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I am submitting herewith a dissertation written by David Kevin Smith entitled "Principals' Experiences and Perceptions of Year Round High Schools." I have examined the final paper copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Administration and Policy Studies.

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PRINCIPALS' EXPERIENCES AND PERCEPTIONS OF YEAR ROUND HIGH SCHOOLS

A Dissertation
Presented for the
Doctor of Education
Degree
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David Kevin Smith
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DEDICATION

This dissertation is dedicated to my wife, Angie, and my two children, Justin and Kristen, for always believing, supporting, and encouraging me through this process, and for sacrificing the time and attention away from our family that it took in order for me to achieve completion of my professional and personal goals.

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ABSTRACT

The purpose of this study was to describe the experiences and perceptions of high school principals who have implemented the year round schedule. The study was focused around the following two research questions which were answered through responses to a questionnaire mailed to a population of 136 year round high school principals from across the United States, Puerto Rico, and Guam:

1. What are the principals' experiences and perceptions of the implementation and effectiveness of their year round schedule?
2. Do principals' experiences and perceptions of the implementation process and assessment methods, problems since implementation, and motivation to adopt the year round schedule differ according to the size of school, type of school community, type of school, and type of year round calendar?

Methods Used

An analysis of the data was conducted using descriptive statistics for all responses to demographic, forced choice, and ranking items in the questionnaire. The data were separated to look for differences in the following four variables of the study: size of school, type of school community, type of school, and type of year round calendar. Chi-Square tests were run for top ranked responses to check for differences in methods and procedures utilized in terms of the variables. Multivariate Analysis of Variance (MANOVA) was used to check for differences in responses to motivation for adopting the year round calendar.

Major Findings

The majority of year round high schools are operating in smaller public schools of 1500 or less students, utilizing the single-track 45-10, 45-15, with or without modifications. Motivation for adopting the year round schedule centered around the improvement of academic achievement and increasing student learning retention rates.

Significant differences were found in the variables of type of school community regarding implementation processes, type of calendar regarding assessment methods, and size of school regarding implementation processes and reasons for adopting the year round schedule. A majority (67.1%) of principals had positive perceptions about the success of their year round schedule.

Conclusions

There is commonality among high school principals in regard to their overall experience with the year round schedule, however, there exists incongruent relationships between the reasons why the year round schedule was adopted and how its success is measured as well as in the methods and processes related to implementing and operating it, particulary in relation to school size.

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CHAPTER I

INTRODUCTION

Year Round Education (YRE) has emerged in an educational environment currently dominated by school improvement and change initiatives as an option for educators to consider in pursuing positive school reform. YRE has been the topic of renewed discussion and debate, particularly in the 1990's, as the focus of calendar format change has shifted to emphasize improved student achievement outcomes rather than the previously touted fiscal savings and facility efficiency of thirty years earlier. YRE experienced significant growth in the 1990's, and stands to continue to experience growth in the future, as more school districts are considering and implementing the calendar format, particularly at the elementary and middle school levels (Ballinger 2000).

The concept of YRE is not new, however, implementation has been sporadic. Appearing in the early 1900's, the first 'modern era' year round schools were implemented in Bluffington, Indiana (1904), Newark, New Jersey (1912), Minot, South Dakota (1917), and Nashville, Tennessee (1926). These schools introduced the year round calendar for a variety of reasons, including the need for additional space, improvement of the school curriculum, and a desire to enhance learning and assist the cultural assimilation of foreign immigrants (Glines, 1997). With the onset of World War II and the massive movement of women into the workplace, uniformity among schools in scheduling became a must to allow for consistent work schedules (DeJarnett, 1994). As a result, year round schools all but disappeared and were replaced by the traditional nine month calendar that featured a lengthy summer break. The traditional schedule had its origins in the mid 1800's in a rural agrarian society where school aged children were needed during the summer months to work on the family farm.

The concept of year round schooling was revived in the late 1960's and 1970's in four states: California, Illinois, Minnesota, and Missouri (Glines, 1988, p.17). This resurgence was specifically intended to address rapid population growth and overcrowding of schools. Nationally, many school districts began to view year round schools as a solution to overcrowding without having the expense and burden of building new schools and facilities. Between 1968 and 1976, twenty states experimented with some type of year round calendar. However, as the need for alternatives to funding new school construction and expansion began to diminish and more communities were willing to support new school construction in the 1980's, year round schools all but disappeared.

In the 1990's, renewed dedication to improving academic performance energized many educators. YRE advocates seized the opportunity to focus attention on YRE as a viable option for educational reform, and an attractive alternative to the long established nine-month calendar. They argued:

1. YRE provides continuous education so students do not forget material during the long summer breaks resulting in greater retention.
2. Breaks (intersessions) make it easier for schools to offer enrichment opportunities and remedial help for students during the school year and additional planning time for teachers.
3. YRE improves student attendance and lessens teacher and student burnout.
4. Families have more opportunities to take vacations throughout the school year (Prohm & Buenen 1990, p.1).

Their arguments were bolstered by an increasing number of studies reporting the positive impact of YRE on student achievement (Barker ,1990; Bradford ,1993; Grothohn & Banks ,1993; Kneese ,1996; Los Angeles Unified School District, 1983; Mutchler, 1993; Peltier ,1991; Perry, 1991; Winters, 1995). Results were particularly compelling with respect to positive effects of year round schools for at-risk students (Atwood ,1983;

Capps & Cox ,1991; Gandara & Fish ,1994; Perry, 1991; Serifs ,1990). Research suggested that shorter breaks from the classroom resulted in students forgetting less of what they had been taught, thus requiring less time for review and reteaching (Morse, 1992; Cooper, Nye, Charlton, Lindsay & Greathouse, 1996); and that this was particularly evident for disadvantaged and at-risk students in reading and mathematics (Cooper, 1996; Lloyd, 1991; Morse, 1992; Woodbren Public School District Oregon, 1994; Greenfield, 1994; Rigell 2000). Further, it was reported that a continuous calendar format positively influenced school climate, teacher morale, student attitudes, discipline, absenteeism, vandalism, and teacher burnout (Dunn, 1996; Alkin, 1983; Baker, 1990; Gandara, 1992; Hazelton,1992; Perry, 1991; Zykowski, 1991; Shields & Obert, 1995; Bradford ,1993; Elsberry, 1992).

Enrollment in YRE across the United States has increased steadily since 1990. There are currently 3,026 schools in 627 districts, enrolling 2,108,447 students (Ballinger, 2000). Of these, 2,904 are elementary and middle schools; 136 are high schools (NAYRE, 2000). These YRE schools enroll 3.8% of the total number of K-12 students nationwide (Ballinger, 2000), and the National Association of Year Round Education (NAYRE, 2000) predicts that the number of YRE schools will grow significantly over the next few years. Despite its potential advantages and robust growth in elementary and middle schools, high schools have been much slower to move to year round calendars, and year round high schools remain relatively rare (Shields & Oberg, 2000, p. 68). Year round high schools make up approximately 4% of the total number of year round schools currently in operation (NAYRE, 2000). Clearly, even in many of the school districts that have adopted YRE in their elementary and middle schools, their high schools have remained on a traditional schedule. This raises questions about the year round calendar and high schools. Why has YRE not experienced the same growth and presence in high schools as it has at elementary and middle schools? Do high schools

face different or more complex problems regarding implementation of year round schedules than do elementary and middle schools? Since most of what is known about the implementation and effects of YRE is based on research in elementary and middle schools, does the reported positive impact of YRE upon student achievement apply to the high school student? Given the current state of knowledge, this leaves the increasing number of school districts considering year round calendars without information and understandings they need to make decisions about its implementation in high school.

Statement of The Problem

More and more schools are interested in and adopting year round schedules. A growing body of research and literature exists to describe and support implementation at the elementary and middle school level. In contrast, little is known about the implementation or effects of YRE in high schools.

Purpose Statement

The purpose of this study was to describe the experiences and perceptions of high school principals who have implemented the year round schedule.

Research Questions

The research questions guiding the study were:

1. What are the principals' experiences and perceptions of the implementation and effectiveness of their year round schedule?
2. Do principals' experiences and perceptions of the implementation process, assessment methods, problems since implementation, and motivation to adopt the year round schedule differ according to the size of school, type of school community, type of school, and type of year round calendar?

Significance of The Study

Over the past twenty years, numerous studies on the potential and effectiveness of year round education as an initiative for school improvement and reform have been conducted (Glines, 1997). The vast majority of this research focuses on the educational influence of year round elementary and middle schools. There is limited information about the high school perspective and experience, despite requests for additional research from advocates such as the National Association For Year Round Education (Glines and Mussatti, 2000). This study begins to fill the void in the literature. Further, it provides critical knowledge and guidance for school districts in considering and making informed decisions about moving to YRE in their high schools. Lastly, it provides unique insight into the perceptions of high school principals who have been involved in implementing year round calendars, something missing from the existing literature.

Limitations of the Study

1. The study was limited to the 136 high school principals listed in the current directory of the NAYRE 2000.
2. Responses to the survey reflected the perspectives of the principals and may not reflect the view of others involved in the year round program.

Summary of Design and Procedures

This study was exploratory and descriptive in nature utilizing a questionnaire instrument developed by the researcher in order to gather data from 136 principals of year round high schools across the United States, Guam, and Puerto Rico. Upon receiving responses, a descriptive analysis of the data was conducted through the use of SPSS computer software. Descriptive statistics of frequencies and percentages were reported for all responses to the forced choice and ranking items in Section I, II, and III of the

questionnaire. Demographic data were also reported with frequencies and percentages. Means were calculated and reported for items in Section II.

The data were separated to look for differences due to the following four variables of the study: size of school, type of school community, type of school, and type of year round calendar. Chi-Square tests were run for top ranked responses to see if there were differences in the various methods and procedures utilized in terms of the variables. Multivariate Analysis Of Variance was used to see if there were significant differences in responses to motivation for adopting the year round calendar in terms of the four variables. An alpha level of .05 was set for all tests for significant differences.

Definition of Terms

Year Round Education/Year Round School - an academic K-12 program in which the 180 day school year is arranged in an alternative format with instruction broken up in blocks of time and smaller, more frequent vacations distributed throughout the school year.

Traditional Calendar - an approximately 180 day, September to June, calendar of instruction with a long summer vacation.

Intersession - the break time between scheduled instructional days.

Average Daily Attendance (ADA) - state support funding system which depends on the average daily attendance of students to determine the amount of state support to each school district.

Metropolitan Achievement Test (MAT) - standardized reading achievement test used at the elementary school level.

Comprehensive Test of Basic Skills (CTBS) - standardized test of basic learned skills administered to elementary and middle school students.

Socioeconomic Status (SES) - categorization of students according to various criteria such as level of family income and education.

Texas Assessment of Academic Skills (TAAS) - standardized test of math and reading skills used at the K-8 grade levels in Texas.

At-Risk Students - students who are considered potential school dropouts.

Iowa Test of Basic Skills (ITBS) - standardized test of math and reading skills used in grades K-8.

Single-Track - a type of year round calendar where all students attend classes and have breaks at the same time.

Multi-Track - a type of year round calendar where students attend classes and have breaks at varying times.

California Achievement Test (CAT) - standardized test of math and reading skills used in grades K-8.

Normal Curve Equivalent (NCE) - process of reporting standardized test scores.

Organization of the Study

The study was organized and presented in five chapters. Chapter One includes an introduction to year round education as well as the Statement of the Problem, Purpose of the Study, Research Questions guiding the study, Significance of the Study, a summary of the design and methods used in the study, Limitations, Definition of Terms, and Organization of the Study. Chapter Two provides a review of the existing body of literature related to year round education and its historical and current impact upon schools and learning. Chapter Three provides a description of the methodology used in the study. It details the design, population, instrumentation, procedures, and data analysis used for the study. Chapter Four contains a presentation of the findings. Chapter Five

contains a summary of the study and findings, a discussion of the findings, conclusions, and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a review of the research and literature related to year round education (YRE). It is presented in six sections: YRE: History and Context, Impact of YRE On School Costs, YRE and Student Learning Loss, Impact of YRE On Student Academic Achievement - Pre and Post 1990, Impact of YRE On Attendance, Impact of YRE On Student Discipline, and a Summary.

Year Round Education: History and Context

The traditional school calendar in the United States currently runs from September to June with students typically attending 180 days within these nine months. This calendar is the most widely accepted one, and has been for most of the twentieth century. YRE is an approach in which the traditional school year is reorganized in order to provide continuous learning by dividing the long summer break into shorter, more frequent breaks during the year.

In the current educational environment of school improvement and reform, a growing number of educational leaders are interested in initiatives like YRE that can assist them in helping to meet the educational needs and expectations placed upon the public school system.

A number of factors are cited for the interest in year round education:

1. The potential of the reduction of school expenditures on items such as buildings, transportation, textbooks, utilities, maintenance, and various other fixed costs.
2. The opportunity to improve and reorganize the school curriculum and provide for remediation, enrichment, and acceleration.

3. The potential improvement of public relations with the year-round utilization of school facilities.
4. The opportunity to provide full year contracts and higher salaries for teachers.
5. The prevention of the loss of learning and of study skill habits by students during the long summer vacations.
6. The potential of reducing long summer vacations that often result in boredom, wasted time, and delinquency for students (Mussatti, 1981).

In addition, YRE is seen as a way to increase school and student achievement.

Year Round schools are not a new phenomenon in the United States educational system, as the year round calendar has been implemented sporadically in the United States for the past three centuries. As early as 1645, Dorchester, Massachusetts operated an experimental twelve-month calendar, as did Hopkins Grammar School of Boston. These schools operated a continuous calendar where students had few breaks. In 1789, the state of Massachusetts passed a law mandating a twelve month calendar for any township with 100 or more families for the reason of getting children off the labor market and a place for them to be while their mothers were working in the factories. Another major purpose of these year round programs was to encourage educational excellence through summer enrichment. Curriculum in the summer months centered on recreational activities, arts and crafts, and religious training (Lane, 1932).

In the nineteenth century, a majority of large city school districts in the United States operated throughout the year (Peltier, 1991). These schools were faced with a two-fold problem: large numbers of non-English speaking immigrants and growing numbers of urban poor and disadvantaged. These districts were forced to develop ways to extend the length of the school year in order to give these students additional educational opportunities. Even though schools were open twelve months, few students attended the

entire year, mainly because of the lack of compulsory attendance laws. In contrast, many rural school districts during this era were open a minimum of three months of the year. In these areas, over 85% of the people were engaged in agriculture, and youth were needed to help on the farms. The lack of transportation, distances from home to the one-room school houses, and heavy snows in the Midwest limited large numbers of students to fall and early spring school schedules (Glines and Bingle, 1996). Children that lived in small towns and in warmer climates were often able to attend part of the winter as well as fall and early spring.

In the mid to late 1800's, there was a trend in large, urban schools and communities to form summer schools, or vacation schools, as they were sometimes called. These were an outgrowth of the social reform movement occurring at the time which was influenced by the need to keep children off the streets and reduce juvenile delinquency (Shepard and Baker, 1977). These vacation schools led to the development of the first vocational skills training programs (Glines, 1995). In 1888, the United States Commissioner of Education endorsed the establishment of what he termed summer schools, which were intended to be used to help augment the learning process (Zykowski, Mitchell, Hough, and Gavin, 1991). Supporters believed that changes in society brought on by the industrial revolution should be reflected in school curriculum; therefore, courses offered during these summer schools focused on vocational and technical training. Cities that followed the recommendation of the Commissioner and adopted a year round calendar included New York City, 245 days; Chicago, 240 days; Buffalo, 250 days; Cleveland, 215 days; Detroit, 259 days; and Philadelphia, 252 days.

As the United States expanded in land area and population, development and consolidation of more schools and student compulsory attendance became issues. Child labor laws, the rise of unions, the increase of industry in the cities, the limited number of youth attending high school, limited transportation, the still agricultural states of the

nation, the arrival of new immigrants and multiple languages, all contributed to the eventual emergence of more uniform schools and calendars (Glines and Mussatti, 2000). Although the 1847 implementation of the graded school structure grew rapidly in large cities, one-room, ungraded schoolhouses still dominated rural areas. The trend to uniformity involved city schools decreasing their days of attendance to 195 and rural schools increasing their months of attendance to seven. By 1915, largely due to the Industrial Revolution, the disparity in urban and rural school calendars ended, and the nine month traditional calendar became the nation's standard (Brekke, 1992). By the start of World War I, the traditional 180-day school year, six-hour day, became standard, often accompanied by remedial summer programs (Shepard and Baker, 1977).

Most year round advocates trace the beginning of the modern year round calendar to the one first developed in Bluffton, Indiana, in 1904. William Wirt, Superintendent, began the innovation to alleviate overcrowded schoolrooms and provide a better quality of education. It also allowed him to offer a diverse curriculum, thereby giving students and parents some choices in subject matter. Following Bluffton, there were a number of continuous year round programs. Most exemplary were the ones in Newark, New Jersey, beginning in 1912, and in Nashville, Tennessee, in 1925 (Glines, 1997). The Newark design differed from the earlier one in Bluffton in that it was based on student acceleration. The regular year curriculum was divided into thirds, with an assumption that average learners who attended school through the fourth quarter of the 48 week school year would achieve the work of one and one third years. Conceivably, students could complete the eight-year elementary program in six extended years. This 'all year school' program was implemented to improve the quality of the school program, not to address issues of space and overcrowding. Early success of the Newark all year school design was widely publicized and somewhat controversial because it was based on the concept of acceleration opportunities for the economically disadvantaged student. After

nineteen years of operation, the school board terminated the program in 1931 arguing that:

1. The 'All Year Program' was too costly.
2. 'All Year School' students showed a lack of maturity.
3. Children were not completing one and a third year of work in a calendar year.
4. Too many elementary children were entering high school with language problems.
5. There was widespread dissatisfaction with the program throughout the community.
6. There was a need to establish equal educational opportunities for all children (Glines, 1995, p. 6).

The all year program in Nashville began in 1925, lasted eight years, and according to Superintendent Henri Carlton Weber, addressed the need to improve the quality of education in the Nashville schools through a term rotation or four quarter system. This system was in contrast to the traditional school calendar of the time, as Weber opposed the traditional graded system and urged what he called a continuous learning process. This was done by breaking the school year into three parts, with the third part enabling brilliant students to earn rapid promotion and the slower students to repeat, if needed, one third of the year. Weber further built upon this philosophy by creating a fourth part, a summer term, that was added to the previous three to enhance the acceleration and repeat opportunity for students. The Nashville and Newark all year school plans also emphasized the need to assist immigrant and second generation youth to learn English. These systems provided for extended learning over four quarters, accelerated opportunities for graduation, and reduced the number of dropouts (Glines and Bingle, 1996).

By World War II, all year round programs ceased to exist, and uniformity of school calendar was seen as a way of supporting the war effort. The traditional nine month school calendar became firmly entrenched as the standard model. Following the end of hostilities, the American educational system embarked on nearly two decades of rapid expansion. High schools, colleges, and vocational trade school enrollments grew, largely because of students returning from military service determined to complete their education. As a result, voluntary summer schools, usually eight to ten weeks, focusing on career skills, became part of many public high school programs. The post World War II baby boom caused a surge in the public school population, and the successful launch of Sputnik in 1957 brought renewed interest in education and the need for additional educational facilities and resources (Zykowski, et.al., 1991).

In 1964, aware that most policymakers viewed year round education as an intrusion on the traditional instructional program, Virginia's Commissioner of Education, James E. Allen, established the post of Consultant On Rescheduling The School Year (Hermansen and Gove, 1971). Continuous Learning Year Plans were developed by Allen and his colleagues between 1968 and 1972 (Thomas, 1973). During this period, the concept of year round education was reactivated in communities in California, Illinois, Minnesota, and Missouri (Glines, 1994). This renewed interest in year round education was an answer to overcrowding, expanding school enrollments and a lack of funding for new construction and facilities. More and more school districts were facing electorates less willing to increase their financial support for schools. Year round schooling was now seen as a cost-effective alternative for providing education to greater numbers of students without building new schools. Historians of the year round movement consistently cite developments during this period of time as benchmarks leading to the rebirth and growth of year round programs in the subsequent years of the late 1970's and 1980's.

In 1968, Hagwood Unified School District in Hagwood, California, implemented California's first year round school at Park Elementary. This school schedule design involved fifty days of instruction, followed by fifteen days of vacation, for an extended year of 200 days for all students. Hagwood was followed in 1971 by Chula Vista and Le Mesa Spring Valley School Districts. Concurrent with the California programs, Chula Vista District (K-6) became the first multi-track year round program in California. The multi-track program allowed students to attend different periods of time within the school year. Francis Howell School District in St. Charles, Missouri, and Valley View School District 96 in Will County, Illinois, both adopted mandatory year round programs within a year of each other (Hermansen and Gove, 1971). The Francis Howell District, which was the first multi-track calendar in the nation after WWII, implemented a 9-3 calendar (four nine week quarters each separated by three week vacations) in 1969. This school district gained national recognition for creating space, raising money, and 'launching' the modern era of the year round movement in the multiple track format. Valley View adopted the same calendar in 1970, calling it the 45-15 plan (forty-five days each separated by fifteen days of vacation). It was mandated in both districts for all students in the seven schools in order to meet the instructional needs of a rapidly growing area outside of Chicago. Eventually the adoption encompassed thirteen schools throughout the district from kindergarten through high school. Visitors came from throughout the United States to learn how to address financial and space concerns and improve the quality of opportunities through the year round concept.

Innovative programs like the one conducted at the Mankato State University Wilson Campus School in Minnesota in 1969 further extended the year round movement. This school adopted a voluntary single-track year round program creating a unique 'personalized' calendar for children in grades K-12. Students were divided into five attendance cohorts (tracks of 180 days). The school facility was open, and instruction

was provided, 240 days a year, while students were required to choose one of the five cohorts. The Mankato program was individualized, giving parents and students flexibility to come and go as desired, vacationing whenever needed while also addressing the issue of maximum school facility usage (Glines, 1990). Similar year round programs were launched during the late 1960's and early 1970's in Atlanta, Georgia; Fort Lauderdale, Florida; and Jefferson City, Kentucky. These initiatives did not experience a great deal of success, as state legislatures failed to provide adequate funding, and strong parental and teacher dissatisfaction led to their demise.

After a period of expansion in the early 1970's and the passage of school facilities legislation providing necessary state funding for new school construction, the late 1970's saw a declining number of school districts continuing or initiating new year round calendars (Zykowski et al., 1991). Glines (1995) contends this abandonment was because many of these schools and districts did not have the philosophical foundation in place for continuation of the year round calendar as a tool for improvement of student achievement. Proponents of the year round concept argue that the reasons for the abandonment are unrelated to the issue of YRE, but are instead related to political and administrative reasons. These include:

1. Year round operations were initially adopted as a temporary space rearing device, and the districts begin to experience a decline in student enrollment.
2. The superintendent who initially supported the year round calendar was succeeded by a superintendent who did not believe in the merits of the plan.
3. A change of school board members who did not support the year round calendar.
4. Push for uniformity in all schools in the district was exerted by

community leaders, parents, teachers, board members, or the administration (Sincoff and Reid, 1975, pp. 50-51).

At the end of the 1970's, the majority of advocates still viewed YRE as a method of increasing space and efficiency of facility usage where finances were not available to construct new school buildings. A minority saw it as a way to raise student achievement.

After going through a period of abandonment in the late 1970's, YRE faced a resurgence in the 1980's and 1990's. Reasons to adopt YRE became centered in individual life styles and learning philosophies, rather than strictly for better use of space and money. For the advocates of YRE, the process was rooted in a sound philosophical rationale:

1. Continuous Learning : the concept that schools should never close and students should be given the opportunity to learn in any of the 12 months.
2. Employment Realities: parents could no longer take long summer vacations because of work schedules and that they would begin to appreciate non-summer periods to spend time with their children.
3. Lifestyle Diversities: the opportunity for three to four short vacations rather than one long one allows families more options. In many regions, combining employment and lifestyle preferences created a feeling that schools need to be closed June, July, and August.
4. Curriculum Facilities: school districts began to use YRE to create additional space for programs in their curriculum. It allows for innovative and creative scheduling and planning in regard to school facility.
5. Improvement Catalysts: YRE became a foundation for restructuring of schools.

6. Community Enhancements: collaboration with community resources and programs such as parks and recreation, churches, and health and social agencies created a positive community environment.
7. People Considerations: YRE offered a continuous home / role model for part of the day every month, providing structure, food, and learning opportunities for the less fortunate economically.
8. Personal Choices: whenever possible, year round and nine month calendars should be offered as options to parents. It should not be mandated, unless essential, but should not be denied those who would benefit (Glines, 1995).

A growing number of educators became committed to the year round philosophy because they were convinced that its potential exceeded the possibilities for the nine month calendar. It was argued that it could help many individuals, and society in general, by providing calendar, curriculum, and family options which more closely fit the changing lifestyles, work patterns, and community involvement of large segments of the population (Glines, 1995). This became the basis for advocacy of year round schools as the decade of the 1990's approached. Interwoven within this renewed emphasis was the issue of school restructuring and improvement. Many questions and subsequent studies emerged considering use of time in school, learning loss, instructional strategies, and student achievement and motivation.

Of primary significance during this time was The National Educational Commission On Time and Learning (1994) which proclaimed schools 'prisoners of time', bound and driven by the limitations of the clock and calendar. This commission challenged school leaders across the country to reexamine use of school time in relation to student learning. A number of studies followed (Shields, 1998; Bradford, 1995; Kneese 1996) which reported a positive relationship between student learning and

additional instructional time available in the year round schedule format. Information from studies such as these have had an impact upon the recent growth in interest of YRE and its subsequent implementation in school districts across the United States.

In 1980, 336 schools (284 elementary, 37 middle schools, and 15 high schools) in 16 states implemented some type of year round approach (NAYRE, 1980). Since then the number of schools implementing a year round approach has continued to increase. During the 1990's, California maintained its leadership in total year round schools, entering the 1999-2000 school year with 1,557 schools; Arizona, 164; Kentucky, 154; and North Carolina, which recorded the greatest growth during the past decade, 130. Eighty one percent of year round schools at all levels are west of the Mississippi River, a western predominance that is also manifest in private year round schools. In total, there are now 43 states and the District of Columbia involved in some form of year round schooling. Year round schools have also gone international. In the past decade, year round school growth has occurred in Canada, as well as the Pacific Island nations of Guam, Salpie, and Pohnpei, each of which has close ties with the United States (Ballinger, 2000).

During the 1999-2000 school year, year round programs increased to 3,026 schools in 627 school districts, enrolling 2,108,447 students. Private year round schools also mirrored this growth as the number of students enrolled in year round private programs has increased from 2,000 in 1980 to 17,000 in the 1999-2000 school year (Ballinger, 2000).

Ballinger (2000) identifies four reasons for the growth in year round schools nationwide.

1. The growth continues because both parents and educators now question yesterday's calendar that interrupts formal education for up to three

months. Educational researchers and site practitioners today acknowledge the reality of summer learning loss.

2. Parents like year round education's intersessions, which offer instruction that is immediate, focused, and more appropriate than summer school.
3. American and Canadian parents have changed their vacation patterns and are now seeking greater flexibility in school schedules.
4. The multi-track format provides an efficient and immediate solution to the problem of overcrowding and does so in a cost-effective way (p. 5-6).

According to Anoff (1999), the growth of YRE has led to the formation of 13 regional year round associations as affiliations of the National Association Of Year Round Education (NAYRE). These affiliate organizations currently represent schools in the forty-three states that have implemented some type of year round educational configuration.

The year round calendar generally consists of two strands or configurations, multi-track and single-track. While maintaining the educational features of YRE, the multi-track calendar is primarily implemented in school districts for the purpose of reducing over crowded facilities, and involves students attending school at different time periods. The single-track calendar, which involves all students attending school in the same time period, is generally implemented for purposes that relate to improved academic achievement. A school district can alternate between the two strands of organization, depending upon fluctuating student enrollment (Kneese & Knight, 1995). The single-track calendar has experienced the greatest growth recently, and 59% of all year round schools in 1999-2000 operated a single-track format (Ballinger, 2000). In addition to the multi-track and single-track calendar format, there also exists various other configurations of year round calendars in operation (See Appendix F).

There are as many different ways of implementing the YRE calendar as there are year round schools. The following are some of the more common YRE calendars:

1. 45/15 Single-Track Plan: With this calendar the year is divided into four nine-week terms, separated by four three-week vacations or intersessions. Students and teachers attend school for nine weeks (45 days), and then they take a three-week vacation (15 days). This sequence of sessions and vacations repeats four times each year, thus providing the usual 36 weeks or 180 days of school. Four additional weeks each year are allocated to winter holidays, spring vacation, and national, state, or local holidays.
2. 45/15 Multi-Track Plan: Students are normally divided into two to four groups, depending on enrollment, and groups follow their own calendar. For example, in a four-track version of the plan, groups A, B, C, are in school while group D is on vacation. When D returns, A goes on vacation. Each track has its own 45/15 schedule of nine weeks in school and three weeks on vacation. Teachers usually follow the track schedule of their students but can be assigned to another track, therefore lengthening their contract year and increasing their salary.
3. 60/20 Plan: Students attend school for 60 days and vacation for 20 days. Students rotate through the year until they have had three 60-day terms and three 20-day vacations. The 60/20 Plan can be varied to take into account holidays and state attendance regulations and can be used in either a single-track or multiple-track format.
4. 60/15 Plan: This plan borrows from both the 45/15 and 60/20 plans in that the instructional period is 60 days and the vacation period is 15 days. By rearranging the instructional days, a common summer vacation of three to

four weeks can be given to all students and faculty. It is usually implemented with one or five tracks available to students.

5. 90/30 Plan: This plan has two 90-day semesters separated by a 30-day vacation period twice a year. Schools are also closed during the traditional winter holiday period and spring vacation. This calendar can be conducted as either a single-track plan or a multi-track plan.
6. Quarter Plan: The calendar is divided into four 12-week periods in fall, winter, spring, and summer. Students may select, or be assigned to, any combination of three of the four quarters. They may attend the fourth quarter on a voluntary basis, either on or off campus. The curriculum is organized so that each quarter is a separate entity. A course begins and ends with each 12-week period. For example, Social Studies and English programs may offer a series of separated, but related, courses. Subject areas requiring annual sequential treatment, such as mathematics, are offered in each of the four quarters to complete a year of work.
7. Quinmester Plan: The school year is divided into five parts with students required to attend four of the five parts. This calendar is most often used at the secondary level of grades nine through twelve. The school year may range up to 220 days, with vacation periods averaging about seven weeks. The quinmester plan often operates on a single-track pattern.
8. Five-Track, Five-Term Plan: The school year is divided into five terms of 45 days each. There are five terms in each track. Students attend four of the five for a total of 180 days of instructional time annually. This plan is usually used on a multi-track basis. It provides for a common summer break of approximately three weeks for all students.

9. Concept 6 Plan: This plan is particularly useful when there is a lack of space. It requires that students be divided into three groups, with one group always on vacation, thus releasing a considerable amount of space (up to 50%) for instructional use. There are six terms of approximately 43 days each. Students attend four of the six terms but must attend two of their four terms consecutively. For example, Group A begins in July for its first 43-day term. It is then joined by Group B for another 43 days. When Group C enters, Group A has completed its 86 days and goes on vacation for 43 days.

10. Flexible All-Year Plan: School is open for instruction approximately 240 days per year, although theoretically a school year could be longer in states where Saturday and Sunday are now legal school days. Students are required to attend the minimum number of days designated by each state. To operate this plan, teachers must be willing to individualize learning. Students have three choices: 1) they may attend all days the school is open for additional learning opportunities, even though only 180 days may be required, 2) they may attend only the required 175-180 days and spread these days over the 240 that instruction is available, or 3) if a family needs or insists on the traditional nine month calendar, the student can start by a set date in September and finish in June, completing 180 days after the student's program has begun.

Impact Of YRE On School Costs

During the 1970's and early 1980's, a number of feasibility studies for implementation of a year round program cited fiscal savings as a major benefit of implementation. Included in these were cost analyses completed by the LaMesa-Spring

Valley School District in California (1972). Results of this study indicated there were substantial savings to be gained from the 45-15 plan. In a study of the Valley View District Elementary Schools in Illinois, Chapman (1972) concluded that the avoidance of construction of additional school buildings because of the year round, multi-track schedule would save the school district thousands of dollars of capital expenditures on a yearly basis. Other savings were possible for maintenance and operational costs.

One of the most comprehensive studies completed on the financial implications of year round schools was done by Lloyd (1973). His study focused on the financial implications of the year round schedule in California during the early 1970's through a survey of fifteen elementary and middle year round schools. Lloyd found that the year round schedule experienced slightly higher costs but at a proportionately lower Average Daily Attendance (ADA) cost than that of the traditional school session. Further, he found that year round schedules which provided for staggered attendance on a mandated basis, as found in multi-track schedules, could preclude the costs of new construction, equipment, and debt service, thus resulting in lower per student cost. There was also some indication in Lloyd's study that there was a significant possibility of lowering per student costs in overall operating expenditures through YRE.

In what was termed at the time the most significant research on the financial aspects of YRE, the Stanford Research Institute International completed a cost comparison study of year round and traditional schools in the Pajaro Valley District (California) in 1978. One aspect of this study was to assess the economic impact of the year round school program that had been implemented six years earlier. Results showed that the year round program had reduced annual per student cost in the district by 4.1%, producing an annual savings of more than 150,000 dollars. More than 90% of this savings resulted from more efficient use of classrooms and schools (Petrarin, Bummett,

Peterson, 1979). In summarizing their findings, the authors of the Pajaro Study concluded:

> "It is difficult to say, based on this study and the flawed studies elsewhere in the literature, precisely how much a year round school program can save a school district. A few studies report increased costs of 1% to 3%, most have found savings of up to 8%. We think that a school can reasonably expect to save about 8% on its total annual budget with a carefully planned year round program" (p.19).

A central issue in YRE costs is whether increases in operating costs offset the reduction in capital and construction costs. In general, year round schools experience some increase in operating costs, but rarely is this increase as large as the savings in capital and constructional costs where the year round school space saving potential is realized. Baker (1978) attributed the increase in operating costs to a lack of effective planning for year round implementation. There have been many instances, however, when savings have been so minimal that YRE has been abandoned after just a few years of operation. Virginia Beach, Virginia, found that the net dollar savings came to only $8.00 per student in a year round program because of higher staff costs (Sincoff & Reid, 1975). They abandoned the program after three years of operation. Similar conditions were present in school districts in Fulton, Carrollton, Calhoun, Rockdale County, and Columbus County, Georgia, and Marion County, Florida. The expected operational savings of year round programs were never realized and the programs were subsequently abandoned.

In his dissertation, Mussatti (1981), surveyed twenty nine high school principals utilizing the year round approach in order to obtain their experiences on the implementation of a high school year round program. In his analysis of the financial aspects, high school principals' greatest concerns related to year round high school

programs being more expensive than traditional programs. However, their financial concerns were not as great as other concerns, such as administration, scheduling, and curriculum.

Utilizing a cost comparison study of matched year round and traditional elementary schools in the Oxnard California School District, Brekke (1984) set out to answer the question, 'Does YRE cost less than operating a traditional school year program?' (p. 2). He found that the answer depended upon a school district's classroom space availability and student population. If there was no need to utilize classroom space or school facilities more efficiently to accommodate a student population that exceeded a district's available classrooms, year round education could result in additional costs. If, on the other hand, the district's student population exceeded the available classrooms required for a traditional schedule, year round education had the potential for significant cost-saving advantage in operational and capital expenses. The main financial advantage of YRE emerged from the potential to use a school facility to its maximum capacity for twelve months.

The literature clearly portrays that cost savings in YRE which result from the avoidance of new construction are reduced by generally higher operating and maintenance costs. In growing districts, savings may be entirely offset if inevitable new construction is completed above original estimates due to inflation or other increases. As the year round concept emerged as a tool for the improvement of student achievement in the 1990's, less emphasis was placed upon the impact of cost and subsequent savings.

YRE and Student Learning Loss

Central to the year round school versus traditional school debate is the question of whether YRE improves student achievement. The issue of student learning loss over long periods of time such as the summer break in a traditional calendar has been a topic

of examination in year round education research. In one of the earliest studies of the effects of summer learning loss on students, Thomas (1973) studied academic achievement and the effect of long summer breaks on disadvantaged elementary students. Thomas' study compared the reading achievement of thirty-five year round students and a control group of traditional calendar students using the Metropolitan Achievement Test as the measurement tool. The test was administered to third grade students who had been in the comparison project for 25 months. According to this research, those attending year round schools made statistically significant gains in reading as compared to students attending traditional calendar schools. At the same time, a reading ability loss of six months occurred for students in summer break.

Focusing on summer learning loss, Cooper, Nye, Charlton, Lindsay & Greathouse (1996) reviewed thirty nine studies from 1906 to 1994, involving students from grades one through eight. All of these studies focused on student academic performance and used test score comparisons at the end of the traditional calendar school year with test scores of the same students at the beginning of the following traditional school year. They concluded that student achievement test scores declined over the three month summer vacations. The loss equaled approximately one month on a grade level equivalent, was more detrimental for math than for reading, and was most detrimental for math computation and spelling. There was also evidence that the summer break had roughly equal negative effects on the math skills of students from middle and lower income families, but greater negative effects on the reading skills of lower income students. Middle to upper class students tended to gain on reading recognition tests over the summer, while lower-class students lost on them, a direct correlation to the amount of resources and enrichment opportunities to which upper class students are exposed. There were no moderating effects for student gender or race; however, the negative effect of summer did increase with higher grade levels. This study is consistently referenced by

proponents of YRE as evidence of the negative impact of the traditional calendar on student learning because of the summer break.

The issue of summer literacy loss was the deciding factor for Willow Brook Elementary School in Oak Ridge, Tennessee, to implement a single-track 45/15 year round program in 1997. According to Rigell (2000), many students in grade K - 4 were experiencing up to six-tenths of the academic school year learning loss in reading because of the limited participation in an extended six week summer program that had been in operation at the school for the previous two years. In a school where 60% of the students were 'at risks' according to socio-economic levels, the decision was made to implement a year round program to offset the summer reading loss. After three years in the year round program, students had demonstrated gains of 1.8 in reading and 1.2 in math grade level scores (Rigell, 2000).

Impact of YRE On Student Academic Achievement -Pre and Post 1990

Many of the studies conducted prior to the 1990's found no consistent achievement advantage favoring either year round or traditional schedule schools. Merino (1983) reported that in nine studies of year round schools that had pre and post test designs and control groups, only three had gains favoring a year round calendar. In two of the three, however, the number of instructional days had been increased, which may have contributed to the gains. The other six studies reviewed by Merino showed no significant differences for students on either a year round or traditional calendar. These studies all consisted of elementary and junior high level students, which is the sample population for the majority of studies conducted, particularly prior to 1990.

According to Zykowski (1991), the most extensive achievement comparison done before 1990 was a study conducted by The Stanford Research Institute. The subjects were a sample of students in grades 3, 5, and 7, from both traditional and year round

programs in the Pajarro-Valley Unified School District in California. The Comprehensive Test of Basic Skills (CTBS) was administered in the fall, spring, and fall of 1976-77 to determine the rate of learning while school was in session and the possible learning loss over the summer months. The study found no statistically significant differences in reading and math achievement between students on a traditional calendar and a year round schedule.

Atwood (1983) studied 17 pairs of year round and traditional calendar schools in the Los Angeles Unified School District. The schools were paired geographically, ethnically, and by enrollment. In nine of the paired schools, year round schools showed higher performance, according to means, on the Survey of Essential Skills Interest than their traditional school counterparts. While there were gains, Atwood concluded that there were no statistically significant differences in reading and math achievement between year round and traditional calendar schools.

Kuner-Roth (1985) compared a random sample of 90 students in grades 3-7 in Illinois from year round schools and traditional schools. Students had to have attended their respective schools for each year in grades 3-7. The results were mixed. There were no significant differences between the groups on achievement test scores in math. However, traditional calendar school students scored significantly higher on reading achievement tests.

The research that has been conducted on year round education since 1990 on year round education has focused on comparative studies of YRE with traditional calendar schedules, particularly in the area of student achievement. The majority of these comparative studies are either supportive or refutational of the year round philosophy, largely dependent upon the stance of the authors of the research. Many of the studies which reported increased academic achievement for students in year round schools (Six, 1993; Kneese, 2000; Winters, 1994) were published by the National Association for Year

Round Education (NAYRE), which openly promotes the concept and implementation of the year round school calendar.

A study by Lloyd (1991) to determine the impact of a year round calendar on the retention of learning by sixth grade students found that in terms of scores on the California Aptitude Test, year rounds students showed a statistically significant increase in reading ($p<.01$) and math ($p<.01$) over one school year when compared to their traditional calendar counterparts. The subjects were 216 sixth grade students at Crockett Intermediate School in Conner, Texas. The experimental group of 54 students voluntarily participated in the year round approach while the remaining 162 students followed the traditional calendar.

In a previous study within the same school district in Ohio, Roby (1991), completed a dissertation comparing the reading and math achievement of sixth grade students in a 45/15 year round school and sixth grade students in a traditional school within the same school district. Student subjects were matched with respect to socio-economic status, ethnicity, and academic aptitude established through an assessment given in grade 4. Mean Normal Curve Equivalents (NCE) achievement test scores in reading and math on the Iowa Test of Basic Skills (ITBS) administered in the spring of 1991-92 were used to compare the two groups. Analysis of covariance was used to compensate for differences between the two groups in cognitive ability. With the verbal covariate held constant, the adjusted mean Reading NCE score for year round students was 53.68 and for traditional students 47.90, which was statistically significant ($p < 0.007$) with an alpha set at .05. With the quantitative covariate held constant, these respective values for year round and traditional students were 52.16 and 49.43. Again, the difference favored year round school, but the difference was not statistically significant ($p.< 216$). In the case of math mean NCE scores, the results were similar, with the differences in all cases favoring the year round students, but statistically

significant only where the Verbal Covariate was held constant. This was a well conceived and carefully designed study with special effort to control for variables which could influence the findings. The mixed results obtained would have all been seen as positive for year round education with a less rigorous design (Winters, 1995).

A study conducted in the Texahoma Independent School District in Texas (Pasley, 1992), evaluated student performance on the California Achievement Test (CAT) in both reading and math. The research involved 500 elementary students (K-5) in four multi-track year round schools employing both a single-track (60/20) year round program and a traditional school calendar. Students enrolled in the year round approach scored significantly higher ($p < .05$) on the CAT than their traditional calendar school counterparts. The average year round student was more than 75 points higher in reading and 54 points higher in math. Results were consistent for year round students who were economically disadvantaged as well as economically advantaged.

Statistically significant results were reported in reading scores for Chapter I students who took the Iowa Test of Basic Skills (ITBS) at College Park Elementary School in Fulton County, Georgia. The results demonstrated a Normal Curve Equivalent (NCE) gain of 8 points after the schools first year on a 45-15 single-track schedule. The school also reported a drop in student retention rates after a conversion to the year round schedule (Russell, 1992).

Six (1993) conducted a review of 13 post-1985 studies of YRE elementary and middle schools for the NAYRE. There were three criteria for inclusion in the review: program implementation for at least two years, a minimum of three testing points, and a comparison group (Kneese, 1995). He found that 10 favored YRE and that 7 of the 10 showed statistically significant results. Among the studies reviewed was a study of schools in Chula Vista, California, which was conducted for five years in which a higher

percentage of year round students maintained or improved in their scores between 1985 and 1990 than students in traditional calendar schools.

Greenfield (1994) reported that when a sub-district in Hawaii with an enrollment of 700 students in Grades K-5 studied the academic results of their year round schools, teachers and parents observed many academic improvements; however, the results did not demonstrate statistically significant score increases across the years in any content area. When a locally developed school district test to measure 'summer learning drop-off' was given twice a year to all of the students enrolled in both year round and traditional calendar schools, all students experienced some learning loss. However, year round students experienced less learning loss in mathematics and reading and the differences were statistically significant.

In a dissertation involving a synthesis of YRE research, DeJarnett (1994) reviewed 57 studies to determine if YRE was a valid component of school improvement. There were thirty studies that directly dealt with student academic achievement, all of which were set in elementary and middle school grades. Academic achievement was one of seven dependent variables examined.

> "Of the thirty studies, 17 indicated that a significant improvement in academic achievement resulted from a move to a year round calendar. Two studies reported a decrease in achievement, and 11 reported no significant difference between the year round achievement and that of the comparison traditional calendar programs" (p. 119).

This study demonstrates the potential that YRE possesses to elevate the performance level of a school, according to DeJarnett, especially in the single-track program.

In research published by the NAYRE, Winters (1995) reviewed 19 studies that related to academic achievement, only two of which were at the high school level, the

Sweetwater Union High School study by Chen (1993) and the Parry McCluer High School study by Bradford (1999). Winters found that despite the use of various standardized test instruments, results generally were favorable to the year round concept. Included in his report of 19 studies was a study by Campbell (1993) of reading scores for second grade students in the West Carrollton School District in Ohio. Thirty second grade, at-risk students in a year round elementary school were matched with 30 second grade Chapter I students from four elementary schools in the same district on a traditional schedule. In both groups, the subjects had to have been in regular attendance in their respective programs for the prior three consecutive years. Raw scores and NCE scores from the Gates-MacGintie Reading Test was collected from both groups of subjects in the fall of 1991 (pre) and again in the spring of 1992 (post). Campbell found that gains were made in both the raw score and NCE by year round students, but these gains were not statistically significant. An interesting aspect of this study was that in addition to the standardized tests used with students, a perception survey instrument was administered to teachers, administrators, and parents. According to the survey results, over 90% of parents and administrators gave positive responses when asked about their perception of how students performed on the reading assessment. Teachers gave a 65% positive response rate regarding student performance.

The literature provides one example of a study that attempts to isolate student achievement level comparisons between single-track and multi-track year round configurations. In a meta-analysis of fifteen studies of YRE programs 1982 - 1996, Kneese (1996) examined single-track and multi-track school programs as well as year round and traditional calendar programs. There were four criteria for selecting studies for this review.

1. All studies had to involve multi-track or single-track in year round schools, include a control group or comparison, be in place for at least one year, and include student achievement as a dependent variable.
2. Studies which used a pre-test, post-test design.
3. Studies which involved both a cross-sectional and longitudinal analysis.
4. Results of statistical analyses must have been reported (p. 12).

Kneese concluded that YRE had an overall positive, but very small effect on academic achievement. The results for single-track were statistically significant and greater than for multi-track, although there were only two single-track studies that met the criteria for the study. In this study, only two of the fifteen studies included high school year round programs.

Dunn (1996) reported the findings of a three-year study analyzing elementary student achievement gains in math and reading on the Texas Assessment of Academic Skills (TAAS) test. A total of 119 students enrolled in a year round calendar from three public school districts in Texas were matched to the same number of traditional calendar students within their respective districts. Students were matched according to gender, ethnicity, socio-economic status, and ability level. They were matched on scaled scores of the reading and math portions of the TAAS for the baseline year of 1992-93. The findings of this study provided mixed results. Traditional calendar students demonstrated greater achievement gains than their year round counterparts in math. Students enrolled in the year round schools reported greater gains in reading. Hispanic year round students realized two consecutive years of gains in reading. Female students in the year round schools demonstrated statistically significant gains in reading for years two and three of the study. The calendar configuration appeared to have no effect on male students as there was no significant academic gains reported.

In a study of the Delphi School District, Utah, (Shields and Oberg, 1996), 5th grade students in traditional elementary schools and year round multi-track elementary schools were compared in terms of academic performance over a six year period. What makes this research noteworthy is that, at the time of study, Utah had one of the highest per capita numbers of students enrolled in year round schooling in the United States. The Delphi School District is a jurisdiction in the center of the most urbanized area of the state which assists in allowing school comparisons. The study consisted of 34 traditional elementary schools (K-6) and 14 multi-track elementary schools (K-6), which represented a total population of 30,000 5th grade students. This study analyzed their mean scores on the SAT (basic battery, mathematics, reading, language, science, social studies) by school, subtest and year, as well as the state established predicted range for that test for each individual school. There were two analyses conducted. In the first, the test for independent samples with unequal groups identified only one statistically significant difference between the two types of schools. Reading scores were found to be significantly higher in year round schools in 1994, while all other differences in all years were not found to be significant, although the mean scores for year round schools were higher than traditional schools.

In the second analysis, the study identified the year in which the school changed to the year round calendar, and a comparison was then made between the scores achieved between 1990 and 1995 and the predicted achievement levels for each school. Over the 6 years of the study, 21% of students from the traditional schools scored below their predicted range, whereas 4% of students from the year round schools scored below theirs. Furthermore, when all of the schools had a stable calendar for at least 2 years, the data indicated that 14% of the scores from traditional schools still were below the predicted range, whereas only 1% of scores from year round schools were. Shields and Oberg (1996) concluded that academic achievement in year round schools was equal to or

slightly higher than in traditional schools. When adjusted for socio-economic status of students, the analysis of the performance of fifth grade students supported the assumption that year round schools might actually enhance student achievement for special populations, including at risk students. Data from interviews with teachers and administrators suggested that the school calendar change was generally accompanied by positive changes in the teaching and learning environment of a school.

Packer (1997) recommended at the conclusion of his study of school districts that had implemented year round school calendars, that even with a small body of research to support student achievement gains at year round schools and proven methodological approaches to assessing student achievement gains, there was not a strong empirical base to justify a recommendation for year round education based solely on student achievement. He noted however, that the generally positive student achievement results from those emphasizing a year round approach did seem to be viewed by communities considering year round education as a positive factor in their decision making.

In a recent dissertation study conducted in Georgia comparing a single-track 45/15 year round school with a traditional school in the same district, Consolie (1999) found a statistically significant difference on the ITBS in reading for grades 3 and 5 in favor of year round students. No statistical significant difference was found on the same test in math scores. In his dissertation involving a comparative study of 282 year round elementary school (K-5) students in a Title I school with a traditional elementary school of 355 students, also a Title I school, Heaberlin (2000) found no statistically significant differences in mean reading or math scores on the ITBS NCE scores.

The post 1990 literature provides only two examples of longitudinal high school studies relating to academic achievement. In his dissertation examining student achievement in the 45/15 year round program at Sweetwater Union High School in Chula Vista, California, from 1984-1993, Chen (1993) found that year round students'

Comprehensive Test of Basic Skills (CTBS) mean scores were significantly higher ($p < .02$) than those in the traditional school (Southwest High School) after the first year of implementation. On the Stanford Achievement Test, the year round students' mean scores were significantly lower ($p < .001$); however, by the third year, year round students' scores surpassed those of the traditional school students, but the difference was not statistical significant. The Scholastic Aptitude Test (SAT) also revealed lower mean scores for year round students both pre and post implementation, with no statistical significance. Chen observed that on all of the standardized test comparisons, even though there was no statistical significance, the percentage of growth was greater for the year round program at Sweetwater Union High after year round implementation. He concluded, "There is evidence then to suggest that a year round program may contribute to academic achievement though the data is not yet conclusive" (p. 116).

In another longitudinal high school study, Bradford (1996) examined the extended school year programs at Pary McClever High School in Buena Vista, Virginia. As superintendent of the school system that had operated a year round program at the high school since 1973, Bradford focused on eleventh grade students and their performance on SRA achievement tests over the twenty-six year period that the extended four quarter plan had been in operation and compared them with national averages of eleventh grade students. The findings of the study revealed that the SRA achievement test scores of the year round students had improved steadily over the years, with the improvement being as much as eighteen percentile points. The local achievement scores all increased to a level equal to or above the national average, which Bradford attributed to the four quarter year round framework in place at the high school.

Impact of YRE on Attendance

White (1987) found that YRE offered students and teachers incentives that increased school attendance in general. Moreover, she found a relationship between pupil attendance, student dropout rates, teacher absenteeism, and variation in attendance patterns offered in YRE schools. White's study of the Jefferson County, Colorado School District, one of the largest YRE operations at the time, compared student attendance after the first year of implementation of the revised YRE calendar. In every case elementary, middle school, and high school, White found that attendance improved after implementation of the YRE approach, and that students increasingly chose to return for intersession programs. Because of the flexibility of the YRE approach, White found that there were many more opportunities to give students a second chance, and the percent of high school dropouts went from five percent to two percent of the official enrollment in the same schools after the YRE approach went into effect.

Brekke (1987) reported a statistically significant difference in student attendance in favor of the year round approach in the Oxnard School District in California. Students from the year round approach experienced less absenteeism than students enrolled in the traditional approach. Traditional program students averaged 10.8 excused days absent and 3.4 unexcused days absent; year round program students averaged 8.8 days excused absent and 2.3 days unexcused absent for the school year.

Elsberry (1992), in a comparison of a YRE approach with a traditional calendar approach for third and fifth grade students from two elementary schools in the Waco Independent School District, Texas, found:

1. While third grade YRE students averaged 6.2 days of absence, their traditional calendar counterparts averaged 7.5 days of absence. However, the difference was not statistically significant.

2. The difference in fifth grade attendance patterns was statistically significant ($p < .022$). Fifth grade students participating in the YRE approach averaged 6.5 days of absence while traditional calendar fifth grade students averaged 10.0 days of absence.

3. An analysis of student attendance by calendar and ethnicity revealed that each ethnic group had fewer absences using the YRE approach than did students on the traditional calendar. Significance levels of $p < .05$ were found for both Hispanic and African-American students. Hispanic students using the YRE approach averaged 2.63 fewer days of absence each year than did traditional calendar Hispanic students, while YRE African-American students averaged 5.12 fewer days of absence each year than did their traditional calendar counterparts. The trend was similar for YRE Caucasian students, although not statistically significant, with a YRE approach average of 2.71 fewer days of absence than traditional calendar Caucasian students.

4. The analysis revealed that low SES YRE students averaged 6.3 days absent each year while low SES traditional calendar students averaged 9.8 days absent each year, a difference of 3.5 days per student per year, which was significant at the $p < .001$ level.

Ballinger (1997), in his study of year round schools in Houston, Oakland, and San Diego, found that YRE had been responsible for a statistically significant increase in school attendance for both students and teachers, it was attributed to more frequent vacations within the schedule. Students and teachers both experienced less burnout and were more likely to have a positive attitude about attending. This increased enthusiasm for school and academics resulted in better, more consistent attendance.

Venable (1996) reported that student enthusiasm resulted in higher attendance rates. At the Joyce Kilmer Elementary School in Trenton, New Jersey, which had high drop-out rates and low student achievement, a pilot project was conducted to determine if YRE could affect attendance. The YRE students had a daily attendance rate of 96% compared with 93.9% for the school's traditional students. Mott Elementary School reported a 93.4% attendance rate for YRE students compared to 92.3% for its traditional students. Increases in student attendance have also been reported by the Maine State Department Of Education (1994), and the Wake County Public School System in North Carolina (Prohm & Baenen, 1996).

In addition to student attendance rates, the year round calendar appears to influence other aspects of a school's attendance program. Specifically, research on YRE suggests it positively improves the implementing school's dropout rate. Peltier (1991) found that in the Jefferson County (Colorado) School District the dropout rate of high school students decreased from five percent on the traditional calendar approach to two percent the year following after the implement of the YRE approach.

Culler (1998) conducted a longitudinal study of tenth grade students (n = 100,000) in all of the comprehensive public high schools in California that employed a YRE approach calendar from 1984 through 1992 to determine whether a YRE approach would have any effect on a school's student dropout rate. The schools were matched with similar California schools which utilized a traditional school calendar by school year, location, size, ethnic composition of the student population, gender, and SES. Each sample consisted of 14 schools, some of which were involved for all eight years of the study, and others for one or more years only.

Data for Culler's study were obtained using the California Basic Educational Data System (CBEDS). The data were compared using three methods: (1) a simple comparison of enrollment and dropout data, (2) a statistical test of proportional

differences, and (3) an odds ratio log linear analysis procedure. Although the findings of the study yielded no statistically significant differences in the overall dropout rates between the YRE calendar schools and the traditional calendar schools, the dropout rates differed by 4.14%, with the YRE approach schools having fewer dropouts. The odds ratio linear analysis did find a statistically significant difference ($p < .05$) that favored the YRE approach schools in urban locations for both males and females. In both urban and suburban locations the dropout rates for the YRE approach schools were lower. However, the dropout rates for YRE approach schools were higher, although not significantly higher, in rural locations.

Impact of YRE On Student Discipline

Discipline is an area of YRE that has received little attention. Most researchers report decreased incidents of student violence in schools (Mohajer and Read, 1995). More frequent vacations from school are credited with the change in student behavior. Year round school advocates argue there is less opportunity for students to experience burnout, thus they exhibit a better attitude toward school and behave in a more acceptable manner. Of studies that have analyzed the issue of student discipline, The New Orleans Public Schools (1992) reported a decrease in out-of-school suspensions from 49% to 24% at the middle school level after the first year of the year round approach. Russell (1992), in a study of College Park Elementary School in Georgia, reported a decrease in out-of-school suspensions during the first year of the year round program from 57 to 14. Numerous other studies reported a drop in the average number of disciplinary infractions and the out-of-school suspensions that result from those referrals (Brekke, 1990; Long, 1982; Merino, 1983; Mussatti, 1981; Consolie, 1999; Haberlin, 2000).

DeJarnett's (1994) review of year round elementary and middle school programs, included six-year round studies that analyzed data on student discipline. Five of the six

studies reported a statistically significant improvement in overall student discipline after the implementation of a year round program. One study reported no change, and none reported that discipline had worsened under a year round approach.

Desper (2000) and Davis (1999) both reported that at their high schools, the number of referrals turned into the office had decreased since implementation of a 45/15 single-track year round program. Trion High School in Georgia is in its second year of a year round schedule and Frankfort High School in Kentucky is in the fourth year of a year round schedule. Both schools have approximately 300 students in grades 9-12 and both principals, in personal interviews, attributed improved student discipline and behavior to the "breaks" between grading periods in the year round schedule.

Even though the majority of the studies presented in the literature have reported positive impacts upon student discipline in a year round schedule, they fail to address variables that may affect the outcomes of the studies. These variables could include administration procedures and expectations, classroom management initiatives, changes in school discipline codes and enforcement. Further, discipline studies are set predominantly at the elementary and middle school grade level. Typically, high school discipline procedures differ from elementary and middle school procedures. These discipline studies need to be viewed with caution, as one cannot be certain that the decrease in student discipline incidents can be to attributed solely to the year round schedule.

Summary

YRE in schools is not a new approach in education. This concept began in the United States as early as 1645. The movement gained strength in the latter part of the 19th century and then declined due to the events of WWII. The year round approach once again gained strength following the end of WWII, particularly in the 1960's and

1970's, as an answer to overcrowded and expanding school populations and a lack of funding for new school construction. After a decline in growth and interest in the 1980's, YRE began to emerge in the 1990's as a process to improve student learning and achievement. Currently, enrollment in YRE across the United States has increased steadily to 3,026 schools in 627 school districts, enrolling 2,108,447 students (Ballinger, 2000).

There are many calendar configurations for YRE. The most widely adopted approach is the 45/15 single-track model. To alleviate overcrowding in schools and to cut construction costs of new buildings, school districts most often utilize the multi-track year round approach. Some schools design their own approach to satisfy the needs of their community. All of the year round configurations generally consist of students attending an equal number of instructional days, usually 180, as the traditional September to June calendar.

In regard to the impact that YRE has on student achievement, schools, and cost savings, there are both positive and negative reports. Most assuredly, one can find evidence to support either side of the argument. Proponents of YRE contend that this approach will increase student achievement, improve student and teacher attendance, reduce student discipline problems, and make the school facility more financially efficient. Opponents of YRE contend that there exists little evidence of student gains in achievement and discipline, and the year round concept results in an increase in cost because of operational and maintenance issues. Opponents also question the limited number of school systems that have implemented the year round concept, particularly in the private school and high school area.

There seems to be a consistent report of benefits within the year round approach for disadvantaged youth, particularly in addressing the issue of summer learning loss, which seems to be more prevalent for disadvantaged youth in reading and math areas.

The absence of high school data is a concern in this area, as the majority of the learning loss research is conducted at the elementary and middle school level. In fact, the vast majority of studies completed in all areas of YRE have been conducted in elementary and middle school levels. This is largely due to the fact that growth of the year round concept in the 1990's has been primarily in the elementary and middle school levels. High schools have been much slower to embrace the year round calendar.

A limitation evident in many of the studies conducted about year round education to date is the failure to isolate the year round calendar from other parallel changes within the school. In most cases, a change to a year round calendar is paralleled with other instructional, organizational, and pedagogical changes that may also influence student achievement and behavior. This has not been addressed in the achievement studies to date. An additional concern is that in all cases in the achievement studies, standardized tests have been used as the standard of measurement. Whether standardized test scores alone represent appropriate comparative measures of student's educational achievement between calendar systems is not addressed in the literature. Some researchers have attempted, with little success, to determine whether the student academic achievement impact of year round calendars varies based on gender and race, however no such differences are cited in the literature. At-risk, economically disadvantaged students appear to reap the greatest academic benefit from a school calendar that offers the possibility of instruction over breaks or an increase in the number of instructional days.

The issue of discipline is often reported as a benefit in the research, however, it appears to be discussed only when it is a positive. Proponents of YRE contend that discipline improves under a year round schedule. In the studies presented in this review, it appears that discipline incidences, as measured by the number of referrals and out-of-school suspensions, were reduced in a year round schedule. However, as stated earlier,

discipline procedures and expectations vary from school to school, which make interpretation of those results as a valid improvement difficult.

Student attendance appears to increase for schools that use the YRE schedule. Data from Average Daily Attendance (ADA) reports were used exclusively in the studies cited on attendance within the literature. These reports are based on a consistent standard of measure for both year round and traditional schools, which provide a more objective view of the results.

CHAPTER III

METHODOLOGY

The purpose of the study was to describe the experiences and perceptions of high school principals who have implemented the year round schedule. Through the use of a questionnaire, principals shared their personal experiences and perceptions of the implementation process, communication methods, assessment methods, problems prior to and since implementation, motivation for implementation, and perceptions of effectiveness of the year round calendar as it operates in their high schools. These responses were the basis for answering the two research questions guiding the study:

1. What were the principals' experiences and perceptions of the implementation and effectiveness of their year round schedules?
2. Do principals' experiences and perceptions of the implementation process, assessment methods, problems since implementation, and motivation for adoption of the year round schedule differ according to the size of school, type of school community, type of school, or type of year round calendar?

This chapter details the methods and procedures used in the conduct of the study.

Design of the Study

Since little is known about the implementation and effectiveness of year round high schools, this study was exploratory and descriptive in nature and used a survey design to gather data from 136 principals of year round high schools across the United States. The use of a survey design provides an efficient means of gathering information based on actual school experiences from all geographic regions of the United States and a variety of school settings and situations. Due to the geographic dispersion of year round

high schools, a survey was also the most practical method for a single researcher to gather data from the entire population.

Population

The population for the study consisted of the 136 year round high school principals across the United States identified in the 2000 directory of the NAYRE. This directory is maintained and published on an annual basis by the NAYRE, a national non-profit corporation headquartered in San Diego, California, which has as its mission the promotion and support of year round learning in educational systems through providing publications, regional and national conferences, and consulting services for K-12 educators. Membership is available to all year round schools, however, membership is not a prerequisite for schools to be listed in the directory.

Instrumentation

A predominantly closed-ended survey was developed by the researcher based on the research questions and information found in the YRE literature, specifically the justification for YRE, those processes and procedures that are considered best practices, and problem areas identified in existing year round schools. A copy of the survey appears in Appendix A. Depending on the question, respondents checked yes or no, rank-ordered items, or rated statements on a five point Likert scale from strongly agree to strongly disagree. One open-ended question asked respondents to explain the basis for their perception. Demographic information was requested regarding type of school, community, calendar, calendar format, length of time on calendar, student enrollment, school grade levels, and years of experience as a principal.

Following IRB approval by The University of Tennessee, the survey was field tested to obtain feedback on the format, effectiveness, and clarity of the instrument.

Suggestions for improvement were encouraged. Participants in the field test were three principals currently implementing year round high schools that are not members of NAYRE and were not included in the study. Revision of the survey instrument was based on verbal and written responses to the field test.

Procedures

Participants were sent a cover letter detailing the purposes of the study (Appendix B), a letter of support for the study from Dr. Bob Heaberlin, President of the Southeastern Association of Year Round Education (SAYRE), an affiliate of NAYRE (Appendix C), the survey, and a stamped, self-addressed envelope for return convenience. The cover letter described the intent of the study and guaranteed confidentiality to the participants and their schools in the use and reporting of the data. In addition, it spoke to the importance of the research study and the need for a timely response from participants, along with a personal note of appreciation for their cooperation in the study. The letter of support from SAYRE emphasized the need for the study to further advance knowledge about year round education, particularly at the high school level.

The researcher sought a 100% response rate to the survey, and put the following procedures in place to assist in attaining that goal. Prior to mailing the instrument, an e-mail or phone communication was forwarded to each of the 136 principals in the study population to introduce them to the study and its purpose, alert them to its impending arrival, and asked them to respond and return the surveys in a timely manner. Each of the surveys was coded numerically and matched with a participant in order to document returns. After all surveys were returned, the master list of principal and school names as well as matched code numbers was destroyed in order to ensure respondent anonymity and confidentiality. The survey instruments will be kept on file in the office of the researcher for a period of five years, at which point they will be destroyed. Only the

researcher has access to the returned surveys. The initial mailing of the instrument package was made two weeks after the e-mail communication. A postcard was sent to those participants that did not respond two weeks after the initial mailing to remind them to return the completed instrument (See Appendix D). A third mailing of the package was made to non-respondents two weeks later (See Appendix E). This entire administrative process took six weeks.

Data Analysis

Research Question One

What are the principals' experiences and perceptions of the implementation and effectiveness of their year round schedule?

A descriptive analysis of responses, with the exception of the open-ended question in the second part of Question III, from all respondents was computed through the use of SPSS computer software along with assistance from The Statistical and Computational Consulting Center at UTK. Descriptive statistics of frequencies and percentages was reported for responses to all of the forced-choice and ranking items in Section I, Section II, and Section III. Means were calculated for items in Section II.

Demographic data at the beginning of the survey (items a - g) and at the end of the survey were reported with frequencies and percentages. The responses to the open-ended question about principal perceptions of the effectiveness of their calendar in the second part of Section III were examined and summarized in narrative form using content analysis in which all responses were recorded and examined for recurring themes.

Research Question Two

Do principals' experiences and perceptions of the implementation process, assessment methods, problems since implementation, and motivation for adoption of their

year round calendar differ according to the size of school, type of school community, type of school, or type of year round calendar?

The data were separated to look for differences due to the following four variables: size of school, type of school community, type of school, and type of year round calendar. Chi-Square tests were run for the top ranked response items (a - h) in Section I, Question 1 (process of implementation), Section I, Question 3 (assessment methods) (a-l), and Section I, Question 6 (problems since implementation) (a - k) to see if differences existed in terms of the four variables.

Responses to items a - l in Section II, were subjected to a Multivariate Analysis of Variance (MANOVA). The MANOVA determined if there were significant differences in terms of the responses and the four variables. If the MANOVA indicated such difference(s), individual Analysis Of Variance (ANOVA) was conducted for each factor to determine which factors were significantly different. An ANOVA was used because two of the variables (school size and type of school community), have three or more groups. If there were differences in any of the factors for the two variables that exceeded two groups (size of school, type of school community), Tukey's HSD was then used to compare differences within each school size group. An alpha level of .05 was set for all tests of significance.

CHAPTER IV

PRESENTATION OF THE FINDINGS

The purpose of this study was to describe the experiences and perceptions of high school principals who have implemented the year round calendar. Through the use of a questionnaire, principals shared their personal experiences and perceptions of the implementation process, communication methods, assessment methods, problems prior to and since implementation, motivation for implementation, and perceptions of effectiveness of the year round calendar as it operates in their high schools. These responses were the basis for answering the two research questions guiding the study:

(1) What were the principal's experiences and perceptions of the implementation and effectiveness of their year round schedules?

(2) Do principals' experiences and perceptions of the implementation process, assessment methods, problems since implementation, and motivation for adoption of the year round schedule differ according to the size of school, type of school community, type of school, or type of year round calendar?

This chapter provides a presentation of the findings. Following a presentation of demographic data, the findings are presented in terms of the research questions.

Demographic Data

The data for this study were obtained from an analysis of a questionnaire that was developed by the researcher and mailed to 136 year round high school principals across the United States, Puerto Rico, and Guam. Of the questionnaires that were mailed, 97 responded and 79 of these completed the instrument, which represents a return rate of 67%. A geographic distribution by state and region of respondents is presented in Table 1.

TABLE 1: Geographic Distribution Of Respondents

STATE/REGION	NUMBER OF YR SCHOOLS	NUMBER OF RESPONDENTS	PERCENTAGE OF TOTAL RESPONDENTS
Ohio	3	2	2%
Tennessee	2	1	1%
Texas	12	9	9%
Virginia	4	3	3%
Washington	1	1	1%
Kentucky	17	13	13%
Minnesota	4	3	3%
Missouri	1	0	1%
Puerto Rico	3	2	2%
Nevada	1	1	1%
New Jersey	2	0	1%
North Carolina	3	3	2%
Hawaii	15	11	11%
California	44	30	32%
Guam	2	1	1%
Arizona	10	7	8%
Alabama	8	6	6%
Illinois	2	2	1%
Washington, D.C.	1	1	1%
Georgia	1	1	1%
	136	97	100%

The questionnaire asked the principals questions about themselves and their schools. In terms of the calendar under which the responding schools operated, 58 principals indicated their high schools were on a single track schedule (73.4%), while 21 indicated their schools were on a multiple track schedule (26.6%). The type of year round format under which schools operated varied among the six formats presented in the questionnaire. The most common format was 45-10 (22.8%), followed by the 45-10 modified (20.2%), 45-15 (16.5%), 45-15 modified (15.2%) and the 60-20 (3.8%). In the 'other' category, respondents indicated a variety of single responses of calendars that included such formats as Concept 6, 60-15, 45-5, and customized calendars to meet community needs. These results, including the number of schools reporting this format, are shown in Table 2.

The number of years that the high schools had been operating under the year round calendar ranged from 6 months to 26 years. The majority of the schools (57; 72.2%) had been operating on a year round calendar from 2 to 6 years, with an overall average of 5.6 years.

The majority of respondents (60%) indicated that all schools within the district operated under the year round format. Other responses (40%) included varying number of year round schools in the district , one or two schools operating as a single school pilot in the district.

TABLE 2: Type of Year Round Calendar Format

	Number of Yes Responses	Percent
45-10	18	22.8
Other	17	21.5
45-10 Modified	16	20.2
45-15	13	16.5
45-15 Modified	12	15.2
60-20	3	3.8
Total	79	100

An overwhelming majority of respondents served in public high schools (71; 89.9%). Six served in private high schools (8.6%), and 2 were in a grant school or charter school (2.5%). These figures do not mirror national year round growth trends reporting private school program numbers increasing from 2000 in the year 1980 to 17,000 in the year 1999 (Ballinger, 2000).

The majority of the high schools were configured for grades 9 through 12 (68 ; 86.1%), followed by grades 10 through 12 (8 ; 10.1%). The three other grade level configurations included one each: 5 through 12; K through 12; and 7 through 12.

In terms of the type of community in which the high school operates, the responses were fairly evenly distributed: 26 (32.9%) served rural communities; 29 (36.7%) urban; and 24 (30.4%) suburban.

Fifty five (69.6%) had school enrollments of 0 - 1500, 16 (20.3%) had enrollments of 1501 - 2000, and 14 (17.7%) had 2001 or more students. Clearly, a majority of year round high schools currently operate in high schools with enrollments of less than 1500.

The final demographic questions related to the total number of years the respondent had been a principal and a principal at the year round high school. The respondents had been principals for 6 months to 25 years, and had served in the current year round high school from 6 months to 15 years, with most falling in the 2 - 5 year range (43; 54.4%).

Research Question One : What were the principal's experiences and perceptions of the implementation and effectiveness of their year round schedules?

In an attempt to answer research question one, principals were asked to respond to questions concerning their experiences with various aspects of the year round schedule as it operates at their high school (Section I of the questionnaire). These questions related to the implementation process, communication methods, assessment methods, parallel changes, problems prior and after implementation, and motivation for adopting the year round schedule. Principals were asked to provide a 'yes' or 'no' response to the items. In addition, they were asked to rank their top three responses according to their importance and impact upon the year round program. Principal's perception of the effectiveness of their year round schedule (Section III of the questionnaire), were secured in the same way.

Implementation Process

The overwhelming majority of respondents utilized the community meeting as part of the implementation process (76; 23.1%). The next most utilized process was school visitation by high school staff (60 ;18.3%), followed by school visitation by district staff (49;14.9%), and staff development programs at school and district levels (49; 14.9%). The process that was least utilized was a consulting firm study (11; 3.3%). Community meetings were not only the most frequently cited implementation process, but the one identified as most important by the respondents.

Principals cited the most important implementation processes as community meetings (40; 50.6%). Following this the most important implementation processes were: district mandate, student survey, superintendent decision, school committee (9; 11.4%); school visitations by high school staff (8;10.1%), and staff development programs (8;

10.1%). The least important processes, in order, were the use of a consulting firm study (0;0%), feasibility study (4; 5%), and school visitations by district staff (5:6.3%). These results are shown in Tables 3 and 4.

Methods of Communication

In terms of the methods used to communicate with the community and parents regarding the year round implementation process, 78 respondents (27.9%) indicated public meetings to be the most frequently utilized method of communication, followed closely by school newsletters (76; 27.1%). The method utilized least was electronic communication (16, 5.7%), and the Internet (20, 7.2%). A summary of all responses regarding use of methods of communication is presented in Table 5.

Public meetings were not only the most frequently used method, but were regarded as the most successful method of communication by 29 principals (36.3%). Closely following public meetings were newspapers (22; 27.8%) and school newsletters (22; 27.8%). All of the responses can be seen in Table 6.

Assessment Methods and Procedures

The frequency of respondents citing the use of various assessment methods was distributed among the choices listed on the questionnaire. The most frequently utilized method was student attendance rates (70; 11.7%), followed closely with, in order of frequency, parent/community opinion surveys (65, 10.9%), staff opinion surveys (62, 10.4%), student standardized test scores (59; 9.9%), student opinion surveys (58; 9.7%), student graduation rates (56; 9.4%), and student dropout rates (55; 9.3%). The distribution of responses is shown in Table 7.

TABLE 3: Implementation Processes Utilized by High Schools

	Number Of Yes Responses	Percentage
Community Meetings	76	23.1
School Visitation by High School Staff	60	18.3
School Visitation by District Staff	49	14.9
Staff Development Programs in School/District	49	14.9
Feasibility Study	48	14.6
Citizen Study Committees	36	10.9
Consulting Firm	11	3.3
Total	329	100

TABLE 4: Most Important Implementation Processes

	Number Of Yes Responses	Percent
Community Meetings	40	50.6
Other	9	11.4
School Visitation by H.S. Staff	8	10.1
Staff Development Programs at School/District	8	10.1
School Visitation by District Staff	5	6.3
Citizen Study Committees	5	6.3
Feasibility Study	4	5
Consulting Firm	0	0
Total	79	100

TABLE 5: Methods of Communication of Year Round Schedule Implementation

	Number Of Yes Responses	Percentage
Public Meetings	78	27.9
Newsletters	76	27.1
Newspapers	63	22.5
Radio and Television Programs	24	8.6
Internet	20	7.2
Electronic Communication	16	5.7
Other	3	1.1
Total	280	100

TABLE 6: Most Successful Method of Communication

	Number Of Yes Responses	Percent
Public Meetings	29	36.3
Newspapers	22	27.8
Newsletters	22	27.8
Electronic Communication E-Mail	4	5.1
Radio and Television Programs	1	1.3
Internet - Web Pages	1	1.3
Total	79	100

TABLE 7: Assessment Methods and Procedures Used in Measuring Effectiveness

	Number Of Yes Responses	Percentage
Student Attendance Rates	70	11.7
Parent/Community Opinion Surveys	65	10.9
Staff Opinion Surveys	62	10.4
Student Standardized Test Scores	59	9.9
Student Opinion Surveys	58	9.7
Student Graduation Rates	56	9.4
Student Dropout Rates	55	9.3
Student Discipline Rates	50	8.4
Student Course Grade Distributions	47	7.9
Student Retention Rates	45	7.6
Comparative Studies of Other Schools	28	4.7
Other	1	1.6
Total	596	100

The assessment method ranked highest, by a wide majority (35.4%), was student standardized test scores. Interestingly, the most frequently used method, student attendance rates, was not ranked as the most relevant. Indeed, it was far down in the ranking in providing the school or district with the most relevant information about the success of the year round schedule. All of the responses can be seen in Table 8.

Concurrent Changes in High School

Principals were asked to identify changes that had occurred at the same time as the adoption of the year round schedule. The most frequent changes that were implemented were curriculum integration (48; 21.1%), block scheduling (38; 16.7%), school within school components (27; 11.8%), individualization of instruction and curriculum (26; 11.4%), and rescheduling of classes (26; 11.4%). A complete list of responses to parallel changes to the year round schedule is presented in Table 9.

In terms of the top ranked changes that principals' felt positively complemented the year round calendar, the block schedule was the highest ranked (21; 35.6%), followed by individualization of instruction and curriculum (11; 18.6%), and school within school components (8;13.6%). It is relevant to note that all of these response totals indicate that limited changes were implemented at the time of implementing the year round schedule. The responses to the concurrent changes that positively complemented the year round calendar are presented in rank order in Table 10.

TABLE 8: Most Relevant Assessment Methods

	Number Of Yes Responses	Percent
Student Standardized Test Scores	28	35.4
Student Opinion Surveys	8	10.1
Student Dropout Rates	7	8.9
Parent/Community Opinion Surveys	6	7.6
Comparative Studies of Other Schools	5	6.3
Staff Opinion Surveys	5	6.3
Student Graduation Rates	4	5.1
Student Attendance Rates	3	3.8
Student Course Grade Distributions	2	2.5
Student Retention Rates	2	2.5
Student Discipline Rates	1	1.3
Other	8	10.1
Total	79	100

TABLE 9: Concurrent Changes That Occurred With Year Round Calendar

	Number Of Yes Responses	Percentage
Curriculum Integration	48	21.1
Block Scheduling	38	16.7
School Within School Components	27	11.8
Individualization of Instruction/Curriculum	26	11.4
Rescheduling of Classes	26	11.4
Team Teaching	19	8.3
Rescheduling of Athletics/Activities	19	8.3
Expansion of Extracurricular Program	19	8.3
	6	2.6
Total	228	100

TABLE 10: Concurrent Change That Positively Complemented Year Round Calendar

	Number Of Yes Responses	Percent
Block Scheduling	21	35.6
Individualization of Instruction/ Curriculum	11	18.6
School Within School Components	8	13.6
Curriculum Integration	6	10.2
Rescheduling of Classes	6	10.2
Team Teaching	5	8.5
Rescheduling of Athletics/Activities	4	6.8
Expansion of Extracurricular Program	3	5.1
Total	59	100

Problem Areas Prior to YRE Implementation

Principals were asked to provide information about those areas they were concerned about as potential problems prior to implementing the year round schedule. The most frequently checked responses were extra-curricular/athletic programs (62; 15.9%) and intersession programs (46; 11.8%), closely followed by maintenance of facility (40; 10.2%), personnel (38; 9.7%), transportation (36; 9.2%), and finances (35; 44.3%). The least number of responses were in the category of 'other' which included such individual responses as food service, day care, limited classes, staff communication, summer school, and vacation time (8; 2.0%). A summary of the responses to all of the items regarding potential problems prior to implementing the year round schedule is presented in Table 11.

Principals were asked to rank the top three problem areas they were concerned about prior to implementing the year round calendar. Extra-curricular and athletic programs was the top ranked area of concern (20; 25.3%), followed by curriculum and instruction (14; 17.7%), and finances (11; 13.9%). The responses to the top ranked potential problems are presented in Table 12.

Problem Areas Since YRE Implementation

When principals responded to items regarding problems that had surfaced since the year round schedule had been implemented, they responded in much the same way as to problems considered prior to implementation. Intersession program scheduling (43; 21.8%), extra-curricular and athletic program scheduling (31; 15.7%) tied with maintenance of facility (31; 15.7%) as the most frequently identified problems. Transportation availability followed (21; 10.7%). A summary of the responses to all items regarding problems that had surfaced since implementing the year round schedule is presented in Table 13.

TABLE 11: Potential Problem Areas Prior to Implementation of Year Round Calendar

	Number Of Yes Responses	Percent
Extracurricular/Athletic Programs	62	15.9
Intersession Programs	46	11.8
Maintenance of Facility	40	10.2
Personnel	38	9.7
Transportation	36	9.2
Finances	35	8.9
Facilities Usage	33	8.4
Scheduling of Students	30	7.7
Curriculum and Instruction	27	6.9
Scheduling of Teachers	22	5.6
Student Support Services	14	3.6
Other	8	2.0
Total	391	100

TABLE 12: Most Prevalent Problem Prior to Implementation of Year Round Calendar

	Number Of Yes Responses	Percent
Extracurricular/Athletic Programs	20	25.3
Curriculum and Instruction	14	17.7
Finances	11	13.9
Student Support Services	9	11.4
Personnel	8	10.1
Facilities Usage	7	8.9
Intersession Programs	3	3.8
Transportation	3	3.8
Maintenance of Facility	2	2.5
Scheduling of Students	2	2.5
Total	79	100

TABLE 13: Problem Areas That Have Surfaced Since Implementation of Year Round Calendar

	Number Of Yes Responses	Percent
Intersession Program Scheduling/ Implementation	43	21.8
Extracurricular/Athletic Programs Scheduling	31	15.7
Maintenance of Facility	31	15.7
Transportation Availability	21	10.7
Adequate Number of Personnel	18	9.1
Facilities Usage Throughout Full Year	18	9.1
Increased Financial Costs	18	9.1
Scheduling of Students	14	7.1
Other	11	5.6
Appropriate Curriculum and Instruction	10	5.1
Total	197	100

Principals' indicated that intersession program scheduling was the most difficult problem to manage since implementing the year round calendar (14; 20.9%), closely followed by increased financial costs (9; 13.4%), adequate number of personnel (8; 11.9%), and extra curricular and athletic program scheduling (8; 11.9%). In the category of 'other', individual responses included learning loss, summer school, coaches breaks, and staff increases. It should be noted that these figures represent the lowest frequency totals from among all of the responses in Section I of the questionnaire which may indicate that they perceived a limited number of problems and / or few schools experienced such problems in implementing year round school. The ranked responses of problem areas that principals' perceived to have been the most difficult to manage since year round implementation are presented in Table 14.

Perception Of the Effectiveness Of the Year Round Schedule

Principals were asked to rate their perceptions of the effectiveness of the year round calendar as it operates in their schools. In addition, they were given the opportunity to explain why they held this perception in a space provided. Responses were rated on a six item scale from 'exemplary' to 'no opinion' in Section III of the questionnaire.

A majority of respondents perceived the effectiveness of the year round schedule to be above average (41; 51.9%). When combined with those who selected exemplary (12;15.2%) it is clear that the majority of principals in the study perceived the year round schedule to be effective. On the other hand, a sizable minority saw the year round schedule as average (22; 27.8%). These responses are presented in Table 15.

TABLE 14: Most Difficult Problems To Manage Since Implementation

	Number Of Yes Responses	Percent
Intersession Program Scheduling/ Implementation	14	20.9
Increased Financial Costs	9	13.4
Adequate Number of Personnel	8	11.9
Extracurricular/Athletic Program Scheduling	8	11.9
Other	7	10.4
Maintenance of Facility	5	7.5
Appropriate Curriculum and Instruction	4	6
Facilities Usage All Year	4	6
Scheduling of Students	3	4.5
Scheduling of Teachers	3	4.5
Transportation Availability	2	2.9
Total	67	100

TABLE 15: Perception of Effectiveness of Year Round Programs

	Number Indicated	Percent
Exemplary	12	15.2
Above Average	41	51.9
Average	22	27.8
Below Average	2	2.5
Poor	2	2.5
Total	79	100

A limited number of principals (40) answered the open-ended item about why they held the perception they did about the effectiveness of their year round program. A majority of these responses (26) were from those that felt their year round programs were above average or exemplary, suggesting that principals were more willing to share positive reasons than negative ones. There were common themes to these responses. Student attendance, student test score improvement, reduction of staff and student stress and burnout levels were consistently cited as reasons for positive perceptions of the schedule. Of the remaining 14 principals that held average, below average, or poor perceptions, there were the following common themes: limited administrative time off, extra work, and transportation problems related to the intersession breaks. There were 4 principals that stated they were too early in the implementation process to cite specific reasons, however, each indicated a perception of effectiveness at an average level. A complete listing of all open-ended responses may be found in Appendix G.

Motivation For Adopting The Year Round Calendar

In Section II of the questionnaire, principals were asked to indicate the degree to which they agreed with 12 possible reasons for adopting the year round schedule on a 5

point Likert-type scale from 'strongly agree' to 'strongly disagree'. These items were popular reasons for adopting the year round schedule found in the YRE literature. Means were calculated for all responses, with 3.5 or higher considered positive, 3.0 considered neutral, and below 3.0 considered negative. As was the case with questions 1-6 in Section I, principals were asked to rank their top three reasons for adopting the year round schedule.

The means indicate that an attempt to improve academic achievement of students received the most positive response (4.0581), followed closely by an attempt to increase student learning retention rates (3.9419), and increase educational opportunities for students through enrichment and remedial programs (3.9419). The lowest means were for reduction of overcrowding of existing facility (2.4884) and financial savings in new school construction (2.6395). Principals ranked three responses, improving academic achievement of students, increasing educational opportunities for students through enrichment and remedial programs, and increasing student learning student retention rates as the top reasons for adopting the year round calendar. Complete results may be seen in Table 16.

TABLE 16: Motivation For Adopting Year Round Calendar

Reason n = 79	$\overline{X}$	SD
Improve academic achievement of students	4.0581	1.02159
Increase student learning retention rates	3.9419	1.05557
Increase educational opportunities for students through enrichment and remedial programs	3.9419	1.24006
Reduce staff stress and burnout	3.814	1.18333
Improve student attendance	3.7558	1.09476
Reduce student stress	3.686	1.17084
Improve student discipline	3.5814	1.01129
Improve curriculum	3.4651	1.07043
Provide increased opportunities for vacations	3.3721	1.04089
Improve staff attendance	3.3488	1.11427
Financial savings in new school construction	2.6395	1.16733
Reduce overcrowding of existing facility	2.4884	1.23426

Research Question Two: Do Principals' Experiences And Perceptions Of The Implementation Process, Assessment Methods, Problems Since Implementation, and Motivation To Adopt The Year Round Schedule Differ According To The Size Of School, Type Of School Community, Type Of School, and Type Of Year Round Calendar?

The following four variables were used to answer research question two:

a) Type of school

b) Size of school

c) Type of school community

d) Type of year round calendar

The type of school could not be used as a variable because of the limited variation in responses. Further, the data from size of school were collapsed into three categories: 0-1500, 1501-2000, and 2001 or more, in order to more effectively analyze the data for significant differences. Chi Square Tests were run on the top ranked responses from Section II , Motivation For Adopting The Year Round Calendar, and the following questions from Section I of the questionnaire: Process Of Implementation - Question 1; Assessment Methods - Question 3; and Problems Since Implementation - Question 6. An alpha level of .05 was set in all tests of significant differences. The data is presented according to the sections in research question two, which are compatible with the order of the items in the questionnaire instrument.

Implementation Process

The top three implementation processes (Community Meetings, School Visitations By High School Staff and Staff Development Programs) were examined for

utilization differences with regard to type of school community, school size, and type of year round calendar. Results are shown in Table 17. School Visitations by the High School Staff differed significantly by type of school community ($x^2 = 15.108$, df = 2, p = .001). Rural (44%) and suburban schools (33%) utilized the process of visitation by high school staff more often than urban schools (23%). Staff Development Programs show significant size differences ($x^2 = 6.655$, df = 2, p = .036) in relation to the size of school. Results indicate larger schools with 2001 or more students utilized staff development programs as an implementation process more (67%) than mid size schools of 1501-2000 students (10%) and smaller schools of 1500 or fewer students (23%). It appears that smaller schools (64%) tended to utilize the top ranked process of community meetings more than the larger schools.

Assessment Methods

The top two assessment methods (Standardized Student Test Scores and Student Opinion Surveys) were examined for utilization differences with regard to type of school community, size of school, and type of year round calendar. Results are shown in Table 18. Student Opinion Surveys differed significantly by type of year round calendar ($x^2 = 4.911$, df = 1, p = .027). Single-track high schools (81%) utilized student opinion surveys as a relevant assessment method much more than multi-track high schools (19%).

Problems Since Implementation

The top four problems since implementation of the year round schedule (Intersession Program Scheduling, Increased Financial Costs, Adequate Number of Personnel, and Extra-Curricular and Athletic Program Rescheduling) were examined for utilization differences with regard to type of school community, size of school, and type

TABLE 17: Implementation Processes

Top Ranked Responses	Variables		
	Type of Community	**Size of School**	**Type of Calendar**
Community Meetings	x^2=.544, df=2, p=.762	x^2=4.686, df=2, p=.096	x^2=.016, df=1, p=.901
School Visitation by High School Staff	**x^2=15.108, df=2, p=.001***	x^2=2.509, df=2, p=.285	x^2=.428, df=1, p=.513
Staff Development Programs	x^2=.231, df=2, p=.891	**x^2=6.655, df=2, p=.036***	x^2=.285, df=1, p=.593

*** Significant at the .05 Level**

TABLE 18: Assessment Methods

Top Ranked Responses	Variables		
	Type of Community	**Size of School**	**Type of Calendar**
Standardized Student Test Scores	x^2=.167, df=2, p=.920	x^2=3.345, df=2, p=.188	x^2=.446, df=1, p=.504
Student Opinion Surveys	x^2=5.016, df=2, p=.081	x^2=.985, df=2, p=.611	**x^2=4.911, df=1, p=.027***

***Significant at the .05 Level**

of year round calendar. There were no significant differences found in regard to the problems since implementation and their relationship with the variables. Results are shown in Table 19.

Motivation for Adopting Year Round Calendar

Responses to Section II, items a-l of the questionnaire, were subjected to a MANOVA to determine if there were significant differences in terms of their relationship to the variables of type of school community, size of school, and type of calendar. As was the case in Chi Square Tests, the variable of type of school was not used in reporting results because of the limited variation of responses. Means were calculated for each of the item responses in this section. An alpha level of .05 was set for tests of significant differences. If the MANOVA indicated significant differences in the relationship of mean scores and the variables, an ANOVA was used to determine which scores were significantly different. An ANOVA was used because two of the variables, school size and type of community, have three or more groups.

School size was the only variable where MANOVA indicated significant differences in the relationship to principals' responses to motivating factors for adopting the year round calendar ($F(24, 140) = .390$, $p < .001$). Because the variable of size of school has three or more groups: 1500 or less, 1501-2000, and 2001 or more, an ANOVA was conducted on the responses to each of the items to determine which of the items differed by school size group. Of the total of twelve items in Section II of the questionnaire, the following ten factors were found to be significantly different in regard to school size:

1. Reduce overcrowding of existing facility
2. Improve academic achievement of students
3. Improve curriculum

TABLE 19: Problems Since Implementation

Top Ranked Responses	Variables		
	Type of Community	**Size of School**	**Type of Calendar**
Intersession Program Scheduling	x^2=5.772, df=2, p=.056	x^2=5.147, df=2, p=.076	x^2=1.799, df=1, p=.180
Increased Financial Costs	x^2=3.308, df=2, p=.191	x^2=2.422, df=2, p=.258	x^2=.103, df=1, p=.748
Adequate Number of Personnel	x^2=4.440, df=2, p=.109	x^2=3.602, df=2, p=.165	x^2=.224, df=1, p=.636
Extra-Curricular and Athletic Program Rescheduling	x^2=3.148, df=2, p=.207	x^2=3.754, df=2, p=.153	x^2=.815, df=1, .367

4. Increase student learning retention rates
5. Increase education opportunities for students through enrichment and remedial programs
6. Improve student attendance
7. Improve staff attendance
8. Improve student discipline
9. Reduce student stress
10. Reduce staff stress and burnout

The two remaining factors of financial savings in new school construction and providing increased opportunities for vacations were not significantly different in relation to school size.

A follow-up analysis using Tukey's HSD was then utilized to compare differences within each school size group. When examining these comparisons between the ten motivating factors of adopting the year round calendar, there exists significant differences between small schools (1500 or fewer) and large schools (2001 or more) in each of the ten reasons for adoption. Significant differences were also found when comparing results of mid-size schools (1501-2000) and large schools (2001 or more) in the following six motivating factors:

1. Improving academic achievement of students
2. Increased student learning retention rates
3. Increased educational opportunities for students through enrichment and remedial programs
4. Improved student discipline
5. Reduce student stress
6. Reduce staff stress and burnout

Results also indicated that the small schools placed positive emphasis upon all of the ten motivating factors when compared with mid-size and large schools with the exception of the factor of reducing overcrowding of existing facility, where the large schools placed greater positive emphasis. Table 20 displays results of Tukey's HSD test of comparison between each of the school size groups in regard to the ten motivating factors to adopt the year round calendar.

TABLE 20: Multiple Comparisons of Motivating Factors for Adopting Schedule and School Size

Factors for Adoption	(I) Enrollment	(J) Enrollment	Mean Difference	Sig. (P Valve)
Reduce overcrowding of existing facility	1500 or fewer	1501-2000	-.4674	.419
	1500 or fewer	2001 or more	-1.3630	**.001***
	1501 - 2000	2001 or more	-.8956	.117
Improve academic achievement of students	1500 or fewer	1501-2000	.2970	.495
	1500 or fewer	2001 or more	1.5992	**.000***
	1501-2000	2001 or more	1.3022	**.001***
Improve curriculum	1500 or fewer	1501-2000	.3271	.518
	1500 or fewer	2001 or more	1.0688	**.003***
	1501-2000	2001 or more	.7418	.147
Increase student learning retention rates	1500 or fewer	1501-2000	-2.5063	1.000
	1500 or fewer	2001 or more	1.2173	**.000***
	1501-2000	2001 or more	1.2198	**.005***
Increase education opportunities for students through enrichment and remedial programs	1500 or fewer	1501-2000	.2281	.748
	1500 or fewer	2001 or more	1.6127	**.000***
	1501-2000	2001 or more	1.3846	**.005***
Improve student attendance	1500 or fewer	1501-2000	.5702	.136
	1500 or fewer	2001 or more	1.3779	**.000***
	1501-2000	2001 or more	.8077	.091
Improve staff attendance	1500 or fewer	1501-2000	.3471	.588
	1500 or fewer	2001 or more	.8691	**.036***
	1501-2000	2001 or more	.5220	.432
Improve student discipline	1500 or fewer	1501-2000	-.1203	.909
	1500 or fewer	2001 or more	1.1215	**.001***
	1501-2000	2001 or more	1.2418	**.003***
Reduce student stress	1500 or fewer	1501-2000	-.1053	.925
	1500 or fewer	2001 or more	1.3563	**.000***
	1501-2000	2001 or more	1.4615	**.002***
Reduce staff stress and burnout	1500 or fewer	1501-2000	-5.5138	.968
	1500 or fewer	2001 or more	1.7031	**.000***
	1501-2000	2001 or more	1.7582	**.000***

***Significant at the .05 Level**

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The concept of YRE has experienced increasing attention from educators as a possible means to implement school improvement and reform. While a good deal is known about YRE in elementary and middle schools, comparatively little is known about YRE in high schools. The purpose of this study was to describe the experiences and perceptions of high school principals who have implemented the year round calendar.

The study was framed around the following two research questions which were answered through responses to a questionnaire mailed to year round high school principals identified in the 2000 directory of the National Association of Year Round Education:

1. What are the principals' experiences and perceptions of the implementation and effectiveness of their year round schedule?
2. Do principals' experiences and perceptions of the implementation process, assessment methods, problems since implementation, and motivation to adopt the year round schedule differ according to the size of school, type of school community, type of school, and type of year round calendar?

Summary of Findings

The following are the major findings of the study:

1. A majority of high school principals had an above average or exemplary perception of their year round schedule, however, a substantially higher percentage of principals than expected had an average or below average perception.

2. Extra-Curricular and athletic programs were the most anticipated problems prior to implementing the schedule, however, intersession programs and scheduling were the biggest concerns after schedule implementation.
3. A majority of principals indicated that the primary motivation for adopting the year round schedule was to improve academic achievement and student learning retention, however, the primary assessment methods they used for measuring success of the schedule were attendance records and student opinion surveys.
4. Year round high schools were equally present in each type of school community: rural, suburban, and urban.
5. Significant differences were found in the utilization of the implementation processes and assessment methods in terms of the type of school community and type of calendar adopted.
    a. Rural and suburban schools utilized school visitation by the high school staff as an implementation process significantly more often than urban schools.
    b. Single-track high schools utilized student opinion surveys as an assessment method more often than multi-track schools.
6. School size was a significant variable in terms of selected processes and experiences in year round high schools.
    a. The year round schedule was most common in smaller high schools of 1500 or fewer students.
    b. Smaller schools differed significantly from larger schools in ten of the twelve motivating factors for adopting the year round schedule.

c. Mid-size schools differed significantly from larger schools in six of the twelve identified factors for adopting the year round schedule.

d. Smaller schools utilized community and public meetings more often than other size schools when implementing and communicating about the year round schedule, however, not at a significantly different level.

e. Larger schools utilized school and district staff development programs at a significantly different level when implementing the year round schedule when compared to other school sizes.

Discussion

The year round calendar seems to be more successful and popular in smaller schools of 1500 or less students. Why this is so is not entirely clear, however several possibilities come to mind. Support for and interest in the operation and success of a school in a smaller community may be greater than would be found in larger communities. Even though smaller communities tend to be more traditional and less progressive in regard to innovation and change, greater opportunities for support and interest exist, which may result in greater levels of involvement with the school. As evidenced by their dependence upon community and public meetings in the implementation process, smaller schools usually appeared to make a greater effort to engender involvement and awareness in the operation of the school, and in the proposed changes, which usually results in understanding and support for such efforts. The transition to the year round schedule in smaller schools may well be smoother because of the close relationship such schools have with their respective communities. In larger

communities, school programs and initiatives are much less likely to be a major focus and topic within the overall community.

Another reason why transition to the year round schedule may be more popular and successful in smaller schools could be the greater ease of access to information channels to parents, students, and community given the smaller numbers of these that must be dealt with relative to larger communities and to their greater visibility in the community. It is much easier to distribute information and gather input from a smaller school and community than from a larger one. The logistics of creating and manipulating school schedules against community conflicts and resources are also minimized in a smaller community. The data indicated a much greater reliance on utilizing community and public meetings to implement and communicate about the year round calendar in smaller schools of 1500 or fewer students. The opportunity to create clearer communication channels could be a factor in greater participation and success of the year round high school in smaller schools and communities.

The year round calendar has captured the attention of many educators as a initiative for school improvement and reform. In responding to reasons why the year round schedule was adopted in their schools, principals answered in terms of improving the academic achievement of students, increasing student learning retention, and providing educational opportunities for student remediation and enrichment. These responses all relate to student achievement and learning, which is consistent with the current literature about expectations for YRE improving student academic and learning benefits. The numerous post-1990 studies that have been published on the positive impact of YRE on student achievement (Six, 1993; Chen, 1993; Greenfield, 1994; DeJarnett, 1994; Winters, 1995; Kneese, 1996; Shields and Oberg, 1996; Bradford, 1996) appears to have affected the motivation of high schools to implement the year round schedule. Given this widespread motivation for implementing YRE, the question that

naturally follows is, have the schools experienced the expected improvement in student academic achievement and learning? This study did not specifically address student academic achievement, so it is not possible to answer the question, however, the principals' answers to questions about effectiveness are suggestive. A majority of principals responded that their year round schedules operated at an above average or exemplary level, however, there was a substantial percentage (33%) that reported their schedules operated at an average or below average level. What accounts for this high a percent of principals who are less than positive about the effectiveness of their schools? Have their expectations for increasing student achievement and learning not been realized? In another vein, considering that the majority of these principals who judged their effectiveness to be average or below average had been directly involved in the planning and implementation of the schedule, and a majority had some level of involvement in the year round advocacy association NAYRE, the size of this minority was both unexpected and suggestive of some measure of disappointment with the academic results of YRE.

In contrast, the majority of principals appeared to have positive perceptions about their year round program and to attribute their perceptions to the academic benefits it provided. Improvement in student achievement and attendance were common responses to the open-ended question about the reasons for their perceptions. The principals may have responded as they did because they honestly perceived there had been academic improvement or as a result of heightened expectations for such academic improvement in view of the promotion of the schedule as a means for academic improvement and school reform from educators and YRE advocates. Given either the perception or the expectation, one would have expected a strong alignment between the assessment methods used for measuring effectiveness and measures of academic achievement, particularly since the primary motivation for adopting YRE was increasing student

academic achievement and learning. However, such was not the case. Non-academic related methods of assessing effectiveness such as student attendance rates and opinion surveys were the most frequently utilized measures, not standardized test scores or other possible academic achievement measures. Clearly, the relative ease of obtaining attendance and opinion survey data at any point in time during the school year may play a role in the frequency of their use. Similarly, principals may honestly see these data as indicative or suggestive of academic achievement. Nevertheless, while principals indicated a desire to adopt the schedule for academic benefit, the assessment methods they used for measuring the success of the schedule did not involve academic achievement.

The single-track schedule was much more common in high school than the multi-track schedule. YRE literature indicates that single-track schedules are driven by a desire for academic improvement and multi-track schedules by a desire to relieve overcrowded facilities. The overwhelming majority of high schools adopted a year round schedule to realize academic improvement, not because of a need to relieve overcrowding therefore it is not surprising that a single-track schedule was most common. Further, single-track schedules appear to be more easily implemented and accepted than multi-track schedules because all students and staff are on the same schedule which minimizes conflicts among school, community, and family needs.

Athletics and extra-curricular problems and conflicts did not materialize as major concerns after year round implementation, even though they were expected to be by most principals. One might speculate that these concerns were valid because of the increased opportunity for involvement in these programs at the high school level along with the numerous variations in schedules these programs operate under. Thus the opportunity for scheduling conflicts and problems is multiplied. It may be that their concerns never

materialized because, anticipating problems, they devoted greater thought and attentiveness to resolving potential conflicts in advance of their appearance.

Conclusions

There was commonality among high school principals in regard to their overall experience with the year round schedule, however, there exists incongruent relationships between the reasons why the year round schedule was adopted and how its success is measured as well as in the methods and processes related to implementing and operating it, particularly in relation to school size.

Recommendations for Future Research

Based upon the findings of this study, the following recommendations are made for further research:

1. Improved academic achievement was identified as the primary reason for adopting the year round high school schedule. A study focusing on year round high school student academic achievement would be a critical addition to the empirical literature.
2. Case studies of exemplary (as perceived by the principals) year round high schools should be undertaken to gain in-depth information about what makes them exemplary.
3. A study of year round high schools where principals consider their programs to be average or below average in effectiveness should be undertaken to learn the basis for their perceptions and whether they would consider discontinuing the year round calendar.

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APPENDICES

APPENDIX A

YEAR ROUND HIGH SCHOOL PRINCIPAL SURVEY

SCHOOL CHARACTERISTICS. Please provide the following information about your school. Your answers will be used only to report general demographic information. (Check one answer for each question.)

a) Type of year round calendar implemented:
- ☐ Single track
- ☐ Multiple track
- ☐ Other: Please indicate_____

b) Type of year round format implemented:
- ☐ 45-15
- ☐ 45-15 Modified
- ☐ 45-10
- ☐ 45-10 Modified
- ☐ 60-20
- ☐ Other: Please indicate:_____

c) How long has your school been on a year round calendar?
_____ Years

d) Your district approach to year round schools
- ☐ High School is the only YRE School in the District
- ☐ Entire District is YRE
- ☐ One or Two YRE Pilot Schools in District
- ☐ Other: Please indicate:_____

e) Type of High School:
- ☐ Public
- ☐ Private
- ☐ Other_____

f) Grade levels at the school:
- ☐ 9-12
- ☐ 10-12
- ☐ Other: Please indicate_____

g) Type of community:
- ☐ Rural
- ☐ Urban
- ☐ Suburban

APPENDIX A

I. **METHODS AND ISSUES. Please check the box representing the appropriate response to the following items, then list your top three in each category.**

1. Which of the following process(es) were used at your high school in implementing the year round calendar?

		YES	NO
a)	Community Meetings	☐	☐
b)	School visitations by High School Staff	☐	☐
c)	School Visitations by District Staff	☐	☐
d)	Staff Development Programs at School/District	☐	☐
e)	Citizen Study Committees	☐	☐
f)	Consulting Firm Study	☐	☐
g)	Feasibility Study	☐	☐
h)	Other_____	☐	☐

Of your responses above, rank the top three (3) processes in regard to their level of importance:

(1) _____

(2) _____

(3) _____

APPENDIX A

2. Which of the following methods were utilized in communicating with your community and parents regarding the year round implementation process?

		YES	NO
a)	Newspapers	☐	☐
b)	Radio and Television Programs	☐	☐
c)	Newsletters	☐	☐
d)	Public Meetings	☐	☐
e)	Electronic Communication - E-Mail	☐	☐
f)	Internet - Web Pages	☐	☐
g)	Other:_____	☐	☐

Of your responses above, rank the top three methods that you feel were the most successful?

(1) _____

(2) _____

(3) _____

APPENDIX A

3. Which, if any, of the following assessment methods and procedures have been utilized by your school/district in measuring the effectiveness of the year round calendar?

		YES	NO
a)	Student Standardized Test Scores	☐	☐
b)	Student Course Grade Distributions	☐	☐
c)	Comparative Studies of Other Schools	☐	☐
d)	Student Opinion Surveys	☐	☐
e)	Staff Opinion Surveys	☐	☐
f)	Parent/Community Opinion Surveys	☐	☐
g)	Student Dropout Rates	☐	☐
h)	Student Discipline Rates	☐	☐
i)	Student Attendance Rates	☐	☐
j)	Student Retention Rates	☐	☐
k)	Student Graduation Rates	☐	☐
l)	Other:_____	☐	☐

Of your responses above, rank the top three assessment methods that you feel have provided your school/district with the most relevant information about the success of the year round calendar:

(1) _____

(2) _____

(3) _____

APPENDIX A

4. What other changes also occurred in your high school at the time the year round calendar was implemented?

		YES	NO
a)	Team Teaching	☐	☐
b)	Block Scheduling	☐	☐
c)	Individualization of Instruction/Curriculum	☐	☐
d)	Curriculum Integration	☐	☐
e)	School Within School Components	☐	☐
f)	Rescheduling of Classes	☐	☐
g)	Rescheduling of Athletics/Activities	☐	☐
h)	Expansion of Extra-Curricular Programs	☐	☐
i)	Other:_____	☐	☐

Of your responses above, rank the top three changes that you feel have positively complimented the year round calendar:

(1) _____

(2) _____

(3) _____

APPENDIX A

5. Which of these areas were considered as potential problem areas prior to implementing the year round calendar?

		YES	NO
a)	Curriculum and Instruction	☐	☐
b)	Personnel	☐	☐
c)	Facilities Usage	☐	☐
d)	Finances	☐	☐
e)	Extracurricular/Athletic Programs	☐	☐
f)	Student Support Services	☐	☐
g)	Intersession Programs	☐	☐
h)	Transportation	☐	☐
i)	Maintenance of Facility	☐	☐
j)	Scheduling of Students	☐	☐
k)	Scheduling of Teachers	☐	☐
l)	Other:_____	☐	☐

Of your responses above, rank the top three potential problem areas that you feel were the most prevalent prior to implementing the year round calendar:

(1) _____

(2) _____

(3) _____

APPENDIX A

6. Which of these have surfaced as problem areas since implementing the year round calendar?

		YES	NO
a)	Appropriate Curriculum and Instruction	☐	☐
b)	Adequate Number of Personnel	☐	☐
c)	Facilities Usage Throughout Full Year	☐	☐
d)	Increased Financial Costs	☐	☐
e)	Extracurricular/Athletic Programs Scheduling	☐	☐
f)	Intersession Program Scheduling/Implementation	☐	☐
g)	Transportation Availability	☐	☐
h)	Maintenance of Facility	☐	☐
i)	Scheduling of Students	☐	☐
j)	Scheduling of Teachers	☐	☐
k)	Other:_____	☐	☐

Of your responses above, rank the top three problem areas that you feel have been the most difficult to manage since implementing the year round calendar:

(1) _____

(2) _____

(3) _____

APPENDIX A

II. MOTIVATION FOR ADOPTING THE YEAR ROUND CALENDAR. **Indicate your response by circling the degree to which you agree or disagree with the following statements:**

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

The following statements accurately describe the motivation for our high school to adopt the year round calendar:

		SD	D	N	A	SA
a)	Reduce overcrowding of existing facility	1	2	3	4	5
b)	Improve academic achievement of students	1	2	3	4	5
c)	Improve curriculum	1	2	3	4	5
d)	Financial savings in new school construction	1	2	3	4	5
e)	Increase student learning retention rates	1	2	3	4	5
f)	Increase educational opportunities for students through enrichment and remedial programs	1	2	3	4	5
g)	Improve student attendance	1	2	3	4	5
h)	Improve staff attendance	1	2	3	4	5
i)	Improve student discipline	1	2	3	4	5
j)	Reduce student stress	1	2	3	4	5
k)	Reduce staff stress and burnout	1	2	3	4	5
l)	Provide increased opportunities for vacations	1	2	3	4	5
m)	Other:_____	1	2	3	4	5

Of your responses above, rank your top three reasons for adopting the year round calendar:

(1) _____

(2) _____

(3) _____

APPENDIX A

III. EFFECTIVENESS.

As principal, what is your perception of the effectiveness of your school's year round program? (Check one)

- ☐ Exemplary
- ☐ Above Average
- ☐ Average
- ☐ Below Average
- ☐ Poor
- ☐ No Opinion

Please state why you have this perception about your year round program. (Use back of page if needed)

IV. BACKGROUND INFORMATION

Please provide the following information about you and your school. Your answers will be used only to describe general information about this study's participants.

What is your 2001-2002 school enrollment? (Check one only)

- ☐ 0-500
- ☐ 501-1000
- ☐ 1001-1500
- ☐ 1501-2000
- ☐ 2001 or more

How many years have you been a principal at this school?_____

How many years have you been a principal?_____

Thank you for completing this questionnaire.

APPENDIX B

ALCOA HIGH SCHOOL
532 Faraday Street•Alcoa, Tennessee 37701
Telephone (865) 982-4631
FAX (865) 380-2240

Mr. Kevin Smith
Principal

Mr. Randy Gambrell
Assistant Principal

November 5, 2001

Dear Principal,

I am a high school principal in the second year of implementation of the year round calendar here at Alcoa High School, as well as a Doctoral Student at the University of Tennessee in Knoxville completing my dissertation study on the perceptions and experiences of high school principals about year round education. Being a building level administrator with actual experiences in working with a year round calendar, you are a valuable resource for other educators examining the topic in the future.

The enclosed questionnaire is designed to obtain information from you about the year round calendar as it operates at your school. I would greatly appreciate it if you would complete the questionnaire and return it in the enclosed stamped, self-addressed envelope at your earliest convenience. The questionnaire can be completed in less than 15 minutes, and responses will be kept completely confidential and aggregated for reporting purposes. Informed consent will be obtained through your return of the completed survey. No individual names or schools will be identified. As you can see on the survey, you, and your school are identified by means of a code number. This identification code is used only for reporting and follow-up purposes. The master list of names and matched code numbers will be destroyed immediately upon the return of all surveys to ensure respondent anonymity and confidentiality.

This study has been approved by the University of Tennessee Office Of Research Compliance and is endorsed by the Southeastern Association of Year Round Education. If you are interested in receiving a copy of the executive summary of the results of the study upon its completion, please email me at: ksmith@alcoaschools.net or contact me at the above school address or phone number.

Being a high school principal, I certainly realize that your schedule is busy and your time is valuable. I want to thank you in advance for your cooperation in completing and returning the questionnaire as we continue to strive to improve the credibility of educational experiences for our students.

Sincerely,

Kevin Smith
Principal

APPENDIX C

National Association for Year-Round Education
Region III
Post Office Box 250
Turin, Georgia 30289-250
Dr. Bob Heaberlin, NAYRE Board of Directors

Mr. Kevin Smith, Principal
Alcoa High School
532 Faraday Street
Alcoa, Tennessee 37701
August 31, 2001

Dear Kevin,

The National Association for Year-Round Education is very much interested in ongoing research of year-round education. There is a limited amount of quality research especially at the high school level on year-round education and its effects on students, staff, administration, and community. The data and information that you collect through your research and surveys will assist educators in making decisions about employing this calendar model. Please contact me if I can be of any assistance. I look forward to seeing you in Atlanta at the annual Southeastern Association for Year-Round Education Conference.

Sincerely,

Bob Heaberlin, Ed.D

APPENDIX D

Dear Principal, November 12, 2001

This is a reminder to please complete and return the Year Round Principal Survey that was sent to you two weeks ago. It is very important that I receive your completed survey as soon as possible. If you have questions or concerns please feel free to contact me at Alcoa High School (865) 982-4631. Thank you for your cooperation.

Kevin Smith
Principal

APPENDIX E

ALCOA HIGH SCHOOL
532 Faraday Street • Alcoa, Tennessee 37701
Telephone (865) 982-4631
FAX (865) 380-2240

Mr. Kevin Smith
Principal

Mr. Randy Gambrell
Assistant Principal

November 26, 2001

Dear Principal,

Approximately four weeks ago I sent you a questionnaire focusing on the year calendar as it operates in your school. Unfortunately, I have not received your completed questionnaire at this time, but would greatly appreciate your response and return as soon as possible. In order to attain valid information about your perceptions and experiences as a principal regarding the year round calendar, I do need your responses to the questionnaire.

If you have already completed and mailed the survey, please accept my sincere appreciation. If, however, you have not completed it at this time, I am enclosing another copy of the questionnaire in case the original one was misplaced. Thank you for your cooperation in taking the time to complete and return the questionnaire to me.

Sincerely,

Kevin Smith
Principal

APPENDIX F

Configurations of Year Round Education

1. Extended School Year: This schedule lengthens the school year from 180 instructional days up to 240 instructional days. There are 247 possible days remaining after Saturdays, Sundays, and federal and/or state holidays are subtracted from the 365 day calendar.
2. Two-Track/Dual-Track: The schedule can increase capacity up to 100%. Double/Half-day sessions provided for 180 school days but would require a shortened school day for each session. A 225 day two-track (double session) program can provide state-required cumulative annual instructional minutes.
3. Three-Track: This schedule increases capacity by up to 50%. Concept 6 and Concept 6 Modified Calendars are generally limited to 163 instructional days on campus. The school day is lengthened to accommodate state-required cumulative annual instructional minutes. Concept 6 offers two vacations/intersessions of approximately 41 days each. Concept 6 Modified offers four vacations/intersessions of approximately 20 days each.
4. Four-Track: This schedule increases capacity up to 33%. Alternative calendars of 45/15, 60/20 and 90/30 calendars provide for 180 days of instruction. A schedule of 45/15 offers four vacations/intersessions of approximately 15 days each. A schedule of 60/20 offers three vacations/intersessions of approximately 20 days each. A schedule of 90/30 offers two vacations/intersessions of approximately 30 days each.

5. Five-Track: This schedule increases capacity up to 25%. The 60/15 calendar can allow up to 197 days of instruction. Districts utilizing a multi-track 60/15 calendar generally provide a 180 day instructional schedule with a common three-week vacation for all tracks in the summer. The Orchard Plan Calendar provides a common summer vacation month for teachers and students; students also receive three additional vacation/intersession breaks of 15 days each.

APPENDIX G

PERCEPTION OF EFFECTIVENESS
SECTION III PRINCIPAL COMMENTS

Responses of Principals with Perceptions of Above Average and Exemplary

Graduation rate improved to 98%; Truancy decreased and staff attendance increased.

Parents, teachers, and students have expressed an 80% or better response to the positive reflection on our school. Positive relative to attendance, achievement, student and teacher focus.

People get confused about what YRE can or cannot do.

CAN DO	CANNOT DO
Reduce stress in students	Make students perform better
Provide opportunity for Remediation/Enrichment	Make teachers better or more effective
Help with standards	

We have improved attendance, discipline, and achievement in academics. We have a virtual 100% approval from students, teachers, parents, and all other stakeholders.

Done well! Well received. Effective. Exception needing more enrichment activities.

Drop out rate went from 19% to less than 2%. Attendance went from 88% to 96.6%. GPA increased by .75 on a scale of 4.0.

It gives students and staff a time to reflect and regroup.

Students can attend when appropriate for them. Family vacations can be taken off-season. Students can take a break during school year.

More time for slow learners during intersession.

Highest test scores in region. Top ten high school in Texas. Numerous awards and honors.

High scores. 97% attendance.

APPENDIX G

Our students score in 2 on the SAT 9, but when compared to schools with like demographics, we are doing a better job than 80% of the other schools as reported by SAT 9.

Our students have tremendous opportunities with the combination of YRE and dual enrollment classes. Students have the option to get a free (students purchase texts) year of college without leaving home prior to H.S. graduation.

The standard data: tests, attendance, discipline, etc. have shown moderate upswings. More importantly, the intangible climate-related factors are positive among staff and students.

Staff and students see the 9 weeks on as a focus point for instructional beginning and end. Staff and students are not burned out.

The year round is more of a modified program. Along with this we do have an attendance policy which increased student attendance.

After 9 weeks, there is a natural need for a break in routine. Fatigue and stress is reduced as a result of an intersession break. There is less time needed to review because of shorter vacation time. I totally support YRE.

Even though we have only been in existence 7 years, our school has developed into a school which caters to the individual needs of students. Students enjoy many more opportunities because of the YR calendar. The dropout rate has been 0 for 7 years.

Attendance rate improved for students and staff.

Dropout rate has been reduced from between 15 & 17% to 5 and 6% and graduation/ attendance rates have increased substantially.

Lower discipline statistics; positive school climate; higher staff morale.

A YR program meets the needs of more students.

Good model - need to use intersession periods to increase student achievement. Finances have restricted potential of YR program.

The YR program is the best thing as opposed to busing students out! We were able to increase our enrollment by 50% and keep more of our kids in the neighborhood. The shorter vacation period provides to greater retention. We have been doing this for so long, no problem cannot be overcome. Student activities, no problem, AP classes, no

problem, intersession classes, not a problem with possible exception of limited classrooms. Staffing of all 3 tracks is not a problem. Seniority is overcome by looking at educational and programmatic needs. We offer a comprehensive program across all 3 tracks. One problem, electives tend to stay on 1 track and little cross tracking is done here. But, local control should fix that problem. Curriculum adjustments could be done so as to offer 8 week classes for 7.5 credits.

While we have done this for 7 years, we are amidst of a significant vision to be even better.

Our kids excel more here than any of their previous schools. Many of our students have rough home environments and this school is a home for them.

Responses of Principals with Perceptions of Average

Provides little time for administrative duties or time away.

The idea of giving H.S. students the opportunity for enrichment has been less than successful. This H.S. has extra-curricular activities scheduled during the breaks that cause extra work for teachers as ticket takers/ball game workers. Also, state sporting events (finals/playoffs) in no way take into account YRS.

Initial stages - very few problems so far into first year.

In some areas our staff creativity has held our head above water (distribution of electives, room assignments, intersession) however, the program as we had to implement it, has created additional stress to all staff.

We still need to improve upon curriculum and remedial programs.

Lack of strong leadership. The teachers who brought YRE in are now gone.

Administration is still coming in during all intersessions and breaks. There is no time off for us as 10 month employees.

The YRE program has had no big specific impact on student success, attendance, discipline, etc. Faculty and students are still experiencing stress.

Concept 6 is not conducive to student learning. Calendar is not aligned to testing, creates inequities on B Track.

APPENDIX G

No significant results in: student achievement, attendance, or discipline. Teachers and students like the 2 week intersession after the 1st, 2nd, and 3rd quarters. The fact that the quarter ends at the intersession is a plus.

Our school was not really affected by the decision to implement YRE. The major decision to go YRE came from another island with overcrowding in classrooms. We were doing fine with traditional way. The YR schedule provided breaks in between quarters which provided opportunities for extra activities for students.

VITA

David Kevin Smith was born in Starke, Florida on October 29, 1957. He attended public schools in Florida, where he graduated from DeLand High School in June, 1975. After receiving the Associate of Arts degree in 1978 from Daytona Beach Community College in Daytona Beach, Florida, he attended Stetson University, DeLand, Florida, where in August, 1981, he received the Bachelor or Arts in Physical Education and Social Sciences with teaching certification in elementary, middle, and secondary education. After teaching and coaching for four years at the secondary level, he entered the Master's Program in Administration and Supervision at Nova Southeastern University, Ft. Lauderdale, Florida, in August, 1985, officially receiving the Master's Degree in June, 1986. He continued to teach and coach at the secondary level when in 1992 he and his family moved to Tennessee to accept a position as high school principal. In August, 1996, he entered the University of Tennessee at Knoxville to pursue the Doctorate of Education in Educational Administration while continuing to work as a high school principal. The Doctoral Degree was received May, 2002.

He is presently working as Principal at Alcoa High School, a small high school located just outside Knoxville, Tennessee.