaching puberty four years earlier than they had at the turn of the century when junior high schools originated (Atwater, 1996). In fact, the number of schools with a grade configuration of 6-8 increased by 160% in just under 20 years, 1965 to 1985, while the 7-9 configuration concurrently decreased (George & Alexander, 1993). However, grade-level reconfiguration would not ensure that middle level schools would meet the identified needs of young adolescents (Epstein, 1990), and educators continued to conduct research to identify appropriate middle level educational practices.
Calls for reform in the 1960s came from the voices of middle school reform leaders such as John Lounsbury, William Alexander, Emmett Williams, and Donald Eichhorn. In a study conducted by Lounsbury in the mid-1950s (Van Til, Vars, & Lounsbury, 1961), educators were asked to rank order the functions of a junior high school, and the following 15 were identified as the most important:

1. Provide a program more suitable for early adolescents.
2. Provide adolescents with experiences in sharing, accepting responsibility, and self-direction.
3. Assist students in discovering aptitudes, interests, and capacities through testing, counseling, and exploratory work.
4. Provide young adolescents with opportunities for socialization through social activities, group work, and other formal situations.
5. Provide enrichment in grades 7 and 8 by including shops, labs, and other special features.
6. Continue common education and provide for better integration of educational experiences.
7. Provide better guidance and counseling services.
8. Provide for gradual transition from elementary school to high school.
9. Reduce the drop-out rate and improve retention.
10. Provide ample opportunities for students to participate in extra-curricular activities such as clubs and teams.
11. Provide pre-vocational training, orientation, and exploration.
12. Reduce pupil failures.
13. Provide for the exploration of a variety of subjects and areas of interest through short-term or try-out classes.
15. Provide special classes for retarded and advanced students.

Conversely, the study identified the following 9 items as the least desired junior high school functions:

1. Saving time in high school by including courses formerly taught in high school as part of a student's preparation for college.
2. Homogeneous or ability grouping.
3. Vocational training for students who left school early.
4. Promotion by subjects rather than grade level.
5. Saving money in high school by moving courses down.
6. Organizing teachers and teaching by department.
7. Saving time by eliminating duplication.
8. Providing for early differentiation in students' programs.

After Lounsbury, Murphy (1965) conducted the first survey to determine what changes should be sought in junior high schools. She determined that junior high schools should be places where (a) practices are adapted to meet the needs of children between elementary and high school; (b) students master tools of learning before encountering the specialization of high school and the pressure associated with college preparation; (c) educators concentrate on providing for individual differences based on new knowledge of unique characteristics of children ages 11-14; (d) students in grades 5 or 6 are in self-contained classrooms for part of the day and are introduced to specialization gradually through art, music, and shop classes; and (e) coursework provides for individual student differences and encourages students to work in large and small group settings.
Concurrently, Alexander and Williams (1965) described similar guidelines for a model middle school. They determined that model middle schools should do the following:

1. Serve the needs of older children, preadolescents, and adolescents.
2. Provide individualized instruction.
3. Prioritize the intellectual components of the curriculum.
4. Emphasize skills for learning.
5. Design physical education and health classes for boys and girls of this age group.
6. Emphasize values throughout the instructional program.
7. Organize the program to facilitate optimal use of teachers’ competencies and interests.

In 1968, Alexander surveyed 10% of the existing 1,101 schools recognized as reorganized middle level schools because they had reorganized grade configurations to include grades six and seven but not grade nine and at least three but not more than five grades total. He found that while they were reorganized, nothing much had changed from the junior high school with regard to curriculum groupings, instructional organization, and individualized instruction. Indeed, while the 1960s ended with the knowledge that change was necessary and agreement among many researchers regarding steps necessary to provide schools responsive to young adolescents, the real thrust for change began in the 1970s (George & Alexander, 1993).

In the 1970s and 1980s, the number of middle level schools grew to more than four times as many as in the 1960s (George & Alexander, 1993; Wiles & Bondi, 1993). However, in a study conducted by Brooks and Edwards (1978), it was determined that desired programs had not been implemented in
the new middle level schools although the same forces were at work for change. They compared the school movement at the middle level to the adolescent emerging and searching for identity.

By 1983, although two-thirds of schools called middle schools were organized to include grades six through eight, neither junior high schools nor middle schools had achieved the systemic change that educational researchers proposed would meet the needs of 11- to 14-year-old children (George & Alexander, 1993). Despite this fact, exemplary middle level schools did exist, and George and Oldaker (1985) identified the following characteristics of these schools: (a) an interdisciplinary team organization, (b) a flexible daily schedule; (c) a homebase/advisor-advisee program, (d) a curriculum that allows for personal student development, and (e) a favorable school learning climate.

Alexander and McEwin (1989) conducted a study of exemplary middle schools in 1987-88 that reinforced the 1985 study by George and Oldaker, reconfirmed earlier studies, and identified the following as desirable characteristics of good middle schools: (a) an interdisciplinary team organization with a flexible daily schedule; (b) an adequate guidance program with a teacher advisory program; (c) an exploratory program; (d) a broad-based curriculum that includes such areas of emphasis as personal development, continued learning skills, and basic knowledge; (e) varied and effective methods for children in this age group; and (f) continual orientation and articulation for students, parents, and teachers.

However, with nearly four decades of research available to them, parents, educators, and others who had the power to make changes in schools did not jump on the bandwagon until 1989 when the Carnegie Council on Adolescent Education published its report, Turning Points: Preparing American
Youth for the 21st Century. This report reiterated in a forceful manner (George & Alexander, 1993) the need to implement the basic characteristics of middle level schools as stipulated by earlier researchers (e.g., Alexander & McEwin, 1989; George & Oldaker, 1985; Van Til et al., 1961) and stressed that families and communities must be involved in middle school reform. Indeed, the Carnegie report spurred school personnel in every state to implement middle school reform through the inclusion of identified effective middle level practices (George & Alexander, 1993).

Effective Middle Level Practices

In 1971, Rieple developed a list of 18 middle level practices recognized in the literature as being effective responsive practices appropriate to meet the identified needs of young adolescents and present in middle level schools deemed by experts to be successful. The 18 middle level practices identified and validated by Rieple are listed and defined below:

1. **Continuous Progress**

   Middle level schools should feature a non-graded organization that allows students to progress at their own individual rate regardless of chronological age.

2. **Multi-materials Approach**

   Middle level schools should offer students a wide range of easily accessible instructional materials. Classroom activities should be planned around a multi-materials approach rather than a basic textbook organization.

3. **Flexible Schedule**

   Middle level schools should provide a schedule that encourages the investment of time based on educational needs rather than standardized time periods.
4. **Social Experiences**

Middle level schools should provide social experiences appropriate for the young adolescent and should not emulate the social experiences of the senior high school.

5. **Physical Experiences**

Middle level school curricular and co-curricular programs should provide physical activities based solely upon the needs of the students. A broad range of intramural experiences that provide physical activity for all students should be provided to supplement the physical education classes, which should center their activity upon helping students to understand and use their own bodies.

6. **Intramural Activities**

Middle level schools should feature intramural activities rather than interscholastic sports.

7. **Team Teaching**

Middle level schools should be organized in part around interdisciplinary team teaching patterns that allow students to interact with a variety of teachers in a wide range of subjects.

8. **Planned Gradualism**

Middle level schools should provide experiences that assist young adolescents in making the transition from childhood dependence to adult independence, thereby helping them to bridge the gap between elementary school and high school.

9. **Exploratory and Enrichment Studies**

Middle level school curricula should be broad enough to meet the individual interests of young adolescents. It should expand the range of educational training students experience rather than specializing their
training. Elective courses should be a part of the program of every student during the years in the middle school.

10. **Guidance Services**

Middle level schools should provide group and individual guidance services to all middle level students.

11. **Independent Study**

Middle level schools should provide an opportunity for middle level students to spend time studying individual interests or needs that do not appear in the organized curricular offerings.

12. **Basic Skill Repair and Extension**

Middle level schools should provide students with opportunities to receive assistance in basic skills learning. The basic education program fostered in the elementary school should be extended to the middle school.

13. **Creative Experiences**

Middle level schools should include opportunities for students to express themselves creatively. Student newspapers, student dramatic and oratorical creations, musical programs, and other student-centered, student-directed, and student-developed activities should be encouraged.

14. **Security Factor**

Middle level schools should provide every student with a security group, i.e., teachers who know students well and relate to them in a positive manner and/or peer groups that meet regularly and represent more than administrative convenience in use of time.

15. **Evaluation**

Middle level schools should provide an evaluation of students' work that is personal, positive in nature, non-threatening, and strictly individualized.
Parent-teacher-student conferences, scheduled and unscheduled, should be the basic reporting method. Competitive letter grade forms should be replaced with honest pupil-teacher-parent communications.

16. **Community Relations**

Middle level schools should develop and maintain a varied program of community relations. Programs to inform, entertain, and educate the community as well as other activities should be a part of the basic operation of the school.

17. **Student Services**

Middle level schools should provide a broad spectrum of specialized services for students. Community, county, and state agencies should be utilized to expand the range of specialists to the broadest extent possible.

18. **Auxiliary Staffing**

Middle level schools should utilize a highly diversified array of personnel such as (a) parent and student volunteers; (b) teacher, clerical, and student aides; and (c) other similar types of support staff who would assist teachers.

To successfully bridge the gap between elementary school and high school, the practices employed in exemplary middle schools must be different from what students received in elementary school and what they will receive in high school but not so different as to make the transition any more difficult and tailored specifically to meet the needs of young adolescents, ages 10-14 (George & Alexander, 1993). George and Alexander summarized these differences very well in Table 1.

Key practices more likely to be included in middle level schools than other practices include (a) interdisciplinary teams of teachers, (b) common planning time for teams, (c) flexible scheduling, (d) a homeroom and teacher...
Table 1

Recommended Differences in Educational Programs
in Elementary, Middle, and High Schools

<table>
<thead>
<tr>
<th>Program</th>
<th>Elementary</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student-Teacher</td>
<td>Parental</td>
<td>Advisor</td>
<td>Choice</td>
</tr>
<tr>
<td>Relationship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Teacher-</td>
<td>Self-contained</td>
<td>Interdisciplinary</td>
<td>Department</td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td>Team</td>
<td></td>
</tr>
<tr>
<td>3. Curriculum</td>
<td>Skills</td>
<td>Exploratory</td>
<td>In-depth</td>
</tr>
<tr>
<td>4. Schedule</td>
<td>Self-contained</td>
<td>Flexible Block</td>
<td>Periods</td>
</tr>
<tr>
<td>5. Instruction</td>
<td>Teacher-directed</td>
<td>Diverse</td>
<td>Student-directed</td>
</tr>
<tr>
<td>6. Student Grouping</td>
<td>Chronological</td>
<td>Supportive</td>
<td>Subject</td>
</tr>
<tr>
<td>7. Building</td>
<td>Single Classroom</td>
<td>Team or House</td>
<td>Department</td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Co-curriculum</td>
<td>All Participate</td>
<td>Broad Choice</td>
<td>By Ability</td>
</tr>
<tr>
<td>9. Governance</td>
<td>Principal and</td>
<td>Principal and</td>
<td>Principal and</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>Council</td>
<td>Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heads</td>
</tr>
<tr>
<td>10. Teacher</td>
<td>Child-oriented</td>
<td>Flexible</td>
<td>Academic</td>
</tr>
<tr>
<td>Preparation</td>
<td>Generalist</td>
<td>Resource</td>
<td>Specialist</td>
</tr>
</tbody>
</table>

advisory program, (e) cooperative learning, (f) exploratory courses, and (g) parental involvement in workshops on early adolescence and as school volunteers (George & Alexander, 1993). However, according to Lounsbury and Clark (1990) and Mac Iver (1990), organizing schools to include middle level practices does not guarantee an effective middle school.

To be effective, an exemplary middle school must have a strong sense of purpose to ensure that the organizational and instructional practices in the school are appropriate to the needs of young adolescents (Lipsitz, 1984). In a study of four exemplary middle level schools, Lipsitz identified their most striking feature as their willingness and ability to adapt all school practices to the intellectual, biological, and social differences of their students, citing clarity of purpose, principals with vision, and a positive school climate as important contributing factors.

George and Oldaker (1985) surveyed central office staff and principals of 160 middle level schools in 34 states designated by reputation to be successful to determine the degree to which recommended middle school practices were perceived to be effective. In over 90% of the schools that responded, they found (a) interdisciplinary teams of teachers and students, (b) a flexible schedule, (c) a homeroom period and teacher advisory program, and (d) a curriculum that included exploratory courses with an emphasis on students' personal development and learning skills. In every school that responded, administrators and teachers collaborated on issues that shaped school programs and policies.

A majority of the schools reported that the inclusion of middle level practices had resulted in (a) consistent academic achievement; (b) a decrease in discipline problems; (c) improvement in students' emotional well-being, creativity, and confidence in self-directed learning; and (d) a strong belief that
students' self-concept and social development benefited from middle level programs. Improvement in school learning climate, faculty morale, and parental involvement and support were also reported. George and Oldaker concluded from this study that middle level schools that achieve a reputation as being very successful (a) have similar program components that are distinctly different from those in elementary and high schools; (b) have included recommended middle level practices cited in literature in support of changes in middle level education since the early 1950s; and (c) have all aspects of the middle level school program positively affected by the inclusion of recommended practices, especially academic achievement, student behavior, school learning climate, faculty morale, and staff development.

In 1993, George and Shewey conducted a new survey of middle level schools which duplicated the study by George and Oldaker (1985). In this study, administrators in 300 middle level schools were surveyed. They found that several recommended middle level practices contributed to the long-term effectiveness of every school that had maintained the middle level concept for an average of 10 years. The practices cited most frequently were interdisciplinary teaming, team leaders, flexible scheduling, student recognition programs, shared decision-making, heterogeneous grouping, and a student-centered philosophy, respectively. This study by George and Shewey (1993) corroborated the findings of George and Oldaker (1985).

Today, while effective practices have been identified and, indeed, are in place in many middle level schools, some educators maintain that not much has really changed (Eichhom, 1991) except in schools where a high level of commitment exists (George & Alexander, 1993) which leads to a very positive school climate (Clark & Clark, 1994). By examining the relationship between
the level of implementation of recommended middle level organizational practices and school climate, researchers can determine whether a strong commitment to these practices results in school processes that elicit a positive, productive school climate. This is important because unless middle level schools implement middle level practices that are responsive to the specific needs of young adolescents, children will not be ready to meet the demands of the work force which will require them to be committed and responsible workers who are technically adept and capable of thinking critically and solving problems creatively nor will they be equipped to become contributing members of society (Carnegie Council on Adolescent Development, 1989).

School Climate

Definition

While a standard definition of school climate is elusive, anyone who has ever entered a school building would probably concur that individual schools each have a nearly palpable climate that is unique, positive or negative, and immediately recognizable upon entering. In broad terms, school climate has been summarily defined as a school’s atmosphere for learning (Howard, Howell, & Brainard, 1988) or the environmental characteristics that affect teaching and learning (Hernandez-Gantes, Phelps, Jones, & Holub, 1995). More specifically, school climate has been defined as an “aggregate of indicators, both subjective and objective, that convey the overall feeling or impression one gets about a school” (Ellis, 1988, p. 3). However one defines the term school climate, it remains easy to perceive and difficult to define, measure, or manipulate, but it is imperative that every school strive to have a positive school climate and always seek to maintain or improve it.
A positive school climate is characterized by (a) enthusiastic, hardworking students; (b) dedicated, cooperative, and collegial teachers; and (c) teachers and administrators who exhibit trust, respect, and support for one another (Ellis, 1988). On the opposite end of the school climate continuum, Ellis characterized a negative school climate as having (a) alienated students; (b) teachers who are hostile or indifferent to students and professional peers; and (c) a principal who is out of touch with teachers' needs, arbitrary and dictatorial with regard to decisions, and resistant to change. Evaluated by these criteria, it would seem relatively easy to determine whether a school's climate is positive or negative. However, determining to what extent a school's climate is positive or negative is difficult, and because every school should strive to have a positive school climate, the challenge for school personnel becomes how to assess the climate in their school and how to proceed once school climate data have been compiled and evaluated.

**Purpose of Assessing School Climate**

There are four primary reasons why it is important to assess a school's climate (Sweeney, 1992). First, an assessment of a school's climate identifies perceptions about the school that are held by students, teachers, administrators, parents, support staff, and members of the community at large. Second, the process identifies a school's strengths and weaknesses. Third, the process assists in the development of plans to enhance identified areas of strength and improve areas of weakness. Finally, school improvement plans that are implemented subsequent to school climate assessment promote community confidence in the school's ability to educate children.

The two primary goals of school climate assessment are the improvement of productivity and satisfaction (Howard et al., 1988). Productivity
refers to the extent that a school is capable of providing a wholesome, stimulating, and productive learning environment conducive to students' academic and personal growth. Characteristics of a school's productivity include (a) achievement of basic skills, (b) developing an expanding knowledge base, and (c) using inquiry and problem-solving processes. Satisfaction refers to a school's ability to provide a pleasant and satisfying environment in which teachers and students work, and characteristics include a sense of personal worth, school enjoyment, and achieving success from participation in worthwhile activities.

Howard et al. (1987) identified eight factors that contribute to a school's prevailing climate: (a) continuous academic and social growth, (b) respect, (c) trust, (d) high morale, (e) cohesiveness, (f) opportunities for input, (g) school renewal, and (h) caring. These authors were quick to point out, however, that these factors associated with a positive school climate are achieved through the implementation of a school's particular programs and practices.

Once a school's climate has been evaluated and the degree to which determinants have been implemented, school personnel can work with staff, students, and parents to develop a strategic plan to improve the school's programs and practices and, subsequently, the school's overall climate (Haskins, 1996; Howard et al., 1987; Gottfredson & Gottfredson, 1989; Sanoff, 1996, Swaim, 1996; Sweeney, 1992; Thomas & Bass, 1992). As with any project undertaken in education and the school setting, frequent evaluation, assessment, and modification of newly-implemented programs is essential.

Because school climate assessment helps to determine whether the educational practices on which a school's educational program is structured are effective, evaluating the school climate of middle level schools in Nevada that

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have high and low levels of implementation of recommended middle level practices will help educators to evaluate the effectiveness of middle level programs.

Middle School Practices

and School Climate

Johnston (1985) identified four types of climate present in exemplary middle schools: physical, academic, organizational, and social-emotional. Physical climate, designated as the least important of the four, was characterized by buildings that (a) were bright and well-maintained without evidence of damaged equipment, (b) were uniformly clean, and (c) lacked graffiti. Academic climate was characterized by (a) recognition and reward of academic achievement, (b) high but reasonable expectations where failure was tolerated, (c) school conversations that focused on academics, (d) wise use of time by teachers, and (e) academics served as the basis for leisurely pursuits. Organizational climate included (a) rules that were clear, reasonable, and few in number; (b) a student council that was advisory- and service-oriented; (c) students who knew how to influence school policy and procedures and believed they could; and (d) teachers who were involved in making major decisions. Schools with effective social-emotional climates (a) were welcoming, supportive, and encouraging; (b) provided security; (c) fostered trust among students, parents, teachers, administrators, and the community; (d) anticipated and fulfilled students' needs; and (e) were orderly. Johnston concluded that whether or not a school's climate was positive or negative depended on the adults in the school more than any other factor. Based on his findings, he purported that middle level schools could become more effective by implementing identified responsive practices based on collaborative decision
making by administrators, parents, and teachers. Johnston stipulated, however, that organizing a school to look effective by including identified middle level practices was not enough and that school climate should be measured to ensure that practices implemented exhibit a positive effect as measured by the perception of the school's clients.

Connors and Irvin (1989) conducted a study to determine whether the way that a middle level school is organized for instruction and student life contributes to excellence and a positive school climate. Specifically, they were trying to determine if there was a difference in the degree of middle-schoolness (the degree to which a school adheres to middle level concepts and practices) between middle level schools cited as excellent and a random group of middle level schools. The researchers developed a survey based on This We Believe (National Middle School Association, 1982) that would assist them in determining the level to which a middle level school adhered to recommended middle level practices. Members of the National Middle School Association's Board of Directors reviewed the statements and made suggestions for improvement. The final survey contained 10 questions that addressed the following areas of middle level practices: (a) advisory programs, (b) interdisciplinary teaming, (c) flexible scheduling, (d) grouping, (e) exploratory programs, and (f) extra-curricular activities and intramurals. The researchers found definite differences in the degree of adherence to middle level practices between the schools recognized as excellent and the randomly selected schools with regard to each survey statement. Schools recognized as excellent scored 1/2 to 1/3 higher on each of the statements than randomly selected middle schools. The conclusion by the researchers was that the degree to which schools implement essential middle level
practices appears to be directly related to excellence and a positive school climate.

Thomas and Bass (1992) examined the relationship between the degree of implementation of recommended middle level practices and school climate in middle level schools in Oklahoma with a grade configuration that included any combination of grades 5-9. The Middle School Practices Index (MSPI), a survey instrument developed by Riegle (1971), was completed by principals of middle schools, and it was used to identify groups of schools with high and low levels of implementation. Faculty from each of 12 participating middle schools that had high and low levels of implementation of middle level practices completed a school climate survey developed by the National Association of School Principals (Halderson, 1988). A subsequent analysis was completed to determine if statistically significant differences existed between perceptions of school climate reported by teachers in schools with high levels of implementation of middle level practices compared to low implementation schools. Teachers from schools with high levels of implementation scored higher on 7 of 10 school climate indicators, and differences for the two groups of teachers were statistically significant at the .05 level. The researchers concluded, based on this analysis, that a positive school climate was related to a high level of implementation of recommended middle level practices.

According to the National Association of Secondary School Principals Council on Middle Level Education's *An Agenda for Excellence at the Middle Level* (1985), improvement in middle schools will not occur just by implementing practices recognized as effective in exemplary middle level schools but rather by combining implementation with a change in school climate that "supports excellence and achievement rather than conformity and
mediocrity” (p. 3). The Council further stated that in the most successful schools the specific needs of their middle level students were readily recognized and addressed by developing learning programs that support the dictates of their development in order to facilitate learning and full participation in the instructional program to ensure continuous learning.

In Nevada, the number of middle level schools has increased from 43 in 1990-91 to 67 in 1998-99 (Nevada Department of Education, 1990; 1998), but it had not been determined how many of these might be middle schools in name or grade configuration only compared to those that have a high level of implementation of middle level practices. Once the level of implementation of recommended middle level practices had been determined for each of Nevada’s middle level schools, the next step was to ascertain whether schools with a high level of implementation also had a positive school climate as perceived by teachers. If this hypothesis proved to be true, it would corroborate the findings of Connors and Irvin (1985) and Thomas and Bass (1992), and it would provide valuable information to school districts in Nevada that may be questioning the importance of the continued or new implementation of middle level practices in existing or new middle level schools.
CHAPTER 3

METHOD

This study replicated research conducted in 1992 in middle level schools in Oklahoma by Thomas and Bass. In their study, they examined the relationship between the degree of implementation of recommended middle level practices and school climate in middle level schools in Oklahoma. Thomas and Bass concluded that higher levels of implementation of middle level practices were related to a positive school climate. For example, perceptions of school climate by teachers in high implementation schools were higher on 7 of 10 climate indicators as compared to schools with low levels of implementation. Based on their results, the authors suggested to school administrators and teachers that the implementation of more middle level practices should result in an improved school climate.

No comprehensive survey previously has been conducted in Nevada to determine the level of implementation of recommended middle level practices and whether these practices were perceived by teachers as being effective for meeting the needs of early adolescents. Information from such a study may be of value to the Nevada State Board of Education and school districts in Nevada as they consider the importance of continuing or implementing middle level practices in existing or new middle level schools.
Research Design

Phase One

This research study consisted of three phases. In the first phase, principals of middle level schools in Nevada were surveyed using the MSPI (Appendix A) regarding the level of implementation of middle level practices in their schools. Data compiled from the principals who completed and returned the MSPI were used to identify Nevada schools with the highest and lowest levels of implementation of middle level practices for use in the second phase of the study. The number of schools selected to participate in phase two was determined by listing each school from the highest percentage score to the lowest and selecting those in the upper and lower 33% or as close to this percentage as possible.

Phase Two

In the second phase, teachers in Nevada middle level schools with the highest and lowest levels of implementation of middle level practices were surveyed using the NASSP School Climate Survey (Appendix A). This survey was used to obtain information from teachers regarding their perceptions of the programs and practices in their schools. A causal-comparative study using data from the climate survey for the two groups of teachers was then conducted. The purpose of this comparison was to determine whether there were statistically significant differences in teachers' perceptions of school climate between schools that reported a higher level of implementation of middle level practices and schools that reported lower levels of implementation.

Research Participants

Schools

Following the methodology used by Thomas and Bass (1992), the
participants in the first phase of this research study were the principals of middle level schools in one state. Middle level schools are defined as those that house students in separate facilities in grades five through nine exclusively with any grade configuration (Clark & Clark, 1994). The concept of separate facilities was stipulated with the assumption that there would be a greater focus on middle level practices than in schools which house elementary or high school grades as well (Clark & Clark, 1994). In Nevada, 67 schools met this criteria and include grade configurations of 5-6, 5-8, 6-8, 7-8, and 7-9; however, one middle level Nevada school that meets this criteria was excluded because the researcher is the principal. Therefore, the total number of schools with the appropriate grade configurations used in the first phase of this study was 66.

**Principals**

Middle level school principals were selected to complete the MSPI to identify the level of implementation of middle level practices in these schools because they should be the most knowledgeable about their school's educational programs and practices. In addition, principals were used in the study by Thomas and Bass (1992), the study that was replicated.

Every effort was made to have the letter and survey information sent to the correct individual at each middle level school. The names and addresses of middle level principals in Nevada were obtained from the Directory of Licensed Personnel for Nevada Public Schools, (Nevada Department of Education, 1998); this directory is published annually by the Nevada State Department of Education. Names of principals at existing and new schools for the 1998-99 school year were obtained by contacting the Nevada State Department of Education. The department faxed the most current list (December, 1998) to the researcher, and the initial database of names was updated from this faxed list.
The list was updated once more for Clark County schools just prior to sending the MSPI to principals in February because several new principals were appointed and/or transferred in January 1999.

Teachers

Using data from principals who completed and returned the MSPI, middle level schools with high and low levels of implementation of middle level practices were identified. Teachers in schools identified as having the highest and lowest levels of implementation of middle level practices were asked to complete the NASSP School Climate Survey. The principal of each school was asked to have teachers complete the school climate surveys; therefore, teachers were not identified by name.

Confidentiality

The names of schools, principals of these schools, and teachers in schools selected for the second phase of the study were not used. Names of schools and principals were assigned a number, known only to the researcher, and kept confidential.

Research Context

The 66 middle level schools selected to be used in this study represented middle level schools in 14 of the following 17 county school districts in Nevada: Carson, Churchill, Clark, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Lyon, Mineral, Nye, Pershing, Storey, Washoe, and White Pine (Nevada Department of Education, 1998). Esmeralda, Eureka, and Mineral counties did not have separate middle level schools (Nevada Department of Education, 1998). The 1998 enrollment in these schools varied from a high of 2,033 in the Clark County School District to a low of 65 in the Lincoln County School District (Nevada Department of Education,
The total population in 1998 in these county districts ranged from 741,459 in Clark County to 1,344 in Esmeralda County (Nevada Department of Education, 1998). Grade level combinations of grades five through nine included 5-6, 5-8, 6-8, 7-8, and 7-9 (Nevada Department of Education, 1998).

Clark and Washoe County School Districts have county populations ranging from 250,000 to 750,000 and contain Nevada's largest cities, Las Vegas, Henderson, North Las Vegas, and Reno (Nevada Department of Education, 1998). As such, they are the only counties to have large urban and suburban schools as well as rural schools. The other 15 county school districts have total county populations ranging from under 3,000 to under 50,000 (Nevada Department of Education, 1998) and contain suburban schools in small towns and rural schools in farming, mining, and ranching areas. Clark County is the state's most densely populated county, and 33 of the 67 middle level schools in the state are located there. Of the 67 middle level schools in Nevada, 60 are officially labeled as middle schools, 4 are designated as junior high schools, and 3 are intermediate schools (Nevada State Department of Education, 1998).

In 1992, the Clark County Board of School Trustees voted to change the name of all middle level schools from junior high schools to middle schools, and new schools built after that decision were also to be designated as middle schools. The last three middle level schools to be built in 1998, however, bear the name junior high school even though they were reported as middle schools by the Nevada Department of Education (1999) in the official listing of Nevada Public Schools for the 1998-99 school year. This name change by the Board was not anticipated, and it suggests that some school administrators and board members may prefer junior high schools to middle schools.
In contrast, the second middle level school in Elko County opened in fall 1997 and was designated as a middle school after much discussion and debate by parents, teachers, administrators, and school board members; the only other middle level school in Elko is a junior high school. The different perspectives exhibited in these two county school districts underscore the importance of this study to identify the level of implementation of middle level practices in Nevada’s middle level schools and to determine whether there was a statistically significant difference in teachers’ perceptions of school climate between schools that had a higher level of implementation of middle level practices when compared to schools that had lower levels of implementation.

Survey Instruments

Middle School Practices Index (MSPI)

The MSPI was developed and used by Riegle (1971) to determine the level of implementation of middle level practices in middle level schools in Michigan. In 1992, Thomas and Bass used this survey to determine the level of implementation of middle level practices in middle level schools in Oklahoma. In its original form, the MSPI consisted of 62 questions intended to measure the level of 18 middle level practices that are recognized in literature as being effective responsive practices appropriate to meet the identified needs of young adolescents.

In this replication in Nevada, the researcher updated the MSPI (Riegle, 1971) to add questions designed to determine the level of use of technology and interdisciplinary team planning time and to clarify questions related to the number of minutes per day students in each grade level spend in an interdisciplinary team situation. Of the six questions added to the MSPI, one question was added to Multi-materials Approach, four questions were added to
Team Teaching, and one question was added to Creative Experiences. To ensure that the integrity of the survey remained intact, the additional questions and the modifications to existing questions were reviewed by members of the examination committee. Seeking input from professional educators mirrored the method used by Riegle (1971) to validate the original survey.

The 18 middle level practices identified by Riegle (1971) remain in the revised survey and are listed and defined in Chapter 2. These 18 middle level practices were identified as the result of an extensive literature review and subsequent revision by recognized experts in the field of middle level of education (Riegle, 1971).

The 68 questions on the survey are closed form arranged in three sections according to the type of response indicated by the questions. Each response was assigned a point value (Riegle, 1971), and the raw score for each of the 18 subsections was totaled for each of the 45 schools whose principal returned the survey. Because the schools had different grade configurations, the raw scores were converted to a percentage score based on the total number of points that could be earned by a school with a particular grade configuration.

**NASSP School Climate Survey**

The NASSP School Climate Survey was developed by the National Association of Secondary School Principals and copyrighted in 1987. This survey has been used in secondary schools nationwide that are interested in assessing and improving school climate. Copies of this survey were purchased from the National Association of Secondary School Principals in Reston, Virginia for use in this study.
In this study, the NASSP School Climate Survey was used to collect data about teachers' perceptions of topics identified in the following 10 climate variables: (a) Teacher-student Relationships, (b) Security and Maintenance, (c) Administration, (d) Student Academic Orientation, (e) Student Behavioral Values, (f) Guidance, (g) Student-peer Relationships, (h) Parent- and Community-school Relationships, (i) Instructional Management, and (j) Student Activities. The format used in this survey was a Likert scale in which a statement is usually followed by a five-category response continuum: strongly agree, agree, undecided, disagree, strongly disagree (Hopkins, Stanley, & Hopkins, 1990). In the NASSP survey, statements in each of the 10 climate subscales were followed by a six-category response continuum: 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree; 6 = Don't Know. Responses 1 through 5 had a point value equal to their number value; the point value for response number 6 equaled zero.

The survey instrument was developed from a comprehensive review of climate and effective schools literature and an examination of existing climate instruments; the format was the result of pilot tests and normative studies conducted nationally (Halderson, 1988). The school climate survey was scored by the researcher according to the specifications contained in the Examiner's Manual (Halderson).

Data Collection and Analysis

In February 1999, permission to conduct this research study was granted from the University of Nevada, Las Vegas' Office of Sponsored Programs, the Clark County School District Research Committee, and the dissertation committee. Members of the dissertation committee who approved the research
proposal were Dr. Rebecca Mills (chairperson), Dr. John Readence, Dr. Neal Strudler, and Dr. Alice Corkill (graduate faculty representative). Upon receiving permission from these entities, the MSPI was sent to middle level principals in Nevada as described previously.

A cover letter (Appendix B) requesting that principals complete the MSPI and a self-addressed, stamped envelope to facilitate return of the survey were included. To increase participation, four weeks later, a second letter (Appendix B) and another copy of the survey instrument were sent to principals who had not returned the MSPI. Two weeks later, phone calls were made to principals who still had not returned the surveys to remind them to complete and return the survey.

The MSPI was analyzed to determine the levels of implementation of middle level practices in Nevada's middle level schools. A list of schools with the highest to the lowest levels of implementation was compiled. The number of schools selected to participate in the second phase of the study were those in the upper and lower 33% or as close to this percentage as possible. The actual percentages were 33.3% for high implementation schools and 37.8% for low implementation schools. A t test was conducted to determine whether the schools in the upper and lower thirds were statistically significantly different in terms of the level of implementation of middle level practices, and the analysis is reported in Chapter 4.

Teachers in middle level schools with the highest and lowest levels of implementation of middle level practices were asked to complete the NASSP School Climate Survey. To facilitate this phase of the study, a cover letter (Appendix B) explaining the purpose of the survey and sufficient copies of the NASSP School Climate Survey for every teacher were sent to the principal of
each selected school. The principals were asked to have teachers complete the survey at a faculty meeting. During the faculty meeting, principals were asked to inform the teachers about the purpose of the survey and to give them instructions regarding the process for completing the survey as outlined in the cover letter. The principals were asked to return the completed surveys via U. S. mail to the researcher in the postage-paid envelope provided. Analyses of data are presented in Chapter 4.
CHAPTER 4

RESULTS

Data analysis presented for the MSPI includes (a) an examination of the survey response rate, (b) a statistical analysis of the overall level of implementation of middle level practices, and (c) a narrative description of the percentage of and manner in which each of the 18 recommended middle level practices have been implemented in Nevada’s middle level schools. Analysis from the NASSP School Climate Survey includes (a) response rate and (b) differences in the means and standard deviations of 10 climate variables between schools with high and low levels of implementation of middle level practices.

The Middle School Practices Index (MSPI)

The MSPI was sent to 66 principals of middle level schools in Nevada. Of these, 45 principals representing middle level schools in 14 of the 17 Nevada county school districts returned the survey. This represents a total response rate of 68.2%. While Borg, Gall, and Gall (1993) recommend that educational research involving surveys should have at least a 70% response rate, they explain that a lower response rate can be overcome if the researcher collects evidence that part of the sample that responded to the survey is representative of the population from which the total sample was taken. In this instance, the researcher received a 68.2% response rate from the total population of 66 principals, not just a representative sample of a population of
principals. Borg et al. (1993) further stated that survey response rates of less than 70% can be valid if the researcher determines whether or not respondents returned the surveys in a timely manner. In this study, principals of more schools returned the MSPI after the first mailing than after the second mailing by a margin of more than 3 to 1 as depicted in Table 2.

The overall level of implementation of middle level practices as reported by the total of 45 school principals who completed and returned the MSPI ranged from a high of 76.11% to a low of 35.10%. The mean for overall implementation was 59.37% with a standard deviation of 7.76. The total range of percentages of overall implementation of middle level practices for these 45 middle level schools is depicted in Figure 1. Means and standard deviations for the 45 middle level schools on each of the 18 middle level practice groupings from highest to lowest are reported in Table 3. In the next section, the manner in which each of the 18 middle level practices have been implemented overall in the 45 middle level schools in Nevada are described beginning with the practice with the highest level of implementation and progressing to the practice with the lowest level of implementation.

Descriptive Analysis of MSPI

Physical Experiences

Experts recommend that middle level schools provide all students with physical education classes based on a curriculum that reflects consideration of the developmental stages of young adolescents (Beane, 1993; Clark & Clark, 1994; George & Alexander, 1993; Scales, 1996). Of the 45 schools whose principals completed and returned the MSPI, 100% indicated that physical education instruction was provided to students, boys and girls, in each grade level. Differences in the level of
Table 2

Number of Middle Level Schools in Each Nevada County School District That Returned the MSPI After the 1st and 2nd Mailings

<table>
<thead>
<tr>
<th>County</th>
<th>No. of Middle Level Schools</th>
<th>No. of Surveys from 1st Mailing</th>
<th>No. of Surveys from 2nd Mailing</th>
<th>No. of Surveys per County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Churchill</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Clark</td>
<td>34</td>
<td>7</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Douglas</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Elko</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Esmeralda</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Eureka</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Humboldt</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Lander</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lincoln</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Lyon</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mineral</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nye</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pershing</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storey</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Washoe</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>White Pine</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>66</td>
<td>14</td>
<td>11</td>
<td>45</td>
</tr>
</tbody>
</table>

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Figure 1. Range of percentages from high to low of overall implementation of middle level practices in 45 middle level schools in Nevada.
Table 3

Means and Standard Deviations for MSPI Variables
for 45 Nevada's Middle Level Schools

<table>
<thead>
<tr>
<th>MSPI Variables</th>
<th>X (n=45)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical experiences</td>
<td>81.514</td>
<td>9.537</td>
</tr>
<tr>
<td>Guidance services</td>
<td>72.381</td>
<td>24.691</td>
</tr>
<tr>
<td>Social experiences</td>
<td>70.344</td>
<td>15.508</td>
</tr>
<tr>
<td>Student services</td>
<td>68.000</td>
<td>18.291</td>
</tr>
<tr>
<td>Multi-materials approach</td>
<td>67.294</td>
<td>16.666</td>
</tr>
<tr>
<td>Basic skill repair and extension</td>
<td>64.316</td>
<td>18.925</td>
</tr>
<tr>
<td>Intramural activities</td>
<td>61.012</td>
<td>20.377</td>
</tr>
<tr>
<td>Security factor</td>
<td>60.833</td>
<td>37.462</td>
</tr>
<tr>
<td>Auxiliary staffing</td>
<td>57.222</td>
<td>15.422</td>
</tr>
<tr>
<td>Team teaching</td>
<td>54.997</td>
<td>34.275</td>
</tr>
<tr>
<td>Creative experiences</td>
<td>53.981</td>
<td>17.063</td>
</tr>
<tr>
<td>Exploratory and enrichment studies</td>
<td>50.128</td>
<td>9.272</td>
</tr>
<tr>
<td>Community relations</td>
<td>49.861</td>
<td>12.102</td>
</tr>
<tr>
<td>Evaluation</td>
<td>47.639</td>
<td>25.882</td>
</tr>
<tr>
<td>Flexible schedules</td>
<td>37.778</td>
<td>24.785</td>
</tr>
<tr>
<td>Planned gradualism</td>
<td>37.776</td>
<td>36.653</td>
</tr>
<tr>
<td>Continuous Progress</td>
<td>29.060</td>
<td>30.997</td>
</tr>
<tr>
<td>Independent study</td>
<td>27.924</td>
<td>25.420</td>
</tr>
</tbody>
</table>
implementation of physical experiences for middle level students in Nevada resulted from the level of emphasis placed on competitive vs. developmental aspects.

With regard to the emphasis on competitive aspects of the physical education program for boys, 29% reported a high emphasis, 60% reported a medium emphasis, and 11% reported a low emphasis. For girls, 23% reported a high emphasis, 66% reported a medium emphasis, and 11% reported a low emphasis on competitive aspects. Overall, principals reported a slightly greater emphasis on the competitive aspects of the physical education program for boys than girls in the high category while the medium emphasis category was slightly higher for girls than boys.

Emphasis on the developmental aspects of the physical education program for boys was reported to be high by 76% of the schools and to be medium by 11%. For girls, 77% of the schools reported the emphasis on developmental characteristics as high and 23% as medium. None of the principals reported a low level of emphasis with regard to developmental characteristics of the physical education program for boys or girls.

Physical education programs in Nevada’s middle level schools were described as highly individualized in 4% of the schools, as moderately individualized in 24% of the schools, and as slightly individualized in 40.0% of the schools. PE programs were not individualized in 31% of the schools.

**Guidance Services**

According to experts, guidance programs in the middle level school must include attention to students' educational, personal, social, and career development (George & Alexander, 1993). Specifically, according to George and Alexander, guidance counselors should be concerned with the following:
(a) individual and group counseling; (b) classroom activities dealing with affective education and developmental guidance objectives; (c) parent and teacher consultations; (d) identification of students' individual differences, needs, and problems; and (e) working relationships of teachers, specialists, and administrators relative to students.

Of the 45 schools whose principals completed and returned the MSPI, 100% reported having the services of guidance counselors available to students. Differences in the level of implementation of guidance services in middle level schools in Nevada resulted from (a) the availability of guidance services to students, (b) whether or not the guidance staff worked closely with teachers concerning students, (c) whether guidance counselors were expected to help teachers develop guidance skills, and (d) how often guidance staff provided group guidance sessions to students.

With regard to the availability of guidance services to students, 85% indicated that guidance services were available to all students on a daily basis, 11% indicated that guidance services were available to students nearly every day, and 4% indicated that guidance services were only available to a limited number of students on a limited basis. Guidance staff members were reported by 51% of the schools to always work closely with teachers concerning students and by 47% of the schools to often work closely with teachers, while 2% reported that guidance staff seldom involved teachers in their work with students.

Guidance counselors were expected to help teachers to develop guidance skills in 85% of the schools as opposed to 13% in which guidance counselors were not expected to help them. In 2% of the schools, guidance counselors helped teachers when requested but without a specific expectation.
for them to do so. Regular group guidance sessions were provided several
times per year in 56% of the schools, on special occasions only in 40% of the
schools, and not at all in 4% of the schools.

Social Experiences

Social experiences in the middle level school should be appropriate
for the young adolescent and should not emulate the social experiences
offered in high school (George & Alexander, 1993; Riegle, 1971). Social
events like dances should be scheduled in the afternoon for informal
socialization for all students rather than encouraging students to attend in
couples as in high school (Clark & Clark, 1994). Clubs should be organized
based on student interest and/or be based on academic learning interests to
promote student participation (Clark & Clark, 1994).

In Nevada's middle level schools, clubs for students in grade five were
provided in 83% of the schools with students in grade five, 96% in schools
with students in grade six, 91% of the schools containing grade seven, 91%
of the schools with students in grade eight, and 100% of the schools with
students in grade nine. Overall, 2% of the 45 schools reported that between
75-100% of the student body participated in clubs, 31% reported that
participation encompassed 50-75% of the students, 33% rated participation by
students as between 25-50%, and 24% reported student participation as less
than 25%. A total of 9% of the schools reported that they did not have club
programs.

Schools indicated that clubs were sponsored either by staff members or
volunteers who were or were not paid to assume club sponsorships. Of those
with staff members who sponsor clubs, 2% of the schools indicated that staff
were not given additional pay while 16% indicated that staff members were paid
sponsors. With regard to volunteers, 13% of the schools indicated that
volunteers were not paid to sponsor clubs, and 60% were paid sponsors. A
total of 9% of the schools indicated that staff members did not work with
club activities, and this matched the percentage of schools that did not have
cub programs.

School dances were provided for students in each grade level, but not in
ey every school. In schools with fifth grade, only 17% of the schools offered
dances for these students. In schools with sixth grade, school dances were
provided in 92% of the schools. Every school (100%) with students in seventh,
eighth, and ninth grade sponsored school dances.

Social functions such as school dances were offered in the afternoon
or in the evening. In schools with students in fifth grade, 83% scheduled social
functions only in the afternoon, and 17% scheduled them only in the evening.
For schools with sixth grade students, social functions were scheduled in the
afternoon by 89% of the schools and by 11% of the schools in the evening.
For students in schools with grades 7-9, many schools scheduled both
afternoon and evening functions as evidenced by the percentages. In seventh
grade, 86% of the schools scheduled afternoon functions, and 34% scheduled
evening functions. In eighth grade, 86% scheduled afternoon functions, and
41% scheduled evening functions. In ninth grade, 50% of the schools
scheduled afternoon social functions, and 100% of the schools scheduled
evening functions.

Student Services

Middle level schools should provide a broad spectrum of specialized
services for students, utilizing community, county, and state agencies to
the greatest extent possible to ensure the healthy development of young
adolescent students (Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994). In Nevada’s middle level schools, a variety of services were available to students. Available services and the percentages of schools in which these services were available are listed in Table 4.

<table>
<thead>
<tr>
<th>Services Available</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance Counselor</td>
<td>98%</td>
</tr>
<tr>
<td>Speech Therapist</td>
<td>98%</td>
</tr>
<tr>
<td>School Nurse</td>
<td>96%</td>
</tr>
<tr>
<td>School Psychologist</td>
<td>96%</td>
</tr>
<tr>
<td>Special Education Programs</td>
<td>87%</td>
</tr>
<tr>
<td>Special Reading Teacher</td>
<td>56%</td>
</tr>
<tr>
<td>Learning Strategist</td>
<td>56%</td>
</tr>
<tr>
<td>Diagnostician</td>
<td>33%</td>
</tr>
<tr>
<td>Clinical Services for Emotionally Challenged</td>
<td>33%</td>
</tr>
<tr>
<td>Visiting Teacher</td>
<td>27%</td>
</tr>
</tbody>
</table>

**Multi-materials Approach**

Rather than basing teaching primarily on the textbook, experts recommend that middle level schools employ a multi-materials approach to teaching and learning and provide a wide range of instructional materials and equipment for students in the classroom and the school (Beane, 1986, 1991; Riegle, 1971; Urdan et al., 1995). Students should be taught skills necessary...
for learning on their own, including how to access and use available resources to facilitate learning (George & Alexander, 1993).

With regard to text-based instruction, 22% of Nevada’s middle level schools reported that the textbook served as the basis for classroom instruction. A multi-materials approach was used in a few courses by 44% of the schools, in most courses in 27% of the schools, and by 7% of the schools in all or nearly all of the courses taught.

To facilitate teachers’ use of a variety of instructional materials in the courses they teach, schools indicated that an array of equipment and instructional materials were available for classroom use. Items available in Nevada’s middle level schools that supplement textbook instruction and the percentages of schools that had each type of item housed in an instructional materials center and/or the library are depicted in Table 5.

With regard to library books, 57% of Nevada’s middle level schools reported collections of over 5,000 books, 13% reported between 4,000 and 5,000 books, 7% reported between 3,000 and 4,000 books, 9% reported between 2,000 and 3,000 books, 2% reported between 1,000 and 2,000 books, and 7% reported collections of fewer than 1,000 books. A total of 9% of the schools did not respond to this question. Nevada’s middle level schools reported having a number of other instructional print materials available to students, and these are depicted in Table 6.

Differences in the number of books and other print materials, supplemental instructional materials, and equipment available in Nevada’s middle school libraries and/or instructional materials centers was probably directly related to the size of the student population in the school. Nevada’s county school districts are allocated a certain amount of money per student
Table 5

Supplemental Instructional Materials and Equipment Available in Nevada's Middle Level Schools and Percentages of Schools That Provide Each Item

<table>
<thead>
<tr>
<th>Supplemental Instructional Materials</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Televisions</td>
<td>93%</td>
</tr>
<tr>
<td>Video Cassette Players/Recorders</td>
<td>93%</td>
</tr>
<tr>
<td>Audio Cassette Players/Recorders</td>
<td>91%</td>
</tr>
<tr>
<td>Subject-related Software</td>
<td>80%</td>
</tr>
<tr>
<td>Video Cassettes</td>
<td>80%</td>
</tr>
<tr>
<td>Access to Internet</td>
<td>78%</td>
</tr>
<tr>
<td>Laser Disk Players</td>
<td>78%</td>
</tr>
<tr>
<td>Compact Disks (CDs)</td>
<td>76%</td>
</tr>
<tr>
<td>Audio Cassettes</td>
<td>73%</td>
</tr>
<tr>
<td>Laser Disks</td>
<td>73%</td>
</tr>
<tr>
<td>Maps, Globes, &amp; Charts</td>
<td>73%</td>
</tr>
<tr>
<td>Photocopy Machines</td>
<td>71%</td>
</tr>
<tr>
<td>Display Cases or Areas</td>
<td>64%</td>
</tr>
<tr>
<td>Filmstrips</td>
<td>64%</td>
</tr>
<tr>
<td>Access to Nevada Libraries</td>
<td>53%</td>
</tr>
<tr>
<td>Films</td>
<td>42%</td>
</tr>
<tr>
<td>Phonograph Records</td>
<td>20%</td>
</tr>
<tr>
<td>Microfilms</td>
<td>18%</td>
</tr>
<tr>
<td>Collections (coins, insects, art, etc.)</td>
<td>16%</td>
</tr>
<tr>
<td>Ditto/mimeograph Machines</td>
<td>0%</td>
</tr>
</tbody>
</table>

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**Table 6**

**Types of Print Materials Available in Nevada’s Middle Level School Libraries and Percentages of Schools That Provide These Items**

<table>
<thead>
<tr>
<th>Print Materials in Library</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>General library books</td>
<td>98%</td>
</tr>
<tr>
<td>Below Grade-level Reading Materials</td>
<td>93%</td>
</tr>
<tr>
<td>Current Magazines</td>
<td>91%</td>
</tr>
<tr>
<td>Above Grade-level Reading Materials</td>
<td>91%</td>
</tr>
<tr>
<td>Card Catalog (Traditional or computer)</td>
<td>89%</td>
</tr>
<tr>
<td>Current Newspapers</td>
<td>87%</td>
</tr>
<tr>
<td>Files of Past Issues of Magazines</td>
<td>82%</td>
</tr>
<tr>
<td>Students’ Publications</td>
<td>53%</td>
</tr>
<tr>
<td>Files of Past Issues of Newspapers</td>
<td>47%</td>
</tr>
</tbody>
</table>

annually, and of this allocation, a certain percentage is required to be spent on library books, magazines and periodicals, audio-visual materials, and equipment.

Availability of materials does not always mean that teachers use a variety of supplemental materials. The number of teachers who reported using audio visual materials other than films or video cassettes frequently was 53%. Occasional use was indicated by 40%, and 7% reported that such items were rarely used.

To ensure that students and faculty can effectively access instructional materials and equipment housed in libraries and/or instructional materials centers in Nevada’s middle level schools, 89% of the schools reported that at
least one certified librarian was on staff; of these schools, 16% indicated that more than one certified librarian was on staff. However, 2% of the schools reported that they had a part-time librarian, and 9% reported that they did not have a certified librarian on staff.

Students had access to computers in their school library in 78% of Nevada's middle level schools. Computers were available in at least one computer lab on middle level campuses in 13% of the schools and in more than one computer lab in 71% of the schools. A total of 80% of the schools indicated that students had access to at least one computer in each classroom in their schools. While the number of classrooms with at least one computer was at 80% when this survey was conducted in February 1999, it has undoubtedly increased since. During the 1998-99 school year, school districts statewide were in the process of placing one computer in each existing classroom as a result of legislation passed in 1997 which provided funding for this technology (Senate Bill 482, 1997).

Basic Skill Repair and Extension

Extending basic educational programs from the elementary school to the middle school and providing students with special assistance in order to master basic educational skills are necessary components of middle level schools (Alexander & McEwin, 1989; George & Alexander, 1993). In Nevada, middle level schools reported that the amount of time provided in the classroom for instruction in basic learning skills remained constant in each grade level in 47% of the schools, decreased with each successive grade in 16% of the schools, and increased with each successive grade in 4% of the schools. Instruction in basic learning skills in 33% of the schools, however, was reported to vary greatly due to the individualized programs the teachers operated.
Special help for students with poor basic learning skills was available to all students who needed such help in 69% of the schools. In 22% of the schools, only students who were critically in need received special assistance. Only 2% reported that special assistance in basic skill repair and extension was not provided at all, and 7% responded that other types of assistance were available, but none were described. Areas in which students were provided special help for the remediation of basic skills and the percentages of schools in which such help was available are depicted in Table 7.

<table>
<thead>
<tr>
<th>Basic Skill Areas</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>93%</td>
</tr>
<tr>
<td>Math</td>
<td>89%</td>
</tr>
<tr>
<td>Grammar &amp; Writing</td>
<td>73%</td>
</tr>
<tr>
<td>Spelling</td>
<td>62%</td>
</tr>
<tr>
<td>Physical Education</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>27%</td>
</tr>
</tbody>
</table>

A basic skill that is taught in elementary school, included in effective middle level schools, and impacts every area of a student’s educational program is reading (George & Alexander, 1993). The percentages of middle level schools in Nevada and the grades in which reading instruction was offered are depicted in Table 8.
Table 8

Percentages of Middle Level Schools in Nevada and the Grades in Which Reading Instruction is Offered

<table>
<thead>
<tr>
<th>Grade Levels</th>
<th>All Students</th>
<th>Remedial Students</th>
<th>No Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>33%</td>
<td>50%</td>
<td>17%</td>
</tr>
<tr>
<td>6</td>
<td>76%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>7</td>
<td>66%</td>
<td>20%</td>
<td>11%</td>
</tr>
<tr>
<td>8</td>
<td>14%</td>
<td>61%</td>
<td>25%</td>
</tr>
<tr>
<td>9</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Intramural Activities

Scholars assert that middle level schools should feature intramural activities open to all students regardless of athletic ability rather than interscholastic activities that are highly competitive and involve only a limited number of students (Clark & Clark, 1994). In Nevada's middle level schools with grade five, 33% of the schools provided intramural activities for all students, and 67% provided none. In 89% of the schools with sixth grade, intramural activities were provided for all students, and 11% provided none. In schools with students in grades seven and eight, 93% provided intramural activities for all students, and 7% did not. In grade nine, only 50% of the schools responded to this question and indicated that intramural activities were provided for all students.

Intramural programs may include team games, individual sports, and club activities. In 91% of the schools in this study, intramural programs included
team games. Individual sports were included in the intramural programs in 62% of the schools. A variety of club activities were included in intramural programs in 49% of the schools.

Interscholastic competitive sports were offered in one sport by 49% of the schools, in two sports by 4% of the schools, and in several sports in 36% of the schools. A total of 11% of the schools did not offer an interscholastic sports program.

Intramural activities were given first priority over interscholastic sports activities in only 7% of the schools. In schools with both intramural and interscholastic activities programs, conflicts in scheduling use of school facilities for the two programs were resolved in favor of interscholastic sports activities in 51% of the schools. In other schools with both programs, 22% indicated that they had not experienced problems with scheduling that would result in one program being prioritized over the other. The remaining 20% did not experience a scheduling problem because they only had one of the programs in their schools, either an intramural activities or interscholastic sports program.

Security Factor

Middle level schools should provide students with a security group such as a daily homeroom advisor-advisee program where the teacher knows the students well and assumes the role of advisor (George & Alexander, 1993; George & Oldaker, 1989). In the operational design of Nevada's middle level schools, 27% of the schools indicated that the role of the teacher as a guidance person was very strongly emphasized, 47% of the schools reported that it was encouraged, 7% of the schools reported that it was mentioned but not encouraged, and in 20% of the schools, it was left strictly to the individual teacher's personal motivation.
As a general policy, in 53% of the schools, teachers were expected to provide guidance services for all of their pupils. No formal provisions were made for teachers to provide specified guidance services in 36% of the schools. In 9% of the schools, teachers were expected to provide guidance services only to a limited number of students. A total of 2% of the schools indicated a different policy, but none were cited.

Auxiliary Staffing

Students and teachers should be organized into small learning communities within the school, and these communities should include interdisciplinary teams of teachers and their students (Clark & Clark, 1994; George & Alexander, 1993). To facilitate the effectiveness of these teams, auxiliary personnel should ideally be included in these teams to enhance the teaching and learning process. A total of 87% of the middle level schools in Nevada reported using interdisciplinary team organization to some extent, and of these, 89% were comprised primarily of certified teachers. Auxiliary staff assigned to interdisciplinary teams included paraprofessionals (e.g., teacher's aides and instructional assistants) in 22% of the schools, student teachers in 24% of the schools, and clerical helpers in 4% of the schools.

A variety of auxiliary personnel were listed as helpers in Nevada's middle level schools. Paid paraprofessionals such as instructional assistants and teacher's aides were listed as helpers in 98% of the schools. Community volunteers assisted in 91% of the schools, and volunteers from the student body assisted in 56% of the schools. Student teachers, practicum students, and interns were present in 80% of the schools. High school students who were participating in "future teachers" programs were listed as helpers in 18% of the schools.
**Team Teaching**

Experts recommend that small learning communities within middle level schools be organized in part around interdisciplinary team teaching patterns that allow students the opportunity to interact with a variety of teachers in a wide range of subjects (Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994; George & Alexander, 1993; Plodzik & George, 1993). In Nevada's middle level schools, interdisciplinary team teaching programs were in operation for all students in 36% of the schools, for nearly all students in 25% of the schools, for about half of the students in 7% of the schools, and for only a few of the students in 20% of the schools. A total of 13% of Nevada's middle level schools reported that interdisciplinary team teaching patterns were not utilized for any students.

The amount of time spent in an interdisciplinary team situation varied by grade level throughout Nevada's middle level schools. The number of minutes per day spent in an interdisciplinary team teaching program by students at each grade level is summarized in Table 9.

The total number of teachers involved in interdisciplinary teaming ranged from none to over 90%. The total number of schools reporting that over 90% of the teachers were involved in interdisciplinary team teaching programs was 22%. Between 60% and 90% of teachers in 31% of the schools participated in interdisciplinary teaming, and between 30% and 60% participated in interdisciplinary teaming in 16% of the schools. A total of 18% of the schools reported that fewer than 30% of their teachers participated in interdisciplinary teaming, and 13% reported that none of their teachers participated in this program.
Table 9

Reported Number of Minutes Per Day Spent in an Interdisciplinary Teaching Program and the Percentages of Schools Per Grade Level

<table>
<thead>
<tr>
<th>Minutes/Day</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 or more</td>
<td>17%</td>
<td>43%</td>
<td>34%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>130-180</td>
<td>0%</td>
<td>16%</td>
<td>9%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>90-130</td>
<td>0%</td>
<td>5%</td>
<td>9%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>40-90</td>
<td>17%</td>
<td>5%</td>
<td>11%</td>
<td>14%</td>
<td>50%</td>
</tr>
<tr>
<td>Under 40</td>
<td>66%</td>
<td>19%</td>
<td>20%</td>
<td>32%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Of the schools that used interdisciplinary team teaching organization (87% of the participating schools), 58% reported that teachers had a daily team planning time. Others reported a common planning time for teachers in 5% of the schools, once a week in 8% of the schools, and no common planning time for 30%.

Creative Experiences

Opportunities should be provided for middle level students to express themselves through creative expression (Beane, 1986, 1991; Riegle, 1971; Urdan et al., 1995). This might include opportunities to participate in the production of the school newspaper or yearbook, dramatic and oratorical presentations, musical programs, and student-developed activities (Clark & Clark, 1994).

Drama presentations were a part of the activities program in 56% of the schools. In 49% of Nevada’s middle level schools, drama was included in some part of certain class activities planned by the teachers. A small
percentage, 7%, indicated that opportunities to view plays during the school year represented the extent of dramatic experiences in their schools. In 16% of the schools, however, drama was not a part of the school program.

With regard to the number of students who were able to participate in dramatic productions, 29% of the schools indicated that most students did not have the opportunity to experience creative dramatics during their years in the school, and 67% indicated that most students had at least one or two opportunities to use their acting skills while enrolled in the building. A total of 4% did not answer the question.

Of the dramatic programs produced in middle level schools, 33% represented plays produced from purchased scripts only, 4% represented materials written by students only, and 40% represented a combination of materials that were purchased and written by students. A total of 11% did not respond to this question, and another 11% indicated that dramatic productions were produced from sources other than those provided.

Oratorical activities, such as debate and public speaking, were included as a part of the instructional program in 16% of the schools and as a part of the enrichment program in 24% of the schools. A total of 56% of the schools indicated that oratorical activities were not included in school activities. In 4% of the schools, oratorical activities were included in a different way, but none were cited.

Official student school newspapers are published in 75% of the schools. Of these, 42% published five or more issues per year, and 33% published no more than four issues per year. School newspapers were not published by students at all in 25% of the schools. In 100% of the schools, students had the opportunity to work with school staff to publish a school yearbook annually.
Student talent shows were produced once a year on an all-school basis in 49% of the schools. In 6% of the schools, student talent shows were produced separately at each grade level, and in 4% of the schools, some of the acts from grade-level talent shows went on to perform in an all-school talent show. A total of 38% of the schools indicated that student talent shows were not part of their educational program. In 7% of the schools, talent shows were produced in a different manner, but none were cited.

**Exploratory & Enrichment Studies**

Elective and exploratory courses should be available to every student during the years in middle school (George & Alexander, 1993; Riegle, 1971). These programs provide young adolescents with the opportunity to achieve and demonstrate competence in a variety of areas such as fine and performing arts, technology, and academics (Clark & Clark, 1994). In Nevada’s middle level schools, students were allowed to select courses of interest from a range of elective offerings. Of the schools with grade five, 17% indicated that this option was available to students. Of the schools with grade six, 84% indicated that this option is available to students. In schools with students in grades seven, eight, and nine, 100% indicated that this option was available to students. A list of the electives offered most often to Nevada’s middle level students and the percentages of schools that offer each course are depicted in Table 10.

Students were required to take art for one year in 9% of the schools, for two years in 4% of the schools, and for three and four years in 2% of the schools. In 80% of the schools, art was not a required course.

Students were required to take music for one year in 7% of the schools, for two years in 9% of the schools, and for three years in 2% of the schools. Music was not required for four years in any middle level schools with four
<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band</td>
<td>98%</td>
</tr>
<tr>
<td>Art</td>
<td>93%</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>91%</td>
</tr>
<tr>
<td>Computers</td>
<td>87%</td>
</tr>
<tr>
<td>Vocal Music</td>
<td>82%</td>
</tr>
<tr>
<td>Journalism</td>
<td>64%</td>
</tr>
<tr>
<td>Keyboarding</td>
<td>62%</td>
</tr>
<tr>
<td>Orchestra</td>
<td>62%</td>
</tr>
<tr>
<td>Drama</td>
<td>60%</td>
</tr>
<tr>
<td>Drawing</td>
<td>53%</td>
</tr>
<tr>
<td>Family Living</td>
<td>44%</td>
</tr>
<tr>
<td>Speech</td>
<td>27%</td>
</tr>
<tr>
<td>Shop</td>
<td>22%</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>20%</td>
</tr>
<tr>
<td>Typing</td>
<td>13%</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>4%</td>
</tr>
</tbody>
</table>
grade levels. Music was not required at all in 80% of the middle level schools in Nevada.

**Community Relations**

Middle level schools should develop and maintain community programs that inform, entertain, and educate (Alexander & McEwin, 1898; Camegie Council on Adolescent Development, 1989; Clark & Clark, 1994; George & Alexander, 1993; Scales, 1996). Examples include but are not limited to the production of school newsletters, an active parent organization, informational programs, and opportunities for students to participate in community service.

Parent newsletters were produced and distributed on a regularly scheduled basis by 96% of the middle level schools in Nevada, while 4% indicated that they either did not send out a parents' newsletter or only send one out when the need arises. Other methods utilized to disseminate information included the commercial newspaper by 33% of the schools, district-wide newsletters by 7% of the schools, and special announcements and/or the radio by 2% of the schools.

Informational programs related to the school's functions were routinely included during annual open house programs by 94% of the schools. Regularly scheduled seminar-type presentations were planned for interested parents in 36% of the schools. Informational presentations were conducted by 44% of the schools once or twice a year at regularly scheduled parents' meetings. Eighteen percent of the schools reported that the staff only presented informational programs to parents when requested to do so.

With regard to parents' organizations, 16% of the schools reported having a very active parents' organization. Forty percent reported having a parents' organization that was relatively active, and 33% reported having a
parents' organization that was relatively inactive. A total of 11% of the schools reported that they did not have a parents' organization.

Community service projects by students were carried out occasionally for special purposes in 80% of the schools. Only 13% reported that community service projects were an important part of the planned experience for all students enrolled in the building. Community service projects were not a part of the educational program in 4% of the schools, and 2% did not respond to this question.

Evaluation

Evaluation of students’ work at the middle level should be personal, positive in nature, non-threatening, and individualized (Riegle, 1971). Assessment of students’ work should include an opportunity for students to discuss and evaluate their learning with their teachers and parents, and it should inform parents about what their child has learned and will learn in order to provide assistance and encouragement (Clark & Clark, 1994). Competitive letter grade report forms should be replaced with honest pupil-teacher-parent communications according to Riegle (1971).

Formal evaluation of students’ work in Nevada’s middle level schools was reported through the use of standard report cards with letter or number grades in 100% of the schools. Teacher comments were included on a written form by 57% of the schools. Parent-teacher conferences were utilized in 67% of the schools, and parent-teacher-student conferences were utilized in 44% of the schools. On a school-wide basis and for the purpose of reporting students’ academic performance, parent-teacher or parent-teacher-student conferences were not held at all in 38% of the schools, were held once per year by 16% of the schools, twice per year by 22% of the schools, three times
per year by 2% of the schools, and five or more times per year by 4% of the schools.

Students' academic performance was formally reported to parents two times per year by 2% of the schools, four times per year by 38% of the schools, and six times per year by 11% of the schools. A total of 49% of the schools indicated a number different than the choices listed, and these ranged from as few as three times per year to as many as 16 times per year.

**Flexible Schedule**

Scheduling instructional time in middle level schools is a process of prioritizing and time-budgeting based on educational needs, and it should be a collaborative process with maximum involvement by all staff and, if applicable, students (George & Alexander, 1993). Rather than standardized periods of time for different subjects, it is recommended that middle level schools provide a schedule that encourages the allocation of time based on educational needs as determined by teachers (Merenbloom, 1996; Riegle, 1971). Furthermore, in order to determine how much time is needed to achieve educational objectives, whether in a specific subject area or in support of an interdisciplinary thematic unit, teachers who are part of interdisciplinary teams need time to plan together each day (Carnegie Council on Adolescent Development, 1989; George & Alexander, 1993; George & Oldaker, 1985; George & Shewey, 1993).

In Nevada's middle level schools, however, 89% reported that a standardized time block was still utilized to organize the school day. A small percentage of schools, 9%, indicated that they employed a flexible time schedule that was not related to standardized class periods. Only 2% of the schools did not answer this question.

Despite the fact that the majority of schools (89%) indicated that the
school day was organized into standardized time periods, the number of schools that considered themselves to have a traditional schedule (i.e., the same number of standardized class periods every day based on subjects taught) was only 47%. A traditional schedule modified by a “block of time,” a “revolving period,” or other regularly occurring modifications was reported by 31% of the schools. The third largest percentage, 13% of the schools, reported that they employed a fixed schedule that allowed teachers the option of changing their schedule within designated general time limits. Another variation included a fixed schedule that was flexible to the extent that all periods were not identical in length, and this was reported by 2% of the schools. Extended blocks of time as the standard time period used to organize the school day was reported by 2% of the schools. Five percent of the schools reported that they employed a schedule that was flexible to the degree that students and teachers controlled the daily time usage and changed it regularly to meet their needs. The basic time blocks used and the percentages of schools that employed a particular standardized time for each class period are depicted in Table 11.

In order to change the daily master schedule when the need arises, teachers in 51% of the schools had to seek administrative approval. In 45% of the schools, teachers could make changes in the daily master schedule without administrative approval. In 27% of the schools, teachers were able to make changes in the class schedule because they had the opportunity to plan with other teachers on a daily basis, and 18% reported that teachers could make changes because they had the opportunity to plan with other teachers on a weekly basis. In 29% of the schools, changes in the master schedule had to be requested a semester in advance (9%) or a year in advance (20%).
Table 11

Standardized Blocks of Time Used to Organize Class Periods
and the Percentages of Schools That Used Each One

<table>
<thead>
<tr>
<th>Standardized Time in Minutes</th>
<th>Percentages of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>40%</td>
</tr>
<tr>
<td>48</td>
<td>2%</td>
</tr>
<tr>
<td>50</td>
<td>7%</td>
</tr>
<tr>
<td>52</td>
<td>2%</td>
</tr>
<tr>
<td>54</td>
<td>2%</td>
</tr>
<tr>
<td>60</td>
<td>31%</td>
</tr>
<tr>
<td>75</td>
<td>2%</td>
</tr>
<tr>
<td>80</td>
<td>2%</td>
</tr>
</tbody>
</table>

Planned Gradualism

Middle level schools should help students bridge the gap between elementary and high school by providing them with experiences that assist them in making the transition from childhood dependence to adult independence (Elkind, 1989; George & Alexander, 1993). For example, forcing students to move from the self-contained elementary classroom to a departmentalized organization with different teachers and students in each class can be traumatic (George & Alexander, 1993). To support students with this important transition, some middle level schools may start students in a self-contained program and move to a departmentalized program before they leave for high school, and others include an interdisciplinary team organization.
None of the 45 participating Nevada schools indicated that a self-contained program was utilized for the entire grade span, nor did any of them report that students moved from a largely self-contained program to a partially departmentalized organization. A totally departmentalized program was reported by 27% of the schools. A modified departmentalized program using block time, core programs, or a different organizational plan was reported by 47% of the schools. The smallest percentage of schools, 22%, reported moving from a largely self-contained program to an entirely departmentalized organization.

**Continuous Progress**

Researchers recommend that middle level schools be organized in a manner that allows students to progress at their own individual rate rather than being grouped by grade level based on chronological age (George & Alexander, 1993; Carnegie Council on Adolescent Development, 1989; Riegle, 1971). Overall, this practice had the second lowest percentage of implementation of the 18 middle level practices. This practice was employed for all students for their entire program in 7% of the schools, and 11% of the schools indicated that it was employed for only some of the students for all of their years at the school. In 31% of the schools, respondents indicated that this practice was used with special groups of students only, and in 42% of the schools, the practice of organizing middle level schools in a non-graded fashion was not employed. The percentage of schools that did not answer this question was 9%.

With regard to the number of years a continuous progress program was planned for students, 24% of the schools reported that it was employed for one year, 9% reported two years, 20% reported three years, and 2% reported more
than three years. The percentage of schools that did not answer this question was 44%.

Independent Study

Middle level students should have the opportunity to participate in independent study activities that allow them the opportunity to explore the world around them and their place in it (Clark & Clark, 1994). Independent study should be a part of the regular program, and it should emphasize research that stretches students creatively and/or academically (George & Alexander, 1993). However, in Nevada's middle level schools, this middle level practice exhibited the lowest overall level of implementation. Of the schools surveyed, 40% indicated that independent study was not an option for their students either during regular class time or during a special time set aside during the school day for such projects. During regular class time, independent study opportunities were available to all students in 24% of the schools and for only some students in 31% of the schools. Only 18% reported that time was scheduled during the day for independent study projects for all students, and 16% indicated that this special time was available only for some students.

The amount of time allocated per day for independent study projects varied from a low of 5 minutes per day to a high of 60 minutes per day. This great discrepancy in time may indicate that some of the principals who completed this survey did not understand the implications of independent study and may have interpreted it to mean the amount of time that students have per class period to work independently of their teacher.

Topics of independent study were assigned to students by their teacher in 53% of the schools, citing such projects as the science fair. In some schools, 31%, students could pursue a topic of personal interest if it were approved by
their teacher. None of the schools indicated that students were given the opportunity to independently study topics of interest to them that were unrelated to classroom work and the curricula.

**Statistical Analysis of MSPI**

High and low implementation groups of middle level schools were identified from the total of 45 whose principals returned the MSPI. This was accomplished by listing each school from the highest percentage score to the lowest and selecting those in the upper and lower 33 percent or as close to this percentage as possible. The actual percentages were 33.3 percent for high implementation schools and 37.8 percent for low implementation schools. A t-test was conducted to determine if the schools in the upper and lower thirds were statistically significantly different in terms of the level of implementation of middle level practices. The results indicated that the high and low groups were statistically significantly different (t (30) = -9.44, p < .001). The mean for the high group (n = 15) was 67.42 with a standard deviation of 3.72, and the mean for the low group (n = 17) was 51.73 with a standard deviation of 5.59.

A multivariate t-test was conducted on the 18 middle level practices by high and low implementation schools. The results indicated a statistically significant difference between high and low implementation groups (Hotelling's $T^2 = 26.94; F = 11.97, F (18,8), p < .001$).

Univariate follow-up F-tests for the MSPI by high and low implementation schools show statistically significant differences between the high and low implementation schools in 10 of the 18 middle level practice variables: (a) Continuous Progress, (b) Multi-materials Approach, (c) Flexible Schedules, (d) Physical Experiences, (e) Team Teaching, (f) Guidance Services,
(g) Independent Study, (h) Basic Skill Repair and Extension, (i) Security Factor, and (j) Community Relations. The F and statistical significance of F for the high and low implementation schools on the MSPI are depicted in Table 12.

Table 12

<table>
<thead>
<tr>
<th>MSPI Variables</th>
<th>F-ratio</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous progress</td>
<td>9.71</td>
<td>.005</td>
</tr>
<tr>
<td>Multi-materials approach</td>
<td>5.46</td>
<td>.028</td>
</tr>
<tr>
<td>Flexible schedules</td>
<td>6.32</td>
<td>.019</td>
</tr>
<tr>
<td>Social experiences</td>
<td>1.42</td>
<td>.245</td>
</tr>
<tr>
<td>Physical experiences</td>
<td>6.77</td>
<td>.015</td>
</tr>
<tr>
<td>Intramural activities</td>
<td>0.02</td>
<td>.896</td>
</tr>
<tr>
<td>Team teaching</td>
<td>9.68</td>
<td>.005</td>
</tr>
<tr>
<td>Planned gradualism</td>
<td>0.75</td>
<td>.394</td>
</tr>
<tr>
<td>Exploratory and enrichment studies</td>
<td>3.93</td>
<td>.058</td>
</tr>
<tr>
<td>Guidance services</td>
<td>6.98</td>
<td>.014</td>
</tr>
<tr>
<td>Independent study</td>
<td>7.74</td>
<td>.010</td>
</tr>
<tr>
<td>Basic skill repair and extension</td>
<td>4.73</td>
<td>.039</td>
</tr>
<tr>
<td>Creative experiences</td>
<td>2.17</td>
<td>.153</td>
</tr>
<tr>
<td>Security factor</td>
<td>7.24</td>
<td>.013</td>
</tr>
<tr>
<td>Evaluation</td>
<td>0.46</td>
<td>.506</td>
</tr>
<tr>
<td>Community relations</td>
<td>7.01</td>
<td>.011</td>
</tr>
<tr>
<td>Student services</td>
<td>0.36</td>
<td>.555</td>
</tr>
<tr>
<td>Auxiliary staffing</td>
<td>2.53</td>
<td>.124</td>
</tr>
</tbody>
</table>
NASSP School Climate Survey

As previously discussed, a total of 32 schools were selected to participate in the second phase of the study, 15 in the high implementation group and 17 in the low implementation group. Teachers in these 32 schools were asked to complete the NASSP School Climate Survey, which consisted of questions on ten climate variables. Of the 32 schools included in this phase of the study, school climate surveys were returned by teachers from 15 schools in the high implementation group and 12 schools in the low implementation group. This represents 100.00% of the schools in the high implementation group and 70.51% of the schools in the low implementation group.

In the study by Thomas and Bass (1992), the schools with high levels of implementation of middle level practices scored higher on the following 7 climate variables: (a) Teacher-Student Relationships, (b) Administration, (c) Student Academic Orientation, (d) Guidance, (e) Parent- and Community-School Relationships, (f) Instructional Management, and (g) Student Activities. In the case of 2 of these 7 climate variables, (a) Teacher-Student Relationships and (b) Parent- and Community-School Relationships, the difference between the high and low implementation schools was statistically significant at .05. In 3 of the 10 climate variables, (a) Security and Maintenance, (b) Student Behavior Values, and (c) Student-Peer Relationships, the low implementation schools scored higher than the high implementation schools.

In this study, all of the high implementation schools scored higher on the 10 climate variables than the low implementation schools. Means and standard deviations for low and high implementation groups on the 10 climate variables are reported in Table 13. The 10 climate variables are listed in descending rank order to depict the fact that teachers from the high and low implementation
Table 13

Comparison of Teachers' Perceptions of School Climate for Schools with High and Low Levels of Implementation of Middle Level Practices

<table>
<thead>
<tr>
<th>Climate Variables</th>
<th>Low (n=12)</th>
<th>High (n=15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Student Activities</td>
<td>4.13</td>
<td>.187</td>
</tr>
<tr>
<td>Teacher-Student Relationships</td>
<td>4.11</td>
<td>.190</td>
</tr>
<tr>
<td>Guidance</td>
<td>4.02</td>
<td>.216</td>
</tr>
<tr>
<td>Administration</td>
<td>3.92</td>
<td>.459</td>
</tr>
<tr>
<td>Security and Maintenance</td>
<td>3.83</td>
<td>.595</td>
</tr>
<tr>
<td>Instructional Management</td>
<td>3.73</td>
<td>.267</td>
</tr>
<tr>
<td>Student-Peer Relationships</td>
<td>3.42</td>
<td>.224</td>
</tr>
<tr>
<td>Student Academic Orientation</td>
<td>3.34</td>
<td>.250</td>
</tr>
<tr>
<td>Parent- and Community-</td>
<td>3.13</td>
<td>.489</td>
</tr>
<tr>
<td>School Relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Behavioral Values</td>
<td>2.66</td>
<td>.333</td>
</tr>
</tbody>
</table>

Schools perceived the 10 climate variables in the same rank order despite the fact that the high implementation schools scored higher on the 10 climate variables than the low implementation schools. Unlike the study by Thomas and Bass (1992), however, the differences were not significant. A multivariate t-test conducted on the ten climate variables indicated no significant difference between high and low implementation groups (Hotelling's $I^2 = .39, F_{(10,16)} < 1$).
Conclusions regarding the levels of implementation of the 18 recommended middle level practices and the lack of statistically significant differences in school climate as perceived by teachers in schools with high and low levels of implementation of middle level practices are addressed in Chapter 5. Implications for further research in these areas in Nevada's middle level schools are discussed in Chapter 5 as well.
CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to determine (a) to what extent recommended middle level practices have been implemented in Nevada's middle level schools and (b) whether statistically significant differences in teachers' perceptions of school climate existed between schools that reported higher levels of implementation of middle level practices when compared to schools that reported lower levels of implementation. The MSPI revealed that levels of implementation of recommended middle level practices in Nevada's middle level schools ranged from a high of 76.11% to a low of 35.10%. Analysis of the NASSP School Climate Survey indicated that teachers' perceptions of school climate were higher on each of 10 climate variables for high implementation schools than for low implementation schools but not statistically significantly higher for any of these. Levels of implementation of middle level practices and teachers' perceptions of school climate will be examined and interpreted in this chapter.

Middle Level Practices

The median overall implementation score on the MSPI was 55%. The nine middle level practices that exhibited the highest levels of implementation in Nevada's middle level schools were above the median. These were (a) Physical Experiences (82%), (b) Guidance Services (72%), (c) Social Experiences (70%), (d) Student Services (68%), (e) Multi-materials Approach
(67%), (f) Basic Skill Repair and Extension (64%), (g) Intramural Activities 61%, (h) Security Factor (61%), and (i) Auxiliary Staffing (57%). The nine middle level practices at or below the median were (a) Team Teaching (55%), (b) Creative Experiences (54%), (c) Exploratory and Enrichment Studies (50%), (d) Community Relations (49%), (e) Evaluation (48%), (f) Planned Gradualism (38%), (g) Flexible Schedules (38%), (h) Continuous Progress (29%), and (i) Independent Study (28%). When examined in this manner, it appeared that those above the median were middle level practices that county school districts had chosen to fund with annual per pupil budget allocations from the state legislature or from funds mandated by state or federal entities, and those at or below the median were not. In the following discussion of each practice, I provide background pertinent to Nevada, speculate as to the impact of the current level of commitment, and suggest ways to enhance the level of commitment.

**Physical Experiences**

Every middle level school that participated in this study indicated that physical education programs were provided to students. It is important to note, however, that the state curriculum requires that physical education programs be provided for students in grades 5 through 9. Therefore, it is possible that every participating school scored high in this area because they must provide physical education classes for students in grades 5 through 9. Differences in scores between schools may have resulted from the level of commitment of personnel to provide students with learning activities that facilitate their physical development rather than programs that focus on competitive activities which pit students who are more physically adept at this age against those who have not completed the growth process nor reached their physical potential. If all of the
participating schools had indicated a stronger emphasis on developmental aspects of their physical education programs rather than emphasizing competitive aspects, it might indicate a higher level of commitment to programs that meet students' needs at this stage of development.

Recommended practices include (a) providing daily physical education instruction because of the increased energy levels of young adolescents and (b) providing students with health and sex education classes to ensure that students are aware of the physical changes they will be experiencing and to assure them that their peers will be experiencing the same changes at different times throughout their middle school years (Beane, 1993; Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994; Elkind, 1974; George & Alexander, 1993; Scales, 1996).

**Guidance Services**

As with physical education programs, every middle level school that participated in the study indicated that the services of guidance counselors were available to students. The availability of these services in Nevada's middle level schools originates from funds designated for this purpose by each county school district as the state does not stipulate that funds allocated to each district must be used to provide counseling services in each middle level school according to L. Smith, Budget Analyst, Nevada Department of Education (personal communication, March 9, 2000). The fact that each county school district has made guidance counselors available to students may indicate a strong commitment on their part to support counseling programs. The presence of guidance counselors in the schools does not, however, ensure that programs designed to meet the needs of young adolescents will be implemented.

In the literature, middle level advocates recommend that counselors be
concerned with providing (a) individual and group counseling; (b) classroom activities that address affective education and developmental guidance objectives; (c) parent and teacher consultations; (d) identification of students’ individual differences, needs, and problems; and (e) positive working relationships with teachers, specialists, and administrators relative to students (George & Alexander, 1993).

In the Nevada schools that participated in this study, however, (a) guidance services were not available to all students every day, (b) group guidance sessions were not included in every program, and (c) guidance counselors did not work closely with teachers in all schools nor were they directed to do so. These results indicated that some change on the part of school personnel may be necessary if guidance counselors are to have the opportunity to provide the level and type of services recommended to ensure that (a) students understand the developmental stages they are experiencing and acquire skills to assist them in reaching their full potential academically and socially; (b) parents comprehend the needs of their children during early adolescence and provide effective support to them; and (c) teachers know how they can assist students, within the context of the curriculum, with understanding the world around them, their place in it, and that their peers in the classroom, school, community, and world are experiencing similar feelings, hopes, fears, and dreams (Beane, 1986, 1991; Urdan et al., 1995).

Social Experiences

Social experiences in the middle level school should (a) be appropriate for young adolescents, (b) not emulate high school social activities, and (c) be scheduled in the afternoon to promote informal socialization (Clark & Clark, 1994; George & Alexander, 1993; Riegle, 1971). In Nevada, participating
schools indicated that social activities most often were dances, many of which were scheduled in the evening as well as the afternoon. While a large percentage of schools, from a low of 83% in schools with grade 5 to a high of 100% in schools with grade 9, indicated that students had opportunities to participate in clubs, only 2% of the schools indicated that over 75% of the student population participated in club activities. In the literature, it is recommended that every student be involved in activities that (a) promote affective growth, (b) provide creative outlets, and (c) augment classroom instruction, and a perfect opportunity for this might be through participation in club activities where students would have the opportunity to form friendships as they perform activity-based tasks (Clark & Clark, 1994; George & Alexander, 1993). If school personnel were willing, club experiences could be made available to every student, and every teacher could be a club sponsor if these activities were included in the school day. For example, club activities could be scheduled as part of a homeroom program or an activity/club period scheduled once a week with every teacher sponsoring a club or activity during the designated time period. School personnel could even include students in the development of the kinds of activities and clubs offered, and a schedule might be devised that would provide them with the opportunity to participate in more than one program during the course of the school year.

Student Services

A broad spectrum of services such as access to special education programs, a school psychologist, and a speech therapist were available to students in Nevada's middle level schools most likely because they have been mandated by federal and state laws and/or supported by federal programs available to schools with students who meet the requirements for services. For
example, Title I programs provide special services to enhance students' math and reading abilities.

The lowest scores in this middle level practice in Nevada's middle level schools were related to the lack of clinical services in schools to ensure the healthy development of young adolescent students. It is possible that clinical services could be enhanced if school personnel reached out to the community and formed partnerships with agencies to provide social services on campus rather than parents having to seek these services outside the school setting for their children (Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994).

Multi-materials Approach

The literature recommends that middle level schools provide students with easy access to a variety of instructional materials and equipment in addition to a textbook (Beane, 1986, 1991; Urdan et al., 1995) to enhance their ability to learn on their own by accessing a variety of resources (George & Alexander, 1993). Each Nevada middle level school spends a minimum percentage of their annual general fund budget allocations on textbooks, instructional materials other than textbooks, library books, audio-visual materials, and equipment; the amount is determined by each school district from per pupil allocations appropriated by the state legislature according to L. Smith, Budget Analyst, Nevada Department of Education (personal communication, March 9, 2000).

In 1997, during the 69th session of the Nevada legislature, Senate Bill 482 (1997) was passed according to D. Lawrence, Educational Computing Specialist, Clark County School District (personal communication, March 9, 2000). Funds provided by this bill stipulated that one multi-media computer
was to be placed in every classroom in the state in an effort to ensure that all students would have access to a computer. This computer-placement program, including supporting software, was to be completed by spring of 1999. Undoubtedly, this would have resulted in an even higher score with regard to the level of implementation of this middle level practice if all schools had received these computers by the time this survey was conducted in February 1999; however, they had not.

Placement of these computers in classrooms throughout the state decreased Nevada's students to computer ratios. In September 1999, Nevada's students-to-instructional computer ratio was 7.3:1; the students-to-instructional multi-media computer ratio was 12.2:1; and the students-to-internet-connected computer ratio was 15.7:1 (Jerald & Orlafsky, 1999). However, these ratios were higher than the national averages of 5.7:1, 9.8:1, and 13.6:1, respectively. According to D. Lawrence, during the 70th legislative session in 1999, the legislature passed Senate Bill 555 (1999) which provided funds for multi-media computers to be placed in new classrooms which had not received computers under Senate Bill 482 (1997).

While funds from two consecutive legislative sessions resulted in students-to-computer ratios that were closer to the national average in each category, special funding would have to continue to be provided to school districts if each new classroom in Nevada were to continue to have at least one computer available for students' use as the number of classrooms is increasing annually due to Nevada's rapidly growing population. Aside from the special funding provided for computers during the past two legislative sessions, if districts did not stipulate a minimum amount that schools must spend on a variety of instructional materials and equipment, middle level schools in Nevada
might not have such large collections of materials and equipment available to
students and teachers in addition to textbooks.

**Basic Skill Repair and Extension**

Special assistance for students with poor basic learning skills was
available to all students who needed special assistance in 69% of the schools.
In 31% of the schools, it was only available to students who were critically in
need of special assistance. Extending basic educational programs from the
elementary school to the middle school and providing students with special
assistance in order to master basic educational skills are considered to be
necessary components of middle level schools (Alexander & McEwin, 1989;
George & Alexander, 1993).

Reading is an example of a basic skill that is taught in elementary school
and should be included in an effective middle school because it impacts every
area of a student's educational program (Duffy, 1990; George & Alexander,
1993). None of the schools in Nevada, however, provided reading instruction to
all students in each grade level. In Nevada, reading instruction for all students
ranged from a low of 0% for students in ninth grade to a high of 76% in sixth
grade. Percentages of schools that provided remedial reading instruction
ranged from a low of 16% for students in grade six to a high of 100% for
students in grade nine.

Another basic skill area that should be addressed in the middle school is
language arts, including the continued development of both written and oral
communications skills (George & Alexander, 1993). Oral communications
should address the development of speaking, listening, and questioning skills,
and written communication skills should include handwriting, keyboarding,
spelling, grammar, and punctuation with an emphasis on synthesis and
application of skills through the combined process of reading and writing (George & Alexander). According to these authors, however, not enough emphasis has been given to specific instruction in conversational and formal speech. Indeed, in Nevada's middle level schools, speech classes were only offered as electives in 20% of the schools, which seems to support the authors' contention that not enough emphasis has been placed on the development of oral communications skills at the middle level. Computer and keyboarding classes for the enhancement of writing and telecommunications skills, however, were offered in 87% and 62% of Nevada's middle level schools, respectively. These percentages seem to support the authors' recommendation for the inclusion of these skills at the middle level, although the frequency of both could be increased in Nevada to ensure that all students will be adequately prepared to effectively use the computer as a communications tool if they are to be successful in the future workplace (Carnegie Council on Adolescent Development, 1989). Opportunities should be included in curricular offerings for students to apply newly-acquired keyboarding and word processing skills in the writing process and in creative expression through such courses as creative writing and journalism (Clark & Clark, 1994; George & Alexander, 1993). While these courses were offered as electives in Nevada's middle level schools, their frequency varied from a low of 20% for creative writing to a high of 64% for journalism.

In addition to reading and language arts literacy, middle level students should have a sufficient understanding of basic mathematics terms and processes to be literate in their use (George & Alexander, 1993). According to these authors, math literacy should include the ability of students to use and interpret quantitative data in graphs, figures, and tables and to solve
commonplace mathematical problems that they will encounter on a daily basis in the real world such as determining percentages, square footage, or the cost of a sale item. In 1989, the National Council of Teachers of Mathematics recommended that the middle school mathematics curriculum move beyond a repetition of the basic algorithms taught in elementary school to an integrated curriculum that focused on (a) mathematical problem solving, communication, reasoning, and connections; (b) number relationships, systems, and theory; (c) computation and estimation; (d) patterns and functions; (e) algebra; (f) statistics; (g) probability; (h) geometry; and (i) measurement. This integrated approach is important to middle level students' future success because as adults who are responsible citizens they will need to be able to interpret quantitative data and solve problems that will be require math literacy (Camegie Council on Adolescent Development, 1989; George & Alexander, 1989). It is important, therefore, that middle level schools provide basic skill repair and extension in the area of mathematics to ensure that students fully understand basic math skills necessary to make the transition from learning basic algorithms to solving real-world problems that include the use of basic algebra and geometry concepts. In Nevada, however, only 89% of the schools indicated that students who had not mastered basic math skills were provided special help to reach the level of math literacy that the literature recommends as necessary before students can make the transition to problem solving (Camegie Council on Adolescent Development, 1989; George & Alexander, 1993; National Council of Teachers of Mathematics, 1989).

While it is important for middle level students to reach a certain level of mastery with regard to basic skills in reading, language arts, and math, teachers in middle level schools should provide students with opportunities to apply their
knowledge to real-world situations through collaborative problem-solving activities that foster peer acceptance (Beane, 1986, 1993; Urdan et al., 1995). Lessons should be structured to ensure that students recognize the connection between disciplines (Beane, 1991, 1993) and are actively involved in the learning process through authentic learning tasks and real assessments exemplified by the use of portfolios, hands-on activities, and collaborative projects (Beane, 1993; Clark & Clark, 1994; Elkind, 1989; Urdan et al., 1995).

**Intramural Activities**

In 10 of the 14 school districts in Nevada with middle level schools that participated in this study, the district provided funds for intramural activities, and in 12 of the 14, the district provided funding for interscholastic sports (see Appendix D, Table 15 for a list of district personnel who provided the researcher with this information through personal communication on March 9, 2000). In every district that provided funds for both programs, a greater amount was provided for the interscholastic sports programs. It seems likely, therefore, that the discrepancy in the amount of money provided for intramural activities in contrast to the amount provided for interscholastic competitive sports may account for the fact that 89% of the middle level schools in this study sponsored an interscholastic sports program while only 71% provided students in each grade level with the opportunity to participate in intramural activities.

School personnel can determine how many extra-curricular intramural activities will be offered, and each activity can be offered to accommodate all students who are interested. In contrast, the type of sport and the number of students who can participate in an interscholastic athletic activity are limited because each school can only sponsor one team in each sport at each level. Middle level experts recommend that middle level schools provide intramural
activities for all students regardless of ability levels rather than interscholastic competitive sports (Clark & Clark, 1994). To provide an effective intramural activity program that involves all students, school personnel could decide to include intramural activities into a daily homeroom program or a weekly activity period during which time all personnel and students would participate in intramural activities (George & Alexander, 1993).

Security Factor

Middle level schools are encouraged to provide students with a security group such as a daily homeroom advisor-advisee program where each teacher knows their students well and assumes the role of an advisor (Clark & Clark, 1994; George & Alexander, 1993; George & Oldaker, 1989). In Nevada’s middle level schools, only 27% of the schools indicated that the role of the teacher as an advisor was very strongly emphasized, 47% encouraged teachers to assume this role, 7% indicated that it was mentioned but not emphasized, and 20% left it strictly up to each teacher’s personal motivation.

Homeroom advisor-advisee programs provide a time during each school day in which students can (a) identify and understand the changes that are occurring to them and their peers, (b) voice and discuss their feelings and concerns, and (c) realize that they are not the only ones experiencing the sometimes difficult period of early adolescence (Alexander, 1988; Beane, 1986; Bergmann, 1991; Elkind, 1974; Plodzik & George, 1989; Scales, 1996). Personnel in any of Nevada’s middle level schools could be trained to effectively assume the role of teacher advisor and organize the school day to include a homeroom advisor-advisee program if they wished to provide this type of program. Guidance counselors are readily available on each campus to provide necessary training and support to teachers.
Auxiliary Staffing

Auxiliary staffing is provided in schools through funding allocations based on student enrollment in each middle level school with allowances for increased staffing for smaller and/or rural schools. Per the MSPI, only a small percentage of Nevada's middle level schools indicated that clerical helpers (4%) and paraprofessionals (22%) were assigned to interdisciplinary teams to directly assist and support teachers and students. Additional individuals to support instruction in middle level schools could be obtained through volunteers if school personnel actively solicited the development of parents' organizations and community partnerships, but only 16% of the schools reported having active parents' organizations.

The role of parents in the middle school is important to the development of the sense of community for interdisciplinary teams in the middle school (George & Alexander, 1993). Fostering a sense of community within an interdisciplinary team enhances middle level students' ability to socially bond with their school, teachers, and peers (Arhar, 1989). Schools report an overall increase in parent interest in and support of the school when teachers on interdisciplinary teams make special efforts to involve parents as volunteers in the classroom, as chaperones for field trips and team activities, and especially, as participants in team-sponsored socials such as family potluck dinners and family education programs like "Family Math Night" (George & Alexander, 1993).

Community involvement in the school can provide an avenue for middle level students to participate in service projects and mentoring programs in active learning environments (Clark & Clark, 1994). Activities of this nature, possible only with community support in the form of business partnerships and
a cadre of volunteers and mentors, could assist students in making connections between school and the real world, and it allows students the opportunity to assume responsible roles in the community through their school (Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994).

**Team Teaching**

Organizing teachers into interdisciplinary teaching teams is one of four middle level practices perceived as being most effective in a study of 160 middle schools in 34 states by George and Oldaker (1985). Experts recommend that small learning communities within middle level schools be organized in part around interdisciplinary team teaching patterns that allow students the opportunity to interact with a variety of teachers in a wide range of subjects (Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994; George & Alexander, 1993; Plodzik & George, 1993). Organizing students and teachers into interdisciplinary teams provides students with group identity and fosters the development of relationships with adults and peers at school (George & Alexander, 1993). Team activities can provide students with opportunities to work and play with peers and to express themselves in unique ways as they search for their identity and new levels of sophistication (Plodzik & George, 1993). Interdisciplinary teaming in Nevada’s middle level schools, however, ranked number 10 in the level of implementation of 18 middle level practices. An interdisciplinary team organization for all students was only practiced in 36% of the schools, and in 13% of the schools, it was not employed at all. The remaining 51% indicated that students and teachers were organized into interdisciplinary teams for some of the students only.

While it would be possible for personnel in each of Nevada’s middle level schools to organize teachers and students into small learning
communities with interdisciplinary teams, it would neither be an easy task in terms of persuading teachers to reorganize and function in a newly-defined role nor would it be an inexpensive task with regard to the cost associated with adding personnel or modifying school facilities to accommodate reorganization. Reviewing the benefits of reorganizing middle level schools to facilitate an interdisciplinary team organization and the enhanced role of the teacher as a member of an interdisciplinary team would (a) exemplify the importance of interdisciplinary teaming to students' success relative to their needs; (b) identify factors that may inhibit teachers' willingness to assume greater responsibilities for meeting their students needs academically, socially, emotionally, and intellectually; and (c) illustrate reasons why this important middle level practice has not been implemented to a greater extent into the organizational patterns in Nevada's middle level schools.

Team Organization

Organizing teachers and students into grade-level learning communities and interdisciplinary teams can be accomplished in any school setting. It can be difficult, however, because of limitations of the physical plant and possible resistance to change on the part of school personnel, parents, and students.

To effectively organize students into smaller grade-level communities, the area of the school in which each group would be housed should support the curriculum. For example, if science and computer keyboarding and/or literacy were part of the curriculum, then these facilities should be available to students in their area of the school. The location of the cafeteria, library, and special multi-media equipment should either be included in each grade-level area or house (George & Alexander, 1993) or centralized to provide easy access to students and teachers. Access to student services such as counseling and
health care should be in close proximity to each student community, and ideally, a counselor and administrator might be assigned to each community. While it is possible to organize a physical plant to support smaller communities for learning which are further divided into interdisciplinary teams of students and teachers as recommended in the literature (Carnegie Council for Adolescent Development, 1989; Clark & Clark, 1994; George & Alexander, 1993), it can be a difficult task because teachers, support staff, and even parents and students may not wish to reorganize in this manner. Interdisciplinary team organization is virtually impossible, however, unless teachers share the same students, space, and schedule, and among team members, at least two subjects are taught. (George & Alexander, 1993).

In middle level schools that have traditionally been organized by department with all of the teachers who teach in the same content area located in the same section of the school, students must traverse the entire campus among all of the students in the school and several times per day when they change classes. This can be a daunting experience for many students, and one that could prohibit students from making a successful transition from the elementary school to the middle school or from being successful throughout their tenure at the middle level. This could negatively impact their chances for success in high school and beyond (Carnegie Council for Adolescent Development, 1989; Clark & Clark, 1994; Elkind, 1989; George & Alexander, 1993).

In Nevada, the fact that the interdisciplinary team organizational pattern is not used more frequently may result from limitations of the physical plant. If, as the literature recommends, grade-level houses and their resident interdisciplinary teams should have science and computer labs in their area of
the building and convenient access to guidance services and the library, perhaps lack of centralized services coupled with the common practice of grouping specialty classrooms like science labs and computer labs in different areas of the building as is typical in many middle level schools in Nevada may be viewed by school personnel as barriers to the successful implementation of interdisciplinary teaming.

After a school has been organized into smaller learning communities and interdisciplinary teams, teachers may be excited by the new opportunities and levels of responsibility they discover are available to them. For example, when an interdisciplinary team of teachers and students is housed in the same area with their own block of time to schedule, they discover that they have the opportunity to (a) design and implement common rules and procedures to govern student behavior, (b) adjust the length of time for each class period based on educational need, (c) devote common planning time to the discussion of their students which should result in knowing them better, and (d) develop interdisciplinary units of study to facilitate learning based on the unique needs of their young adolescent students (Clark & Clark, 1994; George & Alexander, 1993; Merenbloom, 1996; Plodzik & George, 1989; Sanhoff, 1996). A lack of knowledge regarding the benefits of interdisciplinary teaming for teachers, students, and parents may be another reason why more middle level schools in Nevada have not implemented this organizational pattern.

**Teachers' Responsibilities**

Once interdisciplinary teams have been organized, teachers who are members of these teams are usually involved in and responsible for making many more decisions than they did when they functioned individually. New areas of decision making could include (a) scheduling of classes and teacher
assignments, (b) developing and modifying student schedules, (c) developing patterns for grouping students for instruction within the team, (d) selecting and developing curriculum plans and instructional materials, (e) correlating curriculum plans from different content areas, (f) allocating space within their area of the school, (g) determining how to disperse their budget, (h) modifying blocks of time to accommodate instructional needs, (i) designing and teaching interdisciplinary units, (j) selecting new staff members; (k) developing procedures for initiating parent contacts and conducting parent conferences, and (l) referring students for special services (George & Alexander, 1993).

While this is not an exhaustive list of teacher responsibilities for members of interdisciplinary teams, it does illustrate the kinds of decisions they might have to make. The fact that few decisions are made without every member of the interdisciplinary team being involved also illustrates how important it is for members to establish a strong sense of purpose to ensure that the organizational and instructional practices in the school are appropriate to the needs of young adolescents (Lipsitz, 1984).

The fact that teachers who are members of interdisciplinary teams must meet regularly and make decisions together may not appeal to all teachers. It may be that many prefer to remain individual classroom teachers whose primary focus could continue to be the subject they teach rather than having to invest the time necessary to develop integrated units of study in conjunction with a team of teachers from other disciplines. It may also be that many teachers are not willing to assume additional responsibilities such as those described above which are inherent in the interdisciplinary team organization. These two factors, (a) the current high level of commitment to a single-subject curricula among teachers, administrators, parents, community members, and
elected officials and (b) the amount of time needed to integrate curriculum and to identify or develop appropriate resources and assessment procedures, are two of the biggest barriers to interdisciplinary teaming at the middle level (Clark & Clark, 1994), and these may be barriers in Nevada as well.

**Creative Experiences**

A primary goal of education is to ensure that students can read efficiently to facilitate learning and effectively communicate both orally and in writing (George & Alexander, 1993). At the middle level, it is also important that curriculum be organized to provide students the opportunity to establish a connection to the curriculum they are learning and their perception and understanding of the world around them (Beane, 1986; Urdan et al., 1995). Effective methods for achieving both include providing students with opportunities for creative expression.

Creative experiences might include opportunities to (a) contribute to the school newspaper or yearbook, (b) participate in the production of dramatic and oratorical presentations, and/or (c) participate in special activities developed by students (Clark & Clark, 1994). In Nevada’s middle level schools, drama was a part of the activities program outside the classroom setting in just over half (56%) of the schools, and it was included in class activities planned by teachers in only 49% of the schools. A small percentage of schools, 7%, indicated that dramatic experiences in their schools were limited to an occasional opportunity to view a play. In 16% of the schools, drama was not a part of the school program at all. With regard to the number of students who had the opportunity to participate in a dramatic production during their years in middle school, 29% of the schools reported that most students did not have such an opportunity.

Opportunities to participate in oratorical presentations such as debate
and public speaking were included in the instructional program in 16% of the schools and as part of an enrichment program in 24% of the schools. A total of 56% of the schools indicated that oratorical activities were not included in their schools. Including opportunities across the curriculum for students to learn and utilize the ability to speak, question, and listen effectively is very important although often infrequent (George & Alexander, 1993). Opportunities to vocalize their opinions through discussion and debate and to participate in dramatic presentations appeal to middle level students, and teachers should include opportunities for students to participate in these and other oral communication activities especially in language arts programs but also in classroom activities across the curriculum and in extracurricular activities (Clark & Clark, 1994; George & Alexander, 1993)

In 100% of the schools, students had the opportunity to participate in the production of a school yearbook that was published annually. Students had the opportunity to participate in the publication of a school newspaper in only 75% of the schools because 25% of the schools did not publish student newspapers.

If, as it is recommended in the literature, ample opportunities should be provided for middle level students to express themselves through creative expression (Beane, 1986, 1991; Riegle, 1971; Urdan et al., 1995), then it appears that the statistics for Nevada indicate that efforts to provide such opportunities need to be increased. Across the curriculum, teachers could provide this opportunity to more students by including and/or increasing the frequency of dramatic presentations, speeches, and debate in their instructional programs. School administrators could include a journalism course as an elective, exploratory course, or extra-curricular activity to ensure that students have opportunities to contribute to a school newspaper.
Exploratory and Enrichment Studies

According to the NASSP Council on Middle Level Education (1985), the exploratory curriculum should provide students with opportunities to explore their aptitudes, interests, and special talents. The original intent of exploratory courses at the middle level was to provide relatively brief, introductory courses for all students in areas such as music, art, home economics, drama, speech, industrial arts, and now, technology and computers; these exploratory courses would then be followed by longer and more comprehensive elective courses in subsequent years for interested students (George & Alexander, 1993). In Nevada, however, while elective courses were provided, they were not all (a) exploratory in nature, (b) open to all students, or (c) based on students' interests as recommended (Clark & Clark, 1994; George & Alexander, 1993; Riegle, 1971).

To enhance the elective course offerings in middle level schools in Nevada, school personnel could modify the design of elective course offerings to include an explorations program. One way to do this would be to develop six courses, each six weeks in length, in which all students would participate during the first grade included in the school. In this way, students would be able to experience a variety of courses to determine if they had an interest in a subject they may not have experienced previously and decide whether they would like to pursue one of these areas of study in a longer elective course or through independent study.

Another way to provide all students with a variety of exploratory experiences might be to design a curriculum that offered an opportunity period each week in which students could participate in an activity of interest to them. Students could even help to design the course/activity offerings with faculty and
While both of these are viable options for providing students with exploratory experiences to assist them in developing interests in a variety of subject areas in which they may or may not have a current interest or previous experience, implementation of either one would not be an especially effortless process. Including a series of relatively short exploratory courses could be costly if it were necessary to hire additional faculty to teach these courses. If a school were to implement a weekly exploratory activity period, factors that would have to be considered by school personnel would include the reduction in the amount of time currently devoted to the regular curriculum and the fact that the program would be most effective if every teacher participated by conducting an exploratory activity.

Community Relations

In Nevada's middle level schools, 96% produced and distributed a parent newsletter on a regular basis, and 4% indicated that they either did not publish one or did so only when dictated by need. Other methods employed to dispense information about the schools included using commercial newspapers in 33% of the schools, district-wide newsletters in 7% of the schools, and special announcements and/or the radio in 2% of the schools.

In 94% of the schools, informational programs were presented during annual open house programs. Seminar-type presentations were regularly scheduled in only 36% of the schools, and informational presentations were made by 44% of the schools once or twice a year at regularly scheduled parents' meetings. In 18% of the schools, informational programs were only presented by school personnel when parents requested them to do so.

Students participated in community service projects for special purposes.
in 80% of the schools. Only 13% of the schools reported that community service projects were an important part of the planned experiences for all students. In 4% of the schools, community service projects were not part of the educational program at all. It is recommended in the literature that students be provided opportunities to succeed in authentic learning activities which, when satisfactorily completed, result in a feeling of accomplishment and enhance their self-confidence (Beane, 1991, 1993). For example, teachers in Nevada could assist students in planning and implementing community service projects relative to units of study specified in the curriculum (Scales, 1996).

Community programs that inform, entertain, and educate should be developed and maintained in middle level schools (Alexander & McEwin, 1998; Carnegie Council on Adolescent Development, 1989; Clark & Clark, 1994; George & Alexander, 1993; Scales, 1996). Examples include but are not limited to the production of school newsletters, an active parent organization, informational programs, and opportunities for students to participate in community service. Developing and nurturing a positive relationship with parents and members of the community at large are possible through such organizational arrangements as standing committees, advisory groups, and ad hoc committees which offer opportunities for teachers, parents, and community groups to participate in school governance. Organizing committees such as these are important for (a) developing bonds between the school, home, and community, (b) promoting cooperation in the education of young adolescents, and (c) facilitating communication (Clark & Clark, 1994). School administrators in Nevada could successfully implement programs that involve parents, teachers, students, and community members in school governance if they decided to do so. School administrators in Nevada, however, may not actively
solicit the involvement of others in school governance because the process can be very time consuming, or they may not understand how beneficial it could be to have the advice and support of all of the stakeholders in the school community.

**Evaluation**

Formal evaluation of students' work in Nevada's middle level schools was reported through the use of standard report cards with letter or number grades in 100% of the schools. Teacher comments were included on a written form by only 57% of the schools. Parent-teacher conferences were utilized in only 67% of the schools, and parent-teacher-student conferences were utilized in only 44% of the schools. Evaluation of students' work at the middle level should be personal, positive in nature, non-threatening, and individualized (Riegle, 1971). Assessment of students' work should include the opportunity for students to discuss their learning with their teachers and parents, and assessment should inform parents about what their child has learned and will learn in order for them to provide necessary support and encouragement (Clark & Clark, 1994). Competitive letter grade forms should be replaced with honest pupil-teacher-parent communications (Riegle, 1971).

Working together cooperatively, perhaps parents, students, and school personnel in Nevada's middle level districts could devise a format for student progress reports that would contain a more detailed description of student progress than a standard report card provides through number or letter grades. Another option that could be implemented would be to increase the number of days per year that teachers are required to work in order to provide days within the school year that could be devoted to parent-student-teacher conferences. This latter option, however, would only be possible if funds were available to
increase the number of days that teachers work under their annual contract.

**Flexible Schedules**

Providing teachers with the flexibility to schedule the length of time spent on the study of each subject during the school day represents one of four middle level practices perceived to be especially effective in a study of exemplary middle schools by George and Oldaker (1985). The literature recommends that middle level schools provide a schedule that encourages the allocation of time based on educational needs as determined by teachers (Merenbloom, 1996; Riegle, 1971) and supports interdisciplinary teaming (George & Alexander, 1993). Organizing an interdisciplinary team of teachers and their students to ensure that they have their own block of time to schedule based on their educational needs is synonymous with the type of prioritizing and time-budgeting capacity afforded to a teacher in a self-contained elementary classroom on a daily basis. The majority of middle level schools in Nevada, 89%, indicated, however, that the school day was organized into standardized time periods in which each subject was allocated the same amount of instructional time each day.

Interdisciplinary teams consist of teachers from different subject areas who must work together to create and implement a comprehensive instructional program that will meet the unique needs of the young adolescents who are their students, and to accomplish this, they need a schedule that is flexible and theirs to structure based on their needs (George & Alexander, 1993). Each interdisciplinary team of teachers also needs a daily team planning time during which they can meet with parents, discuss curriculum, evaluate student progress, and plan team activities to name just a few among the numerous responsibilities that accompany an interdisciplinary team organization (Plodzik...
& George, 1989). Despite the fact that a flexible schedule is a necessity if interdisciplinary teaming is to work (George & Alexander, 1993), it is not easy nor inexpensive to implement. During the time that each interdisciplinary team has a team planning period, all of their students must be in elective classes, and this may require additional teachers which would be very costly. Providing each interdisciplinary team with a block of time to schedule would require a commitment on the part of teachers and administrators to collaborate on the development of a master schedule that must take into consideration the needs of everyone in the building whether or not they were members of an interdisciplinary team.

**Planned Gradualism**

Planned gradualism refers to the process of providing students with planned transitional experiences to assist them in successfully making the transition from childhood dependence to adult independence (Elkind, 1989; George & Alexander, 1993). Forcing students to move from the self-contained elementary classroom to a departmentalized organization can be traumatic, and it is recommended that middle level schools start students in a self-contained program or place them on interdisciplinary teams in small learning communities to ease this transition (George & Alexander, 1993).

In Nevada’s middle level schools, 47% of the schools reported an organizational plan that was departmentalized but modified to include some use of block time or a core program; 22% reported moving from a largely self-contained program to an entirely departmentalized organizational structure before the students left the middle level school; and 27% reported a totally departmentalized organization. These percentages show that planned gradualism was virtually non-existent in nearly one-third of Nevada’s middle
level schools, and the transition to middle level from the self-contained elementary classroom for children in these schools may be traumatic. It is important, therefore, that personnel in Nevada's middle level schools identify and implement methods to ensure a successful transition for students from the self-contained elementary classroom with one teacher to a learning environment that usually includes a significant increase in the number of teachers, classrooms, and students with whom they will have to interact on a daily basis.

One transitional option middle school personnel might employ would be to invite elementary school students to an orientation program at the middle school that would be scheduled near the end of the school year prior to their entrance into the middle school. Students could be accompanied by their current elementary school teacher which would facilitate follow-up discussions about their visit. The orientation program might include the opportunity for elementary school students to (a) meet middle school teachers, administrators, support staff, and students; (b) observe and/or participate in regular and elective classes; (c) purchase lunch in the school cafeteria; and (d) meet and talk to students who attend the middle school but previously attended the same elementary school.

Another viable transitional program would be the implementation of a homeroom advisory program. Included in each school day, these programs should be structured to provide students with the opportunities to (a) enhance their understanding of the changes that are happening to them and their peers, (b) voice and discuss their feelings and concerns, and (c) recognize and appreciate the fact that they are not the only ones experiencing changes characteristic of early adolescence (Alexander, 1988; Beane, 1986; Bergmann,
As part of the curriculum in this program, lessons might include the reading of a short story about young adolescents and a troublesome situation, and teachers would then facilitate a discussion about the situation and the choices made by the characters. Teachers, in their role as teacher-advisor, could then assist students in understanding how the problems experienced by the characters in the story relate to their lives and that what they learn from the discussion about the story could be used to help them if they were to find themselves involved in a similar situation. To become well-informed and effective teacher-advisors, teachers should complete an inservice training program. The fact that teachers would have to be trained and then commit to the program may be barriers to implementation. Another barrier might be that teachers believe their job is to teach a particular subject and not to counsel students. Still another barrier to the implementation of a homeroom teacher advisory program might be the perception of some teachers that scheduling time during the school day for a teacher advisory program impinges on the time allotment that should be devoted to the cognitive rather than the affective domain.

Continuous Progress

Organizing middle level schools in a manner that allows students to progress at their own rate rather than being grouped by grade level or chronological age is a practice believed to be effective (Carnegie Council on Adolescent Development, 1989; George & Alexander, 1993; Riegle, 1971). This practice, however, was employed in 42% of Nevada's middle level schools for special groups of students only and not at all for another 42%. Only in 7% of the schools was it employed for all students for their entire program. A
total of 9% of the schools did not respond to this question which may mean that they did not fully understand the concept, or they did not employ this type of organizational structure, either; if this was the case, it means that over half of Nevada's middle level schools did not utilize continuous progress but rather grouped children by grade level and taught a curriculum approved for that grade level whether or not the students were developmentally ready. If school personnel ensured that students made continuous progress based on their ability and present academic levels, many students might move more rapidly through the curricula and have the opportunity to study subjects in greater depth or complete interdisciplinary projects in the form of independent study. This could occur if school personnel were to assess students, place them appropriately, and change their placement as they progressed through the curricula.

Independent Study

Independent study should (a) be a part of the regular school program, (b) emphasize research that stretches students creatively and academically, and (c) allow students the opportunity to explore the world around them and their place in it (Clark & Clark, 1994; George & Alexander, 1993). In Nevada's middle level schools, however, a total of 40% did not provide students with this option at all. This means that students were not provided the opportunity to explore and research areas of interest to them which is recommended as an age-appropriate instructional strategy recommended by research (Beane, 1986, 1991; Urdan et al., 1995). It is possible for individual classroom teachers and especially for teachers who are members of interdisciplinary teams to provide students with the opportunity to participate in a project that encompasses the goals and objectives of more than one course, i.e., English,
social studies, and reading. For example, students could easily research a day in the life of a middle school student in another country, including correspondence and/or video-conferencing via the internet and hands-on projects, that would allow students the opportunity to explore feelings, make decisions regarding how to proceed with and present their project, and perhaps work collaboratively with one or more students to design and complete the project.

School Climate and Middle Level Practices

In the study by Thomas and Bass (1992), schools with higher levels of implementation of middle level practices scored higher based on teacher perception on 7 of 10 school climate variables, three of which were significant at the .05 level. From this, they concluded the following about the relationship between the level of implementation of middle level practices and school climate:

1. A positive school climate was related to the degree to which middle level practices were implemented.

2. There was a commonality between the two concepts, implementation of middle level practices and school climate, regardless of whether or not the implementation of middle level practices influenced school climate or vice versa.

In this Nevada study, it was anticipated that teachers' perceptions of school climate in middle level schools would be higher in schools with higher levels of implementation of middle level practices when compared to schools with low levels of implementation, and this was true for all 10 climate variables. However, unlike the study in Oklahoma by Thomas and Bass (1992), none of the scores on the 10 climate variables were statistically
significantly greater for the schools in the high implementation group. While this was disappointing and not anticipated, it might be explained by one or more of the following factors: (a) teachers from the five Nevada middle level schools with the lowest overall levels of implementation of middle level practices did not complete and return the climate surveys; (b) not all teachers in every school completed and returned the climate surveys; and/or (c) teachers who completed and returned the climate surveys may not have been candid with their responses because they knew that their principals would have the opportunity to review the surveys before they were returned to the researcher.

The fact that teachers’ perceptions of school climate were greater for each of the 10 climate variables for schools in the high implementation group compared to those in the low implementation group would seem to support the contention of researchers who have stated that a high level of implementation of middle level practices is related to a positive school climate (Johnston, 1985; Connors & Irvin, 1989). However, this conclusion cannot be made with regard to this study because the differences in teachers’ perceptions of school climate between schools in the high implementation group compared to the low implementation group were not statistically significant.

Implications

Middle Level Practices

Information obtained in this study regarding the levels of implementation of middle level practices in Nevada’s middle level schools could be used in conjunction with information from research literature on effective middle level practices to develop a plan to implement programs in Nevada’s middle level schools that might be more responsive to the developmental needs of young adolescents. Middle level benchmarks could be established for all schools in
the state or in each district, and individual schools could then develop plans to achieve these benchmarks based on their current level of implementation of middle level practices. The development of school-based plans to achieve middle level benchmarks might enhance each school's chances for successful implementation of new and developmentally-responsive middle level programs because studies of effective middle level schools reveal that implementation of practices which represent a change in a school's program are more successful when they result from collaborative efforts by teachers, administrators, and parents who are committed to school improvement (Clark & Clark, 1994; George & Oldaker, 1985; Lipsitz, 1984; Lounsbury, 1991; Mac Iver, 1990).

School Climate

The fact that teachers' perceptions of their schools' climate were greater in schools with high levels of implementation of middle level practices compared to the perceptions of teachers in low implementation schools would seem to suggest that an increase in levels of implementation of middle level practices might result in an increase in teachers' perceptions of school climate. However, because the differences in school climate scores between the high and low implementation schools were not statistically significant, this assumption remains speculative.

Methodological Limitations

In the first phase of this study, 66 middle level schools in Nevada were asked to complete the MSPI to determine the level of implementation of middle level practices. Of these 66 schools, 45 (68.2%) completed and returned the MSPI. While the data from this survey provided new information on the level of implementation of middle level practices in Nevada's middle level schools,
it also is true that a more accurate picture of the degree of implementation of middle level practices would have been possible if (a) the survey had been completed and returned by each of the 66 schools and (b) the researcher had been able to visit each school and determine via observations and interviews whether the information provided by the principals was reflected in the middle level programs and practices observed in their schools.

Another limitation of this study would be the fact that one middle level school which met the criteria to be included in the study was excluded. This middle level school was excluded at the advice of the researcher's examination committee because the researcher was the principal of the school.

While teachers’ perceptions of school climate were higher in schools with high levels of implementation of middle level practices in contrast to schools with low levels, the differences were not statistically significant. This phase of the study may have been limited because (a) teachers in the middle level schools with the five lowest overall levels of implementation of middle level practices did not complete and return the school climate surveys; (b) not all teachers in each school completed and returned the climate surveys; or (c) teachers may not have been totally candid in their responses. If teachers' in these low implementation schools had returned the climate surveys, the results may have provided a more accurate picture of teachers’ perceptions of school climate in high versus low implementation schools.

Recommendations

While the information revealed in this study may enable educators in Nevada to establish benchmarks related to the implementation of recommended middle level practices and set goals to reach them, it does not provide information about how the level of implementation of middle level
practices in Nevada compares to levels of implementation in other states. A national study should be conducted to (a) determine the levels of implementation of recommended middle level practices in each state, (b) determine how the actual levels of implementation compare with recommendations for implementation in order to provide the type of effective educational programs recommended in the literature, and (c) identify effective implementation strategies.

For example, with regard to standardized testing, national norms exist against which educators in every state can compare the results of their students' scores on standardized tests. Information from such comparisons can then be used to develop plans to improve instructional programs that should, in turn, lead to improved performance by students on standardized tests. It seems that it would be very beneficial to school personnel and decision makers such as members of local school boards and the state department of education if they knew (a) how their middle level schools compared to those in other states with regard to the level of implementation of recommended middle level practices, (b) whether the level of implementation correlated with student achievement and/or teacher satisfaction, and (c) how their efforts to implement effective programs could be improved by examining effective implementation strategies and programs employed by school personnel in other states.

In 1989, the Carnegie Council for Adolescent Development stated that it was imperative that middle level schools implement middle level practices that are responsive to the specific developmental needs of early adolescents. The Council stated that this was necessary if children were to be sufficiently prepared to meet the demands of a work force that will require them to be committed and responsible workers who are technically adept and capable of
thinking critically and solving problems creatively in order to become contributing members of society. If, then, the implementation of recommended middle level practices identified by researchers and examined in this study would enhance educational programs and better prepare students for success in life, a study should be conducted to identify barriers to implementation that would explain why these recommended practices have not been implemented to a greater extent in Nevada's middle level schools.

One barrier could be that teachers, administrators, parents, and members of decision-making bodies such as local school boards, the state department of education, and the legislature may be unaware of the recommendations for improvement in middle level programs. Perhaps they do not understand how implementation of educational programs responsive to the developmental needs of young adolescents could (a) improve academic achievement, (b) decrease discipline problems, and (c) improve students' emotional well-being, creativity, and confidence in self-directed learning (George & Oldaker, 1985). They might believe that implementation of recommended middle level practices would be too costly relative to the increased personnel necessary to implement middle school practices identified by researchers as being included most often in effective middle schools (i.e., interdisciplinary teaming, flexible scheduling, homeroom advisory programs, and a curriculum that includes exploratory courses that emphasize students' personal development and enhance learning skills) (Clark & Clark, 1994; George & Alexander, 1993; George & Oldaker, 1985; George & Shewey, 1993; Merenbloom, 1996; Scales, 1996). A fourth barrier might be that while school personnel may be aware of middle level practices that could more effectively meet the developmental needs of middle level
children and increase academic achievement if implemented, they may not possess the high level of commitment necessary to implement change, and commitment by school personnel to the implementation of identified effective middle level practices has been correlated to a positive school climate and effective outcomes for students (Clark & Clark, 1994; Connors & Irvin, 1989; Eichorn, 1991; George & Alexander, 1993; National Association of Secondary School Principals Council on Middle Level Education, 1985).

It would be interesting to conduct a follow-up study to determine (a) whether administrators and teachers in Nevada's middle level schools have the flexibility to reorganize their schools to include recommended middle level practices and (b) to identify the motives that have either resulted in or hampered the implementation of such programs in schools in which these individuals have the flexibility to implement change. For example, in schools with high levels of implementation of middle level practices, personnel may have implemented recommended practices because they were mandated and not because of their recognized importance relative to the positive effects on young adolescents. Conversely, personnel in schools with low levels of implementation may recognize the positive impact that the implementation of recommended middle level practices could have on young adolescents in their schools, but they are not motivated to change for a variety of reasons. For example, perhaps there is a lack of commitment to provide programs recommended to best meet the needs of young adolescents or a lack of funding to implement these programs.

In a study by Connors and Irvin (1989), a survey was developed and used to determine whether there was a difference in the degree to which schools adhere to the middle school concept and practices between schools cited as excellent and a random group of middle level schools. They concluded
that the degree to which schools implemented essential middle level practices appeared to correlate with excellence and a positive school climate. A comparison study might be conducted in Nevada to determine the degree to which the high and low implementation schools adhere to middle level concepts and practices. This could be achieved via the survey developed by Connors and Irvin, by observations in schools, and/or by interviewing school personnel to determine their level of commitment to middle level practices implemented in their school and perceptions of program effectiveness relative to student academic achievement, student behavior, school learning climate, faculty morale, and staff development (George & Oldaker, 1985; George & Shewey, 1993).

An assessment of school climate as perceived by other stakeholders such as students, administrators, support staff, and/or parents in the schools with high and low levels of implementation of middle level practices would be informative, and differences between or among groups might be noted. It would be interesting to compare the perceptions of each group regarding their schools' climate with the results obtained from teachers in this study to determine (a) whether perceptions of each of the 10 climate variables were the same or different, (b) whether the rank order of the 10 school climate variables were the same or different, and (c) whether perceptions varied by group. Results of each group's perception of school climate could be combined with those from the teachers in this study and compared to determine whether statistically significant differences exist between stakeholders' perceptions of school climate in schools with high levels of implementation of middle level practices when compared to schools with low levels to corroborate or refute the results of this study.
Another interesting study would be to ascertain the current role of the guidance counselor in Nevada's middle level schools. Research literature recommends that counselors should be concerned with (a) providing individual and group counseling; (b) classroom activities that address affective education and developmental guidance objectives; (c) parent and teacher consultations; (d) identification of students' individual differences, needs, and problems; and (e) positive working relationships with teachers, specialists, and administrators relative to students (George & Alexander, 1993). As reported in Nevada, every middle level school has guidance counselors, but not every middle level school (a) made guidance services available to every student on a daily basis, (b) provided classroom-based counseling programs, or (c) indicated that guidance counselors worked closely with teachers. Determining the kinds of guidance programs that are available in Nevada's middle level schools and whether or not they are effective would be valuable information that could have a positive impact on the lives of middle level students in the future if all middle level schools provided students with guidance services that assisted them in understanding the world around them, their place in it, and that other young adolescents everywhere experience similar feelings, hopes, fears, and dreams (Beane, 1986, 1991; Urdan et al., 1995).

Finally, it would also be of great interest to the author of this study to determine the teachers' perceptions of school climate in the five low implementation schools in Nevada that did not return the school climate surveys. Data from teachers' perceptions of school climate in these five lowest implementation schools could then be compared with the perceptions of teachers from high and low implementation schools who did participate in this study.
Conclusion

While there were not statistically significant differences in teachers' perceptions of school climate for any of the 10 climate variables between schools with high and low levels of implementation of middle level practices, the results of this study did reveal that the perceptions of school climate by teachers in schools with the highest levels of implementation of middle level practices were more positive for each of the 10 climate variables than the perceptions of teachers in the low implementation schools. Considering these results from the school climate survey in conjunction with the fact that the highest overall level of implementation of middle level practices in a Nevada middle level school as measured by the MSPI was just 76.11% might motivate parents, teachers, administrators, and members of decision-making bodies such as county school boards, the department of education, and the legislature in Nevada to closely examine the middle level practices at work in the high implementation middle level schools in Nevada and include those practices in other middle level schools in the state.

Prior to implementing any new practices into a middle level school, however, school personnel and decision makers should ensure that parents, members of the community and, where applicable, students are informed and allowed to participate in the change process. The most effective middle level schools are not only those in which effective and responsive middle level practices have been implemented (Lounsbury, 1990; Mac Iver, 1990); they are those in which effective middle level practices have been implemented and stakeholders in the school exhibit a strong sense of purpose to ensure that the organizational and instructional practices in the school are appropriate to the needs of young adolescents (Lipsitz, 1984). It is the combination of these two
factors in a middle level school that results in a positive school climate that supports excellence and achievement (NASSP Council on Middle Level Education, 1985).

If the middle level is indeed our "last best chance" to make a difference in the lives of young adolescents to ensure that they will develop the intellectual, social, emotional, and physical attributes necessary to become responsible and productive adults (Carnegie Council on Adolescent Development, 1989), then school personnel, parents, and members of governing boards in Nevada should establish effective and responsive middle level programs identified in research literature in middle level schools throughout the state. If we do not implement changes to specifically address the special needs of our young adolescents, the number of Nevada teens who drop out of school, become pregnant, or commit suicide may continue to be the highest in the nation. The time to act is now if we are to ensure that young adolescents in Nevada are to have the "best chance" we can give them to be prepared for the future.
APPENDIX A

Surveys
## Middle School Practices Index

### PART I: PLACE A CHECK MARK BEFORE THE ANSWER THAT SEEMS BEST TO EXPLAIN YOUR CURRENT PROGRAM AS IT RELATES TO THE QUESTION.

1-A. Continuous progress programs are:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>not used at this time.</td>
</tr>
<tr>
<td>1</td>
<td>used only with special groups.</td>
</tr>
<tr>
<td>2</td>
<td>used only for the first two years.</td>
</tr>
<tr>
<td>3</td>
<td>used only by some students for all their years at this school.</td>
</tr>
<tr>
<td>4</td>
<td>used by all of the students for their entire program.</td>
</tr>
</tbody>
</table>

2-A. Continuous progress programs are planned for a student over a span of:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>one calendar year.</td>
</tr>
<tr>
<td>2</td>
<td>two calendar years.</td>
</tr>
<tr>
<td>3</td>
<td>three calendar years.</td>
</tr>
<tr>
<td>4</td>
<td>more than three calendar years.</td>
</tr>
</tbody>
</table>

3-B. The multi-textbook approach to learning is currently:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>used in all or nearly all courses.</td>
</tr>
<tr>
<td>2</td>
<td>used in most courses.</td>
</tr>
<tr>
<td>1</td>
<td>used in a few courses.</td>
</tr>
<tr>
<td>0</td>
<td>not used in any courses.</td>
</tr>
</tbody>
</table>

4-B. The instructional materials center/library in the building houses:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>more than 5000 books.</td>
</tr>
<tr>
<td>3</td>
<td>between 4000 and 5000 books.</td>
</tr>
<tr>
<td>2</td>
<td>between 3000 and 4000 books.</td>
</tr>
<tr>
<td>1</td>
<td>between 2000 and 3000 books.</td>
</tr>
<tr>
<td>1</td>
<td>between 1000 and 2000 books.</td>
</tr>
<tr>
<td>0</td>
<td>less than 1000 books.</td>
</tr>
</tbody>
</table>

5-B. The instructional materials center/library has a paid staff of:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>more than one certified librarian.</td>
</tr>
<tr>
<td>2</td>
<td>one certified librarian.</td>
</tr>
<tr>
<td>1</td>
<td>a part-time librarian.</td>
</tr>
<tr>
<td>0</td>
<td>no certified librarian.</td>
</tr>
</tbody>
</table>
PART I. Page 2

6-B. For classroom instruction, audio visual materials other than motion pictures are used:

- 4 very frequently by most of the staff.
- 3 very frequently by a few of the staff and occasionally by others.
- 2 occasionally by all of the staff.
- 1 very rarely by most of the staff.
- 0 very rarely by any staff member.

7-C. The basic time block used to build the schedule is:

- 3 a ten- to twenty-minute module.
- 2 a thirty-minute module.
- 1 a forty-five minute module.
- 0 a sixty-minute module.
- 4 a combination of time so diversified that no basic module is defined.

8-C. Which of the below best describes your schedule at present:

- 0 traditional
- 1 traditional, modified by “block-time”, a “revolving period”, or other such regularly occurring modifications.
- 2 flexible to the degree that all period are scheduled but are not identical in length.
- 3 Flexible to the degree that changes occur within defined general time limits.
- 4 flexible to the degree that students and teachers control the daily time usage and changes occur regularly.
- other_______________________________

Attach a copy of the master schedule if possible.

9-D. Sponsorships for club activities are handled by staff members who:

- 1 are assigned sponsorships without additional pay.
- 2 are paid to assume club sponsorships that are assigned.
- 3 volunteer to sponsor club activities without pay.
- 4 are paid for sponsorship that they volunteer to assume.
- 0 staff members do not work with club activities.
**PART I. Page 3**

10-D. At present, approximately what percent of your student body regularly participates in at least one club activity?

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>none as we have no club programs.</td>
</tr>
<tr>
<td>1</td>
<td>25 percent or less.</td>
</tr>
<tr>
<td>2</td>
<td>25 to 50 percent.</td>
</tr>
<tr>
<td>3</td>
<td>50 to 75 percent.</td>
</tr>
<tr>
<td>4</td>
<td>75 to 100 percent.</td>
</tr>
</tbody>
</table>

11-D. The physical education program is:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>highly individualized.</td>
</tr>
<tr>
<td>3</td>
<td>moderately individualized.</td>
</tr>
<tr>
<td>1</td>
<td>slightly individualized.</td>
</tr>
<tr>
<td>0</td>
<td>not individualized at all.</td>
</tr>
</tbody>
</table>

12-F. Intramural activities often use the same facilities as interscholastic activities. When this causes a time conflict, how do you schedule?

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>this does not happen because we have no intramural program.</td>
</tr>
<tr>
<td>4</td>
<td>this does not happen because we have no interscholastic program.</td>
</tr>
<tr>
<td>4</td>
<td>this does not happen because we have no interscholastic program.</td>
</tr>
<tr>
<td>4</td>
<td>intramural activities take first priority and others schedule around their needs.</td>
</tr>
<tr>
<td>0</td>
<td>interscholastic activities take first priority and others must schedule around their needs.</td>
</tr>
<tr>
<td></td>
<td>other____________________________________________________________________</td>
</tr>
</tbody>
</table>

13-F. Interscholastic competition is currently:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>not offered at this school.</td>
</tr>
<tr>
<td>1</td>
<td>offered in one sport only.</td>
</tr>
<tr>
<td>0</td>
<td>offered in two sports.</td>
</tr>
<tr>
<td>0</td>
<td>offered in several sports.</td>
</tr>
</tbody>
</table>

14-G. Interdisciplinary team teaching programs operate for:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>all students.</td>
</tr>
<tr>
<td>3</td>
<td>nearly all students.</td>
</tr>
<tr>
<td>2</td>
<td>about half of the students.</td>
</tr>
<tr>
<td>1</td>
<td>only a few of the students.</td>
</tr>
<tr>
<td>0</td>
<td>none of the students.</td>
</tr>
</tbody>
</table>
PART I. Page 4

15-G. What percentage of your teaching staff is involved in interdisciplinary team teaching programs?

4 over 90%.
3 between 60% and 90%.
2 between 30% and 60%.
1 less than 30%.
0 none.

16-G. Teachers on interdisciplinary teams have common planning time:

4 daily.
3 2-3 times per week.
1 once a week.
0 no common planning time.

17-G. A student in grade five averages about how many minutes per day in an interdisciplinary team teaching program?

4 180 minutes or more.
4 between 130 and 180 minutes.
3 between 90 and 130 minutes.
2 between 40 and 90 minutes.
0 less than 40 minutes.

18-G. A student in grade six averages about how many minutes per day in an interdisciplinary team teaching program?

4 180 minutes or more.
4 between 130 and 180 minutes.
3 between 90 and 130 minutes.
2 between 40 and 90 minutes.
0 less than 40 minutes.

19-G. A student in grade seven averages about how many minutes per day in an interdisciplinary team teaching program?

4 180 minutes or more.
4 130 to 180 minutes.
3 90 to 130 minutes.
2 40 to 90 minutes.
0 less than 40 minutes.
PART I. Page 5

20-G. A student in grade eight averages about how many minutes per day in an interdisciplinary team teaching program?

- 4 180 minutes or more.
- 4 130 to 180 minutes.
- 3 90 to 130 minutes.
- 2 40 to 90 minutes.
- 0 less than 40 minutes.

21-G. A student in grade nine averages about how many minutes per day in an interdisciplinary team teaching program?

- 4 180 minutes or more.
- 4 130 to 180 minutes.
- 3 90 to 130 minutes.
- 2 40 to 90 minutes.
- 0 less than 40 minutes.

22-H. Which of the following best describes your school program as it evolves from enrollment to completions of the last grade (e.g., grades five through nine)?

- 0 completely self-contained program for the entire grade span.
- 0 completely departmentalized for the entire grade span.
- 1 modified departmentalized program (block-time, core programs, etc.)
- 2 program moves from largely self-contained to partially departmentalized.
- 3 program moves from largely self-contained to departmentalized.
- other ________________________________

23-I. Instruction in art is required for all students for:

- 1 one year.
- 2 two years.
- 2 three years.
- 2 four years.
- 0 not at all.
PART 1. Page 6

24-l. Instruction in music is required all students for:
   _1_ one year.
   _2_ two years.
   _2_ three years.
   _2_ four years.
   _0_ not at all.

25-l. The amount of student schedule time set aside for elective courses students may select:
   _0_ decreases with each successive grade.
   _0_ is the same for all grades.
   _3_ increases with each successive grade.
   _2_ varies by grade level but not in any systematic manner.
   _0_ does not exist at any grade level.

26-J. Guidance services are available upon request for:
   _4_ all students every day.
   _3_ all students nearly every day.
   _2_ most of the students on a regular basis.
   _1_ a limited number of students on a limited basis.
   _ _ other______________________________

27-J. Guidance staff members:
   _4_ always work closely with the teachers concerning a student.
   _3_ often work closely with the teachers concerning a student.
   _1_ seldom involve the teachers in their work with the students.
   _0_ always work independently of the teachers.

28-J. Guidance counselors are:
   _0_ not expected to help teachers build their guidance skills.
   _1_ expected to help teachers build their guidance skills.
   _3_ expected to help teachers build their guidance skills and they are regularly encouraged to work in this area.
   _ _ other______________________________
29-L. Clinics or special classes to treat the problem of students with poor basic learning skills are:
   _0_ not available at this time.
   _4_ available to all students needing such help.
   _2_ available only to the most critically handicapped learners.
   _     _ other______________________________

30-L. The amount of time provided in the classroom for instruction in basic learning skills:
   _0_ increases with each successive grade.
   _0_ remains constant with each successive grade.
   _2_ decreases with each successive grade.
   _4_ varies greatly due to the individualized program teachers operate.

31-M. Concerning a school newspaper, our school has:
   _0_ no official student school paper.
   _1_ an official student school paper that publishes no more than four issues per year.
   _3_ an official school paper that publishes five or more issues per year.
   _     _ other______________________________

32-M. Concerning a school yearbook, our school:
   _3_ has one that is published annually.
   _0_ does not have one.

33-M. Concerning school drama activities, most students:
   _0_ do not get experiences in creative dramatics while enrolled in this building.
   _4_ get at least one or two opportunities to use their acting skills while enrolled in the building.

34-M. Drama productions at this school are produced from:
   _1_ purchased scripts only.
   _3_ materials written by students only.
   _4_ materials written by students and purchased scripts.
   _     _ other______________________________
PART I. Page 8

35-M. This school has oratorical activities such as debate, public address, etc.:

4 as a part of its planned program of instruction.
3 as a part of its enrichment program.
0 not included in school activities.
_ other ________________________________

36-M. Talent shows are:

0 not a part of our program.
3 produced by students at each grade level.
2 produced once a year on an all-school basis.
4 produced at each grade level with some of the acts entering an all-school talent show.
_ other ________________________________

37-N. In the operational design of this school, the role of the teacher as a guidance person is:

4 given a very strong emphasis.
3 encouraged.
2 mentioned to the staff but not emphasized.
0 left strictly to the individual teacher’s personal motivation.
0 not important in our guidance operational plan and therefore not encouraged at all.
_ other ________________________________

38-N. As a general policy, in the teacher-pupil relationship:

0 no formal provisions are made for the teacher to provide specified guidance services.
4 teachers are expected to provide guidance services for all of their pupils.
2 teachers are expected to provide guidance services to only a limited number of pupils.
_ other ________________________________

39-O. A student’s academic progress is formally reported to parents:

1 two times per year.
2 four times per year.
1 six times per year.
_ other______________
136

PART I. Page 9

40-O. Parent-teacher or parent-teacher-student conferences are held on a school-wide basis:
   _ 0   not at all.
   _ 1   once per year.
   _ 2   twice per year.
   _ 3   three times per year.
   _ 4   four times per year.
   _ 4   five or more times per year.

41-P. Community service projects by the students are:
   _ 0   not a part of our program.
   _ 2   carried out occasionally for a special purpose.
   _ 4   an important part of the planned experience for all students while enrolled in this building.

42-P. This school currently has:
   _ 0   no parent's organization.
   _ 1   a parent's organization that is relatively inactive.
   _ 2   a parent's organization that is relatively active.
   _ 3   a parent's organization that is very active.

PART II: FOR EACH QUESTION IN THIS SECTION, CHECK ALL ANSWERS THAT APPLY.

43-B. Which of the following types of materials are housed in your instructional materials center/library?
   _ 1   general library books.
   _ 1   current newspapers.
   _ 1   below grade-level reading materials.
   _ 1   files of past issues of newspapers.
   _ 1   above grade-level reading materials.
   _ 1   card catalog of materials housed (either traditional or on computer).
   _ 1   students' publications.
44-B. Which of the following types of materials are housed in your instructional materials center/library?

- filmstrips.
- current magazines.
- current newspapers.
- microfilms.
- phonograph records.
- maps, globes, and charts.
- ditto/mimeo machines.
- photocopy machines.
- laser disk players.
- video cassette players/recorders.
- audio cassette players/recorders.
- collections (coins, insects, art, etc.)
- motion pictures (include this if a member of a central service).
- display cases or areas.
- subject-related software.
- compact disks (CDs).
- laser disks.
- audio cassettes.
- video cassettes.
- televisions.
- access to NV libraries.
- access to the internet.

45-B. Students have access to computers:

- at least one in every classroom.
- in the library.
- in one computer lab.
- in more than one computer lab.

46-C. The master class time schedule can be changed by teachers when the need arises by:

- planning with other teachers on a daily basis.
- planning with other teachers on a weekly basis.
- seeking administrative approval for a special change.
- requesting a change for next semester.
- requesting a change for next year.
- other ________________________________

47-D. School dances are held for:

- grade five.
- grade six.
- grade seven.
- grade eight.
- grade nine.
PART II. Page 11

48-D. A club program for students is offered for:

- grade five.
- grade six.
- grade seven.
- grade eight.
- grade nine.

49-F. The intramural program includes:

- team games.
- individual sports.
- various club activities.
- other

50-I. Students are allowed to select courses of interest from a range of elective offerings:

- in grade five.
- in grade six.
- in grade seven.
- in grade eight.
- in grade nine.
- not at all.

51-I. Electives currently offered in this building are: (check those you offer from this list and add any not listed that you offer)

- art
- band
- vocal music
- drawing
- drama
- journalism
- foreign language
- family living
- creative writing
- keyboarding
- orchestra
- wood shop
- speech
- typing
- natural resources
- computers
- other
- other
- other
PART II. Page 12

52-K. How much time would you estimate the average student spends in independent study projects for each grade listed below?*

- minutes per day in grade five. *One point for each of the
- minutes per day in grade six. first two if over 20 min.
- minutes per day in grade seven. *One point for each of the
- minutes per day in grade eight. last two if over 30 min.
- minutes per day in grade nine. last two if over 30

53-K. Students working in independent study situations work on topics that are:

- we have no independent study program.
- assigned to them by the teacher.
- of personal interest and approved by the teacher.
- of personal interest and unrelated to classroom work.
- other______________________________

54-L. Students with poor basic skills can get special help in the following areas: (Check only those areas where special help on an individual basis is provided by special staff members trained to treat such situations.)

- reading
- spelling
- physical education
- math
- grammar
- other______________________________

55-M. Drama presentations by students are:

- not a part of the school program.
- a part of the activities program.
- a part of certain class activities planned by the teachers.
- other______________________________

56-O. Formal evaluation of students' work is reported by use of:

- a standard report card with letter grades.
- teacher comments, written on a reporting form.
- parent-teacher conferences.
- standard report card with number grades.
- parent-teacher-student conferences.
- other______________________________
57-P. In regard to community relations, this school currently:

0 does not send out a parents' newsletter.
1 sends out a parents' newsletter when need arises.
2 sends our a parents' newsletter on a scheduled basis.
1 uses a district-wide newsletter to send out information related to this school.
1 uses the commercial newspaper.
__ other ________________________________

58-P. The staff presents informational programs related to the school's functions:

1 when requested by the parents.
1 once or twice a year at regular parents' meetings.
1 at open house programs.
1 at regularly schedules "seminar-type" meetings planned for interested parents.
__ other ________________________________

59-Q. From the specialized areas listed below, check each service which is available to students in your building. (Note that a service need not be housed within the school building to be available to your students.)

1 guidance counselors.
1 school nurse.
1 school psychologist.
1 speech therapist.
1 diagnostician.
1 clinic services for the emotionally disturbed.
1 special education programs for the mentally handicapped.
1 special reading teacher.
1 learning strategist.
__ other ________________________________
PART II. Page 14

60-R. Interdisciplinary teaching teams are organized to include:

- 1 fully certified teachers.
- 1 paraprofessionals, e.g., instructional assistants, teacher's aides.
- 1 clerical helpers.
- 0 student teachers.
- 0 other__________________________________

61-R. From the following list, check those types of auxiliary helpers available in your building:

- 1 paid paraprofessionals, e.g., instructional assistants, teacher's aides.
- 1 volunteer helpers from the community.
- 1 volunteer helpers from the student body.
- 1 student teachers, practicum students, and interns.
- 1 high school "future teachers" students.
- 0 other__________________________________

PART III:

FOR EACH QUESTION IN THIS SECTION, PLEASE CHECK THE BOX OR BOXES THAT BEST DESCRIBE YOUR PROGRAM.

62-D. School social functions are held at this school:

<table>
<thead>
<tr>
<th></th>
<th>During the afternoon</th>
<th>During the evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade five</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade six</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade seven</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Grade eight</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Grade nine</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
### PART III. Page 15

63-E. The physical education program serves:

<table>
<thead>
<tr>
<th>Grade</th>
<th>All students</th>
<th>Some students</th>
<th>No students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade five</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade six</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade seven</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade eight</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade nine</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

64-E. What degree of emphasis does the physical education program give to the competitive and developmental aspects of the program for boys and girls?

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competitive Aspects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 High</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 Medium</td>
<td>2</td>
<td>2 Medium</td>
</tr>
<tr>
<td>4 Low</td>
<td>4</td>
<td>4 Low</td>
</tr>
<tr>
<td><strong>Developmental Aspects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 High</td>
<td>4</td>
<td>4 High</td>
</tr>
<tr>
<td>3 Medium</td>
<td>3</td>
<td>3 Medium</td>
</tr>
<tr>
<td>0 Low</td>
<td>0</td>
<td>0 Low</td>
</tr>
</tbody>
</table>
### 65-F. Intramural activities are scheduled for:

<table>
<thead>
<tr>
<th>Grade</th>
<th>All Students</th>
<th>Boys Only</th>
<th>Girls Only</th>
<th>No Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade five</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade six</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade seven</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade eight</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade nine</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

### 66-J. How do your guidance counselors handle group guidance sessions?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Regular Sessions Several Times Per Year</th>
<th>Special Sessions Only</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade five</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade six</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade seven</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade eight</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grade nine</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

### 67-K. Independent study opportunities are provided for:

<table>
<thead>
<tr>
<th></th>
<th>All Students</th>
<th>Some Students</th>
<th>No Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Class Time</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Time Scheduled for Independent Study Projects</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
### 68-L

Daily instruction in a developmental reading program is provided for:

<table>
<thead>
<tr>
<th>Grade</th>
<th>All Students</th>
<th>Poor Students Only</th>
<th>Not at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade five</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade six</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade seven</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade eight</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Grade nine</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
## DIRECTIONS

This survey asks different groups in a school and community what most people think about the school. These groups include students, teachers, school administration, other school personnel, school board members, and parents of other members of the community.

The survey has a number of statements that describe situations found in many schools. Most of these statements will fit your school, but for those that do not, mark the "Don't Know" box.

Use only 1, No. 2 pencil. Please fill in the following information about yourself and your school.

1. Individual ID Number: 351, Group: 1, Grade: 3rd grade, Sex: Male, Race: Hispanic, Grade: 3rd grade
2. Scale of answers: 1 = Don't Agree, 2 = Agree, 3 = Strongly Agree

### TEACHER-STUDENT RELATIONSHIPS

1. Teachers in this school like their students
2. Teachers in this school are on the side of their students
3. Teachers give students the grades they deserve
4. Teachers help students to be friendly and kind to each other
5. Teachers treat each student as an individual
6. Teachers are willing to help students
7. Teachers are patient when a student has trouble learning
8. Teachers make extra efforts to help students
9. Teachers understand and meet the needs of each student
10. Teachers praise students more often than they scold them
11. Teachers are fair to students
12. Teachers explain carefully so that students can get their work done

### SECURITY AND MAINTENANCE

13. Students usually feel safe in the school building
14. Teachers and other workers feel safe in the building before and after school
15. People are not afraid to come to school for meetings and programs in the evening
16. Classrooms are usually clean and neat
17. The school building is kept clean and neat
18. The school building is kept in good repair
19. The school grounds are neat and attractive

### MOST PEOPLE:

- Agree
- Strongly Agree
- Don't Know
- Strongly Disagree
- Disagree

CONTINUE ON BACK →
MOST PEOPLE:

ADMINISTRATION (Principal, Assistant Principal, etc.)

20. The administrators in this school listen to student ideas

21. The administrators in this school talk often with teachers and parents

22. The administrators in this school set high standards and let teachers, students, and parents know what these standards are

23. Administrators set a good example by working hard themselves

24. The administrators in this school are willing to hear student complaints and opinions

25. Teachers and students help to decide what happens in this school

STUDENT ACADEMIC ORIENTATION

26. Students here understand why they are in school

27. In this school, students are interested in learning new things

28. Students in this school have fun but also work hard on their studies

29. Students work hard to complete their school assignments

STUDENT BEHAVIORAL VALUES

30. If one student makes fun of someone, other students do not join in

31. Students in this school are well-behaved even when the teachers are not watching them

32. Most students would do their work even if the teacher stepped out of the classroom

GUIDANCE

33. Teachers or counselors encourage students to think about their future

34. Teachers or counselors help students plan for future jobs

35. Teachers or counselors help students with personal problems

36. Students in this school can get help and advice from teachers or counselors

STUDENT-PEER RELATIONSHIPS

37. Students care about each other

38. Students respect each other

39. Students want to be friends with one another

40. Students have a sense of belonging in this school

PARENT AND COMMUNITY-SCHOOL RELATIONSHIPS

41. Parents and members of the community attend school meetings and other activities

42. Most people in the community help the school in one way or another

43. Community attendance at school meetings and programs is good

44. Community groups honor student achievement in learning, music, drama, and sports

INSTRUCTIONAL MANAGEMENT

45. There is a clear set of rules for students to follow in this school

46. Taking attendance and other tasks do not interfere with classroom teaching

47. Teachers spend almost all classroom time in learning activities

48. Students in this school usually have assigned bookwork to do

49. Most classroom time is spent talking about classwork or assignments

50. Teachers use class time to help students learn assigned work

51. Outside interruptions of the classroom are few

STUDENT ACTIVITIES

52. Students are able to take part in school activities in which they are interested

53. Students can be in sports, music, and plays even if they are not very talented

54. Students are comfortable staying after school for activities such as sports and music

55. Students can take part in sports and other school activities even if their families cannot afford it

END OF SURVEY
February 19, 1999

«Principal»
«School Name»
«Address»
«City, State, Zip»

«Salutation»

My name is Cathy Andrews, and I am a middle school principal in the Clark County School District and a doctoral student at the University of Nevada, Las Vegas. Presently, I am conducting a study that will examine the relationship between the level of implementation of middle level practices and school climate in middle level schools in Nevada. In addition to my dissertation, the data obtained from this study may be used in the preparation of conference presentations and articles for publication.

To participate in this statewide study, please complete the questionnaire included in this mailing and return it in the enclosed postage-paid envelope by March 15, 1999. The completion and return of this questionnaire will indicate your willingness to participate in the study, and completing it will be the extent of your participation in this study.

The process of completing this survey will take about 20 minutes. I guarantee that your responses will remain confidential. Names of people or schools will never be used as your responses are grouped with those from throughout the state. Numbers instead of names will identify your responses to the questionnaire.

Benefits of this study include identifying the level of implementation of recommended middle level practices and gaining critical knowledge in understanding the relationship between levels of implementation and school climate in middle level schools in Nevada. As a middle school principal, I understand the many demands on your time; however, your participation is critical to gain a greater knowledge of middle level schools and how they work.

If you have any questions about this research, you may contact me at (702) 799-4460, ext. 211, you may contact the UNLV Office of Sponsored Programs at (702) 895-1357, or you may speak with my doctoral advisor, Dr. Rebecca Mills, at (702) 895-3561. I encourage you to participate, and please know that I am extremely grateful for your time and effort in cooperating with this study.

Sincerely,

Cathy Andrews
March 18, 1999

«Principal»
«School Name»
«Address»
«City, State, Zip»

«Salutation»

Approximately one month ago, you received a questionnaire with items related to the implementation of middle level practices in your school. In case you lost or misplaced the first questionnaire I sent to you, I have included another with this mailing.

Please take time to complete this questionnaire. When the results are analyzed, this study will add to the knowledge base of current educational practices in middle level schools. Again, I guarantee that your responses will remain confidential. A number instead of a name will identify your responses to the questionnaire.

You may obtain a copy of this study by faxing me at (702) 799-1485. I encourage you to participate, and please know that I am extremely grateful for your time and effort in cooperating with this study.

Sincerely,

Cathy Andrews
April 10, 1999

«Principal»
«School Name»
«Address»
«City, State, Zip»

«Salutation»

Congratulations, teachers in your school have been selected to participate in the second phase of my doctoral research study. In this phase, I am requesting that you ask your teachers to complete the enclosed NASSP School Climate Survey. It would be most beneficial if you would have them complete this survey during a faculty meeting.

Please inform your teachers of the following:

• Completing this survey will take approximately 10 minutes.
• Ink or pencil may be used to complete the survey.
• Do not write name of teacher or school on the survey.
• Responses will remain confidential.
• Names of schools will never be used as surveys are identified by school number only.
• The completion and return of this questionnaire will indicate each teacher’s willingness to participate in the study, and completing it will be the extent of each teacher’s participation in this study.

Please express my sincere appreciation to your teachers for their willingness to participate in this study. The benefits of this study include identifying the level of implementation of recommended middle level practices and gaining critical knowledge in understanding the relationship between levels of implementation and school climate as perceived by teachers in middle level schools in Nevada. I understand the demands on their time and yours; however, their participation is critical to gain greater knowledge of middle level schools and how they work.

If you or your teachers have any questions about this research, you may contact me at (702) 799-4460, ext. 211, you may contact the UNLV Office of Sponsored Programs at (702) 895-1357, or you may speak with my doctoral advisor, Dr. Rebecca Mills, at (702) 895-3561. I encourage you and your teachers to participate, and please know that I am extremely grateful for your time and effort in cooperating with this study.

Sincerely,

Cathy Andrews
APPENDIX C

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________________________________________________

authored by Dr. Jack D. Riegle

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determine the current level of implementation of eighteen basic middle
school principles. Ann Arbor, MI: Doctoral dissertation, Michigan State
University.

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Dr. Jack D. Riegle

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Signature Date

Dr. Paul S. George

Name (typed)

University of Florida, School of Teaching and Learning, P. O. Box 117048
Gainesville, Florida 32611-7048

Address

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of copyrighted material entitled School Climate Survey__________________

_______________________________________

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Name (typed) ___________________________ Title

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APPENDIX D

Personal Communications
Table 14

**Participating Nevada School Districts and Names of Employees Who Provided Information on Funding for Intramural Activities and Interscholastic Sports Programs**

<table>
<thead>
<tr>
<th>County School District</th>
<th>Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City</td>
<td>Ms. Marge Fowler</td>
</tr>
<tr>
<td>Churchill</td>
<td>Ms. Alice Jacobs</td>
</tr>
<tr>
<td>Clark</td>
<td>Mr. Larry McKay</td>
</tr>
<tr>
<td>Douglas</td>
<td>Ms. Sue Estes</td>
</tr>
<tr>
<td>Elko</td>
<td>Mr. Bert Elliott</td>
</tr>
<tr>
<td>Humboldt</td>
<td>Mr. Peter Stein</td>
</tr>
<tr>
<td>Lander</td>
<td>Dr. Brian Daw</td>
</tr>
<tr>
<td>Lincoln</td>
<td>Mr. Vaughn Higbee</td>
</tr>
<tr>
<td>Lyon</td>
<td>Mr. Russ Colletta</td>
</tr>
<tr>
<td>Nye</td>
<td>Ms. Joanne Barber</td>
</tr>
<tr>
<td>Pershing</td>
<td>Ms. Judy Osmun</td>
</tr>
<tr>
<td>Storey</td>
<td>Mr. Gil Gladding</td>
</tr>
<tr>
<td>Washoe</td>
<td>Ms. Nancy Lowe</td>
</tr>
<tr>
<td>White Pine</td>
<td>Ms. Mary Pasiemiak</td>
</tr>
</tbody>
</table>
REFERENCES


Mac Iver, D. J. (1990). *Meeting the needs of young adolescents: Advisory groups, interdisciplinary teaching teams, and school transition programs.* *Phi Delta Kappan,* 71(6), 58-64.


VITA

Graduate College
University of Nevada, Las Vegas

Cathy Andrews

Home Address:
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Las Vegas, Nevada 89110

Degrees:
Bachelor of Science, Biology, 1971
University of Nevada, Las Vegas

Master of Education, Educational Administration, 1976
University of Nevada, Las Vegas

Dissertation Title:
Middle Level Practices and Teachers' Perceptions of School Climate in Nevada

Dissertation Examination Committee:
Chairperson, Dr. Rebecca Mills, Ed.D.
Committee Member, Dr. John Readence, Ph.D.
Committee Member, Dr. Neal Strudler, Ph.D.
Graduate Faculty Representative, Dr. Alice Corkill, Ph.D.