

Abstract

SHAW, LYLE CALHOUN. An Analysis of Elementary School Size in North Carolina: When does a Small School Become Too Small? (Under the direction of Dr. Lance D. Fusarelli and Dr. Thomas L. Alsbury.)

The purpose of this research is to evaluate positive and negative characteristics attributed to small schools using the principals' perceptions as a lens. This research assists to help district administrators contemplate variables relating to small size when closure of a small site is considered. Site characteristics included personnel, funding sources, collaborative opportunities for staff, and parent and community relationships. Literature concerning size tends to relate to class size however, this study takes the concept into the realm of school size. This study targets public elementary schools in North Carolina with fewer than 315 students and targets four sites with fewer than 150 students.

Using qualitative methods, the researcher surveyed schools with grade span configuration of kindergarten through twelve. The online survey provided foundational information that proved to align with characteristics inherent in literature for these schools located across North Carolina. Anonymity was insured for principal's responding and open ended responses were allowed for elaboration. Four sites were chosen for in-depth interviews of principals. The face-to-face interviews consisted of on-site visits while students were on campus. This enabled the researcher to observe climate and personal interactions of administrator and staff. The interview questions were semi-structured and were consistent in concepts for all interviews. Data were recorded and interviews transcribed.

Patterns of positive aspects emerged relating to smaller size entities. These included an interdependence of faculty members, community support, and greater knowledge of

students and families. The relationships of teachers and students assist in targeting instructional needs and providing academic support for the students. Negative aspects discussed include staffing and budgetary limitations. Sharing resource teachers with other sites adds to organizational issues in the school. These ideas were present in both survey and interview data. Principals interviewed stated size concerns making their jobs difficult and varied in responsibilities. However, they still preferred smaller size for elementary students.

An Analysis of Elementary School Size in North Carolina:
When Does a Small School Become Too Small?

by
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Biography

Lyle Calhoun Shaw is a native of Scotland County, a small rural community in the sandhills of North Carolina. As the daughter of Daniel and Lynn Shaw, her heritage is deeply rooted in the community. After receiving her Bachelor of Science in Early Childhood Education from the University of North Carolina at Greensboro she began teaching first grade in a single wide mobile unit with twenty-eight students in Scotland County. Lyle continued to pursue higher education and completed a Master of Arts in Elementary Education from Pembroke State University. After fifteen years in the classroom, she became a curriculum facilitator while she earned her Masters of School Administration from East Carolina University. During her enrollment at North Carolina State University in the doctoral program, she continued to work for Scotland County Schools as Director of Elementary Education.

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Chapter One

Introduction

Educational reforms abound as issues of accountability press educators to consider variables that could impact student achievement. Historically, the concept of school size has been one of several popular areas for change. Debates continue over the question of whether size correlates to student success. In relation to educational organizations, size can be defined in several ways and may have many implications. For example, in reference to a specific school unit, size can be discussed relative to student population numbers, building capacity, class membership, or number of teachers. Other interpretations from a district perspective include geographical span of the district as well as the number of schools, teachers, or students within the school district. There are different implications for small schools in large districts where similarly configured schools can exist. In comparison, some districts may only have one or two schools with smaller numbers of students. Consideration of the district's composite as well as individual school enrollment is essential when examining small school research and data. Several studies have found implications for student success within each scope and definition of size. Although there is an interrelatedness among all of these delineations, this study focuses on student numbers within the school unit.

Currently, the educational trend is to create smaller learning environments for students. However, this is often difficult when some districts encounter perpetually increasing student enrollments. District consolidation efforts can also impact the number of schools within a district and make the implementation of smaller learning environments more difficult to attain. Illustrative of the results of the longtime national trend to merge districts

are statistics from 1942 citing 108,579 school districts nationwide, and the resultant 1995 data indicating the number of districts at less than one seventh of its previous level (Galles & Sexton, 1995). As a result of efforts to operate with more centralized systems, student enrollment numbers escalated producing very large schools. Nationally, enrollment in public elementary and secondary schools rose 22 percent between 1985 and 2004 with elementary grades showing the fastest growth at a rate of 25 percent (NCES, 2004). Districts such as Los Angeles and New York now serve over 600,000 students (Galles & Sexton, 1995). Nationwide, the total enrollment for public schools increased from 15,503,000 in 1899-1900 to 46,857,000 in 1999-2000 (NCES, 2005a).

Although student enrollment numbers have increased, during the same time period the number of school districts declined from 117,108 in 1939-1940 to 14,928 by the year 1999-2000 (NCES, 2005b). As student populations grew and the number of districts declined, consolidation resulted in even more large districts. Sometimes these demographic changes yielded larger, consolidated districts which subsequently produced massive high schools. The number of students was increasing while the number of secondary schools was decreasing as shown in the nationwide statistical data listing 27,011 schools in 1968 and only 23,220 in 1993. By 2003, there were 28,151 public secondary schools (NCES, 2005, Table 85). More recently, a shift in thinking that “bigger may not always be better” resulted in the increase in the number of secondary public schools as larger high schools were broken into smaller entities.

School District Size

Data reflective of the trend to create fewer but larger sized districts show that over the last thirty years there has been a shift in the number of public schools. In 1975 there were 88,597 nationwide but in 1986, the number had dropped to 83,455. However, the pendulum seems to be swinging upward to an increased number of schools with 95,165 sites in 2002 (NCES, 2004, Table 92). This marked increase in both elementary and secondary public schools parallels the notion that smaller school institutions are becoming the norm. Increased numbers of schools mean more administrators. In fact, from 1970 to 2002, the number of principals increased from 91,000 to 161,000 while the instructional staff members increased in the same timeframe from 2,195,000 persons to 3,829,000 (NCES, 2005, Table 36).

Plans for creating larger school districts were implemented initially as tools to economize school funding (Viadero, 2001). The idea was based on the premise that larger student numbers would allow more efficiency and decrease the costs of operation. Declining student enrollment in particular schools coupled with a dwindling tax base offered fiscal rationales for merging schools within districts (Seal & Harmon, 1995). For example, blending two schools would eliminate duplication of administrative services and allow maximization of class sizes. In addition, fewer teachers would be necessary; therefore, the operational costs would decrease. However, this “economy of scale” idea has not necessarily been demonstrated in practice (Gales & Sexton, 1995). More students in membership means that space becomes an issue and facilities must be enlarged or renovated to accommodate the larger student populations. Cost savings from reduced utilities and maintenance are thought to result from fewer buildings are maintained, however, larger school size counters those

savings. Personnel costs may be lowered because fewer administrators are necessary and specialty teachers may not have to travel between multiple school sites (Guthrie, 1979).

Aside from the economic issues, the creation of larger districts brings other consequences.

Centralized operations within larger districts often mean teachers are not given the latitude to use curriculum measures in the best interest of the age and abilities of their students. In addition, large districts can result in a more directive style of administration that does not lend itself to individualization strategies to meet students' needs. In fact, larger schools tend to centralized management and imposed mandates on teachers (Gales & Sexton, 1995; Meier, 2004). Small schools may be perceived as less expensive to operate if graduation rates are used as a means to calculate costs to taxpayers (Viadero, 2001).

Lower dropout rates correlate with higher graduation rates. Keeping students in schools allows the number of students enrolled to remain at higher levels. These higher numbers of students permit extra grant funding from sources such as child nutrition monies which are based on per pupil funding formulas for average daily membership (Cushman, 2000). According to Gales and Sexton (1995), when extremely small districts are consolidated, there is evidence that increased efficiency based on cost occurs. It did not take reformers long to apply this logic of consolidation to individual schools as well.

Although it may seem that operating one larger school instead of several smaller ones seems more efficient, some researchers argue that operating one school incurs a diseconomy of scale by creating more cost instead of lowering amounts spent. Transportation is one of the biggest cost concerns. Students in small community schools could either walk to school or have short and economical rides. With consolidation efforts, bus rides became longer as

students were geographically located far from their new schools (Sher & Tompkins, 1977). Ironically, “as transportation costs increase, small school districts in sparsely settled areas are becoming even more economically advantageous” to provide means convey students to schools (Sher & Tompkins, 1977, p. 47). Lengthy bus rides prove costly from more than a fiscal point of view. Rural parents realize their schools may lack some extra teaching resources but many still favor “not having a librarian over two-hour bus rides” (Dunne, 1977, p. 85).

Furthermore, unexpected costs rose when districts tried to buy supplies and materials in larger quantities with the idea that quantity would make per item cost cheaper. Unfortunately, purchasing in bulk also meant having to hire extra personnel to manage ordering, tracking, storing, distribution, and overall accounting required with large quantities of materials (Sher & Tompkins, 1977). The idea of bigger is better does not always hold true as districts work to balance buying in quantity with difficulties of managing it. Studies with reliable methodologies detailing some of the more negative aspects of larger schools are not easily found (Dunne, 1977; Sher & Tompkins, 1977).

Efforts to increase district size and subsequently lower operational costs yields political and sociological ramifications. Closing the school in many rural communities can have a deleterious effect on the economy and psyche of the community. In many ways, schools define the identity of the rural community. Schools provide not only academic security for residents but also social and cultural activities (Alsbury & Shaw, 2005; Buckner, 2005; Lyon, 2002; Seal & Harmon, 1995). Rural school closings created not only loss of community but also transportation issues. In outlying areas students had to be transported

long distances which not only incurred busing costs but also contributed to ride time for the students. With increased ride times, there are lost opportunities for students and parents (Andrews, Duncombe, & Yinger, 1999). The population density of the area served by a school should be part of the determination of efficiency. Rationalization of closing schools to economize should include analyses of the populations to be served. These studies should serve as key factors when making determinations for closure and consolidation, “in a city, where children can walk to school, it may be financially cheaper to operate one school, even if it is larger, than to operate four” (Guthrie, 1979, p. 20).

Although many studies list detrimental consequences of consolidation, there are studies purporting the positive aspects of larger districts. Through the diversity offered in larger districts, students may have the advantage of greater social opportunities and interactions through larger populations of peers (Alsbury & Shaw, 2005). However, with the loss of the school, there is also a loss of diversity within the larger community. When larger districts consolidate and communities merge, mores are lost as the larger community absorbs the smaller one. Ironically, the social justice attempted with consolidation tends to create less chance for diverse interactions to occur since the values intrinsic to the original community group can no longer be found (Alsbury & Shaw, 2005).

Size Impacts the School Level

However the intent, reformers did not factor into the efficiency equation the detrimental impact that closing small schools may have on the students and communities. Instead of affording frequent opportunities for students to interact more globally as proponents of consolidation argued, the larger schools did not encourage relationships nor

foster the sense of belonging that students must feel. Underestimation of the sense of membership that students require caused a negative impact “rather than expanding young people’s sense of membership in the world, consolidation seriously endangered their feeling of community” (Meier, 2004, p. 69). One example of individuals recognizing the need for schools to revisit and return to the small community high schools are the grants that Bill and Melinda Gates have bestowed on many districts to break their large schools into small ones. The Gates Foundation endowments are built on strengthening relationships and creating a sense of connectedness between and among faculty and students. These traits must be inherent in the high school structures for continued funding.

The trend to create smaller learning communities for high school staff and students is currently the norm. A community in Oakland, California compelled the school board to create a policy to open ten small schools by 2003. This precedent opened avenues for other communities to follow a downsizing trend for school size (Cutshall, 2003). Returning educational institutions to the smaller and more personal spaces fosters the sense of community that the large warehouse type schools housing 3-4,000 students have more difficulty sustaining. One student group that benefits from attending larger schools are students who have specific handicapping conditions. Small schools find it more difficult to fund specialized personnel to meet their needs. In addition, special needs students sometimes require accommodations and instructional practices that may not be easily accessible in a small setting. Therefore, larger schools may be able to offer more adequate services for these students (Guthrie, 1979).

Class Size Considerations

Downsizing schools is not the only relevant “size” issue pervasive in education today. Some recent reform efforts to raise student achievement have challenged the idea that bigger is better in terms of class size (Whittle, 2006). Currently, thirty-three states across the nation have laws restricting class size (Kingsbury, 2005). Changes in student-to-teacher ratios from the year 1955 to 1999 illustrate a focus to provide more teachers for fewer students over the course of the school day. In 1955, the student-to- teacher ratio was reported as 26.9 for combined public elementary and secondary schools, but by 1999 it had dropped to 16.1 for the same group of students (NCES, 2005c). Similar decreases occurred in private schools where the percentage decreased from 31.7 in 1955 to 15.2 in 1999 (NCES, 2005b, Table 64). Statistics for the year 1999 show that North Carolina public schools have student-to- teacher ratios lower than the national average with 15.6 students per teacher. This trend to provide fewer students per teacher within a grade level and therefore making class sizes lower has continued for the year 2002 statistics showing 15.2 students per teacher. Statistical projections for the next five years promise continued decrease in the student teacher ratios (NCES, 2005d).

Studies concerning the effectiveness of smaller class size on student achievement tend to be short term studies. However, one longitudinal study of students in Tennessee schools determined that students educated in small classes from kindergarten through third grade had graduation rates nearly twelve percent above those in larger groups over the same period. As fourth and fifth graders, students who originally were in small classes scored higher than those who had been in regular-sized classes (Mosteller, 1995).

There are studies reflecting a slightly different view on the value of reducing class size in the elementary schools. A California initiative to reduce class size in first grade from averages of thirty students to twenty yielded some less positive results. The study determined that although achievement scores did rise slightly, there were some negative outcomes for the districts as well. The study brought to question whether the rise in scores could be directly attributed to fewer students in a class or to changes in management and instructional strategies. Several studies tout the importance of a mixture of all of these variables as creating a situation for success. (Stetcher, Bohrnstedt, Kirst, McRobbie, & Williams, 2001). Opponents of the positive effects smaller class size can bring to student learning dispute studies where variables concerning the effect of the curriculum and effective teaching strategies are not considered. Merely decreasing the number of students in a classroom does not guarantee a rise in student performance (Smith, Molnar, & Zahorik, 2003; Zahorik, Halback, Ehrle, & Molnar, 2003).

The California study illumined several difficulties that districts face with smaller class sizes. More teachers will definitely be needed but with that need comes the dilemma of finding qualified teachers to fill positions. In order to fill the vacancies, teachers are hired without appropriate teaching credentials (Biddle & Berliner, 2002; Johnson, 2002; Smith et al., 2003; Stetcher et al., 2001, Zahorik et al., 2003). There was a decline in the average educational level as well as experiential level of the teachers. Many of these less than qualified teachers were placed in schools with existing risk factors such as high minority populations, low income families, or limited English students. In other words, the good intentions of lowering class size increased “existing inequities” and exacerbated deficits in

funding (Stetcher et al., 2001). Opponents use the California study to question the effectiveness of decreased class size when compared to the financial burden placed on districts (Biddle & Berliner, 2002; Johnson, 2002).

Connecting effective teaching strategies with strong classroom management is considered more beneficial than lowering class sizes for students. With fewer students, there is less paperwork and discipline is better. Therefore, more time can be spent on instruction (Smith et al., 2003). Explicit instruction, brisk pacing, and an enthusiastic teacher can lead to higher student performance. Clear rules, routines, and a reward system also assist in eliciting stronger student achievement (Zahorik et al., 2003). As Zahorik et al. states, “Reducing class size without rethinking educational practices is merely an expensive experiment and a squandered opportunity” (2003, p. 77).

If the movement to decrease class size continues, more classrooms will be needed. As Greene and Winters (2005) state, “a one-third reduction in class size requires roughly a one-third increase in spending, because schools have to hire more teachers and build more classrooms” (p. 50). Spreading the number of students over more classroom teachers obviously lowers class size but also raises issues of facility such as inadequate space to house the increased number of classrooms (Stetcher et al., 2001). Increased population densities of districts results in a greater challenge for school organizations initiating technical and cultural changes to optimize learning yet accommodate all of the students. The large urban district of Wake County in North Carolina exemplifies the dilemmas facing districts experiencing rapid population growth. This urban fringe district listed 126 schools with 109,424 students (NCES, 2004) with an average class size in grades kindergarten through fifth of 21.33

students (NCDPI, 2004). The population in Wake County grew 47.3 percent from 1990 to 2000 compared to the state's average growth of 21.4 percent. During the short period from 2000 to 2004, the percent of change in population was 14.6 percent while the state's average was 6.1 percent (Census, 2004). Wake County Schools are wrestling with overcrowding and financial issues in order to satisfy the necessity of building more schools to accommodate the ever-growing numbers of students.

Historical Currents

The trend toward school consolidation, larger districts, and larger schools reflects the scientific application of business principles to education. Historically, the use of business ideologies to enhance efficiency of schools began in the early 1900s. Prior to this time, the emphasis on education had been on practicality. Over the years, schools experienced a distinct decline in classical studies and an increase in the availability of vocational classes. This trend grew from the frontiersman ideal who had settled the west with practicality and hard work (Callahan, 1962). Successful business leaders such as Carnegie, Rockefeller, and Vanderbilt preached that energy and drive, not book learning, were the contributing factors to their success. After 1900, there was still a concerted effort to effect changes toward a more utilitarian education (Callahan, 1962). However, in order to achieve this urban reform of education, the political systems of school boards had to change. Hence came the idea of reorganizing school administration and ruling bodies into structures resembling the decision-making bodies of corporations (Tyack, 1974). In North Carolina prior to the 1920s, consolidating or reforming rural schools occurred as a means to salvage farm life. However,

after 1925, the impetus for consolidating rural schools was to perpetuate industrial skills (Schewel, 1982).

Proponents of this progressive administration reformation felt the move to decentralize would give less control to the politicians while advocates felt that creating smaller decision-making boards would prove to be more efficient. By 1923, the numbers had continued to diminish and the average school board consisted of seven members “overwhelmingly composed of business and professional men” (Tyack, 1974, p. 127). With more business-oriented men serving on the governing bodies of school districts, there was more pressure for school administrators to provide a practical education to serve the business-minded public and to prove that schools were being run in the most efficient manner possible. In order to further the pervasive business orientation of school administration, the idea of scientific management grew in favor as an avenue to bring structure and efficiency to the organization and operation of schools and districts. Scientific management is defined as “essentially a system for getting greater productivity from human labor” (Callahan, 1962, p. 25). This struggle to make schools run efficiently continues today as inflationary costs require school boards to evaluate questions of consolidation and restructuring in order to lower operating costs.

On-going Policy Debates

Supposed positive effects of lower class sizes and schools with decreased student numbers fuels debates and continues to generate mixed research results. Issues of teacher supply, facility accommodations, as well as the difficulties of facilitating student needs all contribute to problems relating to size. There are concerns that a lack of available personnel

to fill positions required for lowered class size will necessitate school districts to hire less qualified personnel, in direct conflict to No Child Left Behind (Kingsbury, 2005). Not only is the pool of qualified teachers shrinking, there is also an issue of space. When class size is reduced, there is a need for additional classrooms and small schools often do not have the space for additional classes (Kingsbury, 2005). A California study concluded that students in smaller classes experienced learning gains no greater than those of students in larger classes (Greene & Winters, 2005). Many states have done as Florida and minimized the enrollment cap so that students in the lower grades will have no more than 18 students in their classes. However, this endeavor means that by the year 2009 an estimated 29,604 new teachers were needed (Kingsbury, 2005).

Whether at the classroom, school, or district level, the question of optimal size remains an integral part of educational debates. If small class sizes are considered effective, then logically, smaller size schools or institutions could also be considered more effective than larger ones. Can school size make a difference for students? Many researchers contend that small schools are better; specifically, small schools are supposed to increase the collegiality of staff members and offer more individual attention to student needs, thereby enhancing the learning environment for students (Bracey, 2001; Cushman, 2000; Dessoff, 2004; Goodlad, 1984; Hampel, 2002b; Howley & Eckman, 1997).

Size, although a relative term, has boundaries in relation to schools. For the purposes of this study, size is defined as the number of students enrolled in a single school, and the term “small” is defined as a school with less than 315 students. The study also focuses on elementary schools with a grade configuration of kindergarten through fifth grade since

nearly 75 percent of public schools utilize this configuration (NCDPI, 2000). However, in North Carolina there are at least fifteen schools with fewer than 100 students. Of these, some are charter schools but all are listed within the Public Schools of North Carolina database. Further categorization yields twelve of those as rural (NCDPI, 2004). As the population of students increases, the number of schools not making adequate yearly progress tends to increase. Of the schools with less than 100 students, all succeeded in making adequate yearly progress. In the 101 to 250 student category, eight of seventy-five did not make adequate yearly progress while seventeen did not make adequate yearly progress in the 251 to 300 category (sixty-five sites).

Based on these statistics it would seem that many small schools in North Carolina have managed to be successful in educating their students. Should the numerous large schools in the state attempt to downsize in order to replicate this success? It has been stated that keeping schools small is not the only variable for success, but instead is “a key ingredient in a comprehensive plan to improve education” (Abbott, Joireman, & Stroh, 2002, p. 3). Districts across the state face the challenge of determining the best ingredients to educate students and produce informed graduates capable of being productive members of society. If these schools are sustaining success with their small size, then should replication occur and more small schools be built instead of consolidating small sites into larger ones? Is there a point at which a facility becomes too small to support successful organization and outcomes?

Statement of the Problem

Keeping the success of these small elementary North Carolina schools in mind, what factors play a part in their accomplishments? The National Center for Education Statistics predicts a continued increase in total enrollment of elementary and secondary students through at least 2014 (NCES, 2004). Districts face the dilemma of tackling increased student enrollment yet maintaining the effective characteristics of successful schools. Urban areas seem to be experiencing an explosion in student numbers and may need to look at their rural counterparts before making a decision. Often consolidating small schools into larger ones seems the best solution, but data seems to support the idea that smaller is better. It is important for district leaders to be aware of all variables – both strengths and difficulties of smaller sized entities – to make informed decisions for either creating more small schools or closing existing ones and constructing fewer but larger schools.

Although the vast majority of research praises small schools as successful vehicles for high achievement in both students and faculty, are there any drawbacks for administrators to operate and maintain schools with fewer than 315 students? Benefits include stronger faculty and student interrelationships as well as interactive community and parental support structures. There is very little data supporting negative aspects or difficulties such as teacher development, curriculum planning, and material resources since small schools are said to operate under funding constraints due to funding allocation processes (Roellke, 2003). Therefore, the fundamental research problem undergirding the study is, “If small schools are so effective, why aren’t there more of them?”

Purpose of the Study

The purpose of this study is to evaluate positive and negative characteristics attributed to small school success through the principals' perspectives. Through qualitative analysis of the focus schools, it was determined if there are any obstacles to creating and maintaining schools of less than 315 students with a focus on schools with less than 150 students. Characteristics relating to the instructional programs, student demographics including ethnicity and poverty levels as well as school climate were analyzed. From an organizational perspective, teacher numbers, grade level assignments, and scheduling concerns were reviewed. Collaborative opportunities for teachers and parents were investigated. Examining these facets will offer insight into the workings of several small elementary schools in North Carolina.

Research Question

The primary research question was: what obstacles exist for principals in running a school of less than 315 students? Subsequently, the question arises: are there any factors directly attributable to the success of the small focus schools? Given the growth of schools in North Carolina it is important to consider all of the variables involved when analyzing school size and its relationship to effectiveness. If it is true that "large schools are organizations while small schools are communities" (McRobbie, 2001, p. 2) then what makes these smaller schools a valuable catalyst for student achievement? What common themes emerge from the conversations with principals at these very small schools?

Overview of the Study

The relative successes of small schools across the nation have long been under scrutiny. The literature abounds with positive outcomes and characteristics inherent in small schools. However, there is limited documentation of elementary schools with populations 315 or less students. In particular schools with fewer than 150 students in a kindergarten through fifth grade configuration are susceptible to questions concerning effectiveness and efficiency. Through a qualitative approach using survey and interview techniques, these small elementary schools in North Carolina having student populations of 315 students or less were examined with a particular emphasis on schools with less than 150 students. Administrators were surveyed to discern how their schools are organized and if any barriers relating to small size are apparent. A survey consisting of both closed and open-ended questions offered some quantitative data such as percentages of sites having resource teachers, classroom assistants or organizational concepts such as the percentage of opportunities for teacher to collaborate. Open-ended questions afforded respondents a chance to expound on specific characteristics inherent in their administration. Principals at 143 schools with 315 students or less were asked to complete the online survey. To provide more in-depth responses, interviews with administrators at four of the schools having less than 150 students and the same grade span configuration provided data focused on the perceptions surrounding curriculum, budgetary issues, parent and community support, and faculty relationships.

These are factors in daily operations of all schools but is there a relationship between size and these issues that make it more difficult for continued successful operation?

Organizational structures such as teacher assignment, support personnel, or resource teacher availability may vary from site to site. The smallest schools in North Carolina are successful based on historical test data. Determining exactly what makes these schools successful is part of the overall plan for this study. Administrator's creativity for utilizing available resources was examined. Secondary data analysis at the four sites included the investigation of data such as historical test scores, student and district demographics, and organization of the staff as well as that of the school day.

Significance of the Study

Research has shown that for students from low socio-economic status homes, achievement levels are greater if the students are enrolled in small schools (Howley & Eckman, 1997; Viadero, 2001). Since there are many schools in North Carolina with high numbers of students from low-income families, the state has a definitive need to consider ways to educate these students. If research supports smaller schools, then educators should analyze all aspects of reorganizing larger schools to enable students of all socio-economic levels to be successful. This study will add to the knowledge base of characteristics of small elementary schools in North Carolina that have not been explored adequately in the literature. Districts struggling to make decisions to build new schools or to close existing ones may find this study useful for looking at a specific category of elementary schools and populations. Through this study, practitioners will have a greater appreciation of several of the variables surrounding schools with student populations of 315 or less. Traits inherent in these small entities may be generalized and compared against similar larger elementary school characteristics throughout North Carolina. Through careful deliberation of variables relating

to the whole school environment, one is able to make more informed decisions concerning the question of whether to create smaller schools or simply consolidate them into larger campuses.

Definition of Terms

Academies: term describing separate schools with individual administrative organization and academic focus based on a particular career theme for the students

Adequate Yearly Progress: measures the yearly progress toward achieving grade level performance for each student subgroup in reading and mathematics.

Average Daily Membership: number of days a student is in membership at a school divided by the number of days in a school month or school year.

Enrollment: number of students in membership of a particular district or school; used synonymously with membership.

Houses: used to denote sections of a larger school each having its own administrative support and maintaining separate student membership; sometimes called academies or schools-within-a-school.

Large city: central city of a metropolitan statistical area or consolidated metropolitan statistical area with a population of at least 250,000 (NCES).

Large town: an incorporated place or census-designated place with a population of at least 25,000 and located outside a consolidated metropolitan statistical district or a metropolitan statistical district (NCES).

Magnet school: a public school offering instructional programs centered on a specific curricular theme, subject area, or instructional method. Sometimes this type of school

is referred to as “school of choice” or an “alternative school” since families must choose for their child to attend (Goldring & Smrekar, 2002). There are eligibility criteria for entering students (Hausman, & Brown, 2002).

Metropolitan: area with a minimum population of 50,000 (Census, 2003).

Micropolitan: urban area with a population between 10,000 and 50,000.

Midsized city: central city of a metropolitan statistical area or consolidated metropolitan statistical area with a population less than 250,000 (NCES).

Organizational structure: the manner in which a district or school’s administrative team and grade span are delineated.

Regular school, traditional calendar: a public school offering a regular program of instruction operating for ten consecutive months. A regular instructional program includes all of the basic subject areas and does not focus primarily on vocational, special, or alternative education.

Regular school, year-round calendar: a public school offering a regular program of instruction where schools remain in session for the entire calendar year with intermittent breaks as opposed to ending the school year for the summer. Students are still required to attend 180 days just as with the traditional calendar.

Rural: any incorporated place, census-designated place, or non-place territory designated as rural by the United States Bureau of the Census; excludes places that are within a metropolitan statistical area (NCES). Rural has also been further specified as districts that have fewer than 600 students or located in a county with less than 10 people per

square mile. All schools in the districts must be in communities with fewer than 2,500 residents (Richard, 2004).

School-within-a-school: breakdown of a large school into smaller units which act as separate entities or mini-schools under the umbrella of one school and organizational unit. Each entity operates under its own schedule, administrator, faculty, and student body. This concept is best applied to existing structures (Cutshall, 2003).

Small town: an incorporated place or census-designated place with a population between 2,500 and 24,999 and located outside a consolidated metropolitan statistical area or metropolitan statistical area (NCES).

Urban fringe of a large city: any unincorporated place, Census-designated place, or non-place territory within a consolidated metropolitan statistical area or metropolitan statistical area of a large city and defined as urban by the United States Bureau of the Census.

Urban fringe of a midsize city: any incorporated place, Census-designated place, or non-place within a consolidated metropolitan statistical area or metropolitan statistical area of a midsize central city and defined as urban by the United States Bureau of the Census.

Chapter Summary

The concept of size making a difference is a common debate in effective schooling practices throughout the history of public education in the United States. As the number of school-age students has increased, there have been efforts to consolidate both districts and small schools under the umbrella of efficiency. Size impacts all facets of the educational

realm, and can have implications at the district, school, and class level on student achievement, organizational structures, and perceptions of parents and community. Along with consolidating schools into larger units, researchers began to examine the effects of providing instruction within smaller size classes. Now, we are facing the dilemma of growth necessitating more schools to accommodate population increases while districts are simultaneously attempting to decrease class and school size to maximize learning performance of students. Constraints of inadequate facilities and lack of funding can contribute to the problem. In North Carolina, many schools with populations under 315 students appear to be successful. This leads one to wonder if larger schools should be dismantled into smaller units to replicate the small school success supported by some research studies. In the next chapter, the literature on small schools is reviewed in depth.

Chapter Two

Literature Review

Throughout the history of schooling in the United States, the debate over school size has managed to be at the forefront of educational debates. Whether in the name of progress or efficiency, the question of optimum school size remains debatable. Proponents today cite several positive effects of small schools including the building of collegiality among the teachers, students, and the community. Opponents use the fiscal argument that small schools cannot be as efficient to operate as larger ones. As districts continue to struggle with accountability issues, reform strategies once again make the idea of small schools attractive. Not only is this issue important in elementary schools, but is currently prevalent in high schools across the nation. Federal and private funding sources are seeking to ensure that small high schools become the norm (Nathan & Febey, 2001; Robelen, 2000).

Strong financial support to create small schools came from Microsoft founder, Bill Gates. He believed that breaking large high schools into smaller schools-within-schools structures was the solution for increasingly poor performance rates. However, there is some evidence that communities are retaliating to the autonomous perception that community members have no recourse but to accept the Gates money and its impact on the high school. The Gates Foundation has pulled funding in some districts in response to lack of district and community support (Silverman, 2006). However, nationwide, there are indicators that strategies for reform are still needed for large schools. Berry succinctly summarized the changes, “Small schools, once derided as relics of the education system . . . now lie at the

heart of one of America's most popular reform strategies. After decades on the endangered species list, small schools have become the next big thing in education" (Berry, 2004, p. 56).

Historical Perspectives

Prior to the mid-1800s, most schools were one-room, one-teacher, multi-grade level structures. Many were small and operated in rural settings (Tyack, 1974). During the nineteenth century the school was often the center of the community. It provided space for political forums as well as religious and social gatherings for community members. In some of the rural areas, schools were actually converted barns or shelters (Hampel, 2002a). In many cases, students could walk to school in the morning, stroll home for lunch, then walk back to school for the afternoon. The convenience of living in close proximity to the school merely strengthened the home-school bonds (Langdon, 2000). Socially, schools afforded the opportunity to interact with neighbors who were often widely dispersed. The social aspect proved more of an allurements for attendance than any specific benefits of the academic program. Even though the school offered social interactions, in small rural settings, attendance was still voluntary and dependent upon the weather or the need for farm labor (Tyack, 1974). Conceptually, small schools in rural areas were not organized the same as their urban counterparts. The curriculum for these rural entities remained in the hands of community leaders. Urban counterparts were larger and more bureaucratic in nature.

During the last half of the nineteenth century, rapid growth occurred in cities as more people moved to take advantage of the economic opportunities of an industrial society. Urban schools were the epitome of efficiency and attempted to create workers for the industrial world. Both public and private schools subscribed to the factory model of schooling (Howley

& Eckman, 1997), preparing their students for employment in the factories. Public schools equipped students to be factory workers while the private schools worked to build corporate laborers. During the industrial age, the curriculum emphasis in urban schools was focused on job preparation and vocational programs flourished. At this time in history, the goal of producing moral and productive worker was more important in public schools than an academic curriculum. In fact, one-room school buildings of the day gave the impression of civility and moral servitude through their austere facades that resembled churches more than present day schools. Opponents of small schools argued that civic duties could not be taught in surroundings such as barns or shelters (Hampel, 2002a).

Frederick Taylor perpetuated the idea of efficiency within the corporate world. As the composition of school district governing bodies changed to include more businessmen, the scientific management viewpoint naturally became the medium for school reform (Callahan, 1962). As applied to education, Taylor believed there was only one method best suited to a task, determined and accomplished through scientific study (Callahan, 1962). Schools, due to their financial support from taxation and the growing criticism of the inefficiency of these public entities, fell under scrutiny and were front page news during the first quarter of the 1900s. Naturally, the idea of efficiency became ensconced in the notion that funds were not being used effectively if the product was not up to par.

In 1911, Frank Spaulding, a superintendent, applied an efficiency model that proved to incite the economizers of the day to call for larger schools. He suggested that a school's effectiveness could be determined based on measurable products exemplified by available data (Callahan, 1962). Because of the correlation of schools and businesses that permeated

educational thought and reform at that time, the determination of school effectiveness evolved into measuring efficiency using cost-benefit analyses. Unfortunately, schools organized and analyzed using the corporate model proved to cost more than the ones they replaced (Tyack, 1974).

With the idea of efficiency came increased concern that larger schools were more cost effective and efficient to operate. Rural schools were criticized as being too small to purchase necessary equipment and supplies, offer educational specialists, and provide adequate salaries and benefits to attract and retain good teachers (Howley & Eckman, 1997). In 1848, John Philbrick engaged in a reform movement that would press for consolidation of small schools and create a system for grading students that is still prevalent today. He advocated uniting several small schools, eliminating inefficiency based on size. Organizationally, it would also lessen the heterogeneous grouping of several grade levels in the one-room and one-instructor schoolhouses. The concept of the “egg crate school” (Tyack, 1974, p. 44) was born with each teacher responsible for a single grade level of students. Placed in a grade level based on their proficiencies, each student had a desk and the entire group studied the same subject at the same time (Tyack, 1974).

By 1918, rural schools had seen a rapid decline. The Progressive Era of the Roosevelt administration drew focus from the growth of cities to an emphasis on rural America. However, local boards and state departments were struggling to create more aligned and consistent schools. The rural schools did not mesh well with the movement to align and improve educational opportunities (Theobald, 1995; Theobald & Nachtigal, 1995). Reforming rural schools into consolidated units was a huge undertaking. Just as efficiency

was once the keyword, order became the next watchword for education. In 1871, William T. Harris, a Louisiana superintendent, was one of the driving forces to “standardize” education (Tyack, 1974, p. 43). Prior to the mid-nineteenth century the demands of the workforce were not academic in nature. Businesses wanted clean, sober workers who were dependable and whose work ethic allowed them to be punctual. However, educated workers were becoming more necessary as the demands of the corporate and industrial world increased.

To manage students placed in graded classroom settings, standards for student behavior became necessary. Continuing to nurture this idea of standardization, the course of study and assessment details were also put into place. The curriculum had to be standardized since promotion and success was based on the proficiency of the learner as demonstrated on the grade level assessments (Tyack, 1974). Ellwood P. Cubberly (1927) advocated larger schools that could efficiently group students based on age and ability. He argued that schools consolidated into larger units could be run effectively with smaller numbers of centralized administrators in much the same way as factories operate.

The industrial revolution initiated an evolution from one-teacher schools to multi-teacher structured units with standard curricula and grade level expectations. In other words, there was a move to create a more professional educational process. During the period from the late nineteenth century well into the twentieth century, the number of schools in the nation dramatically decreased. The number of school-aged children increased while the number of schools decreased by 60,000 (Berry, 2004). Although many of the school closings were painful to the communities involved, there were positive results as well. With a standardized curriculum, opportunities were available to students who otherwise might not

have benefited. The structure of the school also taught “habits of punctuality, obedience, and precision that did help the young to adjust to the demands of the world of work” (Tyack, 1974, p. 70).

Statistics illustrate the continued trend to close schools and consolidate districts. In 1950 approximately 152,500 schools enrolled 25.1 million students. By 1990 there were 40.5 million students enrolled in about 84,600 schools (Howley & Eckman, 1997). Wasley (2002) uses different numbers. She states that in “1930 there were 262,000 schools serving 26 million students . . . by 1999 90,000 public schools served 47 million” students (Wasley, 2002, p. 8). As the number of children increased by about 60 percent, the number of available schools decreased by about 45 percent. During this time period more than 60,000 one-teacher schools were closed. Between 1940 and 1990, the consolidation efforts yielded a decrease from 200,000 to 62,000 elementary and secondary schools although the overall population of the nation rose by 70 percent. The average enrollments of schools ballooned from 127 students to 653 students (Mitchell, 2000). As Howley and Eckman (1997) noted, “just seventy-five years ago, 70 percent of all public schools were one-teacher schools” (p. 69). During the latter quarter of the twentieth century the United States Department of Education committed 125 million dollars to fund small school initiatives (Wasley, 2002).

Throughout the 1950s, the push for larger schools continued. Educators felt the need to provide a more rigorous curriculum to create scientists who could compete with other countries to conquer space (Abbott, Joireman, & Stroh, 2002). State and federal funds provided a system of highways as well as paved secondary roads which afforded easier

access for students from larger demographic areas to attend a centralized school (Lawrence et al., 2002). James B. Conant, former president of Harvard University, was designated as one of the leaders in the push for larger high schools. He advocated consolidating and maintaining comprehensive high schools across the United States. He argued that schools should not operate with fewer than 400 students since schools of such small size could not offer adequate ranges of academic courses (Littky & Grabelle, 2004; Viadero, 2001). As the second half of the twentieth century continued, educational reforms produced a decline in class sizes, higher salaries for teachers, and longer school terms. The current school system utilized today was born during this period. Research published during this time was “focused on resources rather than results” (Berry, 2004, p. 60). Berry also noted that research conducted during this period found larger schools offered broader curriculum opportunities, hired more qualified teachers and administrators, and had better facilities (Berry, 2004).

As educators move into the twenty-first century, the emphasis on smaller sized schools continues to impact schools at all grade levels. Standards and accountability measures have forced educators to seek new avenues to ensure student success and achievement. For high schools, this means restructuring the academic programs and becoming smaller, more focused entities. The larger size movement of the late twentieth century has given way to what some believe is a more individualized and supportive learning environment based on trusting relationships between students and teachers (Patterson, 2003). Taking a large school and breaking it apart into several small schools or creating several small learning communities within a large facility is a growing trend in secondary education (Nathan, 2002). There are several different methods of creating a smaller high school. The

terms, houses and academies may be used to denote sections of a school, each having its own administration, teaching staff, and students (Abramson, 2005; Moore, 2005). Mini-schools offer greater separation and autonomy for the faculty since these sites maintain academic programs separate from the larger school. Schools-within-a-school are defined as formalized units governed by the board of education and the superintendent. These schools operate within their own administration and budgetary guidelines (Moore, 2005). In many cases, these are stand-alone schools that operate under one physical structure, hence the term school-within-a-school.

The Bill and Melinda Gates Foundation directed its creative and financial energies into helping large schools realize their small school potential. In 2004, the foundation pledged \$647 million over the next four years to build 1,457 small high schools. Much of this money would go toward dismantling dysfunctional urban high schools and creating mini-academies (Murphy, 2004). In a 2003 publication, it was noted that the verdict remained undecided on whether it was easier to break up an existing school into smaller units or to start a new school (Hendrie, 2003). However, in either case, building small, thematic learning academies was expected to provide the collaboration and support needed for high school students to better prepare for life.

Definition of Small

What constitutes small? Definitions in the literature abound with inconsistencies. Depending on the study cited, the number of students in a “small” elementary school ranges from less than 100 students to 760 students. The average school size documented in the literature appears to be around 350 to 400 students (Borland & Howsen, 2003; Cushman,

2000; Kennedy, 2001; Klonsky & Ford, 1994; McLaughlin, Embler, Hernandez, & Caron, 2005; Vulliamy & Webb, 1995). The recommended size for high schools to have optimum learning success is from 600 to 900 students (Irmsher, 1997; Viadero, 2001) although at least one study recommended the size not exceed 500 students (Kennedy, 2001). A manual detailing the ideal facility planning published by the North Carolina State Department of Public Instruction lists 300 to 400 students as the target population of students for elementary schools, 300 to 600 students for middle schools, and 400 to 800 students for high schools. These numbers are the recommended spans for improving safety and security in facilities. However, in planning facilities, the same document suggests the ideal facility size should accommodate 450 to 700 elementary students, 600 to 800 middle school students, and 800 to 1200 high school students (Lawrence et al., 2002). The discrepancy in the number ranges could be due to the differing organizational grade groupings. Some districts configure elementary schools as grades K-5 while others use a grouping of grades K-6.

Some confusion exists in the literature between the terms *rural* and *small*. Often they have been used synonymously (Hampel, 2002b). According to the North Carolina Department of Public Instruction, rural is defined as “any incorporated place, census designated place, or non-place territory designated as rural by the United States Bureau of the Census exclusive of places that are within a metropolitan statistical area” (NCDPI, 2004). Some distinction should also be made between schools that are small due to the demographic nature of the community they serve, and schools that once were large but have been divided into small facilities. Sometimes these are referred to as “schools-within-schools” or “small learning communities”. Many of the issues and traits found in small schools are also

evidenced in schools-within-a-school structures because of the decentralized control aspect (Raywid, 2002). In several cases, no differentiation is evident in the data collection between elementary and high school therefore, determination of the environment to which the idea is applied can not be made. The numbers denoting grade level configurations presented are based on specified elementary statistics. The organizational structures of elementary schools bridge a broad spectrum of grade span groupings such as K-8, K-7, K-6, K-5, 2-6, or 3-4 (Lawrence et al., 2002).

According to at least one study, size matters where student achievement is concerned. The highest achievement scores were reported at schools having less than 265 students while the lowest scores were slated where student numbers were greater than 450 students. In some studies, districts with 10,000 to 12,000 students were considered small and districts with 40,000 to 50,000 students were considered large (Ornstein, 1990). However, according to data for the year 2000-2001 from the United States Department of Education, 46.7 percent of all schools contained 300 to 749 students. During this period, the average enrollment for elementary schools was 441 students (Rydeen, 2004). Although definitions and student numbers vary greatly in the literature, there are commonalities in traits of schools designated as small. Regardless of the researcher's or writer's definition of "small" in terms of student numbers, there are inherent characteristics common to the studies.

Traits of Small Schools

Various attributes linked to student achievement, professional growth of teachers, and collaborative interactions of community, faculty, and students contribute to the small school concept. Theodore Sizer suggests the use of the concept of smaller quantity actually denotes

higher quality (Tyack, 1974). Many of the traits cited in the literature support the idea that smaller schools are ideal for fostering both teacher and student development. Paul Theobald, a leading scholar for rural education, believes there are too few schools in America. His vision for changing the educational process includes keeping and educating students within the local community where adults know and care about the children (Tyack, 1974).

Leadership in small schools is often distributed among the faculty. The principal is ultimately in charge but due to the low number of faculty members many teachers assume responsibilities that would not otherwise be in their job realm (Borland & Howsen, 2003; Wasley & Lear, 2001). Developing teacher quality is one of the hallmarks of effective principals. Assuming leadership roles is one avenue for building professionals (Whitaker, 2003). In smaller schools, students may take more active leadership roles, because fewer students compete for these roles (Cushman, 2000). Rural administrators in small districts assume greater responsibility for the same reason that teachers must; they have fewer peers with which to collaborate and assist in the decision-making process (Arnold, 2004). Characteristics of small school leaders include the ability to manage students, teachers, parents, and money (Votey, 2002), and the capacity to multi-task is essential. For the elementary leader, he or she must be able to “move in the worlds of law, business, public relations, marketing, fund-raising, construction, finance and local politics” (Votey, 2002, p. 57). The ability to utilize the community as a means to improve school relations and procedures requires building and maintaining strong ties to the community.

In the early history of education, the school was the center of the community. This sense of identity and unity is prevalent today in small schools, particularly those found in

rural areas. There are strong attachments to the school as generations of families have been educated within the same local school. This becomes a shared experience of neighbors, families, and friends (Lawrence et al., 2002). The personal bonds between the school and community allow the school to work with parents and area leaders to focus on the educational needs of students. With the improved communication in smaller schools, staff members can work to improve instructional quality while the parent-community involvement ensures an intrinsic system of accountability for student success (McRobbie, 2001).

A report detailing twenty-two public schools in twelve states representing urban, rural, and suburban communities provides insight into smaller schools and their influence on parents and the community. The brief case studies of these schools show that these smaller schools provided greater satisfaction for families, students, and teachers (Nathan & Feebly, 2001). The same findings were true in a study of Chicago Public Schools led by Patricia Wesley. Surveys distributed in small schools found a higher degree of parent and community satisfaction. The small schools in this study served fewer than 350 students in elementary schools and fewer than 400 students in the high schools (Nathan & Febey, 2001; Wasley & Lear, 2001). Some studies found increased opportunities for communication among staff members in a small school. However, the low number of faculty members in each grade level can create a vertical interdependence of grade level teams and a lack of diversity of voice. Proponents of small schools argue that students benefit from more personalized instructional approaches found in these schools. As students matriculate through the grades, all of the teachers know the students and can provide insight into matching instructional practices to individual needs (Kennedy, 2001).

The positive aspects of working in a collegial manner are documented by many of the leaders in effective school practices. According to Marzano (2003), the definition of collegial behavior is the building of social interactions and friendships among teachers. In his idea of collegiality, it is not so much the friendship as the quality of the interaction and ensuing dialogue. For example, sharing failures and mistakes, demonstrating respect for one another, and analyzing practices and procedures all provide fodder for collegial relationships to evolve (Marzano, 2003). The more opportunities for teacher interaction, the more they become self-led and the topics of conversation become instructionally focused (Sergiovanni, 1992). Sergiovanni cites Johnson concerning the conversational content in the teacher's lounge; conversations generally about "travel plans instead of lesson plans" (Sergiovanni, 1992, p. 87). In order to facilitate collegiality, leaders in the school must provide "occasion for professional dialogue" (Glatthorn, 1997, p. 43).

One of the more stable qualities that communication promotes in small schools is collaboration that leads to a positive environment and will assist in the retention of teachers (Stronge, 2002). The more communication encouraged in a school, the better the teachers understand the school goals and initiatives. It becomes apparent that the school is a purposeful system requiring each teacher's contribution (Zmuda, Kuklis, & Kline, 2004). Students benefit from the relationships built between the teachers on their behalf. With improved teacher relationships, serendipitously, students become more satisfied and supported while the teachers become further committed to both school and students (Raywid, 1998). A study done in 2000 by Lee and Loeb (2000) examined 264 elementary schools in Chicago and found that in schools having less than 400 students, teachers took more

responsibility for students' academic and social development (as cited in Abbott, Joireman, & Stroh, 2002). As a result of the investment in the student-teacher relationships, achievement was enhanced. In addition, they found that small schools assist in creating more personal relationships among both teachers and students. The personalized attention created by these bonds impact student learning in a positive manner (Abbott et al., 2002).

Aspects relating to teacher satisfaction and professional growth have been documented. Teachers in small schools have opportunities to make curriculum decisions that larger and more bureaucratic organizations limit (Borland & Howsen, 2003). Faculty members in small schools are more likely to participate in staff development and training activities that they themselves desire instead of primarily participating in district-mandated staff development (Klonsky, 2002). The commitment level of teaching staffs in small schools illustrates a high degree of dedication to the community served as well as to the teaching profession (Raywid, 1998). Through the collaborative aspects necessary for small schools to operate, teachers share ideas and are able to learn from each other. Having a limited number of experienced teachers at a given grade level opens the pathway for teachers to become experts in their specific teaching assignment.

The collaborative dialogue leads teachers to have a more global perspective of the school and its needs. Teachers in small schools often take active roles in decision making for the school. Therefore, conditions for professional growth are more favorable at small schools (Nathan & Febey, 2001). Having a small faculty can also facilitate informal peer assessment. In the small setting, faculty members are more aware of each others' strengths and

shortcomings. This knowledge can provide the impetus for teachers to improve and change their peers' opinions of their teaching abilities (Irmsher, 1997).

The tendency of small schools to promote opportunities for shared-decision making creates settings that build interpersonal skills for faculty members. Site-based management or shared decision-making is based on the assumption that decisions should be made by those persons who are most closely associated with the school and students. This framework shifts authority from district offices to the school level. Teachers in small schools can more easily assume responsibilities encompassing budget and management issues as well as those within the parameters of the curriculum arenas (Dee, Henkin, & Pell, 2002). Teachers are given more autonomy in small schools resulting in an elevated degree of job satisfaction (Abbott et al., 2002). Due to the size of both the faculty and the student body, active participation in school affairs – whether academic or extra curricular – gives opportunities for teachers to become involved and develop innovative approaches to instructional practices (Irmsher, 1997; Klonsky & Ford, 1994). The ability to discuss and create policies and procedures together brings higher stakeholder involvement (Langdon, 2000). Teachers and their colleagues assume more responsibility for student learning. This is done through teaching teams, employing cooperative learning techniques, integrating subject matter content, using alternative assessment procedures, and using multi-age grouping as a means for affecting instruction for the students (Bracey, 2001; Cotton, 1996).

Leaders in schools so closely dependent upon relationships must be cognizant of the needs of both teachers and students. “Facilitative leadership recognizes that leadership does not necessarily reside in one person. Rather leadership can come from teachers, staff

members, students, parents, and community leaders” (Rebore, 2003, p. 46). Building on the strengths of the people within the school and community is part of creating a culture to build success in a school. Effective principals realize the value in personnel in order to enhance the programs for students (Whitaker, 2003). Relational leadership ideas such as the “human dimension of educational leadership is just as important as the technical dimension” (Rebore, 2003, p. 1) seem to have been born with small school climates in mind.

Due to the close-knit nature of faculties in small schools, support for new teachers is strong. Mentors are selected to work with the new teachers. However, mentor selection may be difficult because of the limited number of staff members. The first year of teaching must be satisfying or it would be more difficult to retain the teacher for a second year. It is important that mentors be assigned who have a connection to their mentees. The common link may be the field of expertise or grade level. The difficulty for small schools arises in scheduling opportunities for the mentor and mentee to meet and work together to observe one another and visit other classrooms. Having fewer staff members makes it difficult to match commonalities of mentors and mentees (Heller, 2004).

Although history questions the cost effectiveness of small schools, there are aspects of funding that make efficient operation both inexpensive and costly. Historically, schools have “allocated resources based on measurable inputs, such as the ratio between the number of students and the building square footage, without paying attention to outcomes” (Christensen, Aaron, & Clark, 2005, p. 547). Opponents of small schools cite costs of construction, facility operation, and cost per student as too expensive in comparison to larger buildings. However, Lawrence and other colleagues (2005) analyzed construction projects

for more than three thousand schools and determined that smaller schools are no more expensive to build than larger ones. The question of the cost effectiveness to operate and maintain the buildings and programs to educate the students remained unanswered.

Therefore, budgets at twenty-five small schools scattered throughout the United States each with diverse populations and differing educational programs were analyzed. The researchers found that the average amount spent is less per student for educational programs, maintenance, and operations in small schools than the average per pupil expenditure of all schools in their districts. These small schools achieve results equal to or better than larger schools in the districts studied (Lawrence et al., 2005).

If one correlates schooling to production, then the larger the school, the lower the cost per student. However, this is not always the case. According to Howley and Eckman (1997), studies comparing per-student expenditures among different sizes of schools find more must be spent per student in small schools. There is a point when the per-student costs begin to increase after a certain size is reached. The largest schools, particularly those in the largest cities, are very expensive to operate (Howley & Eckman, 1997).

Funding is based on enrollment, free lunch rates, and grants for rural schools (Cushman, 2000; McLaughlin et al., 2005). Due to the low enrollment, rural schools receive less state funding than their urban or suburban counterparts (McLaughlin et al., 2005). Determination of the cost per student or construction costs per student is based on formulas. Standard operating costs are usually computed by dividing the total amount spent by the number of students enrolled (Irmsher, 1997). Determination of what is economical is most often determined through generic formulas used by construction and real estate workers

where residential, commercial, and institutional building types are taken into consideration (Lawrence et al., 2002).

According to Lawrence, some states require specific minimum requirements before a district qualifies for any school facilities funding (Lawrence et al., 2005). There is also an “operating sparsity category” (Thorson & Edmondson, 2000) for funding that provides some revenue to very small schools in isolated areas. To qualify for “sparsity” revenue at the elementary level, a district must be at least nineteen miles from the next elementary school with class sizes not averaging more than 20 pupils per grade level (Thorson & Edmondson, 2000). For high schools it has been noted that smaller high schools cost more to operate but if the cost per graduate is calculated then smaller academic and alternative schools were less expensive than large high schools. Small schools were less expensive due to their tendency to have lower dropout and higher graduation rates (Cushman, 2000; McRobbie, 2001; Nathan & Febey, 2001). However, in a statistical report on the cost effectiveness of small schools, there was data to support that larger schools tend to be less expensive to operate on a per-pupil basis with the understanding that there are many factors that can vary across situations and cannot be uniformly applied in all areas of expenditure (NCDPI, 2000).

Positive aspects of small schools also include issues of security. Safety issues at small schools tend to illustrate that fewer students and the collaborative atmosphere act as deterrents to violence (Abbott et al., 2002; Cushman, 2000; Kennedy, 2001; Langdon, 2000; Nathan & Febey, 2001). Cushman validates the idea of safety by stating that “rates of truancy, classroom disruptions, vandalism, theft, substance abuse and gang participation all are reduced in small schools” (Cushman, 2000, p. 38).

Advocates for small schools rationalize that decreases in violence and disruptive behavior are due to teacher and administrator knowledge of the students. In a small school where everyone knows everyone else – whether in the community or merely within the school – the lack of anonymity acts to combat feelings of isolation that often precipitate violent outbursts (Abbott, 2002). Due to the familiarity of the community, teachers and students readily notice strangers on a school campus and potential trouble can be averted (Kennedy, 2001). In his research, Klonsky cited federal statistics showing that violent incidents are eight times more likely to occur in schools with 750 or more students than they are in schools with fewer than 350 students in membership (Viadero, 2001). However, there appears to be no relationship between membership and the number of violent incidents reported per 100 students. According to a North Carolina study, as membership increases the rate of violent incidents in the school remains approximately the same (NCDPI, 2000).

Research suggests student achievement is impacted in a positive manner for certain groups of students (Abbott et al., 2002; Allen, 2002; Irmsher, 1997; NCDPI, 2000; Ornstein, 1990). Small schools demonstrate higher student achievement in females, nonwhites, and special needs students. These groups may be at risk, gifted, exceptional, or disadvantaged but all are better served by the small school community atmosphere (Irmsher, 1997). Large schools may be good for talented children because the breadth of resources is greater in these settings. Yet, special education learners thrive in a small setting with its emphasis on identification and subsequent focus on individual needs (Parker, 2001). Students who moved from a large school to a smaller setting experienced a rise in achievement scores and classroom performance (Nathan & Febey, 2001).

Advocates for small schools argue that achievement is increased for minority and low income students. A study by Bickel (1999) noted that as school size increases, achievement levels for schools with less disadvantaged students decreases (Abbott et al., 2002). In many small schools, students stay with the same team of teachers, thereby strengthening bonds and forging stronger student-teacher relations. The emphasis on building these bonds resulted in a lower rate of student retentions (Klonsky & Klonsky, 1999). There is also evidence in at least one study that students graduating from a small high school fared better in the labor market than those from larger populations (Berry, 2004). The reciprocal relationship building between students and teachers creates accountability for students' academic and social needs. There is a feeling of ownership in the students that enhances student achievement (Abbott et al., 2002).

Although it is necessary for schools in small districts to share resources, it also creates an opportunity to strengthen community relationships. The idea of sharing also means that teachers in small schools might travel from school to school or teach several subjects and grade levels. For example, a teacher of special needs students may work with students from kindergarten through grade twelve (Brownell, Bishop, & Sindelar, 2005). Finding teachers willing to expend the effort to teach several subjects or to work at more than one school is sometimes difficult. One administrator talked of hiring faculty members with multiple talents whenever possible. This process begins in the interview as candidates are questioned, "What else can you do besides teach?" (Hendrie, 2005, p. 26).

The sharing, collegial aspect of small schools also assists in the retention of teachers. The recruitment and retention aspect is one that could be interpreted in both a favorable and

an unfavorable light. Teacher recruitment and retention is sometimes difficult for rural areas which may not offer salary comparable to those found in urban communities. Lack of social and cultural activities also limits recruitment strategies in rural areas. In small schools, enrollment numbers make it necessary for teachers to provide instruction in more than one subject and possibly in varying grade levels (Brownell et al., 2005). Although recruitment may be difficult, it is easier to retain teachers in a small school due to the higher job satisfaction. Collaborative opportunities for staff members to work together in a positive work environment are more commonly found in small schools. Maintaining a positive atmosphere promotes teacher retention (Nathan & Febey, 2001; Stronge, 2002). The lower incidences of violence in small schools also seem to attract teachers seeking employment. Urban districts found that in high schools, one of the topics of concern for prospective employees is personal safety (Viadero, 2001).

Similar to research detailing the advantages and disadvantages of smaller public schools is literature on small charter schools. Common characteristics between small public and charter schools include those related to teachers, administrators, relationships, and academic programs (Fusarelli, 2002; Kane, 2000). A charter school, in this study, was defined as a small school having greater latitude in decision making than district public schools, but still held accountable for increased student performance (Kane, 2000). According to Kane (2000), 65 percent of the latest charter schools created have fewer than two hundred students with only 10 percent having more than six hundred students enrolled.

Building relationships is an integral part of the charter school advantage. Both the small school size and the small class sizes allow teachers, students, and parents the

opportunity to build a sense of community (Kane, 2000). Similar to their small public school counterparts, the smaller class sizes found in charter schools make it possible for teachers to develop caring relationships that further student achievement (Cobb & Suarez, 2000). The ability to more fully participate in the decisions of the school also assists in the creation of site based management teams that can better facilitate teachers' professional growth. The traditional roles of educators become redefined and expanded in charter schools (Fusarelli, 1999).

Shared Decision Making

Although research tends to substantiate the idea that small schools are more beneficial for students and faculty in the area of academics, they can also be a catalyst for administrators to facilitate shared-decision making. The ability to form close-knit ties in and among community and faculty members can enhance the effectiveness of the total school. Currently, the theory of team leadership has become accepted as a means to facilitate cohesive group structures to guide decisions. Within this leadership style, "teams are organizational groups composed of members who are interdependent, who share common goals, and who must coordinate their activities to accomplish these goals" (Hill, 2004, p. 203). School-based management offers opportunities for empowerment of staff members to solve problems that are specific to their school and population (J. L. David, 1989).

Components necessary in the team decision-making model are more prevalent in small school structures. In particular, increased external or community support and a collaborative climate are common in small school environments (Hill, 2004). Stakeholders in the decision making processes take ownership when they are allowed to discuss and discover

issues relevant to the school. Although the ultimate goal of shared decision making may be student achievement gains on test scores, by participating in decisions affecting the total school, teachers, as well as community members, become more involved in the workings of the school and are able to set visions for school improvement with greater knowledge base than if the school operated in a more directive manner (David, 1996).

Limitations of Small Schools

An abundance of literature may be found concerning the rationale for creating and sustaining small schools. However, there are also limitations of small schools. For example, leadership in a small school is different than in larger schools. For rural administrators there is a lack of peer support since schools are sometimes located far apart. Job expectations for rural administrators are more diverse and demanding than in other demographic areas. Due to the nature of the small school, the principal is expected to be more active in the education of individual children. Small school principals are expected to know students by name, their capabilities, and educational needs, as well as to take an active interest in the student from enrollment to graduation (Arnold, 2004; Votey, 2002). The small community also creates a “fishbowl” existence for the leader of the school or district, requiring them to maintain a high visibility in the community with lower salary compensation (Arnold, 2004). As stated earlier, the small school administrator must be knowledgeable in many aspects of school life without the assistance of support staff such as assistant principals or other fulltime personnel (Votey, 2002).

Although it has been documented that the collegiality more prevalent in small schools helps retain teachers, there are still issues in the initial recruitment of teachers for small

districts. Large schools are able to offer more comprehensive and diverse curricula with wider ranges of teachers and facilities (Borland & Howsen, 2003). The other side of the teacher retention issue involves salary concerns. Overall, teacher pay averages 17 percent less in rural areas than in urban and suburban areas. Teachers are also less likely to receive fringe benefits such as dental or medical insurance. Shortages of teachers make the field more competitive and retention even more difficult (McLaughlin et al., 2005). However, in North Carolina there is a standard salary scale based on years of experience and attainment of educational degrees. The difference in compensation may be more in the form of supplements paid to certified employees which vary from district to district. These bonuses are based on local funding generated from tax monies. For remote communities, “the lack of social and cultural activities . . . and insufficient resources for salaries and professional development” create challenges to secure and retain teachers (Brownell et al., 2005, p. 10).

With accountability in the forefront in this era of data driven instruction, small student numbers make it problematic to achieve adequate yearly progress. Low student numbers translate into lower subgroup numbers. Because the population of students tested is fewer, one student not showing proficiency can make it impossible to achieve adequate yearly progress making the school appear ineffective in terms of student achievement (McLaughlin et al., 2005).

Not only is testing accountability an issue, small schools with limited number of staff members and students can cause problems for superintendents who have only one or two small schools within a large school district. The operating procedures at small schools can

differ from their larger counterparts (Kane, 2000). Often the principal is the only administrator in a small school. This makes it difficult for him or her to attend district meetings where many issues discussed can be of little importance in a school with small class sizes and few incidences of violence.

Chapter Summary

Although much of the literature supports the creation of small schools, there are some cautionary findings to be considered. Students and teachers seem to thrive in small school settings where the focus is on individual student needs. However, the assumption that small schools are solutions to problems in the instructional process is erroneous. It may be better to characterize small schools as a key ingredient, not the sole ingredient, to improve education for all students (Abbott et al., 2002; Lawrence et al., 2005). It is important to analyze all aspects of a school's needs before deciding that small size is the answer. Decision makers should take many things into account before choosing to abandon all large schools and divide them into small ones. Of course, as Cubberley astutely noted many years ago, the decision-makers are "ordinary citizens" (Cubberley, 1927, p. 354). They must realize that "unless people perceive the connections and analyze a situation in that context, they are blind to reality" (Zmuda et al., 2004, p. 38).

Chapter Three

Methodology

Overview

The purpose of this qualitative study is to analyze characteristics inherent in small public schools in North Carolina to ascertain patterns and emerging characteristics of school operations, leadership, and culture. The schools in the study will have a configuration of kindergarten through fifth grade. Open-ended online surveys were distributed to site administrators at schools meeting criteria with 315 students or less. The data from this section of the study provided a knowledge foundation for the more in-depth analysis of some of the smallest school sites in North Carolina. In addition, a sampling of four North Carolina public schools with less than 150 students was qualitatively studied through face-to-face interviews of the principals. The pool of possible interview sites consisting of seventeen schools including one having a year round calendar dwindled as only four responded yet all were invited to participate in the study.

Due to respondent numbers, four were chosen for the in-depth interview portion of the study. Data were analyzed and compared to small schools literature to determine alignment of the positive and negative characteristics found in the small school in this study. Secondary analysis of these four schools included performance histories on the North Carolina end-of-grade tests and district demographics. Throughout the literature review it was evident a small setting may be one of the factors assisting in effecting student success

but following the characteristics in the literature, was there a point at which schools become so small they are no longer efficient and factors emerge making it difficult to be successful? This qualitative study sought to answer this research question through investigation of several small elementary school environments.

Research Design

Using qualitative methods for this study provided general rate data from surveys of all elementary schools with student populations of 315 students or less as well as more in-depth information through a more in-depth qualitative exploration of six of the smallest schools in North Carolina. This design provides multiple data collection strategies through electronic surveys, face to face interviews, and artifact analysis to substantiate narratives for the six schools. Utilization of multiple data points provided not only general demographic data of small school environments but more in-depth qualitative data of greater details. A qualitative method such as the e-survey provides more data that is broader and can be generalized to a larger group of respondents from varying school sizes (Glesne & Peshkin, 1992).

All of the schools in North Carolina having 315 students or less were encouraged to take the study survey. The questionnaire was available through a website link that preserved the respondent's anonymity. Offering a web-paged-based survey had advantages in appearing the same to all respondents, was easily completed, and an automated analysis was possible (Holstein & Gubrium, 2003). The questions directed to the principals solicited information about their tenure as administrator as well as characteristics of the organizational structure of the faculty and general demographics of the site and population served. Given

the nature of their position, principals enjoy a much broader vision for the school and operation of the facility therefore the surveys targeted their unique perspectives. More extensive open-ended questions explored characteristics of the site relating to rationale for the perceived success or failure of the school. Variables affecting the organizational structure of the school were explored based on the principal's perceptions. Therefore, respondents had opportunities to express strengths as well as difficulties related to the size of the school.

The survey provided a numeric description of "trends, attitudes, or opinions of a population by studying a sample of that population" (Creswell, 2003, p. 153). Electronic surveys offer consistence through their more standardized answers. Respondents were able to answer questions quickly and possibly with greater honesty given the anonymous nature of the e-survey. These structured questioning techniques were used to "collect measurements from a sample in order to estimate characteristics of a population" (Holstein & Gubrium, 2003, p. 215). Providing a literature foundation of previously determined variables influencing small school success for survey responses offered standards of comparison to school sizes of varying student populations and allowed for correlations to emerge.

Qualitative research is appropriate when examining perceptions and conditions within a social setting. Educational settings are particularly appropriate for qualitative studies in that natural settings provide the backdrop for studies as opposed to laboratory style experiments (Hatch, 2002). In this way "fields of study are not artificial situations in the laboratory but the practices and interactions of the subjects in everyday life" (Flick, 2002, p. 5) which promise data rich with impressions and interpretations of the people involved. Researchers also are able to become actively involved in these studies not only as observers but through

interviews. The qualitative approach “is one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives” (Creswell, 2003, p. 18). The participants in the study use their perspectives to make meaning of their environments. Reciprocally, the researcher is able to use interaction in the field in order to produce knowledge. Qualitative research offers data that is textual whether gleaned from transcribed interviews or narratives. Analysis of the data stems from interpretations of both researcher and participant, illustrating interrelationships of meaning, interpretation, and representation (O'Donoghue & Punch, 2003).

Through interviews with four small school principals, textual data were generated and transcribed to ascertain patterns and emerging ideas of the challenges these small sites face. These four schools were treated as small case studies in that multiple data sources were accessed. The primary source of data for the case studies were interviews, however, as secondary sources, artifacts such as master schedules, historical testing data, demographics of the school and district, and financial issues were examined. Interviews occurred on the school sites, and therefore, necessitated the interviewer to visit the school and utilize information gleaned to form a description of the facility. Face-to-face interviews instead of phone interviews were more advantageous to secure natural responses with the conversational style of interviewing including nonverbal communications that are not apparent in telephone interviews. The visual cues that mutually responsive qualitative interviewing techniques offer encourage a greater range of responses (Holstein & Gubrium, 2003).

Case studies can be used as exploratory, descriptive, or explanatory (Yin, 2003). In this study, small schools were explored to determine alignment to characteristics inherent in the literature as well as to examine their individual structures and successes. One of the applications of case study research is “to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies” (Yin, 2003, p. 15). Using interviews can provide opportunities for the respondents to expand their ideas. Reciprocally, the interviewer can redirect questions to have more in-depth information concerning the issues being explored. One of the aspects of the dialogue inherent in interviewing was the link to the reflexivity of the interviewer (Flick, 2002). The “less structured atmosphere enhances rapport with subjects” (Holstein & Gubrium, 2003, p. 163) and keeps the qualitative interview more informal and nondirective. In this manner there is more opportunity for issues and concerns to be explored and probed instead of through a more quantitative and straight forward question and answer approach.

Using a survey and then an in-depth qualitative analysis “bases the inquiry on the assumption that collecting diverse types of data best provides an understanding of a research problem” through the use of a survey to “generalize results” and then “focuses. . . on detailed, qualitative, open-ended interviews to collect detailed views from participants” (Creswell, 2003, p. 21). By surveying all of the schools, a knowledge base can be built and the focused interviews at four of the smaller sites target in-depth characterizations and possibly ascertain specific issues relating to their size. The research question concerning size as a factor in effectiveness for some of the smallest, public elementary schools can be most

effectively addressed through a study using multiple data collection strategies. Through the various types of data, analyses were more thorough.

Selection of Research Sites and Sample Criteria

Research sites were chosen due to size based on student numbers and classification from the North Carolina Report Card data from 2005-2006. There are 143 public schools listing 315 students or less and housing kindergarten through fifth grade only. 315 students was used as the cap for student number since in North Carolina, elementary schools of 350 are considered the lower end of the size continuum for average. Maximizing the number of students in the average range instead of keeping within the category of small offers a greater number of respondents and could offer broader perspectives. The classification by geographical location and based on the North Carolina Department of Public Instruction classification includes 13 mid-size city, 14 middle size, 24 suburban middle size city, 2 suburban large city, 80 rural, 9 small town, and 1 large city. Seven of these sites operate under a year- round calendar while the rest rely on the traditional calendar for students. Seventeen of these schools have less than 150 students. Three schools have student enrollments ranging from 56 to 92 students. Some of the sites are listed as having pre-kindergarten students on-site but the enrollment numbers for this group of students are not reflected in the student population data listing the average daily membership.

A database was created listing all public schools within the K-5 grade configuration and with student enrollment numbers less than or equal to 315 students. When these sites are placed on a map of North Carolina, there is a clustering of sites in the middle and western part of the state. However, these small schools were spread throughout North Carolina.

Keeping the sample surveyed to schools within these specifications may limit the study but also maintains more standardization of the sites. The K-5 grade configuration is the general category for elementary schools in North Carolina. Since this study utilizes only public schools within North Carolina, it is sensible to use the general category covered by the term elementary. Several schools in the state list less than 315 students but they may be categorized for special populations of students such as magnet schools and are not a general cross-categorical selection of students. In using only regular public schools, there is a consistency of laws and regulations that will help to maintain the integrity of the sampling. Within these schools, populations include students with handicapping conditions.

The schools chosen to be invited to participate in interviews include the seventeen sites having less than 150 students. Invitations explaining the nature of the study were mailed to the principals using district letterhead. Follow-up letters with postage-paid response cards assisted the researcher in creating a pool of positive respondents. Since administrators may choose not to participate, soliciting participants from within the broader range of all seventeen sites affords greater possibility of at least four agreements to be interviewed. Basic categories of these schools are rural and suburban middle size. They range from student populations of 56 to 148 and are located throughout North Carolina from mountain to coastal regions.

In order to minimize variances and more closely align the participant selection, some organizational types of schools were omitted. Charter schools, magnet schools, and those schools housing students with specific behavioral or academic needs were not included in this study. Inherent in the creation of charter schools are parent and community involvement

regulations which might offer a different baseline than if all of the schools were public, non-charter entities. Through limiting participants to those within regular public schools, there are more commonalities and consistencies within the research sites and fewer variables which could skew results. Charter schools operate through governing bodies outside of the public school jurisdiction. Factors which enable or cripple their success may not be consistent with schools governed by a local school board. Effectiveness and efficiency relating to characteristics of size within the charter school environment may be less evident since they are not a part of the governance system of a school district.

Magnet schools and those schools housing student populations for students with special needs were also omitted from this study. These schools may not house students from a specific demographic area but instead may draw from the entire district. There are no special needs schools in the K-5 grade configuration for schools having 315 or less students. There are only four magnet schools within the K-5 grade span. Faculty and facility composition at these sites may be quite different due the academic needs of the students. All are in the same administrative unit of Durham Public Schools and three of the four are Montessori schools. These schools although considered small by definition, are still diverse from the criteria set for this study.

For the focused interviews with principals, the sites were chosen from among participants responding affirmatively for participating. Four schools within the smallest student population were utilized for interviews. Principals were chosen as the best informant for discussing many facets of the school environment. As leaders they have an awareness of

multiple aspects of the school. Although teacher perceptions regarding environment and faculty relationships could add to the data, the principal is ultimately the person who has responsibility for the success of the school. They are able to interact with parents, community members, students, and faculty members. Not only are they critical in establishing successful strategies for the school, but they are important as financial and physical plant managers. These site administrators have a tremendous knowledge of all facets of the school's operation whether related to academics or management. The principal has been called the instructional leader but often the job is multi-faceted and requires more talent than just offering curricular decisions and leadership.

Data Collection

Multiple sources of data were collected through surveys and interviews as the primary sources of data for the study. Secondary information was ascertained through the examination of historical data for the four interview sites. The surveys for all sites having less than 351 students were available through a web link. This method enabled the participants to respond anonymously to the questions and made data collection easier for both respondent and researcher. The four-phase administration process recommended by Salant and Dillman should ensure a higher response rate (Creswell, 2003). Based on their process with modifications to encompass the online survey and technology, an advance notice letter was sent to all members of the sample population – in this case 143 principals - detailing the study and providing them with hard copies of the questions that were on the survey. This initial letter was printed on Scotland County Schools District letterhead stationery.

The second mailing with the web link and directions for connecting to the survey was mailed in order to arrive about a week after the advance letter. This mailing served as a reminder to assist in obtaining a higher response rate. As responses arrived on the server, notation was made of the date. This allowed tracking of length of time the survey was available as well as monitoring the number of responses. A follow-up postcard, printed on brightly colored cardstock, was sent to all members of the sample as a reminder and thank you in case they had already responded. Given the wait time for postal delivery and response time, this constituted approximately eight weeks for the administration period. Upon completion, participants clicked on the submit button and their surveys arrived on a single server via the internet. Based on Kaye (1999), this easy submission process was thought to obtain a higher response rate. Responses were then be downloaded into an excel spreadsheet which could be sorted as needed. Technological assistance was not available for the open-ended responses. These were analyzed and patterns sought by the researcher apart from the disaggregation of the respondent data.

The first part of the survey with drop-down boxes for responses set the background for the second part of the survey's open-ended type of queries. Ascertaining site demographics and locale, principal's tenure and background, personnel numbers, organization, and resources, as well as student population statistics provided the foundation for comparison and interpretation of the expanded questions in part two of the general survey. This section asked more specific questions about financial resources, schedule, parent and community involvement, relationships of staff members, characteristics that defined the school, budgetary issues, and principal duties. Specific questions offered an opportunity to

reflect on the aspects that made the school successful. The open ended questions may have been problematic for consistent data interpretation due to the researcher's subjectivity (Wygant & Field, 2000). However, since only one researcher was reading this portion, there was consistency in the interpretation.

Face-to-face interviews at the four selected schools in different districts were done in conjunction with contextual site visits. Personal interviews are advantageous for the researcher to see nuances and expressions that would be hidden if the subject was interviewed over the phone. The researcher was able to probe for more in-depth answers than through the more simple survey method. The interviews were transcribed as soon as possible while the interchange was still fresh in the researcher's mind. Visiting the site provided a graphic for interpretation. Seeing the school in session also offered the researcher an opportunity to glean aspects of the climate of the school. A narrative of the visit was included with the transcript. As a means to offer better analysis of transcribed interviews, an outside reader, an experienced educator and administrator familiar with both vocabulary and characteristics of school settings and administrative positions looked for patterns within the responses to ensure the researcher a broader view instead of limiting focus to the researcher's perceptions and biases.

The first part of the interview included general questions relating to the site such as age of the school, number of faculty members and their experience levels, parent activities, and academic programs. The second part of the interview contained questions pertaining to issues and characteristics of small schools. These included questions regarding scheduling,

teacher recruitment and retention, budgetary considerations, community and parental concerns, and perceptions of district support for the goals of the school. The general format for questions was similar to those from the online survey but given the conversational interview style allowed for more detailed responses to questions.

Data Analysis

Data from multiple sources offer richer potential for theory formulation. Analyzing the various styles of data is a continual process. It is a reflective process involving researcher and participant (Creswell, 2003). There is potentially an overlap of analysis in that interview sites could also respond to survey questions. However, this can enhance the study and lead to more flexibility in the data collection. After the first interview, as responses are analyzed, then follow-up questioning can occur (Huberman & Miles, 2002). Since there are several sources of data to be scrutinized, each were considered separately and then treated as a whole. The final analysis in this study involved the triangulation of the data from the surveys, interviews, and school profile information. The data triangulation “refers to the use of different data sources” and is “distinguished from the use of different methods for producing data” (Flick, 2002, p. 226).

The surveys were analyzed through categorizing the respondents. In that way, cross case patterns can be observed. Selecting categories and seeking to understand the relationships between them is a method of comparison. In finding similarities and differences there is “within-group similarities coupled with intergroup differences” (Huberman & Miles, 2002, p. 18). The convergence and divergence of the patterns enabled discernment of the

characteristics and trends of schools with 150 or fewer students and the comparative schools with populations closer to 315 students. Since descriptive statistics offer the ability to form descriptions of patterns of behavior (Rudestam & Newton, 1992) the information and percentages elicited from the surveys helped describe the patterns of characteristics inherent in the sampling as well as to possibly determine some behavioral characteristics inherent in small school principals and staff members.

The interviews were analyzed in a more interactive manner using the constant comparative method of analysis. This process was an integration of coding the text and using the characteristics or categories ascertained as catalysts for theory development (Glaser & Strauss, 1967). This method is “designed to aid the analyst in . . . generating a theory that is integrated, consistent, plausible, and close to the data” (p. 103). This approach to analyzing the data is not a linear process. It is not structured but rather allows ideas and concepts to emerge without adhering to a prescribed hypothetical testing situation (Huberman & Miles, 2002).

In order to more efficiently code the interviews after they were transcribed, the researcher read through all of the notes as well as the transcription. The researcher transcribed the interviews without assistance as soon as possible after the interview occurred. The act of listening and transcribing provided more familiarity with the interview since as the taped interview was played, an image of the interview scene emerged in the researcher’s mind. This gave the researcher a general sense of the breadth of information before beginning the coding practice. Texts were coded based on topics previously categorized from the literature. Data was assembled based on the category and preliminary analysis formed.

Once concepts and themes began to emerge, data was recoded as necessary to include a more detailed approach to the coding process (Creswell, 2003).

The coding process was used to form not only a categorical approach to the data but to also generate descriptive data concerning the setting and persons. As a final piece to the analysis, the categories and concepts were analyzed through the lens of a question.

According to Lincoln and Guba, once the coding is complete, the researcher is able to reflect on the query, “What were the lessons learned” (Creswell, 2003, p. 194). In this study the question changes to what was learned from the interviews relating to school size?

Triangulation of the theories that emerged both from the surveys and subsequently from the interviews offered ideas and characteristics of limitations and possibilities of all sizes of schools – from the very small to the almost average size of 350 students. It was necessary to return to the literature and compare and contrast the predominant themes with the actual findings of the study. The purpose of the study was an attempt to ascertain if there was a point when a school became too small and size limitations negated its ability to be effective. Utilization of the secondary data from the qualitative interviews assisted in the assigning of specific categories or characteristics to the four interview sites.

Limitations of the Study

Multiple method studies offer more general information about a topic. In this study, generalization about characteristics of small schools was helpful in determining the relationship between size and efficiency. Using an online survey to form the framework for delving into small school sites in North Carolina of 315 students or less provided information quickly and economically however, there are limitations to surveys of this type. By limiting

the sample population to the 143 public schools with populations of 315 students or less, the response rate was not high. It was also important for the administrators to have been at the school long enough to offer valid information. If they were new to the site, they may have a different perspective than if their tenure as principal had been longer. Numbers of students change from year to year. Some sites may experience radical growth or decline making information gleaned quickly out of date.

The standardized format of the survey responses made it difficult for respondents to elaborate on answers. Analyzing the results of the open-ended questions involved cross pattern matching in much the same way as coding the interviews and conceivably interacted with the researcher's subjectivity. Limiting the grade span also made the pool of respondents lessen. Depending on the respondent's proclivity to elaborate, interpretation was limited only to the written response. Much of the literature concerns large secondary institutions being downsized and broken apart to replicate small schools. Merely focusing on elementary schools made it more difficult to make comparisons with the literature. The same was true of collecting data within a single State. Generalizing results to all small schools with only one State involved might have resulted in erroneous conclusions.

The small number of sites used in the interview phase of the study limited the amount of information to be ascertained. Consideration of the rural demographics could also be a variable that did not provide substantial cross-categorical information. Having two sites in the same district interviewed could be limiting in the breadth of information. Similarities within the district will be automatic whereas had the two sites been in different counties, information would have been more wide-ranging. There are variations in these districts when

you compare the specific site to the size of the school district. The pool of respondents might have been too small to offer comparisons. Respondents to the surveys as well as those subjects interviewed brought their own biases to the responses. They may have been less willing to share perceptions if they felt their answers would cast a negative light on their schools or on their leadership abilities. Since the interview occurred between strangers – the researcher and the principal – there was no relationship other than that of two educators. The lack of previous interaction could result in the principal not being as forthcoming with information in the somewhat informal interview style. Conversely this lack of prior knowledge of one another may have been advantageous and the interviewee may have felt freer to express any concerns. One of the characteristics of qualitative studies is the flexibility of the research and the human tendencies entailed when one interviews and studies within the subject's environment. It was not an experiment with predicted outcomes but rather a work in progress that evolved as the researcher and subject interacted during their struggle to make interpretations about their world.

Validity and Reliability

The terms reliability and validity have evoked debates in the area of qualitative research. Reliability in a qualitative study entails the degree to which the study can be replicated. Although various texts describe multiple categories of validity, two types were recognized for this study. Internal validity involves the researcher's version and interpretation of events that occurred in the interviews or observations and external validity is the extent to which findings can be applied to another group (O'Donoghue & Punch, 2003). Triangulation of the data from the interviews and cross-referencing the literature on small

schools with emerging categories enhanced both the reliability and validity of the study. The internal validity was tested as a result of the subjective nature of the interactive interview process. Interviews were conducted using a set of questions. Deviation from the predetermined list of questions only occurred when requesting more detailed explanation of characteristics specific to a given site. However, measures were taken to make the inferential nature of the study as objective as possible, thereby increasing the validity of the study. Taping and transcribing the interviews offered concrete recitations of the interviews instead of relying on notes and memory. Also, maintaining a list of questions and subjects for the interviewees provided continuity for responses. Each interviewee had the same opportunity for questions. Internal validity occurred in the data analysis phase of the research as the theories were discovered through the emerging patterns (Yin, 2003).

There were several strategies implemented to assist in strengthening the internal validity of this study in addition to the triangulation of the data. Description of the findings offers the reader an opportunity to be involved in the setting in which the interviews and observations occurred (Creswell, 2003). The interviews were conducted in the natural setting so the researcher was able to include descriptions of the sites as well as historical data to provide a more complete portrait of each of the four small school sites (Creswell, 2003). Site descriptions were written within a few hours of each interview and transcriptions were completed within a few days. Expediency helped keep details fresh in the researcher's memory. As the interviews were transcribed, ideas triggered were added to the site descriptions. In addition, the researcher recognized personal biases and previous experiences in elementary schools brought into the interpretation of the data. The field notes and

information about each site assisted in the concrete descriptive validity embedded within the interpretive nature of the analysis (Huberman & Miles, 2002).

External validity refers to the generalizability of the study. In qualitative research, two features are considered. Generalizability across the “group, or institution studied to persons, events, and settings that were not directly observed or interviewed; and generalizing to other communities, groups, or institutions” (Huberman & Miles, 2002, p. 53). The connections between the manner in which the sampling was taken has bearing on the study’s generalizability (Flick, 2002). In this study, the small number of principals interviewed made it difficult to establish external validity. Differences inherent in individual school locations, demographics, and district initiatives brought variables to the study which could negatively impact its validity. Applying eligibility criteria such as specific grade span configuration, limited student numbers, and geographical parameters within the same state maintained consistency within the sampling. Careful analysis of the responses included coding for both interviews and open ended survey responses. The same patterns were sought in both instances.

Reliability and validity cannot be separated nor defined independently of one another (Huberman & Miles, 2002). Instead, reliability can be interpreted as a final test for the quality of the study and analyses (Yin, 2003). For this study, the systematic coding of data and similar foundation questions for the interviews provided consistency in the data interpretation and more or less standardized the data collection (Flick, 2002). Both surveys and interviews were coded using basic categories. Keeping the same headings offered the researcher a better chance to align the analyses between the methodologies. Having one

researcher and an outside reader maintained consistency not only with the data collection procedures but also with subsequent data comparisons. The importance of this study was to consider factors leading to the decision to maintain schools of very small student bodies or whether to consolidate them into somewhat larger sites. Maintaining procedural integrity of consistency and immediate follow-up with notes and transcriptions as well as careful analysis of findings enabled the final analysis to be generalized to other small schools outside of the state.

Subjectivity Statement

As a researcher, there were certain biases inherent in my data interpretation based on my background and experiences. Growing up in a small, rural town in North Carolina makes one value the importance of relationships. The sense of community intrinsic in my background plays an important role as I immerse myself in my data interpretation. The interview sites were all located in small, rural communities. Because it is important to me, I tried to note how adults and students interact – what relationships they have. It has been my experience – both as teacher and administrator – that relationships are keys to student success. The stereotypical vision of the rural community I call home may carry into my analyses of the learning situation. The common experiences my background brings to the study such as small elementary school experiences and growing up in a rural community, I am able to empathize with small learning environments.

My job requires that I work closely with ten elementary schools in my district. Each has difference dynamics and concerns. Some have populations less than 315 although not all have the same grade level configurations. Being somewhat of a problem-solver for these

sites has made me more aware of difficulties facing each site regardless of size or student demographics. Often I observe teachers and I have been trained to focus on facts and over time to take the isolated observations and data from classroom walk-throughs to assist in making instructional suggestions for teachers and principals. The habits formed over the six years in this position served me well when focusing on the total picture of the school and meshing the different pieces of the environment and principal's perceptions to form a synopsis of the site details.

As I visit the smaller campuses in my district and work with their administrators to find enough funds to make a difference in student learning, I realize how difficult it may be for administrators and staff to sustain optimal learning environments with limited resources, either human or material. However, having observed first hand how difficult it is to make limited resources – both human and monetary – stretch equitably across a school, it is hard not to have a preconceived notion of what may be issues for a small school. But, conversely, I also know the positive things that are occurring across my district. The sites visited were unknown to me. Even though I had my own district's ideas in my memory bank, there were still differences to be found in the four sites.

Constructivist by nature, the manner in which the qualitative researcher is allowed to interact with the subjects appeals to the social side of my nature – the collegiality of finding a solution. The step-by-step methodology of interviewing, observing, and analyzing appeals to a “don't rush into it” philosophy I grew up with. Looking at issues in a rational and logical manner is the best way to build a knowledge base that can be utilized to draw conclusions.

Chapter Summary

Through a multiple methods study integrating several qualitative strategies, characteristics inherent in small schools in North Carolina were studied. Sites with student populations less than 315 and grade span configurations of kindergarten through fifth grades were surveyed through an online response system. Data from these were compiled and compared to the more intensive ideas formulated through on-site interviews. Principals from the four sites having the smallest number of students also participated in face-to-face interviews. Data consisting of the transcribed and coded interviews, field notes from the site visits and interviews, as well as factual data about the characteristics of the schools were triangulated to determine any emergent theories for determining relationships between size of the school and its effectiveness. Negative characteristics were a focus and possible rationales for school success hypothesized. Through constant comparison between the literature and the findings at each site, themes emerged offering guidance for districts to make informed decisions either to keep small schools or to consolidate them into larger entities.

Chapter Four

Data Collection and Analysis

Introduction

Through data collection from online surveys and face to face interviews, ideas emerged that aligned with stereotypical traits of small schools. However, through the interviews contradictions in a few characteristics came to light. The sites where the principals participated in the interviews were successful according to testing data and principals' perceptions. If traits proved somewhat negative, then how were they overcoming limitations in order to be successful?

Characteristics inherent in literature detailing small schools were woven throughout both surveys and interviews. Categorizing the data based on traits encompassing organization, parent and community involvement, and school climate offered insight into the learning environment and leadership of schools having multiple grade levels but few student numbers. Data collection procedures employed in this study included an online survey with web address accessibility as well as four face to face interviews of principals at a few of the smaller public elementary schools in the state. Data derived from these two sources serve as the foundation for determining what characteristics relating to size make it difficult to operate and what characteristics contribute to the success of the schools. Sustaining the learning environment over time can be difficult – particularly in a small environment. Therefore the question remains whether the small entity should succumb to the idea that larger is better and merge into a larger entity.

Survey data were presented first and categorized based on student numbers at the responding schools. Categories include those schools with 0 to 200 students and those with student populations of 201 to 315 students. Findings are discussed in terms of organizational structure and personnel including teacher grade level assignment, paraprofessionals, and ancillary personnel such as teachers of art, music, physical education. Specific collaborative opportunities for teachers are also included in this section. The next broad topic to be discussed is the respondent's views on community and parent involvement opportunities. Data concerning volunteers, support of projects, financial donations, or participation through other means are included in this section. Procedures and expectations to establish a climate for learning are discussed. The climate includes safety issues, instructional program expectations, and characteristics of the student population. A summary chart is included at the end of each section as a tool to consolidate and better understand the data.

Qualitative interview data are presented first with narratives of the four school sites offering the reader glimpses of the sites to provide background to enhance the discussion of the interviews. An examination of similarities and differences between the responses provides discussion and analysis of the interviews. Comparisons are substantiated with quotes from the interviews and are organized around themes similar to those documented from the survey data. These sections include ideas that emerged in conversations with site principals concerning relationships with students, teachers, parents, and community. Scheduling and staffing concerns constitute the next section explained. Funding characteristics as well as retention and recruitment processes are then discussed. The role of the principal is detailed as well as how perceptions and expectations can make a difference in

interpretations. Summary charts of the sites are included as well as major findings illustrating patterns from the interviews.

Overview of Survey

Created with characteristics of small school embedded, questions offered the researcher a means to determine how well the small entities in North Carolina matched the literature. They were general in nature and present a means to categorize identifying traits based on size of the student population. Having open-ended response boxes afforded the respondent an opportunity to elaborate on positive and possibly negative aspects of the school. The online survey maintained the respondent's anonymity and contained drop-down boxes for responses. Questions included both short answer and open-ended responses. Foundational questions about the site included administrator tenure, student, teacher, and teacher assistant numbers as well as configurations at each grade level. Support personnel characteristics were addressed by asking the respondents to name specific positions available at the school and the number of days per week they served the site. Two questions targeted the involvement of parents and community members. Respondents were asked to provide information concerning opportunities for teachers to collaborate on projects and instructional programs. Building age and use were also a part of the survey.

Open-ended questions other than the ones detailing positive and negative characteristics of the sites requested funding information. Principals were given an opportunity to make a five year projection about their school and to elaborate on factors contributing to the success of the school. Responses to the open-ended questions could be in

narrative form or in bulleted lists. The flexibility of the response format made it easier for the respondent to quickly answer and survey completion less time consuming.

Mailings to 143 North Carolina public schools elicited 32 respondents yielding a response rate of 22.38 percent. The schools in the sampling were located across North Carolina. With criteria eligibility limitations of regular schools, grade spans, and location within the state, then respondents should be representative of the total 143 schools. The survey was available for eight weeks and could be accessed through a web address provided to the respondents. Two reminders were sent during this period as a means to elicit better response rates. As responses still seemed slow, a third attempt to raise response rates was through an email sent to Title I directors across the state. A listing of schools by districts was attached and directors were asked to contact a particular site in their district and encourage a response. Once principals responded, schools were categorized based on student numbers. There was no tracking of the respondents' names or of the school sites so specific reminders could not be sent. Ten sites responded having student numbers from 0 to 200. Twenty-two sites listed 201 to 315 students.

Data was analyzed using these categories of size as headings. Overall, the principals had mostly three years or less experience at the school with 63 percent. 19 percent had been at the site between three and six years. The percentage of principals with tenure at the school for more than six years was also 19 percent. Building age and use was compared. The age of the school buildings varied but 84 percent of the facilities were more than twenty years old while only two sites were much newer - five years or less. It is interesting to note that one of the newest sites fell into the category of 0 to 100 students leading to the assumption that it

was built with a vision of small capacity. 78 percent of the respondents stated their building was used for activities other than those which were school related.

Organization and Personnel

Resources in personnel varied across the responses. Teacher retention seemed to remain stable. Only 13 percent reported hiring an average of 3 to 5 teachers per year while the rest hired from 0 to 2 teachers yearly. The number of teachers varied within the categorical groupings. Schools up to 200 students had five to twelve teachers while those having student populations between 201 and 315 had a greater range from six classroom teachers up to nineteen. If one looks at the correlation of teachers, students, and grade levels there are a few multi-age groupings of students, particularly in schools with the lower student numbers.

The number of teacher assistants employed at the site varied from one to ten in the category with student numbers between 0 and 200. The number of assistants ranged from two to fourteen at the next level of student numbers, those between 201 and 315. In all but two sites, the number of kindergarten assistants correlated to the number of kindergarten classes. However, three sites had one less assistant than indicated by the number of kindergarten classes. Only a few schools had teacher assistants in grades three through five. There was no one-to-one correspondence apparent so data indicated no full-time teacher assistants were assigned to specific classrooms. Instead, assistants shared responsibilities across grade levels and teachers. The following table summarizes the number of teachers and teacher assistants categorized by size determined by the number of students enrolled.

Table 1: Range in Numbers of Teachers and Assistants by Size Category

	Number of Students	
	101-200	201-315
Range in Number of Teachers	5-12	5-19
Range in Number of Teacher Assistants	1-10	1-14

Extra support staff or resource teachers such as media, art, music, and physical education teachers varied from site to site regardless of the size of the student body. Teacher numbers reported did not include these positions. Support personnel such as nurses and social workers were available on a limited basis in all size categories. Almost all sites included those examples as well as computer teachers. Sharing resource teachers in schools under 200 students was the reported norm although one of the smallest sites reported a full time media specialist. Sites having more than 201 students were more likely to have physical education, media, and computer classes five times per week. 25 percent of the sites had no art teacher and 28 percent had no computer teacher. 59 percent of the sites were able to offer guidance five days per week. In all, 84 percent had guidance services at least one day per week.

The availability of a school nurse at least one day per week was reported by 84 percent of the respondents. A social worker was available at 66 percent of the sites at least once a week. At least one site listed the lack of these ancillary positions full-time made scheduling difficult and reflected a negative impact on the school. Table 2 details the number of responding sites that have specific resource and support positions providing services to the students at least one day per week.

Table 2: Number of Sites Reporting Resource Personnel by Size Category

	Number of Students	
	0-200	201-315
Art	90%	73%
Music	70%	100%
Physical Education	100%	95%
Media	80%	95%
Computer	20%	94%
Language or ESL	50%	50%
Guidance Counselor	60%	95%
Nurse	60%	95%
Social Worker	50%	59%
Other such as School Resource Officer	0%	5%

The importance of strong faculty members was noted in all size categories as being one of the positive characteristics of the school. Several principals named specific teacher characteristics such as dedication, passion, experience level, collaborative styles, and the relationships that forged between teachers as being important to making a positive impact on the school. The quality of staff members was also inherent in explicit descriptors such as caring, concerned teachers able to target and identify individual student needs. One respondent noted staff development and utilization of educationally sound best practices as part of the strengths of the sites.

Staff opportunities for collaboration increased as the number of teachers and students increased. Opportunities to serve on school committees and to provide mentoring appeared most often in the responses in all categories of school size. Grade level planning occurred at all of the sites of 201 students or more. Five of seven sites listed it as an option in the 101 to 200 category. Several respondents elaborated on the collaborative efforts of their teachers through comments about teaming, cohesiveness, and family oriented atmosphere where staff members knew each other well. Mentoring was one of the possible opportunities for teachers to work together and almost all of the sites responded affirmatively as having mentors available. Table 3 offers a listing of the activities available to promote collaborative efforts. Categorized by size, numbers indicate the number of sites having specific opportunities.

Table 3: Opportunities for Collaboration as Related to Size Categories

	Number of Students	
	0-200	201-315
Grade Level Meeting	60%	91%
Grade Level Planning	50%	100%
School Committees	90%	82%
Student Support Teams	80%	73%
Saturday Academies	10%	5%
Student Clubs	50%	23%
Mentoring	80%	91%
Other	20%	27%

Although many positives were listed, a few negatives were also prominent concerning personnel. In schools smaller than 315 students, the lack of fulltime personnel was considered to be limiting to the school. At least one respondent related personnel limitations to the lack of funding, necessitating cuts in program support. One school administrator in the 201 to 315 category listed lack of personnel as a factor in scheduling difficulties. Although not necessarily a negative, at least one site felt that the staff members were becoming younger overall, bringing less experience to the instructional staff. One respondent listed limited resources but did not elaborate whether there was a deficit in human resources or in instructional materials. High expectations of teachers and staff members seem to override the difficulties experienced in these schools. Administrators in all size categories projected continued improvement and escalating student achievement while admitting that small size did make a difference in the organizational structure of the school.

Community and Parent Involvement Opportunities

Community involvement opportunities include serving on school committees, volunteering, participating in school projects, making financial contributions, and offering student rewards and incentives. The highest percentage of schools reporting members of the community being involved in school committees occurred in the 0 to 200 students category. All categories of student numbers showed at least 82 percent of involvement from the community to serve on committees. All sizes of schools surveyed reported high rates of volunteer opportunities for community members. Only one site did not respond to utilizing volunteers from the community. One of the ways in which communities can support the schools may be through businesses offering financial donations to school activities. In some

cases these may be in the form of product contributions or money earmarked for student incentives. According to the responses, contributions of this nature were minimal although fifty percent of the smallest sites reported community support through financial means. The amount or utilization of the monetary donations was not stipulated on the surveys. The highest percentage reporting financial contributions was in the 201 to 315 category with 59 percent attesting to receiving financial support from the community.

Providing student incentives is evidently important in many of the communities. 70 percent of the smaller category of schools affirmed community involvement in this area while the other category of 201 to 315 students had 72 percent participation in contributing the student incentives. Involvement in school projects was important in all categories with all reporting 75 percent or greater rates of agreement among respondents. Throughout the open-ended responses community involvement and sense of pride was listed as positive characteristics of each site regardless of the school size.

Not only are the communities involved in the schools but several sites mentioned the relationships between and among parents, communities, and staff members as being positive influences on the school. Several schools reported a lack of industry in the area which necessitates migration of the working population to neighboring areas to find employment. In these cases, there may be a lack of businesses to access for assistance. Table 4 provides a view of activities promoting community involvement and the percentage of sites responding affirmatively to participation.

Table 4: Community Involvement Opportunities by Size Category

	Number of Students	
	0-200	201-300
School Committees	90%	82%
Volunteering	100%	95%
Financial	50%	59%
Student Awards and/or Incentives	70%	73%
School Projects and Activities	90%	77%

Parent involvement can be interpreted in many ways. When asked to quantify the number of parents involved in their school using the terms, “many, core, few, and none” overall sites had more often than not at least a few involved parents. This subjective attempt to quantify involvement was based purely on the perception of the principal. Two more parents involved above last year’s numbers could be construed as “many” depending on the respondent’s viewpoint and experiences. At least 75 percent responded that either many or a core group helped sustain their parent involvement. Responses in the 0 to 201 students category yielded responses in both many and core. The 201 to 315 student numbers elicited predominance of core responses but also had some respondents to list their parents in the few or none groupings. When noting the funding sources, PTA was only listed where the schools had more than 201 students. Table 5 shows the differences within size categories of the respondent’s perception of the parent involvement level at the school.

Table 5: Level of Parent Involvement by Size Category

	Number of Students	
	0-200	201-315
Many	20%	14%
Core	50%	64%
Few	30%	14%
None	0%	9%

One of the sites that responded in the 201 to 315 student population mentioned a negative community perception. There was no elaboration so factors concerning explanation were not possible to discern. The same respondent mentioned student transfers to other schools in the district as an issue. Whether these difficulties were related to size was not evident but certainly student transfers to other schools reduce the population further. This particular response was the only indicator that a school's community was not supportive or positively involved in the school's program. Parent involvement or support was not quite as positive.

At least one site listed some concern in the area of parent involvement by listing characteristics such as the level of background knowledge of the parents and skills for assisting in their child's education. In both size categories there was at least one respondent who felt that parent support was lacking. One in the 0 to 200 student numbers expressed concern with parent involvement due to the demographic isolation of some of the homes which made contacting parents more difficult. One of the 201 to 315 students schools responded lack of transportation as making it harder to attend school sponsored events.

Climate

Proponents of small schools tout the positive benefits provided by the environment in forging relationships. The survey responses aligned with characteristics noted in the literature. Students and teachers benefited from the small class size and ability to know the individual students' needs in order to target both strengths and weaknesses. Teachers could utilize the fewer student numbers to personalize instruction and relationships. Faculty and staff dedication was mentioned across all categories of student numbers. Family atmosphere was also mentioned. In addition to enabling academic success, respondents also listed safety as an outgrowth of the size. In all but the largest size category, safe environment was noted. Related to the safety issue is the area of discipline. It was listed as a positive in the smaller size category but not in the 201 to 315 student category.

Faculty characteristics enabling an atmosphere of high expectations and focused instructional practices involving active student engagement and project-based learning contribute to a climate of focused academics. When questioned where the school would be in five years, all but one respondent replied that academic success and improvement would continue to be at the forefront. Only one of the smallest sites feared the closing of the school. Several of the sites claimed student characteristics as making it difficult to teach. These items seemed to stem from the socio-economic level of the students where experiential backgrounds were lacking since those notations were also made in the negative response for that site. Many cited a transient population of students as having a detrimental effect. Movement among lower socio-economic level parents ties in to the lack of industry in many of the rural populations. Sometimes families must relocate in order to maintain employment.

Pervasive in the comments from all size categories was academic processes supporting student achievement. Instructional programs of active student engagement, project-based learning, and comprehensive curriculum structures enhanced the climates in schools having less than 201 students. At least one respondent in the 201 to 315 student category cited best practices and opportunities for staff development. Targeting individual needs and delivering personal attention to students was threaded through the responses. The positive affect of the school's technology program was mentioned in the 201 to 315 student category.

Balancing efforts of quality instructional programs, funding deficits, and staffing concerns affected the daily routines of schools surveyed at all levels. However, based on comments from the respondents, the nurturing community and parent involvement in the school seems to offset some of the negative aspects related to small size. Overcoming the lack of experiential backgrounds associated with students from lower socio-economic levels seems to be the difference in success or failure of the school. This attribute can be found no matter the size of the school.

Surveys Summarized

Although none of the data supplied in-depth information, there are some patterns that emerged in schools regardless of size. Whenever formulas for funding, personnel, or materials are imposed, it seems the perception of the respondents is that smaller schools are at a disadvantage. Lower numbers generally equate to fewer resources. As expected, teacher numbers vary according to the number of students but smaller size schools have accommodated for lack of personnel by using multi-level groupings of students. This is

particularly evident with the lower student numbers. Since no state mandates exist regarding the number of teacher assistants, their numbers vary according to district funding decisions. Again, the smaller schools had fewer teacher assistants. The teacher turnover did not appear to be high since the number of new teachers hired remained fairly low. Easier accessibility for ancillary personnel was better at the larger schools but even the smallest sites had some services depending upon their districts' structures and initiatives. If arts are valued, then music or art teachers would be prevalent and service delivery more frequent. In some cases, even with higher student numbers, art and music teachers were non-existent.

Community support was reported to be stronger among the smallest sites but was evident throughout the size categories. Community members served on committees, offered support for activities, and in some cases made financial contributions to the school. Respondents felt a sense of pride existed in the school and this strengthened ties and support for the schools' programs. Funding was assisted through PTO groups as well as community businesses. Schools were provided extra materials and supplies that otherwise would have been unattainable. In the smallest schools, PTO groups were perceived as the highest financial supporters. Parental support was not perceived as very strong across all size categories. But, in small communities, the parents are also community members so there is some support and reciprocity by virtue of the nature of the community. A distinction was not made between parents who were community volunteers and those who were not. Strong interaction among schools and communities helps to build relationships of school climate but within the schools opportunities must be made to create opportunities for the teachers to also work together.

Teachers collaborated through mentoring opportunities and through team or grade level planning. Principals reporting through the survey indicated that collaboration seemed to increase as the teacher numbers increased. This is expected since more teachers per grade level make it easier to have another person to work with instead of working alone. However, it is still the principal's leadership to build capacity for collaboration to occur. Staff members also serve on committees which help in building relationships to achieve the school's mission. Lack of personnel was noted as a difficulty to overcome. Whether this lacking of sufficient staff members to provide more enhanced instructional programs or to work with colleagues, it still is related to size. Mentors are needed for new or inexperienced teachers but, there may not be enough experienced teachers in a school to serve as mentors making it difficult to provide support.

Overall, positive aspects outweighed the difficulties of a small environment. The schools were perceived as safe and caring. Comments concerning the ability to target individual student needs were interspersed throughout all size categories. Particularly in the smaller categories, respondents stated this capacity was a catalyst for building student achievement. Targeting student needs necessitates knowledge encompassing all aspects of the child. Therefore, building relationships is an important avenue to helping students succeed. Respondents mentioned teacher relationships as a strength. Personal qualities of the staff members including dedication, passion, and commitment to students and to the school were mentioned. All of these traits could be found in larger entities but communal atmospheres of smaller size and relationships to the community seem to make their

occurrence easier. On the other hand, aspects perceived as difficult may be related specifically to small size.

Funding was a strand mentioned several times as inadequate to meet personnel or supply needs. Program cuts due to lack of funding and resources make the principals' position more difficult. Scheduling becomes a problem when personnel are shared with other sites and are not available to make effective and efficient planning and scheduling a reality. Space was only mentioned once as inadequate for the needs of the school and that was in the 201 to 315 students category. These concerns seem to be exacerbated by small size and require creativity on the administration to work around the deficits in personnel and monetary resources. Some of the noted difficulties are more difficult to overcome.

Geographical isolation and socio-economic levels of the stakeholders were noted difficulties across all size categories. The poverty level aligns with the education level and backgrounds of the parents. In at least one response, the perceived lack of value placed on education in the home was a concern. Lack of experiences for students and vocabulary limitations were also cited in the open-ended responses. These issues are not necessarily related to size. Depending on the location of the school, poverty and parent concerns can be found in larger schools.

When asked to project the status of their site five years from now, all were positive except one in the smallest category. That site's principal felt the school would be closed by then. Most of the sites projected continual improvement based on EOG scores and standards. One of the respondents reflected the wish that the school would have the technology to compete with more affluent sites. Regardless of size, recruiting more parent support and

involvement was a mission for the next five years. Only one respondent felt that new buildings would be in their future. Although survey data was not explicit in detailed explanations of responses, it did provide a basis for the interviews with their opportunity to elaborate on some of the celebrations and concerns of the smaller environments. A few of the traits noted through the survey data can be tied to explanations available in the interview data.

Interview Data

Invitations were sent to the principals at fifteen schools fitting with the smallest enrollments within the group. Only four responses were returned agreeing to participate. Two sites, Ashe and Birch were in Eastern North Carolina within the same school district and two were located in different mountain communities. Interviewing at two sites in the same district could be a limitation to the study since one would expect certain aspects relating to district regulations to be evident. However, each of the principals presented different perceptions of their sites and in some cases their district and its organization. Face-to-face interviews with the principals were set up through email at a time convenient to the interviewee. These interviews were recorded and later transcribed by the interviewer. Students were on campus at all schools when the interviews occurred. Each interview took one to two hours to complete and all principals gave a personal tour of the school when the interview concluded. In order to have a broader picture of each school, descriptions of each site are first attempted before data from the interviews is discussed. One of the sites had a new principal with only three months experience at the school. Although the knowledge of the school for this

principal may not be as in-depth as the other three sites there are still variables present that make the site viable for inclusion in the study.

Ashe Elementary

Ashe Elementary is part of a rural, county school district with a population of 10,204. 79.8% of the inhabitants own their own homes. The median income of the residents is 33,326 dollars. Total land area of the county is approximately 472 square miles. It is located adjacent to a county containing a micropolitan city and military base (Census, 2006a).

Located on a dead-end street, Ashe is accessible by driving through a neighborhood of small brick homes. As one approaches the school building, it is well manicured with few landscaped touches. A mural of the mascot is painted on the outer wall adjacent to the entry door. An entry way decorated with a wooden cutout of a child labeled with all facets of the balanced curriculum welcomes visitors. The floors are shiny and safety is maintained with visitor sign-ins and badges. Structurally there are two brick buildings and a mobile unit behind the main facility. The original building was built in the seventies with the gym wing added approximately ten years later.

The school has a gym with a stage at one end and a cafeteria with three long tables and stools for seating at the other. Nearby there is also a media center with a few tables and at least one computer. Student work is displayed in the halls evidencing the schools commitment to utilizing graphic organizers as tools for learning. The school houses one computer lab equipped with stand alone units and a projector for the instructor. Many of the ancillary teachers have rooms of their own. There is a nurse and speech room, a teacher's lounge large enough for the teachers to dine at tables together, a Title I tutor room, and an

extra mobile unit that is used only for storage. The playground does not have any permanent equipment except for materials such as a jungle gym housed among the tricycles and wagons in the fenced-in pre-kindergarten area.

Student movement in the hallways is quiet and orderly. They have implemented uniforms for the first time this year and, according to the principal, it has been well received. Many staff members were also dressed in khakis and knit collared shirts with the school logo similar to the students' dress. The principal noted that with the exception of a few misunderstandings of the color shade allowable for blue shirts there had been few mishaps with the dress code. She also stated that the few local merchants had provided uniforms in their stores for purchase to make availability easier for the parents. An effort has been made to ease the parents and students into the requirements regarding the dress code. Students had at least three weeks to become accustomed to adhering to the code without any consequences but a phone call or note home as a reminder.

Historically, demographic data reveal the number of students in the school has decreased from 158 in 2002-2003 to 118 in 2005-2006. However, due to a restructuring of grade levels, the school now houses kindergarten through sixth grade so enrollment has increased back up to about 141 students. The principal has been at the school since 2005-2006 so she has experienced having fewer student numbers. Attendance percentages have always been very high (middle and upper nineties). The demographics of the students have remained stable with free and reduced lunch percentages hovering around 75 percent. Breakfast is available at no charge to all students – a result of district initiatives. The ethnic makeup of the population is predominantly White and African American. There are a few

Hispanic and Multi categorical students also. The principal estimated the breakdown of the school to be approximately fifty-fifty. There are currently no English Second Language students enrolled in the school.

Teacher numbers vary according to the number of students. However, there is one classroom teacher per grade level with the exception of second grade, which has two classrooms. Class size varies from ten students in kindergarten and then upward from fifteen to about twenty-one students. In the past, there was a need for multi-age groupings but at least in the beginning of this school year, each class contained single grade configurations. The fifth and sixth grade teachers departmentalize and teach specific subjects to both grade levels. Specialists such as the music and media teachers are only available one day per week. At this time, the school is without an art teacher and the principal does not feel that a replacement will be sought. A counselor is shared with one other elementary school but a physical education teacher is on site every day five days per week. There are three nurses within the district shared among the four elementary schools, the middle, and the high school.

Devised by the teachers, a complicated schedule rotating personnel and students ensures that teachers and assistants have duty free lunch and planning periods. Teacher assistants are in every classroom in grades kindergarten through third grade. The second grade does have to share their teacher assistant since originally there was to be only one second grade classroom. Staff experience levels vary but there is a mix between beginning and experienced personnel. Academically Identified as Gifted (AIG) students are served by the media specialist who is also certified in the area of AIG.

Collaborative efforts are achieved through scheduling so that two grade levels share planning time and can plan vertically. Monthly half-day staff development sponsored by the district provides networking opportunities for all elementary schools. Southern Association of Colleges and Schools committees offer opportunities to work together with members you may otherwise not have an opportunity to talk. A special twice monthly meeting with the acronym MOMENTS provides social and learning opportunities for the staff. Previous programs at these bi-monthly meetings have chiropractors offering massages, manicurists with nail care tips, cosmetologists expounding on makeup techniques – different and fun gatherings for discussions and interactions other than life within the school.

The principal has worked to build an understanding of test scores and data analysis with the teachers. Through her work over the last two years, teachers are now beginning to support and question each others' scores. This too has helped to build a collaborative atmosphere among the faculty. Without grade level teams, they are now relying on each other to help with floundering instructional strategies. As they worked to create their complicated rotation schedule for duty free lunches and planning, the staff members realized that more time was needed in some classes based on student needs. Without the opportunity to collaborate, they might not have been able to reach consensus with a schedule requiring shared duties and personnel assignments.

Involvement of parents and community is generally good. Students attending the school have parents and grandparents who have always lived in the school community. Many staff members also reside in the community which helps to build positive relationships between parents and faculty. The principal feels the parents are supportive although many

cannot get to school to volunteer due to work schedules that limit their free time. She explained this feeling of support and not visibility as one noted through phone calls or notes. She explained that if an issue arises with a student, the parents feel comfortable to let the staff at school work through it. They are available by phone most of the time and will come if she asks. Local merchants and clubs provide incentives and grants for extra materials that regular funding does not cover. Area churches provide school supplies throughout the year for students who might not have the resources at home. There are also members within the churches who adopt students and pay for field trips and pay fees for students who could not afford it otherwise.

Positive attitudes in both leader and faculty create a strong learning environment for students. Technology is a focus and the school is working with many programs such as Study Island to strengthen specific areas of need. Math EOG scores were not as high as the teachers wanted so math has become an instructional focus. After school programs provided through a 21st Century Grant offer tutorial and enrichment opportunities. The positive feelings are evident throughout the school. Both the receptionist and other adults in the office have a ready smile for students and visitors. As the principal and I walked around the school, both teachers and students were friendly and eager to show their work. Many hugs were exchanged between the principal and students. She often called students by name. The school may only have 150 pupils but it is large in spirit and motivation. The principal is determined they will be successful.

Birch Elementary

Birch Elementary is located in a rural, county school district with a total population of 10,204 persons. Median income of the residents is 33,326 dollars and 16.9 percent of the population lives below poverty level. The county covers 472 square miles and is near a military base and micropolitan area which is not quite large enough to be classified metropolitan. 80 percent of the residents own their own homes which average 75,100 dollars (Census, 2006a). The school population mirrors the community with African American, White, and Hispanic ethnic groups.

Birch Elementary is located in the country with no houses nearby. As you approach there are fields adjacent to the school grounds and only one small brick building in sight. It is a public library which is open only two afternoons each week. The school actually sits off the road in a field. Grounds are landscaped and neatly manicured. The principal shared that students help to keep the grounds clean and raked. The school's entryway boasts a large saltwater fish tank. Immediately to the left is a brightly lit office area with a smiling receptionist and mascot bears sitting around the top of the shelves. Immediately, one is struck by the cleanliness of the environment. Small signs are posted at student eye level with the words, "Failure is not an option." Those signs embody the spirit of the school.

The principal is a first year principal who just came to the school July 1st. Prior to this position, she was a middle school assistant principal so she is still making some adjustments to the elementary world. She told me she felt like she had returned home since early in her career she taught kindergarten at the school. Some of her current fifth and sixth graders were once her kindergartners. The building is only a few years old having opened in 1999.

However, just down the road is an older brick structure now used as a church but which served as the community school for many years. Numerous parents were also students at the elementary school so there is ownership in the school in the traditional sense. Her school's district lines are very broad in area although not densely populated.

Basically shaped like a horseshoe, the building accommodates grades pre-kindergarten through sixth grade. There is a media center, a computer lab, and a gym as well as enough space for the nurse and counselor when they are in the building. A spacious teacher's area has tables for working and dining. The playground offers little equipment but there is a space with enough picnic tables for a class to use. A fenced in yard opening from the pre-kindergarten room provides a safe play area.

This school is also implementing school uniforms. According to the principal, they too have experienced few problems and parents have been very receptive. In the event of a student not dressing appropriately, she has made a few phone calls home and asked that proper attire be provided. The parents have readily responded and brought whatever was needed to be in compliance. The transition and forgiveness period is still in effect but the principal is trying to forge ahead as if there is not a grace period. The principal is an advocate of uniforms and believes they will make a difference in the confidence level of the students. Her population is socio-economically diverse and she thinks this will make a difference in how the students perceive other students. Coming directly from a middle school position, she is still keenly aware of peer pressure on students.

Staff organization includes one teacher per grade level with second grade as the exception. Experience varies but several classroom positions are filled with Initially Licensed

Teachers (ILTs). Multi-age grouping has been utilized in the past as grade level numbers fluctuate but it can be difficult for an inexperienced teacher to manage. For the current year, there has been an influx of kindergarteners so the configuration may change once the count period is over. Most of the classes are reasonable in size averaging sixteen students. The largest class has twenty-three students and the smallest twelve. These numbers play a role in the distribution of the resource teachers. The only ancillary or resource teacher that is full time is the physical education teacher. Other resource teachers are shared with one other school. These positions include a music teacher, a guidance counselor, and a Spanish teacher. The media specialist is shared but she is also working towards AIG certification. Generally, there are two certified nurses who serve the district but the positions are open and will not be filled until later in the semester. The school's Title I funds provide a full-time tutor to serve all of the grade levels. Teacher assistants are placed in all classes for grades kindergarten through second. Usually third grade also has a full-time assistant, but this year the Exceptional Children's (EC) teacher needed some assistance so one assistant is split between those two teachers.

Given the size of the staff, grade level teams are not possible, therefore collaboration and team planning is difficult. The fifth and sixth grade teachers are able to plan together since they departmentalize and teach specific subjects to both grade levels. Second grade teachers can plan together since they can pair. The newer teachers are slated to observe and shadow experienced folks at one of the other elementary schools. There are plans for cross grade level planning sessions once the school year is underway. Someone to serve as a

mentor for the ILTs is not available on staff but the district has hired someone to work with them.

The school is excited about their technology program. There is an intern hired through a technology company assigned to the school. This person works to maintain interactive white boards, mobile laptops carts, projectors, and document cameras. There are five to six computers in every classroom in addition to the computer lab. Available programs for the students include Study Island and Renaissance Place Accelerated Math and Reading. Some of the technology has been funded through grants. Several teachers write grants in order to secure extras for the school and classrooms. There are aquariums in the classrooms made possible through grants.

The principal feels the community is supportive and positive where the school is concerned. Education is valued and the parents provide encouragement and support. Although the socio-economic level is low with free and reduced lunch percentage about 70 percent of the 135 students, the parents want the children to succeed and they are available if there is a concern with their child. The Parent Teacher Organization (PTO) is active and slowly growing in membership. Throughout the school year there are parent nights and opportunities for the parents and grandparents to eat lunch with their little ones. One of the goals this year is to strengthen business partnerships. There are few businesses in the community but churches are accessible. Most of the community support is through the church members. The principal attributes part of the relationship between parents and school to the secretary. She knows the community and its members as well as their family ties. This

makes it much easier to foster a sense of familiarity when interacting with the community and with students' families.

School achievement is high. Scores are at ninety percent proficiency in reading this past year and were also up in math though not at the same level. The school has consistently made Adequate Yearly Progress (AYP). Prior to the change in the state's math test, student scores remained in the nineties but then dipped to the low seventies. The principal spoke of focusing on math instruction and building more problem-solving into the curriculum as part of the instructional day. Part of the success can be attributed to attendance. The average for the past five years has remained at ninety-four percent or higher.

The ownership that the principal expressed of the community and parents extends to retired faculty members as well. The principal was out in late January for maternity leave. The retired principal is planning to return and work until her return. This will make it easier for teachers and students to maintain the year's momentum. Without an assistant principal available, it could have been difficult to find someone to fill the principal's position. However, with the small community district administrators were able to call the retiree and request assistance. Apparently, without hesitation she agreed to return to work to help her old school.

Cone Elementary

A population of 17,674 people is spread throughout the 247 square miles of this rural, county school district. It has no near metropolitan areas and 15.5 percent of the total population lives below the poverty line. Residents have a median income of 31,069 dollars

per year. 80.6 percent of the population owns their own home. The average value of these homes is 88,000 dollars (Census, 2006b).

Cone Elementary sits off the road in a small mountain community. It is surrounded by Christmas tree farms and grassy knolls. There are no houses or commercial facilities around the school. It is a neatly maintained one-level brick facility of approximately twenty years old. Before this building opened, the school was situated two miles away. The principal attended the old school building as a child. The school's office houses a trophy case filled with gold and silver recognitions of little league teams and dance competitions. Apparently at one point there was a highly competitive dance team that was successful statewide, although it is not currently active.

There are no unused spaces. As we walked through the school, students were sitting in small groups in the shiny hallways and all classroom spaces were full. In addition to the classrooms there is a media center, computer lab, and a gym. The school has about 175 students this year in pre-kindergarten through sixth grade. The previous year without the additional sixth-grade the student number was 135. The principal has been at the site for two years and is beginning her third so she has experienced lower numbers than 175 students. Generally, sixth graders would have attended the district middle school but the school improvement team requested they be allowed to remain at the school for an extra year. So, currently, this is the only elementary site to house sixth graders in the district. Demographically the free and reduced percentage is fifty-four percent. Predominantly the population is overwhelmingly white with a few Hispanic students. There is little movement

in the school and attendance rates are high which may contribute to achievement proficiencies in the nineties on the state tests over the last few years.

Configuration of staff is one teacher per grade level with kindergarten as the exception. There are two kindergarten classes with fourteen students in each. All classes through third grade have full time assistants. The fourth, fifth, and sixth grades do not have assistants but instead have access to a tutor to help instruct students who are struggling academically and lower the class size for small group instruction to occur. So far this year, average class size is eighteen with 23 in the upper classes. Dependent upon numbers, multi-grade grouping is a consideration and has been utilized in the past. Resource teachers are shared with another site in the district but are able to be at the school all day instead of splitting their day and traveling between sites. A physical education teacher is available three days per week, music and media are on site two days per week, and art and technology each provide services one day per week. A speech teacher comes to the school two days per week and an AIG coordinator works with the entire district but provides on-site services as needed in a school. Generally, the AIG coordinator works directly with teachers to ensure optimum academic challenges for the students.

Collaborative opportunities for planning are not scheduled but according to the principal occur almost daily. Without after school programs to manage, teachers have more time to work together. Teachers interact after school and during lunch breaks to discuss student needs. Most of the staff members know all of the students making it easy for teachers to dialogue and strategize to assist with solving specific academic concerns. Many of the teachers are local and have worked together for quite a while. There are two teachers on staff

who serve as mentors for the other two initially licensed teachers. In order to assist with specific issues concerning a grade level, the teacher visits another school. The principal feels like this is a good investment since the teachers usually return renewed having realized Cone Elementary is a better place to work than the site just visited.

An active PTO helps to facilitate parent involvement in the school. Many volunteers help in the classrooms and wherever they can during the school day. The principal encourages parents to come to school anytime and many grandparents also participate in activities. In many cases, parents and grandparents attended the school so tradition makes a connection to the school that transient families may not achieve. Many staff members are local and are familiar to the parents. Activities for parents include tutor nights where the parents can act as tutors for their students. Special lunch days for parents and grandparents are initiated throughout the year. Instead of one day for all grade levels, teachers choose a day for their class and invite parents in conjunction with specific learning activities in the classroom. Volunteers are not just parents of students. The principal's father painted and upgraded the pre-kindergarten play equipment over the summer. He also cut many of the bushes that had overgrown the edge of the playground to make it safer.

The community is also active in the school. The fire, police, and rescue departments provide practices for scenarios that would endanger the school or students. They use the facility after school and any students who choose to assist them to enact bomb threats or intruders on campus. As I was leaving the school, the fire truck was parked out front with the ladder extended. The firemen had come to help get the flagpole's pulley untangled. The school building is used for church events and family birthday parties making it a family

friendly school. The local community college uses it for some satellite classes. There are plans to offer GED classes at the school for the parents. There is a walking trail built through a grant utilized by the community as well as students and staff. Problems with poison ivy have made it necessary to be closed until maintenance can get it controlled. One of the ways the community supports the school is through monetary donations. Oddly, the area boasts several country clubs and the principal solicits funds for special projects through these businesses. Having generations of families in the area, the principal laughingly told me she uses all of her connections to get extras for her students.

Relationships are important to the climate of the school. Not only is a visitor greeted warmly but students are spoken to by name and the principal appears to know every child. As we walked through the facility, students called her Mrs. and her first name. She had encouragement for all of the students explaining they were the best group or the smartest students at the school. The same was said everywhere we went but the students were unaware that she had praised anyone else in the same manner. The positive exuberance for the school was also evident as she introduced her faculty. She offered anecdotes expressing good qualities each member possessed. Her philosophy is one of simplicity - in order to be successful with students, one must know and understand their needs beyond academics. She expects her faculty to follow her example.

Dogwood Elementary

Dogwood Elementary thrives in a rural school district populated with 20,355 people. This county is adjacent to a metropolitan area. Home ownership is 76.6 percent and the

homes average 94,600 dollars in value. The median income of the residents is 32,541 dollars and 15.4 percent of the total population lives below the poverty line (Census, 2006d).

Dogwood is situated on a curvy mountain road amid trees and little else. The building is a mixture of brick and white painted wood with fences around the sides but not across the entrance. The structure once housed grades one through twelve and what was the high school portion is now where the elementary school resides. The school has been an elementary school since 1973 but the building was in use long before that. The facility provides a state subsidized nutrition site to feed impoverished community members in one end of the building and on the other end, a storage space for school maintenance vehicles. The pre-kindergarten class is housed in the elementary portion of the building but is separate in that it operates under the federally funded Head Start program. Although an older facility, the school is clean and decorated with murals done by a former student. The media center boasts a wall showing the original school and houses that since have been torn down while the cafeteria has a large jungle scene of the school's mascot – a tiger.

The principal has twenty-plus years of experience in administration and is a graduate of the school when it encompassed the high school. He shared that at that time, there were twenty-four in his graduating class and his secretary's husband was one of his classmates. With his longstanding ties to the community, he is acutely aware of the needs of both the rural community and the student population. Currently, he has 94 students enrolled, an increase of ten students over the previous spring. Free and reduced lunch percentage hovers around 65 percent in this predominantly white ethnicity school and many parents work outside the county in order to find employment. Families generally contain two parents but

those two in the home may be grandparents. Although aware of the challenges of the locale, the principal sees the gaps in the experiential background of the students and works to build a foundation in kindergarten through second grade prior to the tested grades. But he finds the students are eager to learn and happy to be at school making the work of the school easier.

Class size averages about sixteen students but the second grade only has ten students so far. There is one teacher per grade level and a full time exceptional children's teacher. Teacher assistants are available in kindergarten through third grade classes. In addition to the classroom teachers, a tutor is available for students who are struggling. This position is funded through Title I. The resource teachers are shared. Art, music, physical education, and guidance teachers are on campus one day per week. None of their schedules overlap. Each resource class is on a different day. This schedule helps to ensure almost daily planning time for regular classroom teachers. The media specialist is fulltime and also doubles as a technology teacher in the computer lab. In this way students are able to have direct instruction on technology at least twice per week. Their classroom teachers integrate technology in their instruction and can utilize the lab with their students as needed.

Tests scores have been in the nineties until the 2005-2006 school year when they dipped into the seventies. The school has experienced some teacher turnover as well as an administrative change over the course of the last three years. Prior to the current administrator, the principal was shared between two schools making it difficult for the school to retain continuity. As a result, communication suffered. The number of students decreased resulting in the loss of teacher positions. Amid the routine stresses of educating students, a

battle to close the school ensued. The community won out but the principal thinks that with the dwindling numbers, the question of closure will remain a contentious issue.

Funding is an issue at the school. Although schoolwide Title I, the current allotment decreased by \$10,000 dollars from the previous year. In addition, staff development monies also were not as high as in previous years. Test scores remain fairly high and so little funds are available for the high risk level one and level two students. The supplies and materials budget is around \$5000 dollars. The principal praised his staff for doing well with a small amount of funding. They are pursuing several grants in order to help upgrade technology and work on a walking trail. The principal lamented that there is grant money available and they have all of the qualifications but there is no one on staff with the time and skills to put together a quality grant application.

Collaboration for planning often occurs after school and is cross grade level. The teachers and principal meet once every three weeks to discuss each individual child and the best instructional program to fit his or her needs. This is part of the planning process to target individual student needs. The staff is invited to participate in staff development activities occurring at the larger schools. This provides a network of other grade level teachers. Mentor support for new teachers is available through a retired teacher who is also a tutor for the students. She currently works with three ILTs on campus. As the principal and I visited each room, I noticed a family atmosphere where family pictures decorated space on or around the teachers' desks.

Parent involvement is not at a level the school would like but the parents are supportive of the school when there is an issue. There is a PTA in place and activities are

planned with family needs in mind. On nights when activities are planned, dinner is provided at a nominal fee to make it easier for the working families. Parents can also check books out of the library for themselves or for their children. Work schedules make it difficult for parents to attend events. However, there is a value placed on education and parents want their children to do better than they did economically. Students come to school ready to learn with an eagerness that stems from the home environment. There is very little movement in or out of the community. Once tobacco was the primary source of employment but now truck farming or vegetable growing is the main staple of the parents. Many have chosen to remain in the community but go to neighboring areas to work.

Volunteers from both parent and community members are available as their work schedules permit. The school facility provides a resource for the Youth Sports Program. They have basketball, baseball, and football activities. Activities such as these not only provide entertainment but they offer means for getting parents on campus. The fire department uses the cafeteria for fund raising suppers and supports the school with monetary donations. The fire department also provides safety programs for the students.

The school climate is warm and friendly. The principal encouraged us to visit every room even though the six-weeks benchmark testing was in progress. He is obviously proud of the school and its accomplishments. The school seems to work with every child. As we walked, a student occasionally would be in the hallway. The principal stopped to provide a cheery greeting including the child's name as well as a positive comment. As we met one little girl in the hall, he called her a nickname and then proceeded to tell me what a great writer she was. After she left us, he elaborated on her personality saying she was very shy

and avoided praise but that he was slowly changing her mind. From the smile she gave us, he is making progress. They have implemented a program specifically designed for the average students – those in the middle that do not need remediation but are not quite ready for acceleration. When the EC students are pulled out, the remainder of the class embarks on Soar to Success or Early Success time. As we visited classes, each teacher and assistant was introduced and I was given some nugget of information about their background or successes. Not only were classroom teachers introduced but cafeteria personnel were included in the tour. Everyone at Dogwood is valued and the students respond. Since I was on campus early, many tardy students came in and each made sure they greeted the principal before going to class. Interpersonal relationships seem to be a reason for the school's success as evidenced by their historical testing data.

Each interview site was unique in its approaches to working out issues concerning lack of personnel or limited monetary resources. The principals were candid about their successes as well as issues which could make a difference in the learning environment for students. The following chart summarizes and illustrates comparisons of several characteristics of the interview sites and is a useful reference as patterns and themes are discussed. Note that three of the sites currently operate as K-6 which is outside of the parameters for eligibility. However, when the sites were chosen as possibilities, they all operated within a K-5 grade configuration. This change in configuration also affected the student numbers which are higher this year than in the past with the additional grade level.

Table 6: Characteristics of Interview Sites in September of 2007

	Ashe	Birch	Cone	Dogwood
Student Numbers	141	135	174	94
Grade Span	K-6	K-6	K-6	K-5
Classification	Rural	Rural	Rural	Rural
Free and Reduced Lunch Percentage	75%	70%	54%	65%
Student Ethnicity	White, Black	White, Black, Hispanic	White	White

Patterns and Relationships

Assessing the transcripts from the four interviews offers insight into the personalities of both the schools and their principals. In every situation, principals chose to have a small site over the difficulties encountered in larger settings. All had worked in larger schools and could readily tout the differences of fewer students regardless of grade configuration. It is apparent that one's perspective and interpretation make a difference in determining positive and negative characteristics related to size. Several times, one principal categorized a part of the school day as being difficult whereas another colleague depicted the same issue as making a positive difference in the school. All of the sites were rural which makes it complicated to separate factors relating to size and those which correlate to locale. Even among the small number of sites, differences in the perception of a particular concept emerged.

Throughout the interviews, it was evident that relationships play a large role in these schools. Given the small number of students, staff members and parents tend to find it is easier to foster camaraderie and positive interactions than might be feasible in a larger

setting. The relationship between the parents and schools was expressed many times during all of the interviews. In many cases, the parents and sometimes grandparents were students at the school creating a history intrinsic within the family. The principal at Birch said, “the families have been around for a long time and they had good experiences . . . I don’t know why but they are very attached to this elementary school.” Ashe’s principal stated their parent population has “been here forever,” making the ties to the school stronger. Cone’s principal insisted “families have been here for years and years . . . it’s a very family-friendly school.” The work schedules of the parent population limit volunteer time but other avenues of support are evident. “They will volunteer even though their work schedule limits them. But they are a very supportive type of community” (Dogwood). Rural and economic circumstances force parents to seek work outside the immediate school district, which further adds to the difficulty of finding time to visit and assist schools. However, the community often engages when the parents cannot. The principal at Birch summed up the importance of parent and school relationships, “if you aren’t out there having to fight them, then you can be in here helping these children, and that is vital.”

Community support involves businesses, churches, and community members. The two schools in mountain areas both look to the local fire departments and emergency services for assistance. Safety is foremost for the students and having actively involved emergency services teams enhances the feeling of security for staff and students. “They do practice runs – the fire, police, and rescue departments will do practice runs in the evening. They’ll practice a bomb threat or an intruder . . . It makes me feel safer that they are involved” (Cone). Ashe’s principal cited safety in another aspect - relying instead on knowing the

members of students' families and community members. The staff knows most of the members of their students' families and therefore "it's good for safety because we know who everybody is, and if we don't know, somebody will find out" (Ashe Elementary).

Sites utilize churches as a means to assist with activities and financial support. Churches send school supplies all year to Ashe for students who need them. Area churches also adopt specific children to pay for field trips and extras the families cannot afford. Community involvement mainly involves the churches for Birch. "We are the business pretty much out here . . . we are working through the churches to try to reach more people" (Birch Elementary). Generally, there is reciprocity in support of the community. The school buildings are used for various activities sponsored by the community groups. Beauty pageants, fashion shows, fund-raising dinners, and little league games are all examples of building use outside the school day for non-school activities.

Fostering relationships among teachers in a school is sometimes a challenge. These four sites have met the challenge in different ways. Having only one teacher per grade level poses a dilemma for creating time for sharing and planning. No grade level teams are available so alternative means for networking has been devised. Using different configurations of team members helps staff members get to know one another and ultimately work better as a team. For committees and other activities, staff members "may not be with their best friend, which everybody in the school has, but they learn to work with those people" (Principal, Ashe). This school also provides after school sessions unrelated to issues about education. These informal gatherings provide information for fun and offer times for fellowship. Ironically, Cone also found that being in a close knit school could have

drawbacks. The principal spoke of the faculty being “around each other and you the principal so much” that it can be difficult “if they get upset with you and take it personal.” In some cases due to established camaraderie, it is difficult to confront teachers who may not be working in the most productive manner. With the familial atmosphere members of the faculty may assume that they can stretch the rules and they do not appreciate being caught in their errors. Dogwood offers cross grade level planning after school but allows teachers to attend any grade level meetings at other district schools if they desire.

Students moving into these schools sometimes have difficulty. The “students have been together since pre-K and it is very difficult when someone new moves in” (Principal, Ashe). When the students matriculate to a consolidated middle school, it is hard because they are unaccustomed to socializing with students they do not know well. Based on past middle school experience, the principal at Birch lamented, “we saw conflicts that I felt were based simply on the fact they weren’t used to dealing with other people and couldn’t adjust.” Dogwood’s principal also felt that moving to a larger school was somewhat traumatic for his students who were accustomed to attending a school of less than 100 students.

Most of the student relationships focus on the close bonds that teachers and students can form due to the smallness of the elementary environment. Since faculty members tend to know all of the students, it is helpful for the current teacher to receive input from the previous teacher. There is available knowledge about the child which can be accessed to provide early intervention. “The fifth grade teacher might talk to the fourth grade teacher and say, “What’s up with this child?” (Principal, Cone). This principal continued by stating, “teachers teach kids” in reference to technology replacing good teaching. She strongly feels

relationships between teachers and students form connections surpassing computer learning. In listing positive characteristics of her school, the positive relationships established from pre-kindergarten leads to “an investment in their lives” (Cone). The principal at Ashe said the students “are happy to be here. They love their school – they love their teachers.” Teacher-student interactions seem to make a difference. Resource teachers are predominantly shared at the sites; however, the principal at Ashe believes that the resource personnel should know the students beyond just a name. She requires these support persons to have duty in the cafeteria and other places. As she says, “they need to get more involved – particularly if they are going to stay here – to learn the children as they grow.”

Staffing and Schedules

Sharing resource teachers such as art, music, and media tended to be problematic at all sites. The scheduling was not a constraint since each person stayed on a campus all day but they might only be at a school one day per week. In addition, once these teachers are hired, it is sometimes hard to retain them. Ashe’s principal explained it by speaking of her music teacher, “she is gone somewhere different each day of the week. That’s a tough job and there aren’t many people who really want that.” Lacking a guidance counselor, nurse, or social worker can be challenging if a situation arises with a student and it is not their time at the school. All principals agreed they could call if a crisis arose but it would have been more effective if pertinent staff members were on campus at the time of the incident. In the district where Birch is located, the county Health Department handles the school nursing staff and “they respond when I have a problem. They are only a phone call away so I haven’t had any difficulties getting up with somebody when I’ve needed them.”

Relationships extend to central office administrators and schools. All four sites asserted the supportive nature of district offices in supplying necessary materials, knowledge, and manpower to make their schools successful. Ashe's principal discussed size of the district and its impact. She said, "because this county is so small, everything is very personal. I can email the superintendent with a question and get it answered right back. . . It's easy to get what you need." Birch's principal stated, "it (the district) is small but our curriculum director from the county . . . will come out and work directly with a teacher who needs help." The principal at Dogwood talked about the responsiveness of the district office to meet his school's needs, "if it is a reasonable enough request you get immediate help." It is important to realize the impact these relationships have on ensuring that resources are available. Grants, donations, as well as district fund sources, revolve around building and maintaining positive interactions with community and district personnel.

Funding and Recruitment

Lack of funding emerged consistently as an issue particularly in the technology field, but it also touched areas of teacher recruitment and retention. Creativity is necessary when managing the school funds and making them stretch to cover required materials and needs. The principal at Dogwood laughingly said, "We are poor but very creative. These teachers have learned to do a lot with very little." Birch's principal also spoke of teachers utilizing limited resources effectively, "They are managing very well with what they have. However, there are things I want to see in every classroom such as Smart Boards." Cone's principal talked of seeking donations "right up front to upgrade our computer lab." She continued later in the interview by calling budget difficulty "a trick trying to get what they need to get ready

(for the eighth grade computer test) with the money issues.” In addition to limited funds, Dogwood also experienced funding cuts in some of the supplemental money sources such as Title I.

Although these four sites rely on donations and district support, each attempts to fund projects and programs through grants. However, it is sometimes a challenge for the grant to be written. Cone’s principal spoke of both grant availability and time constraints. “There’s plenty out there it is just getting the time to do it.” The principal at Dogwood expressed similar views on the lack of “someone with the time to spend putting together a quality project.” The four sites are all rural and small which according to one of the principals makes it fun to write a grant feeling like “you’re going to get it because people feel sorry for you” (Ashe). She was referring to the accessibility of grant funds for rural and low-wealth entities. Birch’s principal summed perceptions of seeking additional funding, “we write a lot of grants. I’m very fond of grants!”

Teacher recruitment is sometimes difficult for the smaller districts adjacent to larger systems. The smaller districts cannot afford to pay the sign-on bonuses or supplements similar to larger districts. Hardships of this nature are compounded in a small school where location is not always conducive to young teachers’ willingness to commit long term. The principal at Birch spoke of lesser perks than neighboring districts, “supplements are lower than some of the counties around us.” She continued optimistically by saying that, “good things are going on too. We have small class size and an environment that is very warm.” She used the positives as a recruitment tool. Simply recruiting teachers may be harder in the smaller schools but sometimes retention is just as difficult.

The four sites vary in the turnover rates of their staffs. The principal at Ashe has only hired one teacher in three years. Birch has experienced retirement woes and has replaced 4 teachers in the last two years. Up to that point, the faculty had been very stable but now there are several new teachers on board. Currently, the school still has an opening for an English Second Language Teacher (ESL). Cone has remained the most stable. The principal shared with a smile that she had not had to hire anyone in her two years at Cone. She said, “they just don’t leave!” Dogwood’s principal has replaced three teachers in the last two years. Unfortunately this equates to fifty percent of his classroom teaching staff. He is optimistic that staff will remain stable throughout this year and for at least another.

Schools sometimes have trouble finding employees within the community and therefore have to seek personnel outside of the community. This means that employees are driving many miles to work at the school. Dogwood’s principal lamented the loss of two teachers from the previous year “lost due to the travel and the expense.” The other side of the retention issue is that at least one of the principals interviewed would like to have a slight staffing change. She feels that her staff members “don’t want to leave” (Ashe) and consequently the teachers are becoming stagnant in their learning. She talks of the risk of weaker teachers and their impact on the school’s achievement, “if you had one or two weak people, they didn’t stand out like they do in a small school.”

Once the staff members are hired, size impacts the workload in a small setting. There are simply not enough teachers to cover all of the areas needed to successfully maintain student achievement. The principal of Ashe feels small size limits the diversity of the teacher pool to work on committees and bring new ideas to the school. Given the small number of

faculty members, if one or two are negative concerning a project, then it “makes it difficult for the people on the committee because you are going to have one person doing all of the work” (Ashe). Sustaining after school programs is especially difficult since “the burden is put on two or three teachers yet it is benefiting everybody” (Ashe).

New teachers or those with concerns in the instructional arena in particular find it difficult at smaller sites. There are “no experienced teachers on a specific grade level” (Principal, Birch) to assist new teachers. Sending teachers to observe other sites seems to be the chosen solution. Cone’s principal likes to “send them to other places so they can see some other things” and she continued with a smile, “They usually come back in a better frame of mind!” Birch’s principal works with other schools and sends her teachers to shadow specific teachers so they can observe and improve their professional practice.

Without grade level team support, the principal becomes the catalyst to change the ineffective style of the struggling teacher. Due to the small number of classrooms, principals are able to be in classes often and “curriculum can be a focus” (Principal, Birch). The principal continues by saying, “I can be the instructional leader and most of my teachers feel comfortable coming in and asking for help.” Dogwood’s principal can meet every grading period to discuss individual needs of both teacher and students. He knows the students well enough to actively assist the teacher in formulating instructional strategies for a period of time.

Numerous Responsibilities

Administrative duties in a small school are somewhat different from those tackled by principals of larger schools. For example, none of the schools where interviews were

conducted had any site administrators other than the principal. Without specific personnel, job responsibilities expanded. Not only are the principals responsible for regular administrative tasks such as teacher observations and instructional program monitoring but they also act as the parent liaison when issues arise. Buses, textbooks, and discipline are the tasks delegated to assistant principals as a rule. However, without the extra administrator on campus, the principal does all of those tasks and more. Ashe's principal explained it by stating, "I am the testing coordinator, the assistant principal, the nurse, the doctor – I'm all of it!" Wearing all of the different hats on site can be challenging but leaving campus may also be difficult for the school. Birch's principal stated, "every time I walk out of this school, there is nobody here . . . we need a presence in the building in case something happens." If meetings occur at the district office located more than thirty minutes from the school, drive time there and back extends the time away from the site.

However, due to small number of staff and students to supervise, at least one principal uses the opportunity to teach. "I can take a group of students out of the classroom and I can teach a science lesson or do the lab. It's very easy to do what I love and be the principal too (Ashe). The principals interviewed all felt that even though their jobs were diverse, they thought they had time to work individually with students and teachers. This gave them impetus to be instructional leaders. With only one teacher per grade level, there are few who can assist newer teachers. In some cases, it falls to the principal to assist the teacher in planning and interpreting the curriculum. Although somewhat time consuming to assist a teacher to write lesson plans, it also forces the principal to know the curriculum and become more familiar than if there were other curriculum support persons on staff.

Summary of Interviews

No matter the size, all four sites are doing well and achieving based on their EOG scores and testing histories. Each will utilize more funding if it is available and already have plans for its use. The principals are quite savvy in the area of creative budgeting. Each one expressed a need for more funds to provide more personnel or instructional materials to the site. One school requested to keep the sixth graders instead of sending them to the middle school. Having more students on campus eliminated any thoughts of closing the school due to small numbers - as the principal said, “more kids is more power” (Principal, Cone). She added that she also felt the students could benefit from another year in a nurturing environment before transitioning to the much larger middle school. The principal at Dogwood was ecstatic since his enrollment had increased by ten students from last year’s numbers and he needed only six more to reach one hundred. He felt that to be a magic number for the school to remain in operation.

Lack of personnel created difficulties for the principals. Even with the addition of the sixth grade, resource teachers were transient and therefore, scheduling was a concern. Sometimes it is difficult to work with another site to ensure that services are equitable when teachers are split between two or more sites. The small numbers of teachers per grade level make it difficult to work and learn from colleagues. If there is only one teacher at a specific grade level, then there is no one to utilize as a source of support for newer teachers. Having fewer employees to supervise means that there is more time available to spend in the classrooms and monitor the instructional program. However, it also translates into a principal

having to know and understand all facets of the school whether from a curricular, maintenance, or parent standpoint.

If any one strand seemed to carry throughout all of the buildings, particularly those having the same principal for more than a year it would be relationships. All of the interviewees alluded to the positive relationships that could be built whether between faculty or students. They seemed to feel the key to student success included the ability to work as a team for the vision of the school. They were adamant in their praise of dedicated staff making a difference but they also were mindful of the needs of the staff as well as those of the students. In providing opportunities for relationships to build, the principal sets the tone and his or her leadership made the difference. It was evident that over time three of the principals had built positive rapport with staff and students but the principal who had only been at the site for three months still had some work to do. The leadership does make a difference not only in the instructional program but also in the overall climate of the school.

Matters of Size in Surveys and Interviews

Is size a factor in determining issues in the schools examined? Emerging similarities in both survey and interview data connect characteristics found in literature as well as within the responses. Across both data collection methods, respondents shared many of the same positive traits such as parent and community support, safe and warm climate, and instructional strategies to target student needs. Some of these characteristics could be attributed to the school's small size. In some cases, the small size of the school made the trait much easier to sustain. Some of the characteristics perceived as negative included funding deficits, staffing concerns, and low student numbers.

Community and positive parent support was noted across both data collections. Businesses in the community offered donations of products and time as a means of supporting the schools. One of the principals interviewed spoke of the lack of area businesses to access for any type of donation. Yet, support can be in many non-business types – the emergency service group who helped rethread the pulley on the flagpole using their ladder truck, the church group who donated school supplies and field trip money to needy students. Several notations were made of parents having low socio-economic lifestyles, yet, the schools still found them to be supportive of their efforts. The parents were not always involved and could not attend school sponsored events. However, several respondents listed them as caring with a desire to be included in their child’s education. In one of the interviews, the principal cited lack of attendance at school activities due to working outside of the school’s district. Travel time made it difficult for the parents to come home in time for many of the activities and programs. Would these supportive relationships be the same if the student numbers escalated? The area of support is one which can be found regardless of size and could be related more to demographics of the community or the parent population.

Another area that appeared in both data categories concerned the climate of the school. Descriptors such as warm, caring, and safe were noted in interview data and in many of the survey responses. Discipline was not an issue at the sites. Literature supports fewer discipline incidents as the student numbers decrease. Issues of safety were lessened since everyone knew everyone else. Knowing the parents and kin of the students made it safer if a stranger arrived to pick up a student. One of the interview sites explained the value of having

local staff members who know a student's family and kin. A warm and caring climate could be found in any size school. Safety issues tend to lessen in a smaller environment.

The most reported positive characteristic relates to instructional strategies. Several times in both interviews and surveys, the term "targeting instructional needs of students" is an outgrowth of a small site's ability to know individual student needs. Student numbers are low enough that teachers know all of the students in the school. Finding what works for a particular student can be viewed as a team project and not solely the responsibility of the student's current teacher. Lower student-teacher ratios mean that teachers can interact with each child more often. Less time is taken for paperwork so there is more time for focused instruction. In the interviews, principals discussed how they were able to get to know each child and meet with teachers to form individual instructional plans. The principal at Dogwood Elementary not only spoke of students who were struggling but mentioned creating instructional plans for the academically able students as well. Knowledge of students and needs can be attained whether the school is large or small. However, the depth of that knowledge and the way it is used, is easier in a small site.

The majority of the negatives in both surveys and in the interviews relate to funding issues or staffing concerns. Several of the sites in the survey and in the interviews felt technology was lacking in their schools. The principal at Cone Elementary felt geographical location was partially at fault for their shortcomings in having future ready classrooms. Their isolation and mountain setting made wireless communication difficult. She was soliciting business partners for funds to upgrade her computer lab and they had a satellite dish installed for television programming the previous week. Resources for upgrading or purchasing

technology were an area of concern for all. Funding deficits stem from the manner in which funds are allocated. Just as teachers are allotted to a site based on the number of pupils, so too are many of the supplemental funds such as Title I and low-wealth monies. With low student numbers, smaller budget amounts are available, yet the unit cost for a computer or a teacher is the same. Small size had a domino effect on funding. Per pupil allocations and allotments meant fewer funds to use to provide optimum learning environments.

Staffing issues were prevalent in all sizes of responding schools. Very few sites had enough resource teachers, such as music and art, to provide adequate services. Media and physical education teachers were more common across all sizes of schools. Many of these were full-time positions. While seen as advantageous having these folks available, if they are not full-time, scheduling becomes hard. If a specific resource person such as the AIG teacher served the site, it was within time constraints and the position was shared with at least one other site. The sharing aspect made scheduling resource classes more difficult. Including travel time for the resource person to move between sites added to the dilemma of providing enough instructional time for all of the students in both schools. The principals of Ashe and Birch schools both lamented having to share nurses and social workers among the other elementary schools in the district. Creative use of personnel including blending positions such as a media teacher who was AIG certified helped to keep the person on site daily. Lack of full-time support staff correlated to small size. In most cases, based on survey data, the smaller the school, the fewer available support personnel.

Chapter Summary

Data – both survey and interview – reflect positive aspects of small schools including environments staffed with collegial and dedicated faculty members, supportive communities, and teachers who strive to know their students and families. These aspects seem to carry across all of the schools regardless of size. Logically, with the smaller numbers of students within a school, there is greater opportunity for teachers to have strong foundations of how their students learn and what instructional needs are present. Negative aspects such as lack of personnel for specific needs leading to scheduling concerns or monetary deficits to support and sustain school programs are pervasive at all levels. Lack of funding including technology needs for preparing future ready students was a concern mentioned in the surveys as well as the interviews. Although data from the interviews supported several negative characteristics of their sites, the principals interviewed were able to elaborate on avenues to work through the difficulties. The familial atmosphere of their schools helps overcome the more difficult characteristics of the small school environment. Relationships are important to sustaining these small entities and creating success for students and faculty members.

How does one determine whether a school is too small? When talking with the four principals interviewed, it is evident that for them small size is only a matter of perception. Depending on one's experiences and perspectives, one teacher per grade level or five teachers per grade level matters not. It is the determination and dedication to make a difference for the students and not to make excuses for low wealth and lack of parent education. Difficulties mentioned included funding, lack of personnel, and mentoring

challenges for the newer teachers. However the principals all agreed with the Cone's principal who stated that "smaller is much better even with some negative aspects."

Chapter Five

Introduction

At what point does a school become too small to function effectively and efficiently? Should there be a line of determination whereby a school is closed based on student numbers? None of the principals in this study agree with the idea of closing their site no matter the size. A passion for teaching and reaching all students was evident in responses to both open-ended survey questions as well as within the interview conversations. There was consensus that size plays a role in making administrative jobs more difficult but many more positives than negatives exist resulting in a much easier work day. Many of the ideas expressed in the study in both surveys and interviews substantiated previous studies concerning the positive effects of small size and yet, portrayed a few negative aspects as well. Interviews offered interesting ideas for overcoming the barriers that are impacted by size.

Although research questions for this study do not call for specifically listing positive characteristics, there is validity in considering the alignment of the traits noted and the schools studied. This offers a means of seeing that at least some of the small schools in North Carolina fit the profiles from nationwide research. As the study progressed, negative traits or at least issues inherent in the schools that made the principals' jobs more difficult emerged. The manner in which each principal approached these barriers made a difference in whether the school was successful. In turn, it is easier to make arguments to keep a successful school in operation even with very small numbers than if it was not successful in its academic programs.

Literature Reflections and Connections

Did the small schools included in the survey reveal similar characteristics as those noted in previous studies? The survey results as well as the four interviews closely aligned with previous studies detailing characteristics of small schools. Whether discussing parents, students, or teachers, the comments seemed to spawn thoughts of relationships and their importance in building student success. Most of the schools in the survey and all of the interview sites were making progress academically which supports the idea of enhanced student success in the smaller learning environment. There are many variables which combine to create academic success.

Support of parents and community is touted as a plus for the smaller schools particularly those located in more rural areas. The four interviewees spoke of close ties among family and community members to the school. Many of the parents and grandparents were alumni of the school creating a close bond. The ownership expressed in parent support of school activities and programs strengthens the relationship between parents and teachers (Lawrence et al., 2002). There is comfort for the parents to know teachers and facility. Community bonds are strengthened since schools are often used for community activities outside of the school program. Utilization for activities other than those supported by the school strengthens the idea of ownership and pride in the school. One of the interview sites discussed past and possible future issues concerning school closure. Consolidation efforts in the name of efficiency are discussed in the literature as an issue facing many schools with lower student numbers. Should the issue of closure arise, strong parent and community support makes it harder for school boards to make the decision to close a smaller facility.

These issues are exacerbated by the reality of longer bus rides (Andrews, Duncombe, & Yinger, 1999). One of the principals said if the school closed, the average bus ride would change from twenty minutes to an hour. For some students who ride in the morning and afternoon, that translates into two hours of their day.

Due to smaller teacher numbers, more is required in job responsibilities for both teachers and administrators. One of the principals spoke about the difficulty of divvying up the workload with only one teacher per grade level. Although literature supports the interrelationship of extra job responsibilities and professional growth, it still makes it harder for faculty members since there are less people to do the jobs. The lack of specific grade level assistance creates some concerns for new teachers who would benefit from having another person to work with at a given grade level. Some of the sites in the study utilize two grade levels as a planning team. This concept is similar to “vertical interdependence” created when teachers rely on others outside of their specific grade level (Kennedy, 2001).

Small faculty size also lends itself to professional growth since the entire staff is aware of teachers’ shortcomings as well as strengths in the classroom (Irmsher, 1997; Nathan & Febey, 2001). Smaller teacher numbers generally equated to less opportunities for collaboration to occur. Only one principal noted that sometimes there could be too much time together since teachers lived in the community and met each other in the grocery aisle. Discussions about school and in some cases students occurred when the principal felt an area so public should not be a place of discussion even when it only involved faculty members (Principal, Birch)

Three of the interview principals obviously believe in building relationships with faculty members. The one with the least experience sees the value but still needs time for the bonds to grow. All of these folks work to build a climate of collegiality for the staff. They create opportunities even when there are only a few teachers involved. Part of success in small schools according to the literature is the ability to work together and blend talents among faculty members. The fact that turnover rate is not very high in any of the sites including those in the survey lend credence to the belief that good relationships make people want to stay until retirement.

Difficulties or negatives mentioned in the literature include the necessity of the principal to multi-task since no other administrator exists on campus. Survey data did not delve into this aspect but several of the interviews referenced the difficulty of juggling demands. The respondents spoke of being mentors, social workers, nurses, and curriculum leaders in addition to usual administrative meetings and requirements to observe and monitor instructional programs and strategies. Although considered to be one of the drawbacks to a small environment knowledge of the students did not seem to deter the principals interviewed. As we walked through the school, they called students by name and had an anecdote or personal comment for each one. There was a strong commitment to make each student feel special or to commend particular achievements whether academic or social.

Recruiting teachers can be a daunting task for any elementary principal but it is doubly difficult to find new teachers willing to live in a remote area. One of the principals interviewed assisted two of his new teachers in finding teaching positions closer to their homes but within the district but which meant their drive times were lessened. Although

these were strong teachers and it meant openings for his school, he felt that it was more important to keep them in the district than to lose them completely. Housing is not always available in some of the rural areas so new teachers usually live outside of the community. Literature mentions salary differences in rural areas but with a standardized salary scale and benefit packages in North Carolina that is not a concern. However, there are differences in the supplementary monies paid to teachers. Small districts such as a few of the ones where interviews occurred cannot afford to compete with salary supplements and sign-on bonuses larger, more affluent school districts that border these small districts.

Implications for Research

The body of research is inundated with studies concerning small sized elementary schools and factors which make them successful. However, there is little research detailing negative aspects of small elementary schools. This study showed traits perceived as positive were inherent in the survey respondents' perceptions as well as those reflected in the interviews. Ideas emerged showing characteristics of the small site that make the principal's job more difficult or which require different approaches. These negative issues are only a portion of the site's characteristics. Since so few sites were included in the study, data would be more valid if interviews and site visits could occur in more schools. A comparison of very small schools with larger schools might yield similar data in characteristics creating a successful climate for students.

Much of the literature focusing on small school size actually concerns small class size and its effect on student achievement. If a school has low student numbers, it does not necessarily follow that class sizes at the site will be small. The two ideas relating to size are

significantly different but often become confused when authors write about school size (Achilles, Finn, Bain, Boyd-Zaharias, Johnston, Folger, Fulton, & Nye, 1997). Any future research regarding the concept of size should explicitly define whether size refers to class size or school size. The studies exploring rationales for student success should control for variables that differentiate small size in relation to student numbers in both classes and in the whole school.

Survey data needs to be more in-depth to lead to trait analyses. However, it shows that there are a few negatives relating to the small size. With so few respondents one cannot make a correlation to definite issues arising from lack of student numbers. If one had opened up the criteria to include all public schools with student numbers less than 315 regardless of the grade level configurations, there might have been a broader response. Further studies need to be considered before conclusive results are determined regarding negative aspects. The interview data offers more size related concerns. However, even with the interview data, it would have been more meaningful to interview teachers as well as principals. One cannot help wonder whether principal perceptions would mirror the teachers' responses. Although the principal was a good beginning, one could ascertain different perspectives from teachers involved in day to day routines.

This study focuses on elementary schools but future research could use similar methods to examine middle and high schools having small student numbers. The literature does not always differentiate whether studies and generalizations result from elementary, middle, or high school perspectives and populations. The ability to categorize characteristics would be valuable in determining which variables can be directly attributed to size.

Comparing several schools with very low student numbers to several having numbers greater than 315 would be a good way to look at variations in staff and resources. If similar issues or positive traits emerged it would be difficult to connect size as a causal agent. Another comparative study could be done if interviews were regionalized within the state. Variables such as diverse demographics or geographical locations could result in different findings. Similarly, if students entering small middle and high schools from small elementary schools could be tracked, it would prove interesting to determine how they fare academically and psychologically. Making the transition from familiar peer groups to larger student bodies in medium or large sized middle and high schools may be difficult. Sometimes middle and high schools are consolidated and draw students from all over the district. Students from small elementary schools, who have been with the same classmates for years, may experience trouble making new friends and finding their way in an unknown school. Sustaining the momentum begun in the smaller environment may not be possible in a larger school.

This study is miniscule when one considers the number of small school entities involved across the state or nation. Each state has its own measures for determining success. Using student scores as a factor for deciding if a site is successful could also be used in a broader study. Tracking students who attended a school that has been closed might provide more evidence for either increasing or decreasing numbers of small schools. Whatever the study, the topic of small schools will continue to be raised whenever school boards and administrators examine district lines and efficiency data. Researchers need to continue to

look at all aspects of school size to offer a more comprehensive portrayal of elementary schools.

Implications for Practitioners

It is always helpful to have a broader view of a situation before making decisions. The field of education requires practitioners to employ a variety of strategies in order to meet the accountability standards set forth at the state level. Educators give credence to research based ideas. It is imperative that research offer information on all aspects of an issue and not just present one side of a topic. Since the body of literature is relatively minimal concerning negative characteristics of small schools, this study will assist practitioners in seeing another side of small school environments. Ruling bodies as well as practicing school administrators will have specific issues faced by small elementary schools in North Carolina. One of the issues noted in the study was difficulty in getting a majority of parents involved in the schools' activities. Lower socio-economic parents may not feel comfortable coming to the school. Smaller environments may lessen the degree that parents fear and avoid interacting with the school. They may feel less threatened if there is the familial atmosphere and parents perceive the teachers as truly caring about their child's education. Policy makers might be well served to consider the smaller environment if greater parent involvement is one of the goals of the district.

Not only are negative aspects important in order for all stakeholders to have a complete picture but the manner in which these issues are addressed is valuable. Ideas discussed in this study could be perceived as barriers to a school enjoying success. However, the sites participating in the interviews have creative and energetic principals who manage to

find avenues around the difficulties. Administrators who are in schools of all sizes may be able to utilize ideas gleaned from the narratives and apply the strategies these small sites find helpful. These four sites in particular address the importance of building and sustaining relationships where faculty members rely on one another for assistance and support. If school systems can use ideas to develop their own strategies for success, then this study has continued the ideals of support and success of working collegially set forth by the interview sites.

Conclusions

Based on principals' perceptions, data substantiates throughout survey and interview sites positive ideas and traits of small schools outweigh any negative aspects determined. Funding and staffing deficits are the major barriers to making the job of the principal easier. Both of these are related to small size since funding is generally based on per pupil allotments as are regular classroom teacher numbers. Differences in extra or resource staff is dependent on the districts' initiatives as well as the number of students. Often these positions must be shared with other sites. Lack or limited funding amounts make it difficult for the smaller schools to purchase resources to assist students instructionally. Expensive technological resources such as computers and interactive white boards to create future-ready students are beyond what most school budgets can supply. Once the equipment is in place, sometimes the geographical isolation makes it difficult to get internet services for the schools (Principal, Cone). These negative ideas were particularly evident in the interviews. Numerous job responsibilities could be perceived as a negative but the principals merely looked upon the tasks as a means of being involved in the instructional program instead of

being overcome with paperwork or discipline issues. One principal summed up the difficulties of multi-tasking in her job by saying how easy it was compared to other jobs she had done. She acknowledged she could not believe she gets paid for doing something she loves and that requires so little effort overall.

Knowledge of students, colleagues, parents, and community is probably easier to attain in a smaller school. It behooves the students for parents to feel welcome in the school. Creating a working relationship between parents and schools affords greater opportunities for students to be successful. The importance of the relationship factor cannot be stressed enough from the interviews. Parent involvement was considered strong albeit principals conceded that parents were not always in attendance but generally came when called. Calling it parent support instead of parent involvement might be a better concept. The ability to communicate with parents and to understand that their limitations – whether academic or financial – are not an excuse for shortcomings of their children is one of the main characteristics pervasive in the small schools. There is an intrinsic ownership of students that transcends the difficulties.

Motivating all teachers to believe that all students can learn is sometimes difficult to achieve. These small schools seem to have discovered the way to the heart of the problem – treat them as if they were their own. Knowing the strengths, differences, and variables involved with all of the students makes schools regardless of student numbers more successful. What a wonderful legacy for all schools - no matter the size – to teach the children despite barriers in the learning environment. How can one fathom closing a landmark without having another option in place that will offer the warm and inviting environment intrinsic to small schools? Keeping these schools open may be an expensive

endeavor but is the alternative worth the cost? Instructionally sound learning climates where students feel safe and nurtured yet prepared may be priceless.

References

- Abbott, M. L., Joireman, J., & Stroh, H. R. (2002). *The influence of district size, school size and socioeconomic status on student achievement in Washington: A replication study using hierarchical linear modeling*: Washington School Research Center.
- Abramson, P. (2005). How to make a big high school smaller. *School Planning and Management, 37*(7), 62.
- Achilles, C. M., Finn, J. D., Bain, H. P., Boyd-Zaharias, J., Johnston, J., Folger, J., Fulton, B. D., & Nye, B. A. (1997). Using class size to reduce the equity gap. *Educational Leadership, 55*(4), 40-43.
- Allen, R. (2002). Big schools: The way we are. *Educational Leadership, 59*, 36-41.
- Alsbury, T. L., & Shaw, N. L. (2005). Policy implications for social justice in school district consolidation. *Leadership and Policy in Schools, 4*, 105-126.
- Andrews, M., Duncombe, W., & Yinger, J. (1999). Revisiting economies of size in American education: are we any closer to a consensus. *Economics of Education Review, 21*, 245-262.
- Arnold, M. (2004). *Guiding rural schools and districts: A research agenda*. Washington, DC: Institute of Education Sciences.
- Beck, L. G., & Murphy, J. (1999). Parental involvement in site-based management: Lessons from one site. *International Journal of Leadership in Education: Theory and Practice, 2*(2), 81-102.
- Berry, C. (2004). School inflation. *Education Next, 4*(4), 56-62.
- Borland, M. V., & Howsen, R. M. (2003). An examination of the effect of elementary school size on student academic achievement. *International Review of Education, 49*(5), 463-474.
- Bracey, G. W. (2001). Small schools, great strides. *Phi Delta Kappan, 82*(5), 413-414.
- Brownell, M. T., Bishop, A. M., & Sindelar, P. T. (2005). NCLB and the demand for highly qualified teachers: Challenges and solutions for rural schools. *Rural Special Education Quarterly, 24*(1), 9-15.

- Buckner, G. (2005). Full circle: A case study of the consolidation, closing and restoration, and reopening of Bernardsville Elementary School (North Carolina). *Dissertation Abstracts International*, 66(07A), 2447.
- Callahan, R. E. (1962). *Education and the cult of efficiency*. Chicago: The University of Chicago Press.
- Census, B. O. (2003). *United States Census Bureau*. Retrieved February 23, 2008, from <http://www.census.gov/prod/cen2000/phc-2-a.pdf>
- Census, B. O. (2004). *Quick Facts*. Retrieved March 10, 2006, from <http://quickfacts.census.gov/qfd/states/37/37183.html>
- Census, B. O. (2006a). *Quick Facts*. Retrieved February 15, 2008, from <http://quickfacts.census.gov/qfd/states/37/37103.html>
- Census, B. O. (2006b). *Quick Facts*. Retrieved February 15, 2008, from <http://quickfacts.census.gov/qfd/states/37/37011.html>
- Census, B. O. (2006c). *Quick Facts*. Retrieved February 15, 2008, from <http://quickfacts.census.gov/qfd/states/37/37115.html>
- Christensen, C., Aaron, S., & Clark, W. (2005). Can schools improve? *Phi Delta Kappan*, 86(7), 545-550.
- Cobb, C. T., & Suarez, T. (2000). Charter schools in North Carolina: Evaluation context and year-one overview. *High School Journal*, 83(4), 3-9.
- Cotton, K. (1996). School size, school climate, and student performance. Retrieved August 26, 2005, from <http://www.nwrel.org/scpd/sirs/10/c020.html>
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (Second ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Cubberley, E. P. (1927). The state the unit for education. *The Elementary School Journal*, 27(5), 344-355.
- Cushman, K. (2000). Shrink big schools for better learning. *Education Digest*, 65(6), 36-39.
- Cutshall, S. (2003). Is smaller better? When it comes to schools, size does matter. *Techniques: Connecting Education and Careers*, 78(3), 22.

- David, J. (1996). The who, what, and why of site-based management. *Educational Leadership*, 53(4), 4-9.
- David, J. L. (1989). Synthesis of research on school-based management. *Educational Leadership*, 46, 45-53.
- Dee, J. R., Henkin, A. B., & Pell, S. W. J. (2002). Support for innovation in site-based-management schools: Developing a climate for change. *Educational Research Quarterly*, 25(4), 36-49.
- Dessoff, A. (2004). Think small. *District Administration*, 40(9), 35-39.
- Dunne, F. (1977). Choosing smallness. In J. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 81-124). Boulder, CO: Westview Press.
- Flick, U. (2002). *An introduction to qualitative research* (Second ed.). London: Sage Publications.
- Fusarelli, L. D. (1999). Reinventing urban education in Texas: Charter schools, smaller schools and the new institutionalism. *Education and Urban Society*, 31(2), 214-224.
- Fusarelli, L. D. (2002). Charter schools: Implications for teachers and administrators. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 76(1), 20-24.
- Galles, G. M., & Sexton, R. L. (1995). Diseconomies of school district size. *The Journal of Social, Political, and Economic Studies*, 20(2), 241-245.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Hawthorne, IL: Aldine de Gruyter.
- Glatthorn, A. A. (1997). *The principal as curriculum leader: Shaping what is taught and tested*. Thousand Oaks, CA: Corwin Press, Inc.
- Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Goldring, E., & Smrekar, C. (2002). Magnet schools. *Clearing House*, 76(1), 13-15.
- Goodlad, J. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.
- Greene, J. P., & Winters, M. A. (2005). Five myths. *National Review*, 57, 49-51.

- Guthrie, J. W. (1979). Organizational scale and school success. *Educational Evaluation and Policy Analysis, 1*(1), 17-27.
- Hampel, R. L. (2002a). Historical perspectives on small schools. *Phi Delta Kappan, 83*(5), 357-363.
- Hampel, R. L. (2002b). The long road to small schools. *Education Digest, 67*(8), 15-20.
- Hannaway, J., & Kimball, K. (1998). *Big isn't always bad: School district size, poverty, and standards-based reform*. Washington, DC: Planning and Evaluation Service of the United States Department of Education.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany: State University of New York Press.
- Hausman, C., & Brown, P. M. (2002). Curricular and instructional differentiation in magnet schools: Market driven or institutionally entrenched? *Journal of Curriculum and Supervision, 17*(3), 256-277.
- Heller, D. A. (2004). *Teachers wanted: Attracting and retaining good teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Hendrie, C. (2003). Small schools hard to start, report finds. *Education Week, 22*(32), 1-2.
- Hendrie, C. (2005). Financial freedom. *Education Week, 24*(17), 26-27.
- Hill, S. E. K. (2004). Team leadership. In P. G. Northouse (Ed.), *Leadership: Theory and practice* (Third ed., pp. 203-234). Thousand Oaks, CA: Sage Publications.
- Holstein, J. A., & Gubrium, J. F. (Eds.). (2003). *Inside interviewing: New lenses, new concerns*. Thousand Oaks, CA: Sage Publications.
- Howley, C. B., & Eckman, J. M. (Eds.). (1997). *Sustainable small schools: A handbook for rural communities*. Charleston, SC: Clearinghouse on Rural Education and Small Schools.
- Huberman, A. M., & Miles, M. B. (Eds.). (2002). *The qualitative researcher's companion*. Thousand Oaks, CA: Sage Publications.
- Irmsher, K. (1997). *School size*. Retrieved August 25, 2005 from <http://eric.uoregon.edu/publications/digests/digest113.html>

- Johnson, K. A. (2002). The downside of small class policies. *Educational Leadership*, 59, 27-29.
- Kane, P. R. (2000). The difference between charter schools and charterlike schools. In D. Ravitch & J. P. Viteritti (Eds.), *Lessons from New York City schools* (pp. 65-87). Baltimore: Johns Hopkins University Press.
- Kaye, B. K., & Johnson, T. J. (1999). Research methodology: Taming the cyber frontier. *Social Science Computer Review*, 17(3), 323-337.
- Kennedy, M. (2001). Thinking small. *American School and University*, 74(1), 17-20.
- Kingsbury, A. (2005). Small classes, big headache. *U.S. News and World Report*, 138, 52.
- Klonsky, M. (2002). Small schools and teacher professional development. *ERIC Digest*, 1-8.
- Klonsky, M., & Ford, P. (1994). One urban solution: small schools. *Educational Leadership*, 51(8), 64-66.
- Klonsky, M., & Klonsky, S. (1999). Countering anonymity through small schools. *Educational Leadership*, 57(1), 38-41.
- Langdon, P. (2000). Students do better in small schools so why have we been making schools bigger. *American Enterprise*, 11(1), 22-25.
- Lawrence, B. K., Abramson, P., Bergsagel, V., Bingler, S., Diamond, B., Greene, T. J., et al. (2005). *Dollars and sense II: Lessons from good, cost-effective small schools*. Cincinnati: KnowledgeWorks Foundation.
- Lawrence, B. K., Bingler, S., Diamond, B. M., Hill, B., Hoffman, J. L., Howley, C. B., et al. (2002). *Dollars and sense: The cost effectiveness of small schools*. Cincinnati: Knowledge Works Foundation.
- Littky, D., & Grabelle, S. (2004). *The big picture: Education is everyone's business*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Lyson, T. A. (2002). What does a school mean to a community? Assessing the social and economic benefits of schools to rural villages in New York. *Journal of Research in Rural Education*, 17, 131-137.
- Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

- McLaughlin, M. J., Emblar, S., Hernandez, G., & Caron, E. (2005). No child left behind and students with disabilities in rural and small schools. *Rural Special Education Quarterly*, 24(1), 32-39.
- McRobbie, J. (2001). *School size considerations for safety and learning*. San Francisco: WestEd.
- Mitchell, S. (2000, Summer). Jack and the giant school. *The new rules: Exploring community, mobility, scale and trade*, 2(1), 12-18.
- Moore, D. P. (2005). A question of size. *Education*, 38(10), 10.
- Mosteller, F. (1995). The Tennessee study of class size in the early school grades. *Critical Issues for Children and Youth*, 5(2), 113-127.
- Murphy, V. (2004). Where everyone can overachieve. *Forbes*, 174(7), 80-84.
- Nathan, J. (2002). Small schools: the benefits of sharing. *Educational Leadership*, 59(5), 71-75.
- Nathan, J., & Febey, K. (2001). *Smaller, safer, saner, successful schools*. Humphrey Institute: University of Minnesota.
- NCDPI. (2000). *School size and its relationship to achievement and behavior*. Raleigh: North Carolina Department of Public Instruction.
- NCDPI. (2004). *North Carolina School Report Cards*. Retrieved March 7, 2006, from <http://www.ncschoolreportcard.org/src/distDetails.jsp?Year=2004-2005&pLEACode=920>
- NCES. (2004). *Digest of Education Statistics, 2004*. Retrieved December 21, 2005, from <http://nces.ed.gov/programs/digest/d04/index.asp>
- NCES. (2004, September 3). *Public elementary and secondary schools, by type of school: selected years, 1970-71 to 2002-03*. Retrieved September 3, 2006, from http://nces.ed.gov/programs/digest/d04/tables/dt04_092.asp
- NCES. (2005a, April 11). *Historical summary of public elementary and secondary school statistics: Selected years, 1869-70 to 2001-02*. Retrieved December 21, 2005, from http://nces.ed.gov/programs/digest/d04/tables/dt04_036.asp

- NCES. (2005b, April 11). *Number of public school districts and public and private elementary and secondary schools: Selected years, 1869-70 to 2002-03*. Retrieved December 21, 2005, from http://nces.ed.gov/programs/digest/d04/tables/dt04_085.asp
- NCES. (2005c, April 5). *Public and private elementary and secondary teachers, enrollment, and pupil to teacher ratios: Selected years, fall 1955 to fall 2014*. Retrieved December 21, 2005, from <http://nces.ed.gov/programs/digest/d04/tables/xls/tabn064.xls>
- NCES. (2005d, April 11). *Teachers, enrollment, and pupil/teacher ratios in public elementary and secondary schools, by state or jurisdiction: Fall 1997 to Fall 2002*. Retrieved December 21, 2005, from <http://nces.ed.gov/programs/digest/d04/tables/xls/tabn066.xls>
- O'Donoghue, T., & Punch, K. (Eds.). (2003). *Qualitative research in action: Doing and reflecting*. New York: RoutledgeFalmer.
- Ornstein, A. C. (1990). How big should schools and districts be? *Education Digest*, 56(2), 44-47.
- Parker, S. D. (2001). Rural 2000 and beyond. *Rural Special Education Quarterly*, 20(1/2), 43-52.
- Patterson, W. (2003). Breaking out of our boxes. *Phi Delta Kappan*, 84(8), 569-574.
- Raywid, M. A. (1998). Small schools: A reform that works. *Educational Leadership*, 55(4), 34-39.
- Raywid, M. A. (2002). The policy environments of small schools and schools-within-schools. *Educational Leadership*, 59(5), 47-51.
- Rebore, R. W. (2003). *A human relations approach to the practice of educational leadership*. Boston: Pearson Education, Inc.
- Richard, A. (2004). Teacher-quality rules uneven for rural states. *Education Week*, 23(43), 13.
- Robelen, E. W. (2000). Administration has big plans for small-schools initiative. *Education Week*, 19(22), 24-25.
- Roellke, C. (2003). Resource allocation in rural and small schools. *ERIC Digest*, 1-8.

- Rudestam, K. E., & Newton, R. R. (1992). *Surviving your dissertation: A comprehensive guide to content and process*. Newbury Park, CA: Sage Publications.
- Rydeen, J. E. (2004). Does size matter? *American School and University*, 77(1), 40.
- Schewel, S. M. (1982). Educating the country: Managerial reform and the promise of rural schools 1890-1980. *Dissertation Abstracts International*, 43(9), 137.
- Seal, K. R., & Harmon, H. L. (1995). Realities of rural school reform. *Phi Delta Kappan*, 77(2), 119-123.
- Sergiovanni, T. J. (1992). *Moral leadership: Getting to the heart of school improvement*. San Francisco: Jossey-Bass Publishers.
- Sher, J. P., & Tompkins, R. B. (1977). Economy, efficiency, and equality: The myths of rural school and district consolidation. In J. P. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 43-77). Boulder, CO: Westview Press.
- Silverman, J. (2006, August 22, 2006). *Once-popular, quiet backlash builds against small schools*. Retrieved August 22, 2006 from www.oregonlive.com/newsflash/regional/index.ssf?/base/news-16/1156118375150420.xml&storylist=orlocal
- Smith, P., Molnar, A., & Zahorik, J. (2003). Class-size reduction: a fresh look at the data. *Educational Leadership*, 61(1), 72-74.
- Stecher, B., Bohrnstedt, G., Kirst, M., McRobbie, J., & Williams, T. (2001). Class-size reduction in California: A story of hope, promise, and unintended consequences. *Phi Delta Kappan*, 82(9), 670-674.
- Stronge, J. H. (2002). *Qualities of effective teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Theobald, P. (1995). *Call school: Rural education in the Midwest to 1918*. Carbondale: Southern Illinois University Press.
- Theobald, P., & Nachtigal, P. (1995). Culture, community, and the promise of rural education. *Phi Delta Kappan*, 77(2), 132-135.
- Thorson, G. R., & Edmondson, J. (2000). *Making difficult times worse: The impact of per pupil funding formulas on rural Minnesota schools*. Mankato, MN: Center for Rural Policy and Development at Minnesota State University.

- Tyack, D. B. (1974). *The one best system: A history of American urban education*. Cambridge, MA: Harvard University Press.
- Viadero, D. (2001). Research: Smaller is better. *Education Week*, 21(13), 28-30.
- Votey, S. (2002). Getting help: Heading the small school. *Independent School*, 62(1), 57-62.
- Vulliamy, G., & Webb, R. (1995). The implementation of the National Curriculum in small - primary schools. *Educational Review*, 47(1), 25-42.
- Wasley, P. A. (2002). Small classes, small schools: The time is now. *Educational Leadership*, 59(5), 5-10.
- Wasley, P. A., & Lear, R. J. (2001). Small schools real gains. *Educational Leadership*, 58(6), 22-27.
- Whitaker, T. (2003). *What great principals do differently: Fifteen things that matter most*. Larchmont, NY: Eye On Education.
- Whittle, C. (2006). *Untangling education's Gordian knot*. Retrieved March 2, 2007, from <http://www.hoover.org/publications/ednext/3210466.html>
- Wygant, S., & Feld, K. (2000). *E-interviewers add human touch to web-based research*. Retrieved November 9, 2006, 2006, from http://www.quirks.com/articles/article_print.asp?arg_articleid=604
- Yin, R. K. (2003). *Case study research design and methods* (Third ed., Vol. 5). Thousand Oaks, CA: Sage Publications.
- Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003). Teaching practices for smaller classes. *Educational Leadership*, 61(1), 75-77.
- Zmuda, A. Kuklis, R., & Kline, E. (2004). *Transforming schools: Creating a culture of continuous improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Appendices

- Volunteering
 - Providing financial support
 - Providing awards and incentives to the students
 - Participating in school projects
 - Other
12. If a concern arises with a student, what are the steps taken in trying to resolve it?
Check all that apply.
- Student is sent to the office
 - Student meets with the guidance counselor
 - Parents are called
 - Parents meet with school personnel
 - Student is placed in in-school detention
 - Other
13. About how many new teachers do you have each year?
- Less than or equal to 2
 - More than 2 but less than or equal to 5
 - More than 5

The next four questions are open-ended and require space for answers.

14. What type(s) of funding does your school currently receive?
15. What characteristics of your school do you perceive as positive?
16. What characteristics make success more difficult at your school?
17. Where do you perceive your school to be in five years?
18. What factors do you contribute to the success of your school?

Appendix B

Interview Questions for Principals

1. How long have you been administrator at this site? Tell me about your job.
2. What is the background of the school? How long has it been in existence? What type of population do you serve?
3. What is the configuration of the faculty? For example, assistant principal? How many teachers per grade level? What about ancillary teachers such as art, music, physical education? Any others?
4. What is the schedule for the ancillary staff such as the art, music or physical education teacher?
5. Tell me about your staff. What opportunities are given for working together? Are you able to schedule planning sessions for your teachers?
6. What is the average class size? How does class size here compare to that of other schools in your district?
7. Talk about teacher recruitment and retention. What is your usual turnover rate for teachers? What type of mentor or support program is in place for the new teachers?
8. Talk about your parent involvement activities and participation. How do you think parents perceive the school?
9. Tell me about the involvement between school and community. In what ways has the community been helpful to the school? Is the school building ever used for community activities?
10. What funding resources do you have? Tell me a little about your budget.

11. What happens if a child is not successful? What type of interventions do you have in place?
12. What are some ways that the district administrators assist your school?
13. Overall, what do you feel are the positive characteristics of your school?
14. What are some of any negative aspects or characteristics that make your job more difficult?
15. Where do you see your school in five years?

Appendix C

**North Carolina State University
INFORMED CONSENT FORM for RESEARCH**

Title of Study: An Analysis of School Size: When Does a Small School Become Too Small?

Principal Investigator: Lyle C. Shaw

Faculty Sponsor: Dr. Lance D. Fusarelli

We are asking you to participate in a research study. The purpose of this study is to provide guidance to school districts as they wrestle with the trying to provide optimum school size for students as well as the district. Literature in many cases supports small schools but for the elementary level few studies have presented data concerning small student numbers and the correlation to success or failure of school initiatives and student learning. At what point does a school become too small to be efficiently successful in all areas including academic performance and organizational structures.

INFORMATION

If you agree to participate in this study, you will be asked to participate in an online survey concerning various aspects of your specific school and its efforts. This survey will take about fifteen minutes to complete. If your school is one of the targeted sites for the principal to be interviewed, then contact will be made after an initial letter of invitation is mailed. This face to face interview with the researcher traveling to your school could take up to two hours to complete. Transcripts of the interviews will be created and will be analyzed for patterns characterizing school successes. Your information will be valuable in assessing factors relating to elementary school size.

RISKS

There are not foreseeable risks. Finding time to either complete the survey or to be interviewed may be difficult. Hopefully, if these interviews can be done while students are not in session, there will be less stress and a greater opportunity to focus on the interview without interruptions.

BENEFITS

There are no direct benefits to the participants except the intrinsic knowledge that they have provided data to be used in looking at small school size. Ultimately, decisions to maintain a small school or to consolidate it into a larger entity may affect the participant.

CONFIDENTIALITY

The information in the study records will be kept strictly confidential. Data will be stored securely on the server collecting the data from the online survey. The interview transcripts and tapes will be erased at the conclusion of the study. Schools nor administrators will be identified by name **No reference will be made in oral or written reports which could link you to the study.**

COMPENSATION (if applicable)

Not applicable

EMERGENCY MEDICAL TREATMENT (if applicable)

Not applicable

CONTACT

If you have questions at any time about the study or the procedures, you may contact the researcher, Lyle Shaw. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. David Kaber, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7514, NCSU Campus (919/515-3086) or Mr. Matthew Ronning, Assistant Vice Chancellor, Research Administration, Box 7514, NCSU Campus (919/513-2148)

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed at your request.

CONSENT

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may withdraw at any time.”

Subject's signature _____ Date _____

Investigator's signature _____ Date _____

Appendix D

North Carolina State University
Institutional Review Board for the Use of Human Subjects in Research
SUBMISSION FOR NEW STUDIES

Title of Project: An Analysis of School Size: When Does a Small School Become Too Small?

Principal Investigator Lyle C. Shaw Department Educational Leadership & Policy Studies

Source of Funding (**required** information):

(if externally funded include sponsor name and university account number)

Campus Address (Box Number)

RANK: Faculty
 Student: Undergraduate; Masters; or PhD
 Other (specify): _____

As the principal investigator, my signature testifies that I have read and understood the University Policy and Procedures for the Use of Human Subjects in Research. I assure the Committee that all procedures performed under this project will be conducted exactly as outlined in the Proposal Narrative and that any modification to this protocol will be submitted to the Committee in the form of an amendment for its approval prior to implementation.

Principal Investigator:

Lyle C. Shaw _____
 (typed/printed name) (signature) (date)

*As the faculty sponsor, my signature testifies that I have reviewed this application thoroughly and will oversee the research in its entirety. I hereby acknowledge my role as the **principal investigator of record**.*

Faculty Sponsor:

Dr. Lance D. Fusarelli _____
 (typed/printed name) (signature) (date)

PLEASE COMPLETE IN DUPLICATE AND DELIVER, ALONG WITH A PROPOSAL NARRATIVE, TO:

Institutional Review Board, Box 7514, or email as an attachment to debra_paxton@ncsu.edu

For SPARCS office use only

Reviewer Decision (Expedited or Exempt Review)

Exempt Approved Approved pending modifications Table

Expedited Review Category: 1 2 3 4 5 6 7 8a 8b 8c 9

 Reviewer Name

Signature

Date

**North Carolina State University
Institutional Review Board for the Use of Human Subjects in Research
GUIDELINES FOR A PROPOSAL NARRATIVE**

In your narrative, address each of the topics outlined below. Every application for IRB review must contain a proposal narrative, and failure to follow these directions will result in delays in reviewing/processing the protocol.

A. INTRODUCTION

1. Briefly describe in lay language the purpose of the proposed research and why it is important. The purpose of this mixed-methods study is to provide guidance to school districts as they wrestle with the idea of providing optimum school size for both students and organizational structure. Literature in many cases supports small schools but for the elementary level few studies have presented data concerning small student numbers and the correlation to success or failure of school initiatives and student learning. Are there limitations inherent in small schools that make success more difficult to attain? If so, at what point does a school become too small to be effective and efficient? This study seeks an answer to these questions.

2. If student research, indicate whether for a course, thesis, dissertation, or independent research.
dissertation

B. SUBJECT POPULATION

1. How many subjects will be involved in the research? 143 elementary school principals
2. Describe how subjects will be recruited. Please provide the IRB with any recruitment materials that will be used. Principals who are currently school administrators of one of the eligible schools will be invited to complete an online survey. Invitations explaining the research as well as procedures for accessing the weblink will be mailed through regular postal service. The address for accessing the survey is www.scsnc.org/lshaw/survey. The twelve principals invited to participate in the interview portion of the study are within the pool of 143 school principals but these participants will be invited by a separate mailing and followed up with a phone call requesting their participation. From the twelve potential respondents, only six will be interviewed by the researcher. Soliciting twelve offers a greater pool for the targeted number of six interviews. The original invitation will explain the study and the phone call will assist with eliciting a positive response to participate.
3. List specific eligibility requirements for subjects (or describe screening procedures), including those criteria that would exclude otherwise acceptable subjects. Schools chosen for the online survey portion consist of 143 public schools in North Carolina having a K-5 grade configuration and student populations of 300 students or less. Some sites also house pre-kindergarten students but these are not included in the total student enrollment for the school. The face-to-face interviews consist of principals at six public schools in North Carolina with K-5 grade configurations and student numbers less than 130. There are actually twelve sites with student numbers less than 130 which have K-5 grade configurations and operate under the Public Schools of North Carolina. Each will be invited to participate. However, only six sites will be chosen from those sites agreeing to participate. The selection will be based on diversity of geographical location in order to have more varied interview sampling.

3. Explain any sampling procedure that might exclude specific populations. Charter schools, magnet schools, and those schools operating with populations of students having specific disabilities are excluded. There are only a few having comparable grade spans and configurations as the public schools selected in the study. Charter schools operate under different guidelines and administrative structures may or may not be aligned with regular public schools. Magnet schools and those schools specifically designed for students with disabilities offer less diversity of population in the academic area. Public schools on the other hand have multiple types of students.

5. Disclose any relationship between researcher and subjects - such as, teacher/student; employer/employee. In my current position as Director of Elementary Education for Scotland County Schools, I work with both teachers and principals. There are two schools in my school district included in the survey portion of the study. Both of these sites have student populations greater than the student enrollment size of the twelve smallest schools invited to participate in the interview. Therefore, neither site will be involved in the interview phase of the study. The online survey will not request the school's name so the researcher will not be able to identify the two schools if they choose to respond to the survey questions.

6. Check any vulnerable populations included in study: None
 - minors (under age 18) - if so, have you included a line on the consent form for the parent/guardian signature
 - fetuses
 - pregnant women
 - persons with mental, psychiatric or emotional disabilities
 - persons with physical disabilities
 - economically or educationally disadvantaged
 - prisoners
 - elderly
 - students from a class taught by principal investigator
 - other vulnerable population.

If any of the above are used, state the necessity for doing so. Please indicate the approximate age range of the minors to be involved.

C. PROCEDURES TO BE FOLLOWED

1. In lay language, describe completely all procedures to be followed during the course of the experimentation. Provide sufficient detail so that the Committee is able to assess potential risks to human subjects. 143 schools in the sample population for the surveys will be invited by letter to participate. This letter sent through the regular mail will provide information concerning the study and directions for accessing the online survey using the website address stated in the letter. The survey is to be completed by the principal at his or her convenience and submitted. Once sufficient time for as many respondents as possible, data will be pulled from the server and analyzed. Respondents will not be identified by name nor will their site. It is hoped that the person responding to the survey will be the principal at a specific site but there is nothing prohibiting someone else at a site to answer the survey questions. However, there are categories for school size based on student numbers so that patterns can be determined within specific

categories. The categories are broad enough in numerical span so that a particular school cannot be discerned from the information given. Once a response has been submitted, an automatic thank you for participating message will appear so the respondent knows the submission was successful.

To provide more in-depth information concerning small elementary schools, twelve principals at those sites with the smallest student enrollment will be considered as interviewees. In order to solicit participation, these twelve principals will receive a letter through the mail and also a follow-up phone call. From those willing to be interviewed, the researcher will choose six sites to visit. Once dates and times have been secured, confirmation will be made through email. Reminders to participate will be sent to those schools that have not responded to the online survey. Thank you notes will be sent to all respondents regardless of whether they submitted the online survey or not.

2. How much time will be required of each subject? The online survey can be completed in less than fifteen minutes. The face to face interviews may take up to two hours. The interviews will occur on the school site so no travel is involved for the subjects.

D. POTENTIAL RISKS

1. State the potential risks (physical, psychological, financial, social, legal or other) connected with the proposed procedures and explain the steps taken to minimize these risks. None noted.
2. Will there be a request for information which subjects might consider to be personal or sensitive (e.g. private behavior, economic status, sexual issues, religious beliefs, or other matters that if made public might impair their self-esteem or reputation or could reasonably place the subjects at risk of criminal or civil liability)? No
3. Could any of the study procedures produce stress or anxiety, or be considered offensive, threatening, or degrading? No
4. How will data be recorded and stored?
 - a. How will identifiers be used in study notes and other materials? No identifiers are needed for the survey. However, schools will be identified by school name and not by principal name in the narrative describing the sites visited. The online survey will be tracked merely to ascertain if a school has responded or not in order to secure a higher response rate.
 - b. How will reports will be written, in aggregate terms, or will individual responses be described? The survey results will be described in aggregate terms unless an individual response to the open-ended questions within the survey will enhance the analysis. Individual responses will be necessary in analyzing the second portion of the study utilizing transcripts of the interviews and field notes.
5. If audio or videotaping is done how will the tapes be stored and how/when will the tapes be destroyed at the conclusion of the study. Audiotapes will be used for the interview portion of the study. These will be transcribed and destroyed after the study has concluded. Transcripts will also be shredded upon conclusion of the study. Once the window for completion of the survey has passed, there will be no more access. The data from the survey will also be shredded and deleted from the server upon study completion.

6. Is there any deception of the human subjects involved in this study? If yes, please describe why it is necessary and describe the debriefing procedures that have been arranged.
No

E. POTENTIAL BENEFITS

This does not include any form of compensation for participation.

1. What, if any, direct benefit is to be gained by the subject? If no direct benefit is expected, but indirect benefit may be expected (knowledge may be gained that could help others), please explain.
Knowledge may be gained which will assist in determining if their school is too small to be sustainable. It may offer a forum for small schools to voice both challenges and successes. Many school districts face tough decisions as to whether to close these small entities in order to provide optimum circumstances for student success.

F. COMPENSATION Not applicable

1. Explain compensation provisions if the subject withdraws prior to completion of the study.
2. If class credit will be given, list the amount and alternative ways to earn the same amount of credit.

G COLLABORATORS

1. If you anticipate that additional investigators (other than those named on **Cover Page**) may be involved in this research, list them here indicating their institution, department and phone number.
Not applicable
2. Will anyone besides the PI or the research team have access to the data (including completed surveys) from the moment they are collected until they are destroyed
The Director of Technology for Scotland County School district will gather the online survey data. He will have access to the responses as they arrive on the server. An outside reader will have access to the transcriptions of the interviews in order to have another view in seeking patterns and ideas from the data.

H. ADDITIONAL INFORMATION

1. If a questionnaire, survey or interview instrument is to be used, attach a copy to this proposal.
2. Attach a copy of the informed consent form to this proposal.
3. Please provide any additional materials that may aid the IRB in making its decision.