The Pennsylvania State University

The Graduate School

College of Education

THE INFLUENCE OF SMALL SCHOOLS HIGH SCHOOL REDESIGN ON TEACHERS' COLLECTIVE EFFICACY BELIEFS

A Dissertation in

Educational Administration

by

Amy A. Meisinger

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

May 2009

The dissertation of Amy A. Meisinger was reviewed and approved* by the following:

Nona A. Prestine
Professor of Education
Dissertation Advisor
Chair of Committee

Preston C. Green III
Professor of Educational Leadership

William T. Hartman
Professor of Educational Leadership
Education Leadership Program Chair

Edgar P. Yoder
Professor of Agricultural and Extension Education

*Signatures are on file in the Graduate School.

ABSTRACT

This study investigated the effects of a widely advocated organizational reform for secondary schools, the small school model, on the collective efficacy beliefs of teachers. Using social cognitive theory, a theoretical model was developed linking the communal structure of the small schools model to the collective efficacy beliefs of teachers. The case study was conducted at a suburban high school in the northeastern United States which operated under a grade-level house system. Research was gathered through administration of a 21-item survey and extensive personal interviews. Initial survey data indicated a strong sense of collective efficacy beliefs which was confirmed through the interview process. Themes that emerged as contributing factors to the collective efficacy beliefs included: house design, professional learning communities (pods), leadership/planning, faculty disposition, advisory structure, physical plant/facility, community, and student body. Results indicated the small schools model is linked to high collective efficacy beliefs. The house system provided the initial structural framework for downsizing; however, it was the summative efforts of several factors that produced the collaborative culture and positive climate embodying the highly efficacious organization.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter 1

Introduction

Educators and policymakers are scrutinizing the existing institutional metaphors that characterize our high schools; the “shopping mall”, “assembly-line”, and “factory” models are being challenged in response to the current state of our schools. Large comprehensive high schools have been criticized for their impersonal structures, fragmented curriculums, segregated and unequal program options, and inability to respond effectively to various student needs (Lee, Bryk, & Smith, 1993). Thus, national and state agendas have increasingly turned toward downsizing as a fundamental notion driving high school reform initiatives. As George and McEwin (1999) reflected, secondary education in the United States has undergone a great deal of change in the last half of the 20th century; the first wave transformed lower secondary education (middle schools), and now profound change has reached the high school level. It is in this arena ripe for change that reform-minded educators have forwarded their ideas for restructuring and downsizing the comprehensive high school.

The small school models are designed to break the large comprehensive high school into two or more subunits within the larger existing school facility. There is a strong and growing belief, grounded in research, that for contemporary America the smaller environment offers a more productive, safer, more secure learning environment for both students and teachers. The restructuring movement suggests a fundamental shift toward a communal organizational model (Lee & Smith, 1995). Supovitz (2002) reported, “many reforms today, including the small schools movement, are based on the theory that organizing schools into smaller educational environments will help to build

more collaborative and collegial communities of teachers" (p. 1591). Communal organizations typically emphasize shared responsibility for work, shared commitment to a common set of goals, lateral communication, and expectations and behavior framed by greater personalization and individual discretion (Lee & Smith, 1995). Through these smaller group structures, reformers believe teachers can develop more collaborative and collegial communities, called communities of instructional practice. In communities of instructional practice, teachers not only maximize their collective knowledge and skills but also facilitate their learning of new knowledge and skills because adult learning is as much, if not more, of a group activity than it is an individual act (Supovitz, 2002). Thus, reorganizing high schools into smaller communities of practice may inherently provide a collegial and communal support for the work of teaching and learning (Oxley, 1997).

Considerable efforts have been undertaken to assess the relative effects of school size in various arenas. Lee and Smith (1995, 1997) identified two overarching strands in school size research, one sociological, the other economic. The sociological strand examined the influence of school size on organizational properties, particularly the bureaucratic and communal structures. The economic strand dealt with the efficiency and cost associated with school size. Examining school size through these lenses produces inconsistent conclusions regarding what might constitute the ideal school size. The efficiency/economic argument suggests benefits from increased size, whereas the organizational/sociological argument favors smaller schools. As a result, educators have explored high school models that replicate the qualities and advantages of a small school, while maintaining financial efficiency and fiscal responsibility. Ultimately, several downsizing models have emerged that utilize the existing physical structures built for

large comprehensive high schools, including: house plans, schools-within-schools, career academies, and clusters.

The critical aim of these downsizing initiatives is to enhance student achievement by creating more socially supportive and academically cohesive school environments (Oxley, 1997). Again, research connecting small school initiatives to student achievement, student and teacher attitudes and school climate has produced at best mixed results. Lee, Bryk, and Smith (1993) summarized the previous research on school size and concluded that the effects on students were only indirect. In other words, size could influence the economic, academic, or social organization of high schools, and in turn, these organizational characteristics could have consequences for students.

Essential in the social organization of any successful school, big or small, is the presence of an effective teaching community (Cotton, 1996b). As Lee & Smith (1996) described, "Education revolves around the work done by teachers. The position of teachers is pivotal in accomplishing the main work of schools: teaching and learning" (p. 104). A sense of community among teachers is regarded as an ingredient that may contribute to the improvement of schools (Louis, Marks, & Kruse, 1996). Furthermore, there are several characteristics of teachers' professional lives (i.e. planning, persistence, and high expectations) which influence student learning. One of the more recently emerging constructs to address this phenomenon is efficacy. Efficacy beliefs are future-oriented judgments about capabilities to organize and execute the courses of action required to produce given attainments in specific situations or contexts (Bandura, 1997). Efficacy belief constructs are classified according to the individual capability (self-efficacy) or group capability (collective efficacy), the distinction being the unit of

analysis. Collective efficacy beliefs emphasize that teachers have not only self-referent efficacy perceptions but also beliefs about the conjoint capability of a school faculty and these group-referent perceptions reflect the emergent organizational property known as collective efficacy (Goddard, Hoy, & Hoy, 2004). Collective efficacy, in the educational arena, is the perceptions of teachers in a specific school that the faculty as a whole can execute courses of action required to positively affect student achievement (Goddard & Skrla, 2006).

One of the most compelling reasons for the recent development of interest in perceived collective efficacy is the probable link between collective efficacy beliefs and group goal attainment (Goddard, Hoy, & Hoy, 2004). Smaller schools by their nature are more conducive to the creation of a collaborative environment in which teachers know and trust each other, participate in a free exchange of ideas, collectively focus on student learning, and share a sense of purpose (Cotton, 1996b). This nexus of teacher collaboration and collective efficacy may come together with the small school models to catapult the high school reform movement. It is the hope of educators and policymakers alike that the small school models will indeed offer a fertile ground for restructuring our high schools, one that provides for an effective teaching community through communities of practice and improved collective efficacy beliefs.

Conceptual Framework

Perceived collective efficacy is a construct derived from social cognitive theory that expands Bandura's (1997) self-efficacy formulation to the organizational level. Viewed as a group-level attribute, collective efficacy is more than merely the sum of the individual efficacies, but instead reflects a group's shared belief in its conjoint

capabilities to organize and execute course of action required to produce given levels of attainments (Goddard, Hoy, & Hoy, 2000). This perspective posits that the stronger an organization's collective efficacy beliefs, the more likely its members are to put forth the sustained effort and persistence required to attain desired goals.

A fundamental assumption of social cognitive theory involves the choices that individuals and collective groups make through the exercise of agency (Goddard, Hoy, & Hoy, 2004). Agency concerns the way that people exercise some level of control over their own lives. When extended to the group level, agency is reflected in the collective pursuit of specific attainments or courses of action. When groups believe themselves capable of reaching specific attainments, they are more likely to approach those goals with the creativity, effort, and persistence required to attain success (Goddard & Skrla, 2006). Thus, the exercise of agency is strongly influenced by the strength of collective efficacy beliefs (Goddard & Skrla, 2006).

Bandura (1997) postulated four sources of efficacy information, which are also fundamental in the development of collective teacher efficacy: mastery experience, vicarious experience, social persuasion, and affective state. Among these, the strongest source of efficacy information is that obtained through *mastery experience*. Teachers as a group experience successes and failures. The perception that a performance has been successful tends to raise efficacy beliefs, contributing to the expectation that performance will be proficient in the future; while perception that performance has been a failure tends to lower efficacy beliefs contributing to the expectation that future performances will also be ineffective (Goddard, Hoy, & Hoy, 2004). If success is frequent and too easy, however, failure is likely to produce discouragement. A resilient sense of collective

efficacy requires experience in overcoming difficulties through persistent effort, as mastery experience is defined.

Secondly, *vicarious experience* involves indirect experiences as the source of information about collective efficacy beliefs. Organizations learn by observing other organizations, they listen to stories about achievements and success. Borrowing from other organizations is a form of vicarious organizational learning which can be as effective as firsthand learning (Huber, 1996). A familiar example of observational learning is the tendency of schools to replicate educational programs that have succeeded elsewhere (Goddard, LoGerfo, & Hoy, 2004). *Social persuasion* is another means of strengthening a faculty's conviction that they have the capabilities to achieve their goals. Talks, workshops, professional development opportunities, and feedback about achievement can influence teachers (Goddard, Hoy, & Hoy, 2000). Although verbal persuasion alone is not likely to compel profound organizational change, when coupled with models of success and positive direct experience, it can influence the collective efficacy beliefs of a faculty (Goddard, Hoy, & Hoy, 2004). Social persuasion can also occur when a strong leader (principal, superintendent) successfully persuades organizational members of their collective capabilities. Thus, persuasion can encourage group members to innovate and overcome challenges. Lastly, *affective states* may also influence collective efficacy beliefs. The affective state of the organization plays a role in influencing the mood of the school. Efficacious organizations can tolerate pressure and crises and continue to function without severe negative consequences; in fact, they learn how to adapt and cope with disruptive forces (Goddard, Hoy, & Hoy, 2000). The

affective state of an organization has much to do with how the organization interprets challenges and responds to them.

Although each of the four major influences on collective efficacy is important, they do not in themselves determine collective efficacy beliefs. The cognitive processing and interpretation of this information are critical. According to Bandura (1997), "changes in perceived efficacy result from cognitive processing of the diagnostic information that performances convey about capability rather than the performances per se" (p. 81). In the educational context, Goddard, Hoy, and Hoy (2000) cite two key elements in the development of collective teaching efficacy: analysis of the teaching task and assessment of teaching competence. *Task analysis* refers to perceptions of the constraints and opportunities inherent in the task at hand (Goddard, 2002). Essentially, teachers assess what will be required for a specific teaching task at the individual and school level. On the school level, this involves inferences about the challenges of teaching in that school and the necessary qualities of being a successful teacher at the specific school. Factors that characterize the task include: the abilities and motivations of students, the availability of instructional materials, the presence of community resources, and the appropriateness of the school's facilities (Goddard, Hoy, & Hoy, 2000). Thus, teachers analyze what constitutes successful teaching in their school, what barriers or limitations must be overcome, and what resources are available to achieve success.

Assessment of teaching competence consists of judgments about the capabilities that a faculty brings to a given teaching situation (Goddard, 2004). At the school level, the analysis of competence produces inferences about the faculty's teaching skills, methods, training, and expertise. Ultimately, task analysis and assessment of group

competency occur simultaneously and interact as collective efficacy emerges (Goddard, Hoy, & Hoy, 2000). Goddard, Hoy, and Hoy (2000) summarized the conceptual underpinnings of collective efficacy in the following way:

> In sum, the major influences on collective teacher efficacy are assumed to be the attributional analysis and interpretation of the four sources of information – mastery experience, vicarious experience, social persuasion, and affective state. In these processes, the organization focuses its attention on two related domains: the teaching task and teaching competence. Both domains are assessed in terms of whether the organization has the capacities to succeed in teaching students. The interactions of these assessments lead to the shaping of collective teacher efficacy in a school (pp. 485-486).

The notion of collective efficacy provides a powerful framework to examine teacher collaboration and the communal properties that the small school models present (see Figure1.1).

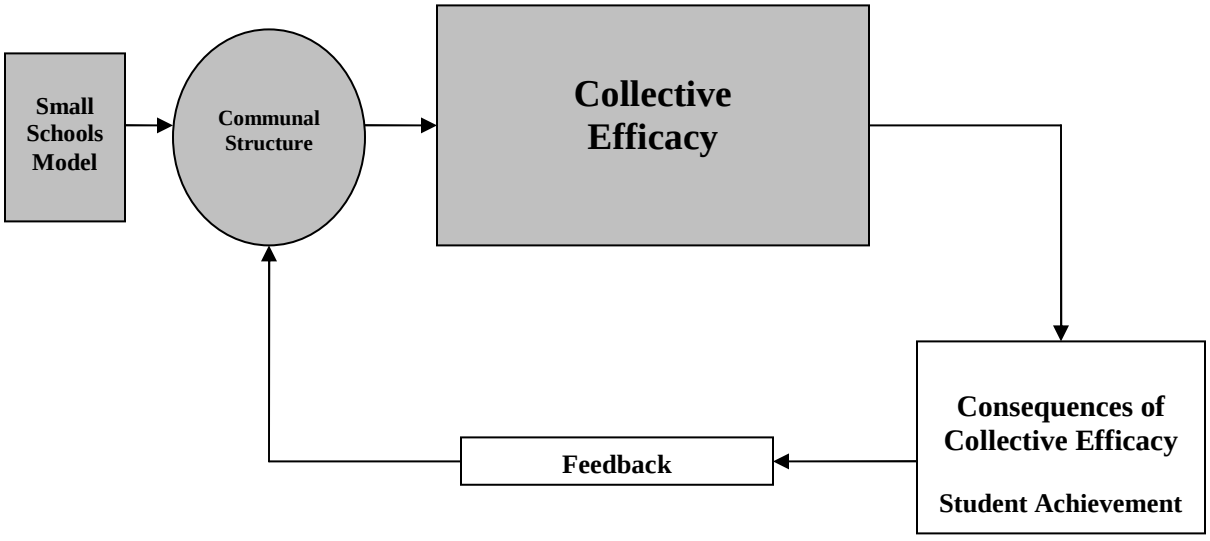

FIGURE 1.1. Proposed Small Schools Collective Teacher Efficacy Cycle

Statement of the Problem and Research Questions

The overall purpose of this research was to explore any linkages between the communal nature of the small school model for high schools and the collective efficacy beliefs of teachers, as depicted in the shaded portion of Figure 1.1. More specifically, this study investigated the effects of a widely advocated organizational reform for secondary schools, the small school model, on the collective efficacy beliefs of teachers as experienced by the participants themselves. Research questions addressed in this study included:

In general, were there any linkages between the small school model and teachers' collective efficacy beliefs?

- What contextual factors prompted the shift to the small school model and how was the plan implemented?
- What structural elements, factors, or processes in the small school design are perceived to most strongly influence (promote/hinder) teachers' collective efficacy beliefs? Why?
- In what ways does the small school model contribute to or detract from the primary sources of collective efficacy beliefs: mastery experience, vicarious experience, social persuasion, and affective states? Why?

Significance of Study

One of the great challenges in educational research is to learn how school organizations contribute to students' academic success. Bandura (1997, 2001) asserted that one powerful construct that varies greatly among schools and that is systematically associated with student achievement is the collective efficacy beliefs of a school's

faculty. Further research has supported the strong connection between collective teacher efficacy and student achievement (Goddard & Skrla, 2006; Goddard, Hoy, Sweetland, & Smith, 2002; Goddard, Hoy, & Hoy, 2000). Independent findings suggest that teachers' sense of collective efficacy exerts significant influence on student achievement by promoting teaching that enhances learning. Goddard and Skrla (2006) described: "A robust sense of collective efficacy fosters student achievement by creating a school culture characterized by a norm of, and an expectation for, sustained effort and resiliency in the pursuit of school goals for student growth and development, particularly academic achievement" (p. 221). Therefore, the link between collective efficacy beliefs and student achievement provides a compelling framework in which to investigate the small school movement toward a more collaborative organizational model.

Additional significance for the study of small schools and collective efficacy beliefs comes from the increased emphasis and demand for accountability. Many of the high school reform initiatives of the past twenty years have evolved from the standards-based accountability, and the more current wave of reforms have resulted from the assessment-based accountability (Carnoy, Elmore, & Siskin, 2003). Politicians hope that greater accountability will translate into increased student performance. Most recently, the demands of the No Child Left Behind Act (2002) have held schools accountable for student achievement at the group level. Schools and school districts are being held collectively responsible for student performance, and as a result, collective efficacy again surfaces as a powerful construct. Schools are grappling with various reform strategies in an effort to raise student achievement while simultaneously addressing the new group

accountability systems; as such collective efficacy provides a framework to evaluate school-effects questions on reform efforts.

Carnoy, Elmore, & Siskin (2003) identified high schools as the key institution in the schooling process as they are the "make or break" point for students. In light of this increased accountability, high school reform efforts have manifested themselves through various restructuring models as a means of raising student achievement. Downsizing, as presented in the SWS model, may be necessary for schools' to effectively initiate the changes essential to improvement, but it provides no guarantee that other changes or improvement will necessarily follow (Raywid, 1995). Visher, Teitelbaum and Emanuel (1999) write:

> Researchers who have studied small schools have stressed that reducing school size alone does not necessarily lead to improved student outcomes. Instead, they have concluded that school size should be seen as having an indirect effect on student learning…school size acts as a facilitating factor for other desirable practices. In other words, school characteristics that tend to promote increased student learning – such as collegiality among teachers personalized student-teacher relationships, and less differentiation of instruction by ability – are simply easier to implement in small schools. (p. 38)

While considerable data exist on outcomes associated with small schools, much less evidence is available about outcomes associated with specific small school designs (Cotton, 1996). This can best be attributed to the fact that many small school models are relatively new reform initiatives. As research continues to investigate the academic and social benefits of small-scale schooling, and as more districts embrace the notion of

downsizing through the various models, a need arises for empirical research that specifically examines these outcomes.

This research examined the high school restructuring initiative, small school models, through the framework of collective teacher efficacy. In an arena of high stakes accountability, collective efficacy provides a powerful construct for identifying the characteristics of effective schools that positively impact student achievement. Ultimately the scope of this study is limited to the direct impact of the small school redesign on collective teacher efficacy, given the power of collective efficacy beliefs to influence the outcomes of organized activity and student achievement.

Chapter 2

Review of Related Literature

School Size

Historical Context of School Size Debate

Discussions about school size have been ongoing for over a century, more recently the debate has intensified within the context of the broader educational reform agenda (Ready, Lee, & Welner, 1990). Most recent discussions advocate making high schools smaller than they are; however, there is little agreement as to evaluation mechanisms for the outcomes of school size. This in turn refuels the debates around the ideal size of a school and the inherent benefits of both large and small schools. Together history and geography have played a role in this continuing dialogue around the optimal size of a school. Indeed, the rise of urban America and the decline of rural America in the early twentieth century stimulated the growth of large schools (Krysiak & DiBella, 25). In his influential book, *The American High School Today: A First Report to Interested Citizens* (1959), Contant purported that American high schools needed to grow in size if they were to provide a truly diversified curriculum (Duke & Trautvetter, 3). Contant, then president of Harvard, became a major influence on school size in the twentieth century. As a result of his work as well as the rise and explosion of suburbia, the number of secondary schools in the United States declined from 27,011 to 23,389 between 1967 and 1984 (Duke & Trautvetter, 3). Although fewer in number, these larger high schools came to be known as the comprehensive high school as we know it today.

The groundwork for small school reform can be traced back to the work of the Coalition of Essential Schools (CES) and Theodore Sizer's study of high schools,

specifically, *Horaces's Compromise* (1984) that addressed concerns centering on personalization, school size, instruction and assessment. Many viewed Sizer's work as a response to the National Commission on Excellence in Education, *A Nation at Risk* (1983) which shook the nation's confidence in public education and produced a flurry of reform responses. Various models for comprehensive high school reform soon began to emerge. In 1996, the National Association of Secondary School Principals, in collaboration with the Carnegie Foundation for the Advancement of Teaching, issued *Breaking Ranks: Changing an American Institution*, a report envisioning the high school of the 21st century. One of the six main themes addressed in this report, was increased personalization through restructuring of the high school into units of no more than 600 students. Similar themes were echoed in the Annenberg Foundation's commitment of $500 million and the Bill & Melinda Gates Foundation's contribution of $250 million for the purposes of transforming the American high school by shifting the comprehensive school into smaller learning communities (SRI, 2003). Grants were distributed nationwide to schools and research centers committed to such efforts. More recently, the No Child Left Behind Act (2002) and the standards movement have raised the awareness for comprehensive high school reform through increased accountability measures. Furthermore, state initiatives like Pennsylvania's Project 720, offer grants to schools that participate in the high school reform agenda which emphasizes replacement of the large comprehensive high school structure with smaller schools and/or learning environments. Collectively, these national and state education agendas have created the resurgence of school size as an essential component in the high school reform initiative.

Research Strands Underlying School Size

Enrollment size is an important ecological feature of any educational organization (Ready, Lee, & Welner, 1990). In an essay locating school size in a larger organizational context, Lee (2000) identified two strands in school size research, specifically as related to high schools. The first strand was sociological in nature and examined the influence of school size on organizational properties, particularly the bureaucratic and communal structures. The second strand, focused on the economic perspective, dealt with the efficiency and cost associated with school size. Examining school size through these strands produces inconsistent conclusions regarding the ideal school size. The efficiency argument suggests benefits from increased size, whereas the organizational argument favors smaller schools.

Organizational Structure

The structure of an organization refers to the relationships between members around its technical core of work (Lee & Smith, 1995). In defining schools there are two contrasting organizational forms which can be applied. The forms are based on opposite assumptions about knowledge, learning, and teaching: the *bureaucratic* form, on a routine, clear and stable structure, and the *communal* form, on a non-routine core (Lee & Smith, 1995). The bureaucratic perspective presents schools as "formal organizations," whereas the communal perspective views schools as "small societies" (Lee, Bryk, & Smith, 1993).

Bureaucratic organizations characteristically include a top-down hierarchy for decision making with specialized and differentiated work roles. As Lee, Bryk, & Smith (1993) described:

> From the bureaucratic perspective, schools are characterized by a functional division of adult labor into specialized tasks; teaching roles defined by subject matter and types of students; an emphasis on social interactions that are rule governed, are affectively neutral, and have limited individual discretion; and a form of authority that is attached to the role within the organization rather than to the person occupying the role. (p. 178)

Schools that fall into this organizational structure break down instruction into a curriculum that is composed of discrete subjects. Teaching is viewed as imparting knowledge to students in an organized manner. Learning is assessed by measuring mastery of subject matter and students are tracked in a manner that matches their ability and interest to the subject matter. It is evident that the organization of instruction into departments and tracks is consistent with the bureaucratic model.

The communal model, on the other hand, emphasizes social relationships at its core with tasks being less certain and conditions more changeable and unpredictable. Lee & Smith (1995) reported, "these organizations typically emphasize shared commitment to a common set of goals, lateral communication and power in decision making, and expectations and behavior framed by greater personalization and individual discretion" (p. 178). In schools of this model, knowledge is seen as multidimensional and interdisciplinary. Teaching is responsive to students' individual needs and interests and is built on problem solving and critical thinking. Assessment is much more flexible and less standardized. Schools thriving in this structure utilize flexible scheduling, cooperative learning, and mixed-ability classes.

Each structure presents a drastically different vision of a "good school." These alternative forms of teaching and learning are well established in American education and have provided the underpinnings for theoretical debates about the direction of school reform. The comprehensive high school, as we know it today, maintains a structure that is clearly bureaucratic in nature. Basic sociological theory suggests that as an organization grows, human interactions and ties become more formal, generating a bureaucratic structure that is less personal (Weber, 1947). These structures, in turn, can inhibit communal organization (Bryk & Driscoll, 1988). Recent reform efforts have begun to question the traditional system in hopes of a system that addresses the current issues in education. The bureaucratic form still constitutes the "tradition" against which current structural reform efforts are targeted, including the call to restructure the American high school (Lee & Smith, 1995). Thus, efforts to downsize schools suggest a fundamental shift from the bureaucratic model toward a more communal organizational model.

Economy of Scale

The second strand for examining school size addressed the economic perspective of economies of scale. This stream of research focused on the potential for increased savings through reduced redundancy and increased resource strength as schools increase in size (Lee & Smith, 1997). When considering efficiency in a service-production organization, increasing the numbers of persons served can generate greater efficiency under two criteria (Buzacott, 1982).

First, increasing the number of recipients maximizes the efficient delivery of a given service. For example, if one goal of a high school is to provide a curriculum

tailored to a variety of levels (i.e., AP, honors, college prep, academic), then more students would help maximize the delivery of this instruction by increasing the numbers of students of similar ability. Meeting these goals effectively means that the school must have enough students to sustain separate programs or classes. Other such examples apply to curriculum goals targeted to different student interests, special needs, or any other selection criteria. In general, as the number of students with common needs increases, school can create more specialized programs.

Second, is the notion of physical resources. Supplies and materials needed to deliver services are more economically obtained through larger purchases (Buzacott, 1982). Applied to the educational arena, if the cost of supplies (such as paper) is reduced when purchased in larger quantities and if operational costs (such as electricity or heat) can be sustained at a relatively consistentcy, then spreading the lower per-pupil cost over a larger base reduces overall spending on core costs. Following this logic, the savings accrued from costs spread over a larger pupil base could be used to expand academic offerings and student services. Overall, the economy of scale argument purports increased resources, improved program specialization, or both.

Academic Organization

These research strands of organizational structure and economy of scale offered differing perspectives on school size and academic organization. Inherent to these ideas is the concept of program specialization. In principle, larger schools have more students with similar needs and thus are better able to create specialized programs to address student needs. In contrast, small school must focus resources on core programs, with marginal students (those at either of the ability spectrum) excluded or absorbed into

programs that may not meet their needs (Monk & Haller, 1993). On the other hand, Lee& Bryk (1988, 1989) concluded that smaller school size is beneficial for students, by providing a more constrained curriculum in which virtually all students follow the same course of study which in turn produced both higher average achievement and a more equitable distribution of achievement. What is the answer to increased specialization? The comprehensive high school is the model for specialization, offering a diverse program to cater to individual student needs, while the smaller school presents an alternate perspective, one that focuses on communal aspects of learning and views specialization differently. This has continued to motivate empirical work on curriculum organization and academic outcomes (Lee, Bryk & Smith, 1993; Lee & Smith, 1995, 1996, 1997).

In an effort to provide some of the first empirical data on the effects of smaller, communally structured schools, Lee and Smith (1995), through sponsorship by the U. S. Department of Education and the Center on Organization and Restructuring of Schools at the University of Wisconsin-Madison, designed a study that assessed student achievement and engagement in schools whose practices were consistent with the school-restructuring movement. Using data on a sample of almost 12,000 sophomores in 830 different high schools, researchers evaluated restructuring effects on students' achievement in four subject areas and the social distribution of those gains. Multiple criteria were established to identify and operationalize those practices that were classified as restructuring measures. School size was also evaluated as an independent structural feature, and results were quite favorable. The final report may be best summarized:

> Structures such as those collected here under the rubric "restructuring practices" make a difference in student achievement and engagement when they support personal and sustained connections between students and adults in the school setting, and when they facilitate the sharing of knowledge about students as individuals and learners (Lee & Smith, 1995, p.263).

Indeed, they found that students in schools with restructuring practices demonstrated more learning, providing empirical support for reform efforts that would move schools toward a communal organizational form and away from the bureaucratic form that has characterized the comprehensive high school for over a century.

Economies of scale implies that greater size results in an economically more efficient operation. Realistically, large schools expand their support and administrative staffs to handle the greater bureaucratic demands, making savings projected by proponents of school consolidation negligible (Fox, 1981). Additionally, evidence that school size and academic outcomes are positively related is weak (Chambers, 1981). The relationship between school district size and resource availability is inconsistent across communities, instead contingent on the socioeconomic status of the community (Friedkin & Necochea, 1988). Thus, the economies of scale strand suggests efficiency in resources and increased program specialization although the findings are far from conclusive.

Therefore, the preponderance of sociological evidence about high schools suggests that "smaller is better" (Lee, Bryk, & Smith, 1993) by providing a structure that is communal in form. Concurrently the economies of scale perspective implies that increased academic learning should accrue as a result of the consolidation of effort in larger schools (Lee, Bryk, & Smith, 1993) although research evidence is mixed.

Research findings on school size need to be seen with a balanced eye: schools should be neither too large to inhibit a strong sense of community nor too small to offer a full curriculum and adequate instructional facilities.

Smaller School Models

This in turn, poses the question of optimal school size. An early, yet seminal study conducted by Goodlad (1984) found that the top-performing schools in his sample tended to be the smaller schools. Conclusions from his data recommended that secondary schools enroll no more than six hundred students (Goodlad, 1984). Lee and Smith (1997) found a curvilinear relationship between student achievement and high school size. Achievement tended to drop when high schools enrolled fewer than 600 and more than 900 students. The greatest negative effects were found in high schools enrolling more than 2100 students.

Raywid and Oshiyama (2000) stopped short of specifying an ideal number of students. Instead, they offered a more qualitative set of criteria regarding school size:

> What do high schools need to be…? Small enough so that people can know one another. Small enough so that individuals are missed when they are absent. Small enough so that the participation of all students is needed. Small enough to permit considerable overlap in the rosters from one class to another. Small enough so that the full faculty can sit around a table together and discuss serious questions. Small enough to permit the flexibility essential to institutional responsiveness to the special needs of individuals and to the diverse ways teachers want to teach. (p. 446).

School size considerations in a fiscally conscious environment, in which taxpayers would not likely support the construction of many small high schools and the abandonment of the buildings that house larger comprehensive high schools, have advocated a high school restructuring to incorporate smaller subunits (Goodlad, 1984). The subdividing of high schools has produced various models in an attempt to effectively address the needs of each local school community. As a result, a variety of terminology has surfaced in research literature to describe the various models: schools-within-schools, house plans, career academies, and clusters.

The school-within-a-school (SWS) model is typically used to refer to high schools where all students and most faculty are members of only one of several smaller instructional units within a larger host school. The most precise definition of the SWS model comes from Mary Anne Raywid (1995):

> A school-within-a-school is a separate and autonomous unit formally authorized by the board of education and/or superintendent. It plans and runs its own program and has its own staff and students. Although it must negotiate the use of common space (gym, auditorium, playground) with a host school, and defer to the building principal on matters of safety and building operation, the SWS reports to a district official instead of being responsible to the building principal. (p. 8)

Schools-within-schools demonstrate the greatest degree of autonomy, separateness, and distinctiveness. Students follow a separated education program, have their own faculty, and identify with their sub-school unit. Because the SWS model replicates a small school most closely, researchers feel it has great potential to produce the positive effects of smaller schools (Dewees, 1999). It should be noted that it is not uncommon for writers to

use the terms “school-within-a-school” and “schools-within-schools” as umbrella terms for other kinds of small learning communities (Cotton, 2004).

Similarly, in a house plan, students and teachers are assigned to smaller groupings within the larger school. Students in each house may take some of their core courses together and share the same teachers, and each house has its own discipline policies and student government. Cotton (2004) described:

> The house plan usually coexists with the larger school’s departmentalized structure and shares that school’s curriculum, instructional approaches, and sometimes its co-curricular program as well. Houses may be organized by grade level, such as the “ninth grade house,” or vertically, encompassing two or more grades. (p. 9)

The house model differs from the SWS model, in that the subunit (house) is set apart from the remainder of the school, as opposed to the all-inclusive SWS model. As Lee, Ready, & Johnson (2001) described, “the full-model SWS structure is distinguished from a more common format, where large high schools offer only one or two small schools, and most students remain in the regular high school program”(p.366). For example, many districts have endorsed the creation of ninth grade houses within the larger high school to address problems unique to ninth grade students (Duke & Trautvetter, 2001).

Career academies or clusters describe house plans or SWS models which have a distinct curricular focus. As Cotton (2004) describes:

> A career academy may focus on a broad occupational area, such as engineering, natural resources, or the hospitality industry. Teachers and students are self-selected. The career academy curriculum directs students’ attention to the

> application of school-based leaning by including in its curriculum work-based learning experiences with businesses in the community. (p. 9)

Academies typically adhere to the house model which is not all-inclusive but instead targets specific populations. For example, Stern, Raby, and Dayton (1992) described the career academy movement in California, which involved one or two career-based schools within a larger comprehensive high school. In some instances, the career cluster model is all inclusive. In such cases, the pathways are broad-based to include a range of industry areas from technical through professional levels. All students select according to their career goals and interests and this becomes the foundation for the academic program as they transition from high school to postsecondary education and/or employment (Cotton, 2004).

The various terminology used to describe small school models differs from school to school, with labels such as schools-within-schools, houses, academies, clusters, or small learning communities. Some high schools organize special units based on age of the students, like grade-level houses or freshman academies. Other models focus on career paths, such as fine arts, health, or business. Some schools target specific subunits, while others adopt more full-scale, all-inclusive models (Lee, Ready, & Johnson, 2001). This recent reform, initiates breaking large comprehensive high schools into smaller subunits is often implemented with the intention of improving the academic and social environments (Ready, Lee, & Welner, 2004). Regardless of the specific design chosen, all models were purposefully intended to restructure the large comprehensive high school in an attempt to capitalize on the inherent benefits highlighted in the extant small school research.

Defining Small Schools

Not only has the small school movement not coalesced around a single model, the terminology redesigned high schools use to describe their small units also differs from district to district and school to school (Lee & Ready, 2007). As a result, there is a need to establish a framework of common language for defining small schools. Lee and Ready (2007) define these many small school designs along three dimensions based on (a) whether all students in the school are organized into subunits, (b) the degree of subunit autonomy, and (c) the extent to which the reform facilitates change in the school's technical core of teacher and learning.

The first dimension identifies whether all students in a school participate in the small school reform. In a full-model structure, all students and most faculty are members of one of several smaller subunits. On the other hand is the partial-model in which only one or a few small subunits are offered but many students remain in the regular high school program (Lee, Ready, & Johnson, 2001). The second dimension is the degree to which individual subunits are fiscally and administratively autonomous, as the degree of independence strongly influences other governance structures (Lee & Ready, 2007). The third dimension for defining small schools, according to Lee and Ready (2007), "asks how deeply the adoption of the structure transforms the daily work of teachers and students" (p. 18). The change that accompanies the small school structure can vary from minimal addition to and departure from conventional comprehensive high school organizational arrangements to total organizational restructuring (Raywid, 1995). Lee and Ready (2007) suggest that these three defining characteristics for small schools are important indicators of whether a high school has used the new structure as a true

springboard for reform and also provide a framework for defining small school redesign. In addition, these three dimensions provide criteria for deeper discussions of various small school designs.

Benefits of Small Schools

As interest in small schools has run high, researchers have investigated the effects of school size on various student performance, attitude, and behavioral measures. Most of the research focuses primarily on high school students. The outcomes of interest and areas of focus include: student achievement, social behaviors, co-curricular participation, interpersonal relations, and teacher attitudes.

Achievement

About half the early research on school size and student achievement found no difference between the achievement levels of students in large and small schools (Caldas, 1987; Fowler, 1995; Haller, Monk, & Tien, 1993; McGuire, 1989). While the other half found student achievement in small schools to be superior to that in large schools (Eberts, Kehoe, & Stone, 1982; Fowler & Walberg, 1991; Robinson-Lewis, 1991). Achievement measures used in the research included: school grades, test scores, honor roll membership, subject-area achievement, and assessment of higher–order thinking skills. Researchers were careful to point out that these results were found even when variables other than size (student attributes, staff characteristics, time on task, etc.) were held constant. None of the early research found large schools superior to small schools in their achievement effects. Consequently, we may safely surmise that student achievement in small schools is at least equal, and often superior, to student achievement in large schools (Cotton, 1996b).

More recent research has highlighted the positive correlation between size and student achievement. A large scale quantitative study using nationally representative and longitudinal data attempted to identify the ideal size of a high school, based on student learning (Lee & Smith, 1997). The objective of the study was to estimate an appropriate balance point between student learning and school size by exploring 10,000 students in 800 public and private school in the United States. Achievement gains in mathematics and reading over the course of high school were found to be largest in middle-sized high schools (600-900 students). This study built on their previous work (Lee & Smith, 1995, 1996; Lee, Bryk, & Smith, 1993) which provided strong evidence that student achievement was higher in smaller high school settings.

Interpersonal Relations

Human relationships within the school are a critical component, particularly the relationships between students and adults and most particularly, between students and teachers (Raywid, 1995). Constructs such as social networks, social resources, caring, social support, social capital, and communal school organization are bound by a common idea: students and adults in school should know one another better (Lee, Ready, Johnson, 2001). Linda Darling-Hammond (2002) reported that studies of effective schools frequently find smaller, more personalized structures that enable close, sustained relationships among students and teachers.

As part of their comprehensive review of research on effective secondary schools, Lee, Bryk, and Smith (1993) considered the impact of school size on school climate. They argued that smaller enrollments facilitate personalization, group cohesion, greater frequency of communication between individuals, and improve the general management

of the school. In addition, effects of small schools on student attitudes have overwhelmingly favored small schools by fostering a greater sense of belonging (Fowler, 1995; Howley, 1994).

Social Behaviors

The research linking school size to social behavior has investigated everything from truancy, classroom disruption, vandalism, aggressive behavior, substance abuse, and discipline problems. As Raywid and Oshiyama (2000) reported on school safety issues in the after math of the Columbine, "there is overwhelming evidence that violence is much less likely to occur in small schools than in large ones" (p. 455). Research has shown that smaller schools do indeed have lower incidences of negative social behavior, however measured, than do large schools (Gregory, 1992; Rutter, 1988).

Extracurricular Participation

Levels of extracurricular participation are significantly higher in small schools than in large ones (Fowler, 1995; Fowler & Walberg, 1991; Walberg, 1992). These researchers have also found that students in small schools are involved in a greater variety of activities and derive more satisfaction from their participation than students in large schools. Hamilton's (1993) research found that:

> Larger schools were more polarized, with a group of active participants at one end of the continuum and a large group of students who did not participate in any activities at the other. While on the other hand the small schools had very few students who did not participate in anything (p. 70).

In smaller schools, more students are needed to populate teams, offices, and clubs; thus, even shy and less able students are encouraged to participate and made to feel they

belong. As schools grow, opportunities for participation also grow, but not proportionately. Thus, in large schools, a greater proportion of students do not participate in extracurricular activities because they are not needed to fill the available participation slots.

Schoggen and Schoggen (1988) conducted a large-scale study to examine the relationship between high school size and student participation in voluntary extracurricular activities for over 10,000 high school students. They reported that although large schools offered more varied activities, the average large school student does not utilize these opportunities. And although the small school does not provide such a wealth of activities, the average student has a better experience as measured by the amount of involvement in the available activities. The greater and more varied participation in activities by students in small schools is yet another positive finding in the school size research.

Teacher Attitudes

There is less research on school size in relation to teacher variables, that which exists has examined teacher attitudes toward their work, teacher attitudes toward one another, and the incidence of cooperation and collaboration with colleagues. The Gates Foundation (2003) identified the importance of an effective teaching community in the following description:

> Effective teaching communities are characterized by a collective focus on student learning, collaborative instructional activity, a shared understanding of what students should be learning and how to facilitate learning, a shared sense of purpose among school staff, deprivitized instructional practice, and reflective

> professional dialogue. This sort of teaching environment will encourage teachers to open their classroom doors and share their work with peers. In large schools, the sheer size of the faculty, often compounded by an impersonal, bureaucratic environment, makes it difficult for teachers to cohere into a purposeful teaching community. Small schools are far more conducive to the creation of collaborative environments in which teachers know and trust one another and are able to participate in free exchange of ideas. As the inherent attributes of large schools make the creation of such effective teaching communities extremely difficult if not impossible, it is reasonable then to assume that small schools will by and large possess more effective teacher than large schools. (p. 53-54)

This built on previous studies which have demonstrated that cooperative, collegial, and communal school environments have strong effects on student engagement and teacher commitment (Bryk & Driscoll, 1988; Supovitz, 2002).

In addition, Lee and Smith (1996) studied collective responsibility for student learning and its effects on achievement. Their results were very consistent: achievement gains were significantly higher in schools where teachers take collective responsibility for student learning and in schools with high cooperation among staff. Relating this to the organizational framework, Lee and Smith (1996) argued:

> Although it is possible to develop collaboration, control, and collective responsibility in comprehensive high schools organized on bureaucratic lines, real professional communities of teachers develop more easily and more naturally in smaller schools whose organizational form is more likely a community. (p. 133)

Their findings advocated structuring schools as a professional community to foster collective responsibility for learning and ultimately impact student learning.

A Growing Critique of Small Schools

Most recently, a growing critique of small school reform strategies has begun to emerge. A 2008 report prepared by a private contractor for the U.S. Department of Education, evaluated small learning community programs, and reported the following:

> Changes in academic outcomes were modest at best. Where there is evidence of change, trends appear to be moving in the right direction. Specifically, trends in data suggest upward trends in student extracurricular participation, ninth-grade promotion rates and downward trends in incidence of school violence, disciplinary action, and alcohol and drug use. (p. 150)

However, the report found no significant trends in achievement on state tests or college-entrance exams. Additionally, many of the schools participating in the federal study utilized the career academy model, a model which has been criticized for creating stratification within our schools (Lee & Ready, 2007).

These recent critical voices have brought to light some of the concerns and trade-offs associated with the small school designs. While most often praised for the increased personalization (USDOE, 2008), there are certainly costs to be considered with the small school design. As Loveless and Hess (2007) summarized,

> Researchers, politicians, philanthropists, and school reformers often tout the potential benefits of small schools and classes while giving scant attention to either the cost or difficulty of downsizing. A political environment in which costs are downplayed or ignored presents a real challenge. (p. 2)

Thus, the critical voice and growing critique of small school reform deserves our attention.

Arguments for Large Schools

Not all small school news is good news. It has only been in the past decade that small school models have reemerged in educational research; indeed the comprehensive high school has historically been the predominant organizational design for secondary education. As such, large schools offer: economic benefits, broad curricular and extra-curricular offerings, and community integration through diversity.

Economic Benefits

The economy of scale argument emphasizes the potential for increased savings through reduced redundancy and increased resource strength as schools get bigger (Lee & Smith, 1997). As Lee, Bryk, and Smith (1993) described:

> Much of the research examining the effects of school size, conceived from a bureaucratic perspective, rests on the assumption that larger schools are more cost-efficient operations. This research argues that financial savings accrue as core costs are spread over a larger pupil base. (p. 185)

However, finding convincing research to confirm these presumptions is more challenging. Educational finance experts who tout the economies of scale resulting from school consolidation, have not conducted optimal-size studies to actually assess the effects of school size on student achievement and other outcomes (Fowler & Walberg, 1991). Additionally, the comprehensive review of research conducted by Lee, Bryk, and Smith (1993) found little empirical support for the benefits of economies of scale that presumably result from large schools.

Broader Program Offerings

The American High School Today, Conant's (1959) influential book on the comprehensive high school argued that American high schools needed to grow in size if they were to provide a truly diversified curriculum. Presumably, larger schools through efficient operations were able to offer a wider array of courses and programs. This applied not only to academic programs, but extra-curricular and athletic offerings as well. In principle, larger schools have more students with similar needs and thus are better able to create specialized programs to address those needs (Duke & Trautvetter, 2001). However, when Monk (1987) conducted an extensive study of curricular offerings and high school size in New York State he failed to find benefits of large enrollments. Instead, he concluded that is was possible to offer a comparable curriculum while still maintaining a smaller setting.

Community Integration

Another argument for large schools is their ability to facilitate integration of communities, particularly where neighborhoods are segregated (Duke & Trautvetter, 2001). When students are assigned to smaller learning communities, attention must be given to avoid segregation along racial, ethnic, and socioeconomic lines (McAndrews & Anderson, 2002). As Cotton (2004) described, "…the cohesive communities of young people and adults that small schools are supposed to create might end up excluding those outside the school" (p. 38). In summary, the presumed advantages of large school size, such as economy of scale, broader program offerings and community integration, must ultimately be balanced against student and teacher data when considering reform initiatives and downsizing.

Efficacy

Decades ago, Bandura (1977) introduced the concept of self-efficacy perceptions as "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (p. 3). Efficacy beliefs have since been researched in various arenas, of particular importance to educators is the arena academic achievement. In the past two decades, researchers have found links between student achievement and three distinct types of efficacy beliefs – student's self efficacy judgments (Pajares, 1994), teachers' beliefs in their own institutional efficacy (Tschannen-Moran, Hoy, & Hoy, 1998) and teachers' beliefs about the collective efficacy of their school (Goddard, Hoy, & Hoy, 2000, 2004). Of the three types, perceived collective efficacy is the most recent construct developed and as of yet, has received the least attention from educational researchers.

Students' Self Efficacy Judgments

A relatively large body of research suggests that student efficacy and teacher efficacy are positively related to important educational outcomes (Goddard, 2001). First, student self efficacy for various academic tasks is an important predictor of academic achievement. For example, in a meta-analysis of thirty studies, Multon, Brown, and Lent (1991) found that students' efficacy beliefs were positively related to their academic attainment and their persistence in academic endeavors. More recently, Pajares and Graham (1999) showed that students' sense of efficacy predicts academic success in mathematics. That is, students' perceptions of self-capability to organize and execute the actions required to attain success in various subjects are predictive of differences in academic achievement.

Teachers' Perceived Efficacy

In addition to student self efficacy, teachers' efficacy to educate students successfully has been the subject of considerable inquiry. A teacher's efficacy belief has been summarized as a judgment of a teacher's capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated (Armor et al., 1976, Bandura, 1977). When considering teachers' sense of efficacy, it is essential to distinguish between perception of competence and actual performance, as Goddard, Hoy, & Hoy (2004) stated:

> The shorthand term often used is "teacher efficacy." Using this term, however, can be misleading because readers may make the logical mistake of assuming that "teacher efficacy" is the same as "teacher effectiveness" or successful teaching. Thus, it is important to avoid the term "teacher efficacy," talking instead about teachers' perceptions of efficacy, efficacy judgments, sense of efficacy, perceived efficacy or efficacy beliefs. All these terms connote judgments about capabilities to accomplish a task. (p. 4)

These judgments, defined as teacher efficacy, have powerful effects (Tschannen-Moran & Hoy, 2001).

A series of independent studies indicated that teacher efficacy beliefs are significantly and positively related to teacher behaviors that promote academic achievement. For example, teachers' sense of efficacy is positively associated with organized and planful teaching (Allinder, 1994), activity-based learning (Enochs, Scharmann & Riggs, 1995), and student-centered learning (Czerniak & Schriver, 1994). Furthermore, the higher a teachers' sense of efficacy, the more humanistic their approach

to pupil control (Woolfolk & Hoy, 1990) and more importantly, the higher their students tended to achieve (Ross, 1992). Such findings suggested that teachers' sense of efficacy exerted significant influence on student achievement by promoting teaching that enhanced learning.

Over the last twenty years, the construct of teacher efficacy has evolved from Rotter's (1966) locus of control theory and Bandura's (1977, 1997) social cognitive theory. However, the meaning and measure of teacher efficacy has been the subject of considerable debate among scholars and researchers. The first studies on efficacy were grounded in Rotter's (1966) theory and were researched by the RAND Corporation in studying the effectiveness of reading instruction. It was in their studies that the notion of teacher efficacy was born as the extent to which teachers believed that they could control the reinforcement of their actions. Teacher efficacy was determined by summing scores on two survey items: (1) When it comes right down to it, a teacher really cannot do much because most of a student's motivation and performance depends on his/her home environment, and (2) If I really try had, I can get through to even the most difficult or unmotivated students (Rotter, 1966). The sum of the scores on the two items was called *teacher efficacy*, a construct that purported to reveal the extent to which a teacher believed that the consequences of teaching were in the hands of the teacher that is internally controlled (Tschannen-Moran, Hoy, & Hoy, 1998).

A second conceptual strand of teacher efficacy grew out of Bandura's (1977) work on self-efficacy. He identified teacher efficacy as a type of self efficacy – the outcome of a cognitive process in which people construct beliefs about their capacity to perform at a given level of competence (Bandura, 1977). These beliefs affect how much

effort people expend, how long they will persist in the face of difficulties, their resilience in dealing with failures, and the stress they experienced in coping with demanding situations (Bandura, 1997). The existence of two separate but intertwined conceptual models, derived from two different theoretical perspectives has created some confusion about the nature of teacher efficacy in that some assumed that Rotter's internal locus of control and Bandura's perceived self-efficacy were roughly the same (Goddard, Hoy, & Hoy, 2000). Bandura (1997) clarified the difference between these two concepts, by stating that beliefs about one's capability to produce certain actions (perceived self-efficacy) were not the same as beliefs about whether actions affect outcomes (locus of control). Indeed, perceived self-efficacy and locus of control bore little or no empirical relationship with each other. Further, perceived self-efficacy was a much stronger predictor of behavior than locus of control, as Rotter's scheme of internal-external locus of control was concerned primarily with causal beliefs about the relationship between actions and outcomes, not with personal efficacy. One may believe that a particular outcome is internally controllable, that is, caused by the actions of the individual, but still have little confidence that he/she can accomplish the desired outcomes.

As a response to the substantial body of research, Tschannen-Moran, Hoy, & Hoy (1998) proposed an integrated model of teacher efficacy that addressed the dual perspectives. Consistent with social cognitive theory, the major influences on efficacy beliefs were consistent with Bandura's (1997) sources: mastery experience, vicarious experience, social persuasion, and affective states. However, since teachers did not feel equally efficacious in all teaching situations, teacher efficacy was defined to be context specific. Teachers felt efficacious for teaching particular subjects to certain students in

specific settings, and they felt more or less efficacious under different circumstances. Thus, in making an efficacy judgment, task analysis and assessment of teaching competence became the two dimensions for creating efficacy judgments, in conjunction with the four sources of efficacy (see Figure 2.1).

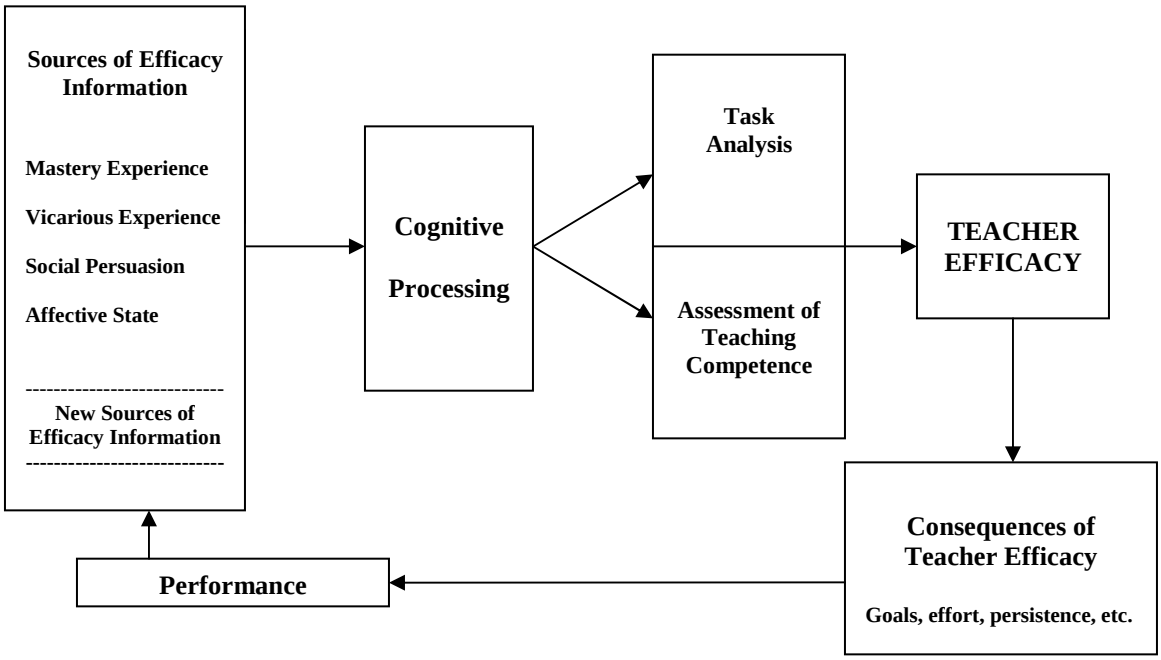

FIGURE 2.1. Teacher Efficacy Cycle

From "A Teacher Efficacy: Its Meaning and Measure," by M. Tschannen-Moran, A. W. Hoy, and R. D. Goddard, 1998, *Review of Educational Research, 68(2),* p. 228.

Collective School Efficacy

In light of the promising findings about teachers' sense of efficacy, research has added an organizational dimension to inquiry about efficacy beliefs in schools (Goddard, Hoy, & Hoy, 2004). Since teacher efficacy was found to be associated with productive teacher behaviors that fostered positive student outcomes, a related organization-level dimension, collective efficacy, was explored in hopes of producing similar results. As Bandura (1997) described, "teachers operate collectively within an interactive social

system, rather than as isolates" (p. 20). Inquiry into collective efficacy beliefs emphasized that teachers have not only self-referent efficacy perceptions but also beliefs about the joint capability of a school faculty. These group-referent perceptions, defined the construct known as collective efficacy (Bandura, 1997; Goddard, Hoy, & Hoy, 2000; Hoy, Sweetland, & Smith, 2002).

From Teacher Efficacy to Collective Efficacy

Although conceptually distinct, both teacher efficacy and collective efficacy were derived from social cognitive theory. Since social cognitive theory has typically been described in individual terms, the notion of collective efficacy required that the applicability of social cognitive theory be expanded from the individual level to the group level. Typically, researchers interested in collective efficacy have addressed the nested nature of group perceptual data by aggregating individual perceptions of collective efficacy to the group level (Bandura, 1997; Goddard, Hoy, & Hoy, 2000, 2004; Goddard, LoGerfo, & Hoy, 2004). However, as Goddard (2001) stated, "aggregation alone is not enough to constitute an organizational characteristic" (p. 469). Thus, collective efficacy required that social cognitive theory be expanded to the group level. To this end, Bandura (1997) cited his own previous research as evidence that "supports the extension of social cognitive theory to the collective level" (p. 481).

The group level functioning of social cognitive theory applied to both the assumptions and the sources of efficacy information. The concept of human agency was expanded to organizational agency. On the individual level, agency referred to the intentional pursuit of a course of action. Likewise, organizations were also understood to be agentive in their purposeful pursuit of educational go, particularly in the area of

student achievement (Goddard, 2000). In addition to agency, social cognitive theory also assumed that individuals possessed capabilities for self-reflection, vicarious learning, symbolization, and self-regulation (Bandura, 1997). These assumptions also applied to the organizational level as evidenced in a group's ability to analyze, respond, and control their behaviors and environments (e.g. a change of curriculum to meet student needs) (Goddard, 2000).

Just as the assumptions of social cognitive theory were applied to the organizational level, so too were the four sources of efficacy as described by Bandura (1997) and as defined in Chapter One: mastery experience, vicarious experience, social persuasion, and affective states. Further, Goddard, Hoy, & Hoy (2000) applied the Tschannen-Moran et al. (1998) model of teacher efficacy and included the elements of analysis of teaching task and assessment of competence to formulate a model of collective teacher efficacy (Figure 2.2).

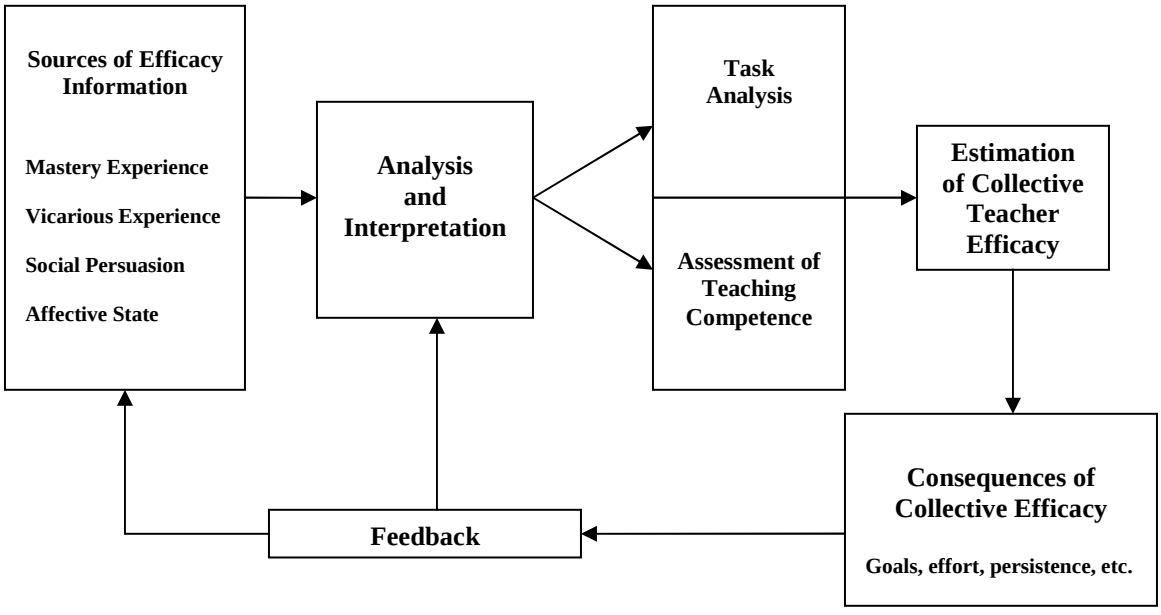

FIGURE 2.2. Collective Teacher Efficacy Cycle

From "Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement," by R. D. Goddard; W. K. Hoy, and A. W. Hoy, 2000, *American Educational Research Journal, 37(2),* p. 486.

As Goddard, Hoy, and Hoy (2000) summarized:

> The major influences on collective teacher efficacy are assumed to be the attributional analysis and interpretation of the four sources of information. In these processes, the organization focuses its attention on two related domains: the teaching task and teaching competence. Both domains are assessed in terms of whether the organization has the capacitates to succeed in teaching students. The interactions of these assessments lead to the shaping of collective efficacy in a school (p. 485-6).

Using social cognitive theory as the foundation, teacher efficacy was expanded to the organizational level to define collective school efficacy.

Measurement Issues

As the unit of analysis expanded from the individual teacher to the school organization, several approaches to the measurement of perceived collective efficacy surfaced. Goddard, Hoy, and Hoy (2004) proposed four potential measurement approaches. The first approach would aggregate measures of individual self-efficacy by calculating a group mean of self-referent perceptions. In this model, response to "I-" referent statements (e.g. "I have what it takes to get my students to learn) would be averaged to assess the collective sense of efficacy of the school. The *second* approach would aggregate measures of individuals' perceptions of group-referent capability. The difference here referred to the object of the efficacy perceptions – "we" instead of "I." An item might read, "Teachers in this school have what it takes to educate students here." Responses were averaged to assess the collective sense of efficacy in a school. *Thirdly*,

group members would discuss their group capabilities together and come to a consensus of their collective efficacy beliefs. *Fourthly*, was to focus on the extent to which there would be agreement among group members across their individual perceptions. Upon investigation, they came to believe that the second, aggregate measures of group-referent perceptions, was the most effective means of assessing perceived collective efficacy (Goddard, Hoy, & Hoy, 2004).

In response the other options, various data were presented. Bandura (1997) observed that "perceived collective efficacy is an emergent group-level attribute rather than simply the sum of members' perceived personal efficacies" (p. 478). Thus, aggregating individual self-perceptions was discounted as a measurement tool. Additionally, Goddard (2002) showed that individual perceptions of self-capability varied less that 5% between groups. In drastic contrast, individual perceptions of group capability varied more than 40% among groups. Empirically, this finding was consistent with Bandura's (1997) assertion.

Discussion of group capabilities to generate consensus, the third option, was found to be an approach susceptible to social desirability bias that undermined the validity of the assessment (Bandura, 1997). Additionally, Bandura (1997) also argued that seeking a group consensus masked within-group variability in collective efficacy perceptions. As group means scores surfaced as the strongest measure, Goddard (2001) tackled the notion of also using the amount of agreement among teachers (the fourth option) in the assessment of collective efficacy. Goddard (2001) measured a school's sense of collective efficacy as an aggregate of teachers' group-referent efficacy perceptions and also as the degree of agreement around the mean using variance

measures. The results showed that although the level of agreement did vary across schools, the variability was a non-significant predictor, whereas the aggregate school mean of perceived collective efficacy was a strong positive predictor. While this did not completely discount the use of agreement in measuring perceived collective efficacy, it did suggest that aggregates of individual perceptions of group capability captured the perceived collective efficacy of organization. Therefore, measurement of collective efficacy beliefs, utilized the aggregate of individual group members' perceptions of group capabilities (Goddard, Hoy, & Hoy, 2004).

Measurement Tool

Goddard, Hoy, and Hoy (2000) sought to develop a measure of collective teacher efficacy grounded in Tschannen-Moran's (1998) model (Figure 2.2) which measured teachers' beliefs about the collective capabilities of the faculty. Items were designed with a group oriented perspective (rather than individual) to reflect the collective experience of group members. Attention was given to the wording of items so as not to influence respondents. Both positively (+) and negatively (-) worded items appeared in the scale in the areas of group competence (GC) and task analysis (TA), as the Thschannen-Moran (1998) model described. This approach led to the identification of four types of items to assess collective efficacy beliefs: group competence/positive (GC+), group competence/negative (GC-), task analysis/positive (TA+), and task analysis/negative (TA-).

One of the most commonly used and well-researched instruments for assessing teacher efficacy at that time was the Likert-type scale developed by Gibson and Dembo (1984). The original scale contained 30 items, but researchers often utilized a 16-item

version that contained the most reliable and factorially pure items. Goddard, Hoy, and Hoy (2000) adapted this 16-item scale in the creation of their own tool. The items were changed from an individual orientation to a group orientation and categorized according to GC+, GC-, TA+, or TA-. In order to ensure that items adequately represent the four response categories, additional items were added. A 21-item instrument (Table 2.1) was developed which utilized a 6-point Likert (*strongly agree* to *strongly disagree*) format.

Goddard (2002) followed up this research with a reexamination of the theoretical underpinnings of the 21-item Collective Efficacy Scale and improved its measurement by constructing a more conceptually pure and parsimonious version of the scale. The short form (Table 2.2) reflected all dimensions of the original Collective Efficacy Scale (Goddard, 2000) but in equal proportion (i.e., 3 GC+, 3 GC-, 3TA+, 3TA-). The highest correlated items in each category were selected for the short form, with all but one item correlating at .73 or above. The findings provided evidence that the short form was equally effective as the 21-item scale and strongly related (r = .983).

Table 2.1

Original Goddard, Hoy, and Hoy 21-Item Collective Efficacy Scale

	Item	GC+	GC-	TA+	TA-
1	Teachers in this school have what it takes to get the children to learn.	X			
2	Teachers in this school are able to get through to difficult students.	X			
3	If a child doesn't learn something the first time, teachers will try another way.	X			
4	Teachers here are confident they will be able to motivate their students.	X			
5	Teachers in this school really believe every child can learn.	X			
6	If a child doesn't want to learn teachers here give up.		X		
7	Teachers here need more training to know how to deal with these students.		X		

8	Teachers in this school think there are some students that no one can reach.		X		
9	Teachers here don't have the skills needed to produce meaningful student learning.		X		
10	Teachers here fail to reach some students because of poor teaching methods.		X		
11	These students come to school ready to learn.			X	
12	Home life provides so many advantages they are bound to learn.			X	
13	The lack of instructional materials and supplies makes teaching very difficult.				X
14	Students here just aren't motivated to learn.				X
15	The quality of school facilities here really facilitates the teaching and learning process.			X	
16	The opportunities in this community help ensure that these students will learn.			X	
17	Teachers here are well prepared to teach the subjects they are assigned to teach.	X			
18	Teachers in this school are skilled in various methods of teaching.	X			
19	Learning is more difficult at this school because students are worried about their safety.				X
20	Drug and alcohol abuse in the community make learning difficult for students here.				X
21	Teachers in this school do not have the skills to deal with student disciplinary problems.		X		

Note. GC = group competence; TA = task analysis. From "Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement," by R. D. Goddard, W. K. Hoy, and A. W. Hoy, 2000, *American Educational Research Journal, 37(2),* p. 492.

Table 2.2

12-Item Goddard Collective Efficacy Scale

Prev. #	Item	GC+	GC-	TA+	TA-
CTE2	Teachers in this school are able to get through to difficult students.	X			
CTE4	Teachers here are confident they will be able to motivate their students.	X			
CTE5	Teachers in this school really believe every child can learn.	X			
CTE6	If a child doesn't want to learn teachers here give up.		X		
CTE9	Teachers here don't have the skills needed to produce meaningful student learning.		X		

CTE11	These students come to school ready to learn.		X	
CTE12	Home life provides so many advantages they are bound to learn.		X	
CTE14	Students here just aren't motivated to learn.			X
CTE16	The opportunities in this community help ensure that these students will learn.		X	
CTE19	Learning is more difficult at this school because students are worried about their safety.			X
CTE20	Drug and alcohol abuse in the community make learning difficult for students here.			X
CTE21	Teachers in this school do not have the skills to deal with student disciplinary problems.	X		

Note. GC = group competence; TA = task analysis; CTE = Collective Teacher Efficacy. From "A Theoretical and Empirical Analysis of the Measurement of Collective Efficacy: The Development of a Short Form," by R. D. Goddard, 2002, *Educational and Psychological Measurement, 62(1),* p. 107.

Group Goal Attainment

One of the most compelling reasons for the development of interest in perceived collective efficacy revolved around the link between collective efficacy beliefs and group goal attainment (Goddard, Hoy, & Hoy, 2004). Within education, several studies have document a strong link between collective efficacy and differences in student achievement among schools (Bandura, 1993; Goddard, 2001; Goddard et al., 2004, 2000). Bandura demonstrated that the effect of perceived beliefs on student achievement was stronger than the direct link between SES and student achievement. Similarly, Goddard and his colleagues have shown that, even after controlling for students' prior achievement, race/ethnicity, SES, and gender, collective efficacy beliefs have stronger effects on student achievement than student race or SES.

Research has also explored collective efficacy outside the educational arena, particularly as related to goal attainment. Samson, Morenoff, and Earls (2000) argued that collective efficacy beliefs are important to group functioning because they explain

how organized capacity for action is tapped to produce results. Additionally, they found that perceptions of collective efficacy directly affect the diligence and resolve with which groups choose to pursue their goals (Sampson et al., 2000). Little and Madigan's (1997) research has shown that perceived collective efficacy is a strong positive predictor of work group effectiveness. Regardless of context, perceived collective efficacy is a potent construct for characterizing the strong normative and behavioral influence of an organizations culture (Goddard, Hoy, & Hoy, 2004). As Bandura (1995) stated:

> Teachers operate collectively within an interactive social system, rather than as isolates. Schools in which the staffs collectively judge themselves as powerless to get difficult students to achieve academic success convey a group sense of academic futility that can pervade the entire life of the school. In contrast, schools in which staff members collective judge themselves capable of promoting academic success imbue their school with a positive atmosphere for development (p. 20-21).

Thus, collective efficacy has been identified as a crucial element to understanding the influence of school culture on teachers' professional work and, in turn, student achievement.

Collective Efficacy in Schools

Given the power of collective efficacy to influence the outcomes of organized activity, researchers looked to identify those aspects of social organization that served to influence teachers' collective efficacy beliefs. Goddard and Skrla (2006) most recently conducted a study to investigate both teacher-level and school-level predictors of teachers' collective efficacy perceptions. This was the first study that examined teacher

characteristics as predictors of collective efficacy, expanding on the previous literature which demonstrated the importance of collective efficacy beliefs to organizational functioning and goal attainment. The teacher-level variables that were examined as predictors of collective efficacy were: race/ethnicity and teaching experience. The results showed a small, but statistically significant relationship between collective efficacy beliefs and teacher race and experience. Teachers of color and those with more than ten years experience reported slightly higher levels of perceived collective efficacy. Goddard and Skrla (2006) challenged their readers to continued studies as a means of identifying strategies for strengthening collective efficacy beliefs, supporting the charge of Goddard, Hoy, and Hoy (2004):

> In sum, we believe that, complex questions regarding teachers' collective efficacy beliefs are important to our understanding of organizational transformation and, in particular, the success of public schools in educating our youth for effective participation in a democratic society. The recently passed No Child Left Behind Act calls for elevated levels of student achievement and the closing achievement gaps by race and ethnicity. Such changes to the landscape of U.S. public education are unparalleled. We believe that the study of collective efficacy beliefs provides an opportunity to understand organizational culture and its influence on participants and group outcomes in new was that hold promise for deeper theoretical understanding and practical knowledge concerning the improved function of organized activity, particularly schooling (p. 10).

Chapter 3

Methodology

Research Approach

Selecting a research approach begins with the researcher examining his/her own orientation to basic tenets about the nature of reality, the purpose of doing research, and the type of knowledge to be produced through the research efforts (Merriam, 1998). Initially, researchers must state a knowledge claim based on certain assumptions about how they will learn and what they will learn during their inquiry (Creswell, 2003). The nature of the research questions posed in this study led the researcher to the constructivist epistemology. The constructivist epistemology is grounded in Lincoln and Guba's (1985) *Naturalistic Inquiry* which describes a knowledge claim based on: multiple constructed realities that can be studied only holistically, working hypotheses that describe the individual case, reality that precludes causal relationships, inquiry that is value-bound, and an inseparability of the knower and the known.

Rist (1982) described the naturalistic ideology as "based upon inductive thinking and associated with the phenomenological views of 'knowing' and 'understanding' social and organizational phenomena" (p. 3). Individuals seek understanding of the world and develop subjective meanings of their experiences. Creswell (2003), in describing the constructivist knowledge claim stated:

> Meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas. The goal of research, then, is to rely as much as possible on the participants' views of the situation being studied. The questions become broad

> and general so that the participants can construct the meaning of the situation, a meaning typically forged in discussions or interactions. (p.8)

Likewise, Owens (1982) added, "if one seeks to understand the realities of human organizations, the naturalistic view would hold that they must be examined in all the rich confusion of their daily existence" (p. 6). Exploring the questions posed in this study necessitated a naturalistic inquiry as the constructivist knowledge claim dictates, providing the researcher the opportunity to delve into the collective teacher efficacy beliefs and the small school models in their natural setting.

The constructivist epistemology serves as the theoretical underpinning for the qualitative paradigm. According to Lincoln and Guba (1985), "a paradigm represents a distillation of what we think about the world, but cannot prove" (p. 15). Rist (1977) stated, "the power and pull of a paradigm is more than simply a methodological orientation, it is a means by which to grasp reality and give it meaning and predictability" (p. 43). Grounding this study in the constructivist knowledge naturally validated the qualitative paradigm as a means of exploring the communal nature of the small school design. Qualitative research focuses on a different way of knowing – one based on experience, empathy, and involvement (Rist, 1982). The research problem addressed in this study suggested an approach that is holistic, field-based, and explanatory. As Rist (1982) stated, "the qualitative approach would contend that to understand the current conditions of education, one must describe and analyze in an ecologically valid manner the values, behaviors, settings, and interactions of participants in educational settings" (p. 440). The research questions posed in this study necessitated delving for meaning as it is

embedded in people's experiences with the small school models. As Patton (1990) explained:

> Qualitative research is an effort to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself, so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting – what it means for participants to be in that setting, what their lives are like, what is going on for them, what their meanings are, what the world looks like in that particular setting. (p.1)

The purpose and questions of this study clearly lent themselves to the qualitative approach as a means of building a holistic picture with detailed descriptions as provided from the informant's perspective.

The research questions posed in this study also demanded a level of interaction that produced a deep understanding of not simply the small school models, but also the forces at work behind it. This is yet another aspect that lent the study to the qualitative approach. Qualitative research is interpretative research, with the inquirer typically involved in a sustained and intensive experience with the participants (Creswell, 2003). As Rist (1977) described:

> Emphasis is placed upon the ability of the researcher to "take the role of the other;" to grasp the basic underlying assumptions of behavior through understanding the "definition of the situation" from the view of the participants; and upon the need to understand the perceptions and values…qualitative research is predicated upon the assumption that this method of "inner understanding"

> enables a comprehension of human behavior in greater depth than is possible from the study of surface behavior. (p. 44)

Exploring the small school models and its impact on collective efficacy beliefs required a depth of understanding that the qualitative design employs.

Thus, the research purpose and questions explored in this study necessitated an approach that is inductive, holistic and explanatory. Firestone (1987) summarized this best:

> There are a number of reasons for selecting an approach, but one's decision often expresses values about what the world is like, how one ought to understand it, and what the most important threats to that understanding are. The method selected encourages one to adopt conventions of presentation that advance certain kinds of arguments for the credibility of one's conclusions. (p. 20)

The nature of this research exhibited the philosophical underpinnings of the constructivist knowledge claims which naturally lent to a qualitative approach. This in turn provided the researcher the opportunity to delve into the personal experiences of those closest involved with the small school models in a holistic manner.

Research Design

The research design employed for addressing the stated research questions was that of case study. The formal definition of case study has evolved as research has continued to develop and reveal the more subtle nuances of the case study design. Most recently, Yin (2003) defined the case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13). He goes on to specify

that the case study inquiry relies on multiple sources of evidence, with data converging through triangulation, and benefiting from the prior development of theoretical propositions by coping with multiple variables of interest. Stake (1995) defined case study as an in-depth exploration of a program, event, activity or process that is bounded by time through multiple data collection procedures over a sustained period of time. Stake's (1995) extensive work with the case study design emphasized the importance of identifying the unit of study and defining it as an integrated system, a notion on which Merriam (1998) concurred.

A detailed examination of the influence of a small school model on collective efficacy beliefs through multiple sources, from the perspective of teachers and administrators readily lent itself to the case study design. By concentrating on a single phenomenon (the case), the researcher aims to uncover the interaction of significant factors characteristic of the phenomenon (Merriam, 1998). In the current study, it was the small school model and the potential for school reculturation, specifically collective efficacy beliefs, that was investigated. The case study focused on obtaining a holistic understanding and analysis. As Yin (2003) observed, case study is preferred in examining contemporary events when the relevant behaviors cannot be manipulated, and in situations in which it is impossible to separate the phenomenon's variables from their context. This again served as further impetus for utilizing the case study design for the proposed research problem of exploring the embedded design and impact of the small school models.

Merriam (1998) further described three salient features of the case study that are applicable to the research questions studied, those being: particularistic, descriptive, and

heuristic. Particularistic refers to the case studies' focus on a particular situation, event, program, or phenomenon. In this study it was the small school model of high school restructuring that was of particular interest. Descriptive refers to the end product of a case study as a rich description of the phenomenon under study. The researcher investigated collective efficacy beliefs as manifested in high school design, using thick, rich description to convey this effectively. Heuristic describes the idea that case studies inspire the discovery of new meaning beyond the current understanding. As one of the newer models for high school reform initiatives, this research explored the potentiality of the small school model for cultivating collective teacher efficacy beliefs.

Final substantiation for the case study design is predicated upon what the researcher wants to know (Merriam, 1998). Yin (2003) proposed that "how" and "why" research questions readily lend to the case study design because they deal with "operational links needing to be traced over time, rather than mere frequencies or incidence" (p. 6). Following this rationale concurrent with a close examination of the questions of the current study, provided further rationale for the case study design. Merriam (1998) promoted the case study design particularly in instances where the researcher is embedded in process. The emphasis here was on process as opposed to outcome as a criterion for selecting the case study design. Case studies, as such, help us to understand processes of events, projects, and programs and to discover context characteristics that will shed light on an issue or object (Merriam, 1998). In the current research, the process of uncovering the tacit and implicit communal qualities as exemplified in the concept of collective efficacy beliefs that exist in the small school model was paramount. Case study was also selected for its uniqueness and potential for

uncovering phenomenon that would otherwise go unearthed (Merriam, 1998). The case study design provided the researcher the opportunity to explore the nuances of collective teacher efficacy beliefs within the small school redesign.

In summary, the case study design provided the researcher with a unique opportunity to explore the research questions. As Yin (2003) described, "the distinctive need for case studies arises out of the desire to understand complex social phenomena, by allowing investigators to retain the holistic and meaningful characteristics of real-life events" (p. 2). The case study design clearly aligned with the purpose and research questions to provide a firm foundation for investigation of the small school model through the collective efficacy framework.

Site Selection

The context and activities of the research sets boundaries for the selection of a site by clearly defining and specifying an appropriate setting offering the likelihood that the phenomenon of interest can be studied (McMillan & Schumacher, 2001). The researcher should first establish the criteria that will guide case selection and then select a case that meets those criteria (Merriam, 1998). Selection involved finding a critical case that exemplified the phenomenon of study, the small school model, as closely as possible. Consideration for site selection was made in alignment with the three dimensions established by Lee and Ready (2007): (a) whether all students in the school are organized into subunits, (b) the degree of subunit autonomy, and (c) the extent to which the reform facilitates change in the school's technical core of teaching and learning. As such, the site selected had a full-model small school structure with autonomous subunits in which the school's technical core of teaching and learning has been impacted by the small

school implementation. The research site selected utilized a grade-level house system. Each house operated independently on one of the three floors of the building. It was also important to select a site which had a mature implementation of the small school model, one that has been in practice for at least five years. Hence, the district selected had used the house model since the 1999-2000 school year, making it their tenth year of implementation. These served as the criteria for selecting a specific high school for the study.

Within the single case study design, attention was given to several subunits, thus producing an embedded design. The subunits were comprised of both teachers and building administrators. Teachers represented the largest subunit of study. After general information was obtained from the staff at large through Goddard's (2000) Collective Efficacy Scale, purposeful sampling was implemented as a means of attaining more specific interview data. Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned (Merriam, 1998). Building level administrators comprised the other subunit of study. Information from administration was obtained through interview strategies.

It is not uncommon for researchers to mistakenly settle for research sites to which they can easily gain convenient and ready access rather than thinking through the implications of particular choices (Walford, 2001). In this study, careful selection of a site was executed by selecting a mature site with experienced implementation. Sampling of the subunits was conducted in a way to maximize collection of meaningful data from both administrators and teachers alike. An emergent sampling design was necessary,

successively selecting respondents based on previously collected information. Execution of the above stated strategies provided for maximum exposure to the small school model while remaining aligned with the research purpose and questions.

Research Strategies

Gaining entry, and the conditions under which it is granted, is one of the most critical phases of qualitative research (Rist, 1982). Negotiation with gatekeepers necessitated careful consideration to ensure access was obtained, as gatekeepers are often concerned that their organization or institution be presented in a favorable manner. A formal proposal was submitted to the district at the selected site, addressing: overall research purpose, reason for site selection, data collection techniques, and reporting of data (Appendix A). Negotiating entry to an institution is more than an issue of providing information; equally important is establishing a relationship with those involved (Flick, 1998). Thus, an initial conversation with the building principal provided informal permission as well as a means of forging positive relations.

Application was made to the Office for Research Protections (ORP), specifically the Institutional Review Board (IRB), for "Exemption Review" based on the criteria that research was conducted in an established educational setting involving normal educational practices as per Category 1. Participants were fully informed of the activities and purpose of this research prior to participation. This informed consent ensured the subjects right to freed and self-determination. Upon receiving permission from the district office and building principal, interaction on-site officially began. The researcher was then faced with delving into the field to reach those persons who could provide the necessary, valuable information. Discussion with the building level administration

outlined the course of study. All teachers were asked to complete Goddard's (2000) Collective Efficacy Scale as a way of assessing collective efficacy beliefs. Individual interviews with teachers were pursued through two avenues: recommendation from building level administration and voluntarily as solicited through the survey. Additional interviews were conducted with various administrators as a means of obtaining multiple levels of understanding and historical context.

There is an additional and equally important level of entry to be negotiated, that is gaining the trust and acceptance of those in the setting where the actual work is to be conducted (Rist, 1982). In addition, the researcher faces the problem of negotiating proximity and distance in relation to the participants studied (Flick, 1998). It was necessary to define the role of the researcher along the participant-observer continuum in an effort to maximize effectiveness for the research questions at hand. In order to best understand the culture and communal nature of the small school model, the researcher needed to get involved in the research to the extent that a trusting, working relationship was established. As Flick (1998) described, "a source of knowledge in this context is to gradually take an insider's perspective – to understand the individual's viewpoint or the organizational principles of social groups from a member's perspective" (p. 60). Thus the researcher strove to become embedded in the school culture to best investigate the small school model and collective efficacy beliefs as posed in the research questions.

Data Collection Techniques

Understanding the case in its totality, as well as the intensive, holistic description and analysis characteristic of a case study, mandates both breadth and depth of data collection (Merriam, 1998). As Yin (2003) stated, "the case study's unique strength is its

ability to deal with a full variety of evidence – documents, artifacts, interviews, and observation" (p. 8). In addition, the data collection techniques employed need to fit, and be suitable for answering the research questions posed. Indeed, it is the research questions that drive data collection techniques and analysis rather than vice versa (Howe & Eisenhart, 1990). Thus, several data collection strategies were employed to effectively address the research questions, including: survey, interview, observation and document analysis.

Survey

The initial data collection strategy implemented was through a survey administered to all teachers. Surveys gather data at a particular point in time with the intention of describing the nature of existing conditions and determining the relationships that exist between specific events (Cohen & Manion, 1994). The survey component was used as a means of obtaining baseline information about collective teacher efficacy beliefs at the particular site. The survey used was Goddard's (2000) 21-item Collective Efficacy Scale. All teachers in the high school were asked to respond to the survey. The survey was comprised of twenty-one statements (Appendix B) as a means of assessing collective teacher efficacy beliefs. It was administered by the researcher at a faculty meeting, during which participants were provided time to complete the survey. A total of 103 survey responses were collected from the faculty numbering 126. At the conclusion of the survey, teachers were then given the opportunity to volunteer for further dialogue via interview (Appendix D). Compiling the survey data provided the initial baseline data; in addition, it also provided insight for further study and guided the researcher into the interview phase of data collection.

Interview

Interviews comprised the next and largest component of data collection in this case study. Yin (2003) stated, "one of the most important sources of case study information is the interview" (p. 89). The major advantage to interviewing is it provides greater depth than any other method of data collection (Cohen & Manion, 1994). Rist (1982) described this best:

> To conduct a good interview is to hold an interesting conversation. Ideas and perceptions are exchanged, information is shared, and participants come to know more about each other in the process. The importance in stressing the conversational aspect of interviewing is to reinforce the notion that qualitative work involves considerable human interaction. (p. 443)

In this study, interviews provided a means for best coming to understand both the structure and culture supporting the small school model. Interviews were of a semi-structured nature with some predetermined guiding questions. For the most part, the interviews maintained a more open-ended format allowing the researcher to respond to the situation at hand, and to the emerging ideas of the respondents. Interviews with teachers were secured in one of two ways, voluntarily and through researcher invitation. As Owens (1982) suggested, the interview began with questions of broad scope and proceed through a conceptual funnel with increasingly more focused questions that check for verification, test, probe, and confirm. Teacher interviews focused on identifying factors influencing collective teacher efficacy (See interview protocol in Appendix C). In-depth interviews were also conducted with various administrators to better understand

the areas of organizational structure, management, collaboration, historical context, and obtain a broader scope of the small school culture.

The process for recording interview data involved detailed field notes throughout the interview process as a means of capturing all essential ideas. Interviews were also digitally audio-recorded in order to provide detailed review upon transcription. Confidentiality and anonymity were maintained for individual participants and the district at large. While collecting the data the researcher took the opportunity to paraphrase back the responses as a way to ensure accurate understanding. In addition, while objectively recording the words and essence of the respondent, the researcher simultaneously analyzed the information shared, and redirected questions to refine or substantiate meaning in order to thoroughly understand the respondent's perspective (Stake, 1995). Interviews comprised the essential source of data collection in this study. In total, thirty individual interviews were conducted, each raging from 15 to 60 minutes in length.

Additional Sources

Although survey and interview constituted the primary data collection tools in this case study, it also became necessary to include observation and document analysis for clarification and depth of understanding. Observational data represent a firsthand encounter with the phenomenon of interest and documents are seen as "objective" data sources and often used as a way to ground an investigation in the context of the problem being investigated (Merriam, 1998). Utilizing various sources of data presented the greatest possibility for accuracy and a holistic presentation. During the multiple site visits, observations were made of interactions between and amongst faculty in various settings, including: faculty meeting, pod interactions, and informal conversation. In

addition, documents such as: program of studies, agenda book, faculty handbook, websites, and yearbooks provided valuable contextual and cultural information. The use of multiple sources of evidence in case studies allows an investigator to address a broader range of historical, attitudinal, and behavioral issues (Yin, 2003). It is through the interaction of data collection methods that the strongest evidence can be compiled and the most firm analysis can be presented (Rist, 1982).

Data Analysis

Stake (1995) poetically described the data analysis process, "the page does not write itself, but by finding, for analysis, the right ambiance, the right moment, by reading and rereading the accounts, by deep thinking, then understanding creeps forward and your page is printed" (p. 73). Yin (2003) described the analysis of case study evidence to be the most difficult aspect of doing case study research. Describing analysis as a discrete step in the research process is misleading. It is an interactive process whereby data collection and analysis occur simultaneously, with the analysis giving direction to the data collection by suggesting what to check, when to see confirmation, and how to extend the data collection itself (Owens, 1982). Rist (1982) further explained:

> To state that data analysis occurs concurrent with data collection is only to acknowledge that fieldwork is not simply the mechanistic collection of predefined data from predefined sets of respondents. Rather, the entire time the researcher is in the field, there is a constant dialectic between collection and analysis. (p. 445)

It is through this iterative process of data collection and data analysis that the researcher gained a deeper understanding of the small school model while continually refining the implications for collective teacher efficacy beliefs.

Data analysis is a complex process that involves moving back and forth between concrete bits of data and abstract concepts, between description and interpretation - it is the complex process of making meaning (Merriam, 1998). Good analysis typically involves: categorizing, conceptualizing, and finally theorizing (Merriam, 1998; Miles, 1979; Taylor & Bogdan, 1998). The first component involved moving beyond the raw data to construct categories that effectively captured recurring patterns across the data. Initially the survey data were analyzed to provide (1) a general sense of collective efficacy beliefs and (2) potential themes for informing interview questions. As themes emerged it was necessary to reduce data by maintaining a focus on the research questions posed. These categories or themes are "concepts indicated by the data (not the data itself)….In short, conceptual categories and properties have a life apart from the evidence that gave rise to them" (Taylor & Bogdan, 1998, p. 141). Devising categories is largely an intuitive process, but it is also systematic and informed by the study's purpose, the investigator's orientation and knowledge, and the meanings made explicit by the participants themselves (Merriam, 1998). As the survey data were synthesized, categories began to emerge around the research questions and the collective efficacy framework and thus provided fertile ground for further study through interviews.

Interviews then provided the researcher the opportunity for detailed discussion of the small school features and potential impact on collective teacher efficacy beliefs. In order to effectively categorize the data, the researcher engaged in coding. Coding is the process of dividing data into parts by a classification system (McMillan & Schumacher, 2001). Dividing data into topics in this manner allowed the researcher to reorganize the data and work with it more effectively through constant comparison. Without coding,

data analysis can become very overwhelming. In this study, coding allowed the researcher to efficiently categorize the interview data.

As the interview process progressed through informed analysis of survey data, the analysis process moved toward linking categories, thereby conceptualizing and ultimately theorizing. Theorizing is a step toward developing a theory that explains some aspect of educational practice, in this case the small school model, and allowed the researcher to draw inferences about future activity (Merriam, 1998). Often the categories do not tell the whole story and it is necessary for the researcher to move to the higher level of theorizing. In the current study the categories and conceptualization came together using the collective efficacy framework to provide more universal hypotheses regarding the small school model. As Merriam (1998) described, "when categories and their properties are reduced and refined and then linked together by tentative hypotheses, the analysis is moving toward the development of a theory to explain the data's meaning" (p. 192). The research questions investigated in this study suggested this level of analysis as way of coming to a collective understanding of the small school model particularly around the concept of collective efficacy.

Validity and Reliability Considerations

All research is concerned with producing valid and reliable knowledge in an ethical manner. Validity and reliability are concerns that can be approached through careful attention to a study's conceptualization and the way in which the data were collected, analyzed, and interpreted, and the way in which the findings were presented (Merriam, 1998). Considerations around validity and reliability must evolve from a

perspective congruent with the philosophical assumptions underlying our initial research paradigm.

In the qualitative paradigm validity refers to the degree to which the explanations of phenomena match the realities of the world (McMillan & Schumacher, 2001). Juxtapose this with the main assumption underlying qualitative research: reality is holistic, multidimensional, and socially constructed; it is not a single, fixed, objective phenomenon waiting to be discovered (Merriam, 1998). As such, this study used both survey and interview strategies as the means of understanding reality. Owens (1982) offered several techniques for enhancing credibility: prolonged data-gathering on site, triangulation, member checks, collection of referential adequacy materials, development of thick description, memoing, and engagement in peer consultation. It is these strategies that were implemented in the proposed research as a means of addressing internal validity concerns.

Data were gathered on site initially via survey to identify general efficacy feelings and themes for informing the more in-depth interview questions. This multi-tiered approach provided the researcher the opportunity to become immersed in the culture and in turn allowed for ongoing data analysis and corroboration to ensure the match between findings and participant reality. As Rist (1982) explained:

> If one seeks information from large numbers of participants, then the questionnaire strategy would be appropriate. Alternatively, if the interest is in learning more about what a few people believe, then the in-depth interviewing of key informants or the development of life-history interviews are available. (p. 444)

This study used both strategies as a means of initially gathering general data through the survey and then more specific data through interviews. Member checks were conducted throughout the interview process and at the conclusion of the study as a means of corroborating perceptions and interpretations with the participants from which they were derived. These strategies allowed a deep level of understanding to be obtained and provided for the development of thick, rich description in such a way as to "take the reader there" (Rist, 1982, p. 15).

The 21-item survey instrument developed by Goddard, Hoy, and Hoy (2000) to measure collective efficacy was found to have strong reliability. As such Goddard, Hoy, and Hoy (2000) found:

> Teacher responses to the 21-item collective teacher efficacy instrument were aggregated to the school level and submitted to a factor analysis….the results revel that, in fact, all items loaded strongly on a single factor and explained 57.89% of the variance. The strength of the two-factor correlation ($r=.75$, $p<.001$) provided further evidence that collective teacher efficacy is the common unobserved factor operationalized by our 21-item Collective Efficacy Scale. (p. 494)

In addition, the internal reliability of the 21-item measure was found to be high (alpha = .96) (Goddard, Hoy, & Hoy, 2000). This further supported the use of the Collective Efficacy Scale as developed by Goddard, Hoy, and Hoy (2000).

A major strength of case study research is the opportunity to use many different sources of evidence, for which the most important advantage is the development of converging lines of inquiry; better know as the process of triangulation (Yin, 2003).

Triangulation was utilized in this study as a means for cross-checking themes across survey and interviews in order to provide further verification. In addition to serving as a corroborative device it also provided a strategy for establishing a holistic picture of the case at hand. As Cohen & Manion (1994) described, "triangular techniques attempt to map out, or explain more fully, the richness and complexity of human behavior by studying if from more than one standpoint and in so doing enhance the validity" (p. 233).

Peer consultation was also utilized in this study as means of checking the researcher's progress from an objective viewpoint. Professional colleagues as well as the faculty committee at Pennsylvania State University provided feedback on an ongoing basis to effectively address questions or concerns in an effort to enhance validity. As data analysis proceeded, memoing assisted the researcher in making conceptual leaps from raw data to abstractions. Through memoing, data exploration is enhanced, continuity of conception and contemplation is enabled and communication is facilitated (Birks, Chapman, & Francis, 2008).

External validity, or generalizability, is concerned with the extent to which the finding of one study can be applied to other situations (Yin, 2003). Considering this notion in light of the case study design presents an interesting quandary. In qualitative research a single case is selected precisely because the researcher wishes to understand 'the particular' in depth, not to find out what is generally true of the many (Merriam, 1998). The research questions in this case study were designed to specifically investigate the small school model, which in turn limits the generalizability to a certain degree. However, such limitations are somewhat inherent in the case study design. The primary strategy utilized in this study to ensure external validity to the greatest extent possible is

the provision of thick, rich, detailed descriptions so those interested in transferability will have a solid framework for comparison.

Reliability refers to the extent to which research findings can be replicated (Merriam, 1998). Yin (2003) proposed two specific tactics as ways of approaching the reliability problem: using a well-defined case study protocol and maintaining a chain of evidence. Lincoln and Guba (1985) devised the "audit trail" as a method of documenting the nature of each decision in the research plan, the data upon which it was based, and the reasoning that entered into it. Survey data were first analyzed to ascertain the general tone of collective efficacy beliefs in the building and also identify themes for further probing. These emerging ideas were then explored and documented as data analysis proceeded. In order to establish an effective audit trail, an investigator's log, or case study database was maintained throughout the proposed study. The database included: notes, documents, transcriptions and tabular materials. Furthermore, the database also served as a means of demonstrating effective implementation of sound case study protocol and indicated the study's link to the initial research questions.

It is through these strategies that the researcher addressed the concerns over validity and reliability in way that is consistent with the case study design and the specific research questions of this study. Using sound protocol and methodology enhanced the validity and reliability of this research.

Limitations

The case study has certainly earned the status as a distinctive form of empirical inquiry, although many researchers have been critical of its design. The special features of case study research that provide the rationale for its selection also present certain

inherent limitations in its usage. Researchers must make every effort to minimize these limitations through sound protocol and methodology.

Generalizability has plagued qualitative researchers for some time. A fundamental and long-standing dilemma within case study research is that the method requires a focus on a very small number of sties, yet there is often a desire to draw conclusions which have a wider applicability that just that small number of cases (Walford, 2001). The current research offered no exception as only one school served as the research site. There are two opposing views concerning generalizability for case studies: either assuming that one cannot generalize due to the inherent nature of the research design, or attempt to strengthen generalizability by using various techniques (Merriam, 1998). In the current research, attempts were made to strengthen the generalizability. Stake (1985) used the notion of naturalistic generalization to explain the idea that full and thorough knowledge of the particular allows one to see similarities in new and foreign contexts. Yin (2003) proposed that "case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (p. 10).

Lincoln and Guba (1985) discussed the notion of transferability and argued that readers can make informed decisions about the applicability of the findings to their own or other situations. According to Lincoln and Guba (1985) the researcher needs to "provide the thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether the transfer can be contemplated as a possibility" (p. 316). The research in this study provided the thick, rich description necessary to maximize the potential for transferability.

A further limitation in this study involved the strength of the small school model as the unit of analysis and its possibility for transferability. The small school model is only one of many restructuring models that have surfaced in the high school reform initiatives. While selecting this specific model may be seen as limiting the transferability, the small school model was selected because of its potential applicability to many of the other models. The small school model is a more basic restructuring model that possesses many of the concepts fundamental to the other high school reform initiatives. This selection was purposeful on the part of the researcher as a way of strengthening the proposed research and again improving the likelihood of transferability.

Chapter 4

RESULTS

Introduction

The purpose of this case study was to investigate the effects of the small school model on the collective efficacy beliefs of teachers as experienced by the participants themselves. The study was conducted at a suburban high school in the northeastern United States which operated under a grade-level house system. The researcher gathered information by use of a 21-item survey, digitally recorded interviews, observation, and document analysis.

The research questions explored possible linkages between the small school model and teachers' collective efficacy beliefs. Three questions provided the focus and structure for this study. They are as follows:

1. What contextual factors prompted the shift to the small school model and how was the plan implemented?

2. What structural elements, factors, or processes in the small school design are perceived to most strongly influence (promote/hinder) teachers' collective efficacy beliefs? Why?

3. In what ways does the small school model contribute to or detract from the primary sources of collective efficacy beliefs: mastery experience, vicarious experience, social persuasion, and affective states? Why?

Historical Context

Demographics

Cedar Ridge is a suburban school district located in the northeastern United States. Just over 20,000 students attend the fifteen elementary (grades K-6), five middle (grades 7-9), and three high schools (grades 10-12) in the district. Located in an upper-middle class community, 92% of CR 2007 graduates furthered their education at two or four year colleges, as posted on the district website.

Currently there are three high schools in the Cedar Ridge school district. CR Washington, formerly Cedar Ridge High School, was the original and oldest high school in the district. As enrollment increased, a second high school, CR Adams, opened its doors in the early 1970's. Most recently a third high school, CR Jefferson, opened in 2004 to again accommodate increasing enrollment. All three high schools operate under a grade-level, house system with a semester block schedule and a common program of studies. Although strong efforts are made to maintain equity amongst the buildings, each school has adopted unique components with slight variations resulting in three distinctly unique climates and cultures. This research was conducted at the newest of the three high schools, Cedar Ridge Jefferson which was in its fifth year of operation at the time of research.

Rise of CR Jefferson

The house concept was adopted in Cedar Ridge for the 1999-2000 school year as a response to the tragedy at Columbine High School. The incidents at Columbine occurred on April 20, 1999. Immediately following that tragedy, the community and administration of Cedar Ridge responded by proposing to the school board a shift to a

house system. It was their hope that the house system would provide a framework that better fostered relationships and connected each student to at least one adult in the building. At the time, each of the two high schools was operating with one building principal and two assistant principals, one handling discipline and one attendance. A shift to the grade-level house system required a third assistant be added to the two existing high schools. In addition, their responsibilities were restructured so that each assistant principal operated as a house principal for one grade (10^{th}, 11^{th}, or 12) while the building principal continued to oversee the overall operations. Furthermore, the school board also approved an additional counselor be added to each building, bringing the total for each building from five to six (two for each grade) while providing another structural change to foster relationships with students. Consequently, the two Cedar Ridge high schools opened the 1999-2000 school year operating under the newly adopted house system with a house principal for each grade and an additional counselor in an effort to maximize connections with students.

At the same time discussions began regarding the opening of a third high school to accommodate increasing enrollment and future projections. With board support, a site was obtained and architectural plans were developed for a building costing upwards of 80 million. As a mandate from the superintendent, the new building would operate with the existing grade-level house structure. The biggest difference between the new building (Jefferson) and the existing two schools was the ability to design CR-Jefferson to physically accommodate the house system. The design provided for a three-story structure with each grade operating on one floor. A “house office” was designed on each

floor to accommodate the house principal, two counselors, and two secretaries. With the design in place, building proceeded and Jefferson was slated to open in the fall of 2004.

As with any building project, redistricting was necessary to establish a sending area for the newly built Cedar Ridge Jefferson. It was decided that students would be pulled from both of the existing high schools to populate the new building. Amidst moderate grumbling (most prominently from the students who would be seniors), students, teachers and community members were prepared for the opening of Jefferson for the 2004 school year. As the construction progressed, it became apparent during the summer of 2004 that the building would not be ready for September, but instead would be delayed until January of 2005, for second semester. The decision to delay the opening for an entire semester was based on the semester block format. Since students assumed a new course load each semester, a more natural break was created by opening Jefferson at the semester break. Unfortunately, all preparations had been made for Cedar Ridge High School-Jefferson to operate as an autonomous institution for the fall of 2004. Sports teams were prepared with coaches, uniforms and schedules. Student schedules were arranged and teachers rooms assigned based on the expected opening.

This unanticipated delay presented the biggest challenge for administrators, teaches, and students alike. Unanimously, all interview subjects described the delay in opening as the biggest hurdle in the opening of CR-Jefferson. After reviewing several options, it was decided that students would stay at their sending school (either Washington or adams) for the first semester and teachers would be divided between the buildings. Students were identified as CR-Jefferson students even though they attended classes along side of the students in the already overcrowded existing high schools

(Washington and Adams). House principals traveled between buildings, sports teams competed with the Jefferson name although they had to practice and play at satellite locations. Students described themselves as "Jefferson-Adams" and "Jefferson-Washington" based on the sending school in which they resided. The CR Jefferson yearbook for the 2004-2005 school year shows photographs of students in two different uniforms sitting in the cafeteria on game days. Through the turmoil, separate classes, separate clubs, separate sports, and separate student governments made the best of a difficult situation and waited for their building to be completed.

Staffing and the CORE Team

The school year prior to CR-Jefferson opening marked the beginning of staffing considerations. In the spring of 2003 both current principals showed interest in becoming the principal of CR-Jefferson. Both participated in the application process which involved interviews and writing samples. Upon completion of the process, the superintendent selected the principal of CR-Washington as principal of the new building. Next, teachers at the existing schools (high schools and middle schools) were asked to indicate their interest in moving to the new school. Many members of each staff applied for the transfer; however, the remainder of the positions were filled by invitation of current teachers and hiring of new staff from outside the district. The principal noted that during staffing an effort was made to balance the number of teachers from each of the existing high schools, particularly since he was coming from Washington and he did not want to give the impression that preferential treatment was given to his staff. He also described the process to be "not as difficult as people described, it was filling needs and getting good people on board." Teachers also described the staffing process as smooth

and non-confrontational. Once the staff was finalized, the building principal began the critical process of establishing a Core Team to develop the fundamental operating principles for the new CR-Jefferson. As the principal described, "the main goal of the Core Team was to develop vision, values, and goals for Jefferson and address the core issues facing the school."

The Core Team was comprised of twenty-one members including the principal, teachers, house principals, guidance counselors and other important staff members (secretarial staff, security, custodial staff, and Athletic Director). The team met monthly beginning in January of 2004, a total of approximately eight to ten times. The principal hand-picked each of the members of the team and personally facilitated the work of the group. The yearbook described the Core Team as instrumental in establishing the new high school. In the words of one Core Team member, "our main purpose was to unify students, teachers, and staff members so it would be a smooth transition for everyone involved." In addition to the district's ongoing commitment to the principles of *Breaking Ranks: Changing an American Institution* (1996), the work of the Core Team was guided by DuFour and Eaker's (1998) work on professional learning communities. Each member of the Core Team received a copy of DuFour and Eaker's (1998) book which subsequently steered the work of vision statements (Table 4.1), goals (Table 4.2) and value statements (Table 4.3).

Table 4.1

Cedar Ridge Jefferson Vision Statements

Students – Cedar Ridge Jefferson students will:

- Be respectful of each other, themselves, adults, the community, and facilities
- Assume responsibility for their own learning as well as their own actions

- Develop a connection to C. R. Jefferson that reflects and promotes school pride

Parents – Cedar Ridge Jefferson parents will:

- Act as partners in the educational process of their children
- Serve as effective role models in citizenship and life-long learning
- Provide support through their involvement in school functions and activities

Teachers – Cedar Ridge Jefferson teachers will:

- Continue to develop professionally by being active members of a collaborative learning community
- Create learning environments that are safe, positive and inclusive
- Foster student success through high expectations, collaborative learning and a challenging curriculum

Administration – Cedar Ridge Jefferson administrators will:

- Be accessible, visible and responsive to students, staff and community
- Support and promote a safe and successful learning environment for students and staff
- Model and promote the vision of the professional learning community

Staff – Cedar Ridge Jefferson staff will:

- Promote a sense of pride and ownership in the school
- Demonstrate an involvement in the development and improvement of the school community
- Contribute to a safe and caring climate

Curriculum – The curriculum at Cedar Ridge Jefferson will:

- Be based on high academic standards
- Provide diverse and challenging experiences that are relevant and meaningful to students
- Be collaborative and interdisciplinary
- Be innovative and evolving

Reputation – Cedar Ridge Jefferson will be recognized as:

- A community of excellence
- A safe and caring learning environment
- A leader in innovation and sound educational practices

Table 4.2

Cedar Ridge High Jefferson Goals

Academic Achievement

Develop strategies to positively impact:

- Student performance on standardized tests
- The number of students recognized as Merit Scholars
- The number of students participating in A.P. courses
- The graduation rate

Collaboration

Encourage teachers to choose the collaborative mode within the Cedar Ridge Professional Development Plan. An examination of best practices would be included in the collaboration process.

Operations

Develop procedures, which ensure:

- A smooth and efficient transition
- Student and faculty safety
- Maximum utilization of available resources

Climate

Develop procedures to increase the sense of connection and belonging among all members of the school community.

Table 4.3

Cedar Ridge Jefferson Value Statements

The Cedar Ridge Jefferson Community will:

Demonstrate excellence in

- Academic standards
- Collaborative teaching/learning
- Extra-curricular endeavors
- Enthusiastic life-long learning habits
- Creative thinking and quality craftsmanship

Model responsible citizenship through

- Respect for self and others
- Responsible choices and behaviors
- Open-mindedness
- Tolerance
- Positive attitudes

Encourage a positive school climate through

- Caring and supportive attitudes
- Concern for all members' physical and emotional safety
- Experiencing and expressing school pride

Demonstrate pride in

- School building and grounds
- Self and others
- All of our endeavors

These fundamental documents were eventually distributed to the entire staff during the introductory faculty meeting as the foundation for the new CR Jefferson. In addition, the Core Team was also involved in many of the practical considerations involved in opening a new building. Several members of the Core Team reflected on the experience of working with the architects to design their specific areas, particularly in the elective areas (Technology Education and the Arts). The team was also involved in ordering necessary equipment and supplies as well as teaching the staff how the building worked.

During the course of research, interviews were conducted with eight members of the Core Team. Core Team members, including the principal, were asked to describe the non-negotiable terms which served as a guide for their work. Upon further probing, these were the mandates that were dictated by district office, more specifically the superintendent. The non-negotiable terms described by teachers and administration were: (1) semester block schedule with four 90-minute classes consistent with Washington and Adams, (2) the same program of studies as the one currently existing for Washington and Adams, (3) a grade-level house system segregated by floor, (4) a house office on each floor to accommodate the house principal, two counselors, and two secretaries, and (5) planning centers (pods) for teachers that would not be departmentalized but would be integrated by subject area. Using these universal guidelines in conjunction with the created vision, goals, and values, the Core Team established the fundamental operating principles for the staff and students. The primary consideration made by the Core Team was the development of the climate and culture by emphasizing relationships as a core value. One Core Team member reflected, “the goal of the Core Team was to create our own culture with an emphasis on community and relationships.” A goal which they

successfully attained, based on comments and feedback from various staff members, such as, “Jefferson is a very different climate from the other high schools, we focus on climate much more by building relationships with our students.” All in all, it was the work of the Core Team that set the groundwork for the emerging CR-Jefferson community and steered the transition process.

Student Advisory Committee

In addition to the Core Team, a Student Advisory Committee was also formed the year before Jefferson was slated to open. This group of Jefferson-bound students from both Washington and Adams met with the newly appointed administrators to discuss student-relevant issues. It was this group that advised administration on the student perspective and served as the “student voice”. Issues that were addressed by the Student Advisory Committee included: school colors, school mascot, rules, and student transitional activities. The transitional activities were opportunities created for the student body to ease the transition as well as foster new traditions. Activities included: senior open house (a night for only seniors to tour the new building), sophomore-junior open house (a similar night for sophomores and juniors), Titan Tent event (an evening, outdoor event with food, music and dancing), an opening pep rally, a dedication ceremony, and special accommodations for the first “red carpet” homecoming. Initially the Student Advisory Committee met independent of the Core Team but eventually the two groups collaborated as the opening neared. In summary, the Student Advisory Committee, in conjunction with the Core Team, set the groundwork for establishing a culture unique to Jefferson while blending the strong traditions of Washington and Adams.

The Opening of CR Jefferson to CR Jefferson Today

The fall of 2004 came and went and CR Jefferson did not open its doors. Instead, Jefferson students remained at their respective sending schools of CR Washington and CR Adams, calling themselves "Jefferson-Adams" and "Jefferson-Washington". Administrators, teachers, staff, and students did their best to operate three separate high schools under only two roofs. Again, preparations were made for the opening of Jefferson for second semester. In the weeks prior to the opening, students visited the building for Senior Open House and Sophomore-Junior Open House. Both evenings, depicted in the yearbook, described "an exciting time for students to wander the new halls, find their lockers and classrooms, pick up their schedules, and finally see the school they would spend their next years." The semester ended on a Friday in January and the following Monday Jefferson opened its doors. Several teachers described the short transition period as challenging, but were also very quick to note the dedication and excitement felt by the staff during those few weeks. Building administrators and many teachers spent the entire weekend at Jefferson, making final arrangements, preparing classrooms, and bonding around the transition process. Students from all grade levels joined together to decorate their new school with colorful posters, balloons and other decorations to welcome everyone to the new school on Monday. Several pages in the '04 -'05 yearbook were dedicated to the move, pictorially depicting "Traveling to Jefferson", "Remembering Adams", "Remembering Washington" and "Setting Up House: The Excitement Builds".

January 31, 2005 Cedar Ridge Jefferson celebrated Opening Day. As the students describe in the yearbook,

> It was a cold January morning when we finally arrived at Jefferson. After months of anticipation, we walked through the doors for the first time. We were the first students to roam these halls between classes and the first to eat lunch atthese tables. Jefferson was finally a reality and we began to feel at home.

While many were optimistic and ready to turn over a new leaf, many others had trouble letting go of the engrained traditions from Washington or Adams. Washington and Adams had traditionally been rival high schools with unique cultures and traditions. Students, faculty, parents and the community now had to come together under one roof to develop a new culture and embrace their so called rivals. As one teacher on the Core Team described, "we worked really hard at trying to make a culture independent of the other schools while blending the two together." Another teacher noted, "…for so many years they had been told that the students at the other school (Washington or Adams) were their rivals and now they were supposed to be their teammates, friends, and classmates. There was definitely a lot of tension at the beginning – trying to make two schools that had been rivals one community." All teachers and administrators agreed that this was indeed the biggest challenge once the building was opened. As an example of this sentiment, one teacher offered, "the biggest challenge was getting people from Adams to not think they were at Adams anymore and getting the people at Washington to not think they were at Washington anymore, instead to come tighter as a Jefferson family."

The community also brought challenges of their own during the transition. With a rich tradition in place at Washington and Adams, many community members had grown up in the district for generations and had established allegiances to a specific high school.

In particular were families with multiple children that graduated previously and maintained the expectation for all their children. As one house principal noted,

> In this community there are many people who have been here for generations –so if my family allegiance is this, how do I create something different? This carries over into the classroom too…my brother or mother had this teacher and I had planed to have that teacher and now I can't. There is some resentment in that. There were layers of expectation we were battling against while still remaining positive and providing opportunities to draw kids in and have ownership over what we were doing.

It was evident that many of the challenges presented by the students were also echoed in the community.

On the other hand teachers did not seem to have the same issues in transitioning to the new building. "Teachers were really excited for a new building, new technology, and new culture," as one teacher described and many others echoed. Teachers described a meshing of personalities during the opening weeks, but one that was shrouded with excitement. Many staff members credited the administration, specifically the principal, for orchestrating a smooth transition. In particular, teachers recognized that he stressed the idea of community and culture, and selected a "really good mix of teachers" that were eager and enthusiastic. Teachers also noted that the transition was made somewhat easier because of the district-wide use of semester block scheduling. As custom had it, this meant that teachers and students were starting over with new classes at the same time they were opening the doors of Jefferson, as also was the case at Washington and Adams.

By making the transition at the semester's end, it created more of a natural break for both students and faculty alike.

Unfortunately, for many students the transition was a longer, more difficult process. Many students were not so quick to leave behind their old school, rich with culture and tradition and embrace the idea of a brand new, antiseptic feeling building. Fortunately, much of that has faded. During the course of interviews, teachers were asked if the students could now be described as a united "Jefferson" community. All teachers responded affirmatively, but lamented it was a process that evolved over time. Teachers described the complete transition as taking three or even four years to occur. It was their belief that the Jefferson culture was finally unified once the class that started in January 2005 had graduated. In other words, by the time the students that began at Jefferson the following fall had eventually graduated, the "Jefferson" culture had been defined. Teachers believed that by spending their entire three years of high school at Jefferson, students were finally able to unite and feel at home at Jefferson. As one teacher described, "the first three years were rough for the kids, particularly for the seniors that only came for one semester the first year. We did have some kids that were 'gung-ho' but we also had many that were completely against is, fighting it to the very, very end." Similarly, another teacher noted, "for a while it was hard because of the tradition, but now after four years this is home." " [The principal] really stressed the idea of creating a community here, but it has really taken the past three to four years to establish a true 'Jefferson' spirit and tradition – where you feel like this is its own school….before that your felt like we were still pulling from Adams and Washington," shared another teacher.

During the years following the opening, faculty and administration worked hard to blur the distinction between Washington and Adams students. Extensive efforts were made to build cohesiveness through celebratory events as well as day-to-day community building. Students remained active in the planning as a series of "first" celebrations were orchestrated, for example: first homecoming, first birthday, first graduating class, and first graduating class to attend all three years. Faculty and administration described a period of positive growth and continued excitement from the teachers and staff. Many believe that it was the positive encouragement and persistence of the faculty that were fundamental in forging the new CR Jefferson. With the passage of time, distinctions were blurred and Jefferson traditions began to be established, school spirit improved, and unity began to emerge.

In summary, there now exists overwhelming consensus that CR Jefferson is a unified building with a unique culture and traditions uniquely their own. While initially there were struggles and a period of growth, it was the combined efforts and persistence of students, teachers, staff, and administration that received credit. Perhaps this is best summarized by one administrator's comments:

> Administration did a fabulous job giving students a voice – starting with the Core Team and moving forward. It meant a lot they could pick colors, the logo, and the mascot – it was important to them. The transition activities permitted kids to 'find fun' that was meaningful. For example, our school-wide first birthday party on January 30, 2006 - we had a cupcake and party hat for every student. That went a long way – that freedom, that encouragement, and empowerment for students went a long way to making all students feel this was a place they have a

> voice. On the flip side, the faculty worked hard to dream up ways for students to connect and own the process while constantly remaining positive. All this was meaningful to kids because they appreciated that faculty members were willing to clearly go above and beyond, coaches went from field to field the first year….this sent a message we would do anything to make it work.

According to faculty and administration, it *has* worked. As an outside observer of the culture and spirit of Jefferson there is an energy and excitement today that even as a visitor you experience just from walking into the building. A building that had a tumultuous opening, through persistence and dedication of a professional staff, created the Jefferson of today. A Jefferson that will continue to evolve, deepen their traditions, and enhance their unique culture.

Collective Efficacy

Overall Survey Results

The conceptual framework applied to the current research was the notion of collective teacher efficacy; in particular, the impact of the small school design on teacher's collective efficacy beliefs. Initial data on collective efficacy beliefs were collected through administration of Goddard's (2000) 21-item Collective Efficacy Scale. The researcher attended a faculty meeting to introduce the study and distribute a packet containing: Recruitment Letter (Appendix B), Implied Informed Consent Form – Survey (Appendix F), Teacher Survey: Collective Efficacy Scale (Appendix C), and the Interview Volunteer Form (Appendix E). Staff members were given time at the meeting to complete both the survey and the volunteer form. A total of 103 surveys were returned

from a total staff of 126, capturing 81.7% of the faculty. Demographics of respondents are summarized in Table 4.4.

Table 4.4

Survey Respondents Demographics

Demographic		Number of Respondents
Subject Area	Art	4
	Business Ed	5
	Counselor	5
	English	13
	Family/Consumer Science	2
	Health/PE	3
	Library	1
	Math	16
	Music	1
	Science	14
	Social Studies	14
	Special Ed	14
	Tech Ed	2
	TV/Communications	1
	World Languages	8
Yrs in Education	1-5 years	35
	6-10 years	28
	11-15 years	22
	16-20 years	8
	20+ years	10
Yrs at this school	0	8
	1	11
	2	10
	3	12
	4	26
	5	36
Present for Opening	Yes	46
	No	57

The survey contained 21 statements related to collective efficacy and measured the teachers' beliefs about the collective capabilities of the faculty. The respondents were asked to rate each statement on a 6-point Likert scale ranging from "strongly disagree" to "strongly agree". Both positively (+) and negatively (-) worded items appeared in the

scale in the areas of group competence (GC) and task analysis (TA). This produced four types of items to assess collective efficacy beliefs: group competence/positive (GC+), group competence/negative (GC-), task analysis/positive (TA+), and task analysis/negative (TA-). In analyzing data, each positively worded statement was valued in ascending order from 1 to 6, with 1 representing "strongly disagree" and 6 representing "strongly agree". For the negatively worded statements, values were assigned in descending order from 6 to 1, with 6 representing "strongly disagree" and 1 representing "strongly agree". An "item value" was calculated for each statement by multiplying the number of responses in each scale by the designated value (1 to 6), then summing those for the individual statement and dividing by the number of respondents for the item. Each item value ranges from one to six, with one representing a low level of collective efficacy and six representing the highest possible level of collective efficacy (Table 4.5).

Table 4.5

Collective Efficacy Scale: All Respondents

Item #	Item Type	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	GC +	0	0	0	0	14	89	103	5.86
2	GC +	0	0	1	9	63	30	103	5.18
3	GC +	0	0	0	6	43	53	102	5.46
4	GC +	0	0	1	5	45	51	102	5.43
5	GC +	0	0	2	9	51	41	103	5.27
6	GC -	52	42	7	1	1	0	103	5.39
7	GC -	17	21	16	29	18	2	103	3.84
8	GC -	33	29	18	17	4	2	103	4.62
9	GC -	93	10	0	0	0	0	103	5.90
10	GC -	45	39	10	4	5	0	103	5.12
11	TA +	11	5	15	23	44	5	103	3.96
12	TA +	3	5	10	41	33	10	102	4.24
13	TA -	74	16	4	1	4	4	103	5.39
14	TA -	34	50	12	6	0	0	102	5.10
15	TA +	3	1	1	4	23	71	103	5.49
16	TA +	0	1	2	14	49	36	102	5.15

17	GC +	1	0	0	3	32	67	103	5.58
18	GC +	0	1	0	6	41	55	103	5.45
19	TA -	92	11	0	0	0	0	103	5.89
20	TA -	24	37	23	15	3	1	103	4.59
21	GC -	43	43	11	4	0	2	103	5.16
	GC +	5.46						**AVG**	**5.15**
	GC -	5.00		GC	5.25				
	TA +	4.71							
	TA -	5.24		TA	4.98				

The overall collective efficacy beliefs of the staff as a whole averaged 5.15 on a scale of 1 to 6. The group competency/positive (GC +) statements averaged 5.46, group competency/negative (GC -) averaged 5.00, task analysis/positive (TA +) averaged 4.71, task analysis/negative (TA -) averaged 5.24; thus, producing a total group competency average (GC) of 5.25 and task analysis (TA) average of 4.98. The overall average collective efficacy scale of 5.15 provided the researcher an initial indication that the staff possessed a strong sense of collective teacher efficacy.

While visiting CR Jefferson for the initial faculty meeting, the researcher quickly observed the positive energy present amongst the faculty. This was substantiated by the high response rate of the teachers (81.7%) and their willingness to participate in the survey, and was further validated in the collective efficacy survey response average of 5.15. In addition, this positive climate was also anecdotally evident in the conversations and tone of the meeting in general. Teachers were genuinely responsive not only to the survey, but were interested and receptive to all items on the agenda, including: the principal's discussion on assessment practices and the faculty coordinator's review of the graduation project process. At all times, teachers asked questions, responded openly to the information presented, and were exceptionally receptive and responsive. The final

item on the agenda was from the faculty Spirit Committee and involved initial planning of the annual Halloween celebration. Teachers quickly moved into groups to discuss themes for their pod with a refreshingly, and almost childlike manner. Their genuine excitement and spiritedness was the first glimpse of the positive energy present amongst the faculty and supported the initial findings collected in the survey that day.

Factors Contributing to Collective Teacher Efficacy

The overall positive survey responses segued into the interview phase of the research. Interview participants were obtained by one of two methods, on a volunteer basis or through invitation. During the initial faculty meeting, staff members were given the opportunity to volunteer for participation in individual follow-up interviews. At this meeting, 32 teachers indicated a willingness to be interviewed. Additionally, interviews were also secured through invitation, particularly for the administrative staff. In total, 30 interviews were conducted over the course of three months; 26 voluntarily and 4 through invitation. Arrangements for interviews were made via email; it was at this point that a few of the initial volunteers opted out of the process. Prior to the interview, each interview subject consented by signing the Informed Consent Form (Appendix G). Interviews were digitally, audio recorded, each ranging from 30 to 60 minutes in length. Interviews were semi-structured in nature, with an emphasis on identifying factors influencing collective teacher efficacy beliefs (See interview protocol Appendix C). The researcher responded to each interviewee and to the emerging ideas of the respondent as a means of guiding the interview. Upon analyzing the interview data, several themes surfaced as factors contributing to the teachers' collective efficacy beliefs, namely and in order of prominence: house system, pod arrangement, leadership/planning, faculty

composition, Titan Forum, building/facility, community, and student body. Table 4.6 summarizes the number of staff members who identified each of the above named factors during the interview process.

Table 4.6

Factors Promoting Collective Efficacy – Interview Data

FACTOR	Teachers (22)	Administrators (4)	Counselors (4)	TOTAL (30)
House System	21	4	4	**29**
Pods	22	3	3	**28**
Leadership/Planning	19	3	4	**26**
Faculty	20	4	1	**25**
Titan Forum	18	3	2	**23**
Building/Facility	16	0	2	**18**
Community	5	1	0	**6**
Student Body	5	0	0	**5**

Each of the identified factors promoting collective efficacy beliefs will be detailed further.

House System

The House Layout

The house system at Jefferson was unique from the previous systems at Adams and Washington primarily due to the ability to design a new building to physically accommodate the house system. The small school model that all three Cedar Ridge high schools utilized was a grade-level house system. At CR Jefferson, the three-story design allowed one grade, tenth through twelfth, to be "housed" on a separate floor. As one of the new teachers described, "looking at this building from the outside, it's huge! You walk in the door and right away it is split into thirds." Furthering this concept, a grade level house office was established on each floor to accommodate the house principal, the house principal's secretary, two grade level counselors, and the counselors' secretary.

The main floor of the building was identified as the senior house. The lower floor was the sophomore house, and the top floor was the junior house. The house principal and corresponding counselors remained with their designated classes for all three years resulting in each house office relocating during the summer to matriculate to the next grade floor with their students. The five core classes (English, Social Studies, Math, Science, and World Language) were spread throughout the three floors based on the corresponding grade level. The elective classes (Arts, Business, Family/Consumer Science, Health/PE, Music, Technology, and TV/Communications) were all located on the main floor separate from the academic areas. There were two designated elective areas located on the periphery: Health/PE on one side of the building beside the cafeteria and the remainder of the electives on the other side surrounding the auditorium. The center of the building was comprised of the core academic classes and the corresponding house office. The identical arrangement above and below, constituted the core academic areas and served as the basis for the "house" design (Figure 4.1).

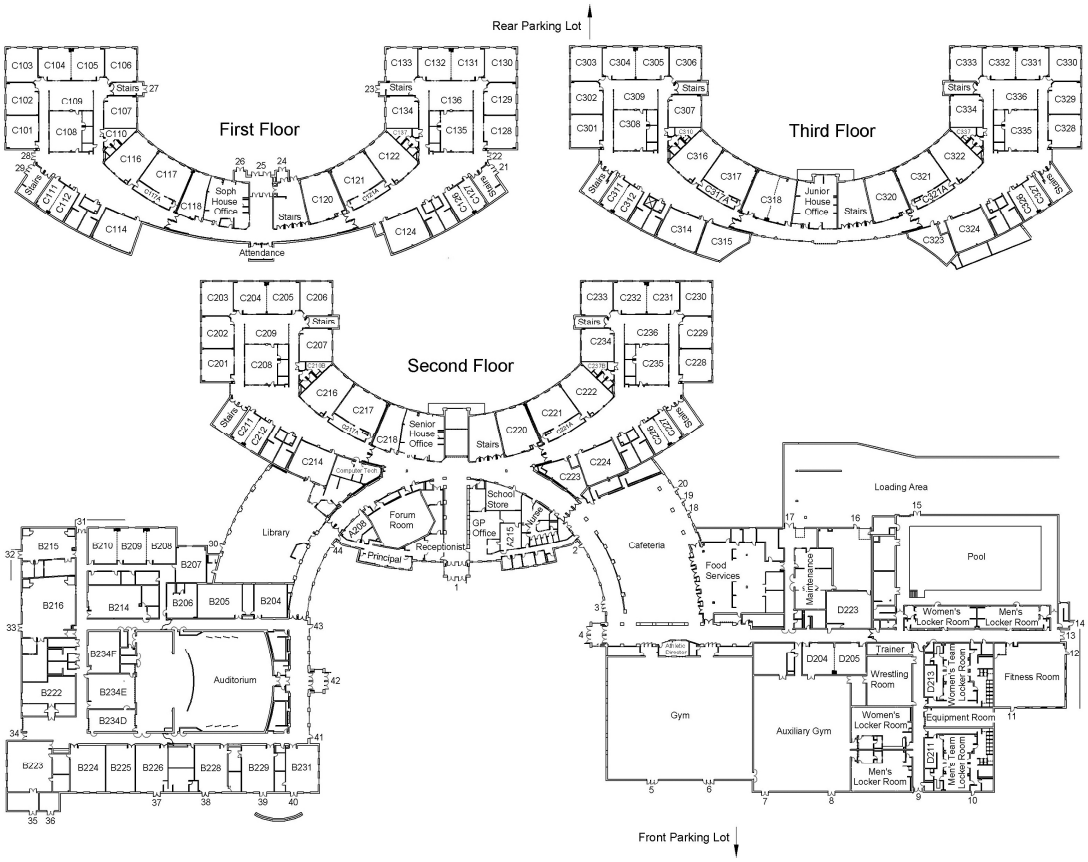

FIGURE 4.1. Floor Plan of CR - Jefferson

The house office served as the hub for the floor and was intended to provide stability and consistency for the students in connecting with a core group of adults in the building, in the words of one teacher, "…as far as organization of a school and breaking a large culture into smaller structures, the house system is a great way to do it!" Teachers describe the house as a positive factor for students. Because the house staff remained with the same grade for three years, teachers recognized the benefits, "…the house principal doesn't have to get to know different kids each year and kids don't start from scratch each year, there is consistency and they really get to know the kids." In addition, house principals described having a great deal of autonomy and really felt as though they

were "the principal of 600." As one teacher described, "…the house system is very effective in that house principals have a lot of authority, if you have an issue with a student in your classroom you have access fairly immediately – the house principals are very supportive and have the history with those kids." "I love the idea that the house principal has the opportunity to have the same kids and impact them as a leader," reflected one teacher. In the words of yet another teacher, "…with the house system, there is a structure, and you always know who to go to (teachers and students)."

Faculty & Students

For faculty members, room assignments were generally consistent from year-to-year. Initially, considerations were made in arranging teacher schedules to assign classrooms corresponding to the grade level taught by each teacher. In speaking with the house principal that was originally responsible for scheduling and assigning classrooms, it was evident that this system contained imperfections. Most notably, there were very few teachers that taught a pure grade-specific schedule. In other words, many taught a mixed grade level schedule. Social Studies and English were identified to be the most pure in terms of remaining on the corresponding grade-level floor. Math and World Language tended to vary primarily based on students' ability. For example, it was not uncommon for Geometry classes to contain a mix of 10^{th} and 11^{th} grade students and likewise for most of the world language offerings. Science was given mixed reviews in that, it was rather pure initially, but as students began to take electives, courses were scattered throughout the building. Another confounding factor was that most teachers were assigned to a specific room and were very infrequently moved once they were initially assigned. As a result, a teacher's course schedule may change from year to year

with different grade levels, but the classroom remained on the originally assigned floor. In summary, although attempts were made to maintain consistent grade-levels on each floor, it was evident that this was not always a priority.

For students, the house system provided a smaller, more communal environment as well as consistency with counselors and house principals. As one teacher described, "for students, having their own respective principal and floor feeds into the idea of personal relationships and streamlines everything." House offices were constantly buzzing with activity. The reception area contained a large seating area and two secretaries (one for the house principal and one for the counselors) seated side-by-side. Each house office also contained two counselor offices, a conference room, a kitchenette, and a house principal's office. A steady flow of traffic was evident in the house offices. Students were very comfortable coming to the house office as a resource for various concerns and had clearly developed a friendly relationship with counselors, house principals, and even the secretaries. Several of the offices had candy bowls which drew a steady stream of visitors! As one teacher reflected, "kids really connect with people in the house – principal, guidance counselor, even the house secretaries. Kids really feel like they have a place to go when they have an issue. If they have a problem they know their house principal or counselor will take time to talk to them." The house offices would easily be described as a hub of activity for students and staff members alike. Teachers reported using the main office solely for collecting mail, while the house office is where all daily business was conducted.

In regard to the house system and the impact on student schedules, interesting trends emerged. All three Cedar Ridge high schools operate on a semester block

schedule with four, 90-minute blocks daily. Students may enroll for four courses each semester, or be assigned a study hall for any unscheduled period. Teachers taught three classes each semester, which varied from fall to spring. The original intent of the scheduling process aimed for each student to attend as many classes as possible on their respective house floor. Administration worked hard to "house" the core academic classes, keeping in mind that seniors were housed on the main floor, sophomores on the lower floor, and juniors on the top floor. However, elective courses for all grade levels occurred on the main floor. As a result of this and the teachers somewhat hybrid schedules, students' schedules were not purely contained on the respective house floor. When asked how many courses each students attended on their house floor most teachers indicated three or even two (out of four possible). One teacher described and several others echoed, "That was one of those ideas that sounded good at the beginning, keeping one grade on each floor, but the practicality is that it's just not totally possible." Administration saw this a bit differently, one house principal noted, "consideration is given to keep the core classes on the house floors as pure as possible so kids have some consistency. It is not 100% pure because of logistics." And in the words of the principal, "…we look anecdotally at many kids schedules…obviously for PE, music, and electives they are out [of the house], but in general they are in the house more than you might think…basically they are in one area and they will have one outlier, one semester or one each semester worst case." The principal also reported that he never received any complaints about kids having to travel outside of the "housed" area, on the contrary, he described initial concerns voiced by the kids regarding the isolation of the system. "Kids felt they didn't see their friends because there was less movement, but that died down

after the first year," the principal described this as part of the "growing pains" and challenges in the initial transition.

Counselors / Counseling Staff

Counselors provided a different perspective on the house system based on interviews with four (of the six) counselors. The most positive factor noted by the counselors was their ability to get to know each student in depth over the course of three years. Staying with the same group of kids provided the opportunity to individually connect several times each year with every student. Second, was the ability to deal with the same issues for the entire year. Since each counselor's caseload contained only one grade level, there was the opportunity to focus on the needs of that particular developmental age, which one counselor described as, "mentally I'm dealing with one grade each year." In particular, tenth grade focused on "getting to know you" and transition to the high school, eleventh grade focused on preparation for the college application process, and twelfth grade focused on transition to college and post-graduate opportunities. Thirdly, the house system provided the opportunity to work closely with the staff in the house office and provide services for kids on multiple levels, particularly in conjunction with administration. Specifically, the house provided for consistency with discipline during the three year period since students worked with the same house principal during their tenure. The counselors also described the smaller office arrangements to be beneficial in that there "were not too many hands in the pot." With only two counselors in each house office, it provided the opportunity to get things done more readily. In general, the positive consensus of the counselors centered around the sense of community and connectedness that the house system provided.

This idea of connections was further supported by three separate weekly meetings that occur in the house offices, namely: (1) house meeting, (2) guidance department meeting, and (3) child study meeting. The house meetings were facilitated by the respective house principal and included the counselors, the class advisor, the secretaries (for the beginning only), and occasionally the graduation project coordinator and/or class officers as needed. The purpose of the house meeting was addressing: house issues, procedural items, and calendar items. As one house principal described, "…it connects the house each week, we discuss events, assemblies, happenings…it's our time to discuss what's going well and what's not." Second, the guidance department meetings were held weekly on Wednesdays for approximately one to one and a half hours. These meetings were attended by all grade level counselors and the building principal (for the first part only). The purpose of these meetings was to address guidance level issues, timelines, and departmental processes. The principal attended in both a supportive and supervisory role. The third meeting was the weekly child study meeting. These meetings involved just the house principal, two counselors, and occasionally the nurse and/or special education coordinator. The purpose of these meetings was to review individual case studies of students that have exhibited behavioral, attendance, emotional, or academic concerns. Each house office conducted a weekly child study meeting for their respective grade to directly address and track individual student concerns. From this meeting, referrals were made for academic support, student assistance program, truancy remediation, or any other individually decided upon action. Counselors and house principals alike appreciated the connections made through the various meetings. As one house principal described, "….we look at it as a team, from secretaries to counselors to

myself, we're tracking kids and keeping in close relationship with them and the counselors."

On the other hand, the counselors also noted several challenges to the house system. First was the notion that counselors work with a different group of teachers each year as a result of the teachers remaining with a specific schedule and counselors moving to the next grade. As a result they felt as though they needed to reacclimate each year (of the three year cycle), "making it difficult to develop a year-to-year rapport with the staff." Counselors felt as though they never truly got to know the staff because of the annual movement and the three year cycle. In addition, counselors also described an inconsistency in the workload between each of the grade level responsibilities. All agreed that sophomore year was the lightest, and senior year the heaviest (and often times overwhelming) in workload. Another challenge noted was the physical movement of the offices each school year. Although they have become accustomed to the move, all counselors described the antiseptic appearance of their offices to be a result of having to "pick up and relocate each year." Most did not take the time to personalize and make their space cozy knowing that it would all change at the end of the year. The next concern was focused on caseload concerns. All counselors noted, and even emphasized, the perception of having a large caseload (approximately 300 students each). Many of the comments revolved around the fact that the counselors at both Adams and Washington had "significantly smaller caseloads" than the counselors at Jefferson. Likewise, Adams and Washington both operated from one large guidance office (as opposed to separate house offices) with an alphabetical, grade-level division. Counselors at Jefferson felt disadvantaged by the inequity in the caseload numbers, the lack of one

large guidance area, and an alphabetical system. In their estimation, one large guidance area would provide for multiple perspectives in solving problems and addressing daily issues. The alphabetic division would allow counselors to be responsible for entire families. Using the house system, a family with the last name "Smith" would have a different counselor if there were multiple children; whereas an alphabetical system would assign the same counselor to the entire family. Counselors also contended that the alphabetical system would provide for a steadier workload from year to year since each caseload would contain all grade levels. Administration, however, asserted that in alphabetical, mixed caseloads, seniors always take precedent and consume the majority of the counselor's time and impede their ability to address the issues of the sophomores and juniors. The building principal directly addressed these concerns in a subsequent interview, as he was well aware of the concerns voiced by the guidance department. Perhaps this is best summarized in his words, "This is where the Washington/Adams/Jefferson division grinds the worst. But it really comes down to 'what's best for kids.' In the house system, they really get to know kids before senior year." Interestingly, the guidance coordinator concurred with this statement.

Another interesting perspective to consider is the house office dynamic created with the personnel and the physical arrangements of each office. Comments in this regard were made by administrators, counselors, and teachers alike. The house office was one of the distinguishing characteristics for the newly created CR Jefferson, an arrangement that was not present at either Washington or Adams. Due to the fact that Adams and Washington were much older buildings, originally built to accommodate the traditional, comprehensive high school, they were not able to accommodate house offices

as Jefferson could design in the new construction. As a result, these offices created an initial buzz, primarily with the staff that would reside in the actual house office. The issues raised by the counselors have been addressed previously. The secretaries presented a different perspective. The guidance secretary and the house principal's secretary had joint desks behind a shared counter in each of the house offices. The house principal's secretary moved each year, following the house principal and supporting his/her work. On the other hand, the guidance secretary remained in the house office each year. The rationale being that the guidance secretary would specialize in one grade-level and remain there to support the counselors as they rotated through. As one of the counselors described, "The guidance secretary stays, mostly because of the complexity of the college application process – so this is really like *their* house, when we come we adapt to her and her house keeping." All counselors reported mixed feelings regarding this system. Much of it depended on personalities, but reported that each year offered a fresh start and after the readjustment period things settled in. The guidance coordinator regularly offered the following advice to the counselors, "…when you move into the house office you're going to their (guidance secretary's) office – accommodate the systems that are in place." One house principal described the house dynamic, "It reinforces the family with many different members with less sense of division between rankings. We each have our own roles and responsibilities but we recognize how they overlap and are interdependent…the physical space allows us to close our doors when necessary, but to open and share as appropriate." The teachers perception of the house dynamic was voiced as confusion about the movement in the house offices. Most prominent was the uncertainty about which secretary was present in a given office during

a given year. They seemed to be more certain regarding the house principals location, less certain about the counselors, and least certain about the support staff. Regardless, all teachers were confident in knowing where each grade level office was located and where to report if support was needed.

Administration

Interviews also provided information from three current or former house principals. As residents of the "house" they also had a unique perspective to offer. The comments offered by all were overwhelmingly positive. This was particularly poignant when considering that all had previous experience in a non-housed building and after comparing the two systems, voiced overwhelming preference for the house model. Perhaps this was best summarized by one house principal, "The house system is very unique, it works very well - breaking the school down into a small community." Each shared that they really felt as though they were a principal of 600 and the role of house principal carried significantly more responsibility than a traditional assistant principal. This sentiment was further supported by the fact that the house offices were autonomous units, physically separate from the main office and from each other. Each maintained governance over a particular floor with distinct counselors, teachers and staff. Although students occasionally travelled between floors for classes, this sense of autonomy remained. One house principal reflected, "We are able to assimilate into the culture of the school where our particular grade is located – we have core classes on this floor so we can see them more often. It breaks a large building down so we can connect – really get close to 600 students….I'm not sure those relationships would happen otherwise." In addition to the responsibilities in managing the house, each house principal also had

building-wide duties (such as facilities, testing coordinator, calendar, security, student activities) as well as several departments to supervise via classroom observation. One of the challenges described by the house principals was the need to balance the responsibilities in the house with the building-wide duties. However, in most cases this was more of a time management challenge than a fundamental drawback. Things seemed to work most smoothly when building responsibilities dovetailed with house duties, for example, the junior house principal handled PSSA testing coordination as he/she would be most familiar with the junior students and individual student needs.

The building-wide administration team, comprised of the principal and three house principals, demonstrated a solid team dynamic and presented as a unified front. Weekly, Monday morning meetings served as the common ground for coordinating efforts and updating on items such as: counseling news, graduation project updates, security review, curriculum/instruction issues, faculty/department meeting agendas, building initiatives, assessment concerns, and calendar review. Aside from the weekly meeting, most of the communication was described as informal, typically through email, phone calls, or drop-ins. One house principal summarized this best,

> I feel like we are connected. We can always call on the other administrators. Just as relationships are important here at Jefferson, relationships are important among the admin team as well. We care about each other and communicate that to others and also make ourselves available to our staff – so that's important because we need to depend on each other to do a good job.

It comes as no surprise that the faculty and staff also identified the strength of the administration as a positive factor in the development of teacher's sense of collective efficacy.

Challenges

Overall, the house design was identified by administration and staff as the single most significant factor influencing collective teacher efficacy beliefs. This organizational design was one of the non-negotiables prescribed by the superintendent prior to Jefferson's opening. The district's dedication to the small school structure was further supported by the commitment to design the building to accommodate the grade level houses while fostering a smaller sense of community and emphasis on relationships. However, it would be remiss to overlook the few concerns voiced during the interviews regarding the house system, namely, the challenge for unification and potential for fragmentation.

The most significant challenge offered by twelve of the thirty interviewees was the potential for fragmentation that evolved as an unintended consequence of breaking a large school into small parts. Consequently, this also posed a further challenge of unifying the school as a whole. When asked how Jefferson managed such dilemmas, one house principal commented, "It definitely is a bit schizophrenic – building both small communities and unity simultaneously...I'm not sure there is one answer to that because it is a constant shifting from one focus to the other and reminding students and staff that both are important." There are clearly many structures in place to build relationships and small community, but when asked about opportunities for whole school activities, very few respondents provided concrete answers. In fact, many had no response at all. Part of

the dilemma lies in the fact that the building had only one space, the gymnasium, which could house the entire student body. As a result, the only opportunity named for students to connect as an entire school was pep rallies. Outside of school, several other opportunities were noted, including: sporting events, dances, and clubs/activities. During the course of the school day there were some opportunities for cross-grade interaction, namely lunch and elective courses. However, in building entire school unity very few specific opportunities were provided.

Faculty members reflected on the isolation in a different way. The twelve teachers that described a sense of fragmentation shared a feeling of not knowing the entire faculty because of the size of the building and the fact that many teachers "paths simply don't cross." At faculty meetings, some felt as though they were not familiar with the entire staff, instead they were well acquainted with the smaller group of teachers to whom they had daily proximity. Of the teachers that noted this, feelings were mixed as to whether it was problematic. Many simply described it as a natural consequence of the house system and one to which they were accustomed. Others seemed to feel that the fragmentation created a lack of unity to a certain degree. And yet others described an even different experience. Some teachers reported that they "really did not *feel* the house system on a daily basis," instead the house system was simply viewed as the structural framework. Teachers that described themselves to be "immune" to the house system did emphasize the student benefit of the structure and appreciated these inherent benefits.

Therefore the struggle for unity and overcoming fragmentation remained, "The house system versus the whole school – it is difficult because you're really driving it in two different directions. We want smallness for such a big facility with houses, but we

also want *one, one* Jefferson." This dilemma, which does not overshadow the strength of the house system, was well captured by one of the current house principals. One house principal rationalized the dueling structures, "the small school model makes kids feel good about coming to school and being successful which in turn makes them feel good about the school as a whole." Although some noted the potential for fragmentation, the overwhelming majority of the staff touted the house structure. These strong sentiments were best summarized through several quotes from various faculty members, "…based on studies, it's what's good for kids", "…the whole house system of making connections with kids and making a big building smaller works – it really works," and finally, "…the house concept, we've pretty much nailed it down!"

Pod Arrangements

The second most frequently named factor contributing to collective teacher efficacy beliefs was the pod arrangements, identified by 28 out of 30 interviewees. The pod arrangement can best be summarized as the "de-departmentalized" structure of the planning centers. One of the mandates given by the superintendent to the Core Team was the notion of integrated, multi-disciplinary planning centers. The blueprint of the building was designed to accommodate six pod structures, two on each house floor, one on either side of the house office. The idea of multi-disciplinary pods was initially met with resistance, as most teachers hoped to continue with the traditional departmental structure that was in place at both Adams and Washington. However, after forging ahead with the notion, an entire "pod culture" has evolved that not even the principal anticipated. It is a culture that permeated the building, creating a uniquely positive and vibrant culture at Jefferson.

From an aerial view, each house floor was moon-shaped with the house office in the center and each pod located on the ends of the moon with classrooms circling around the pods, rooms C108, C135, C208, C235, C308, C335 on Figure 4.1. One pod on each floor contained the English and Social Studies teachers (C108, C208, C308) and the other pod housed the Math and World Language teachers(C135, C235, C335) for the respective grade. The Science teachers' classrooms were located outside of the pod area in the arched hallways connecting the house office to each pod. The identical arrangement was found on each of the three house floors, creating a stacked or silo arrangement for the six existing pods and house offices.

The actual pod was an open work space with cubicles for each teacher, a shared Xerox machine, a large work table, a kitchenette, and a small enclosed conference room. Each teacher had his/her own computer and desk in the cubicle area. The cubicles were not too tall, in order to encourage sharing and collaboration. Teachers in a given pod were located in one of the surrounding classrooms for their instructional time. Many of the classrooms were shared by several teachers throughout the day. Some teachers had their own classroom, while others floated into several rooms throughout the course of the day. Since most of the rooms were used every period, the pod area became a work place for teachers when they were not teaching.

However, the pod was much more than merely a "workplace" for the teachers. It was quite evident that it also had a large social component as well; a place for teachers to develop camaraderie, a place to eat lunch, a place to "vent" about the daily struggles, and a place to collaborate and exchange ideas. In addition, the pod area also contained an "open air" computer lab just outside the teacher workroom for teachers to use with their

classes (labeled C109, C136, C209, C236, C309, C336 on Figure 4.1). It was not uncommon to see a teacher with a class of students, or a few students from study hall finishing work, or even a few teachers collaborating in the computer area outside of the pod. When teachers were asked to explain the pod dynamic, it was always a positive response. For example, "The pod allows for casual conversation, sharing ideas, helping each other plan, cross-curricular activities….it happens five minutes between classes, before school, after school, while making copies, and of course on free periods." In general, the pod was a place of communication and socialization.

The introduction of the pod culture was rather unique in and of itself. When Jefferson finally opened its doors in January of 2004, all of the teachers had been housed at Adams and Washington in buildings that operated with classic department structures. As teachers began to move into the new building they were assigned to a classroom based on their subject area and grade level, which in turn determined the pod assignment. One teacher's description follows,

> The pod was different. It was fun getting to know each other, but nobody really knew what to do in the pod….conference room? Have lunch? Meetings? We were unsure of the desk situation. Some teachers worked in their rooms but now the pod has taken over – everyone goes in the pod to do work!

The principal described the building as having a "pod culture" which he never anticipated taking over the way it did. One house principal described the transition in the following way,

> I did hear at the opening some frustration that teachers didn't see their department colleagues on a daily basis. There were groaning about how that would

> negatively impact instruction, but I don't hear that anymore because they realize the day-to-day things keep them in contact, plus they get the interdisciplinary conversation with colleagues in the pods.

The pod culture had permeated the Jefferson infrastructure.

> Each pod had a dynamic and culture all its own. As one teacher described, Pods are great; each one has its own feel. The staff around them makes them – you can see that by just looking in. Some are more decorated, some are very sparse, a lot have 'fun food Friday', and many celebrate birthdays. Having that central location lends itself to a lot of sharing – lesson plans, ideas, and fun.

The three English/Social Studies pods had a much more social structure than the three Math/World Language pods. The tone on the Math/Language side was much more work oriented, quieter, and more serious. One of the Eng/SS pods in particular, was infamous for their Friday morning breakfasts. They even described other pods as having "pod envy" as other pods made excuses to drop in on Fridays to enjoy the 'carb fest!' Another one of the Eng/SS pods posted pictures of each of the pod members with a quote page attached. Members of the pod then added quotes, anecdotes and stories to each other's pages as a light-hearted, team-building activity. Yet another Eng/SS pod had an ongoing Trivial Pursuit game in the center of their work space. Teachers would ask occasional questions during free periods or transition time as another means of building camaraderie and collegiality. On the other hand, the Math/Language pods were a bit more serious in nature. One pod described an occasional pot-luck lunch which was orchestrated by one of the teachers who was referred to as the "pod mom." Aside from that, the pods on the Math/Language side of the building were much less decorated and much more work

based. However, regardless of which pod teachers were in, almost all described their pod as “the best!” All teachers reported to eat lunch together in their respective pods instead of travelling to the faculty dining room. At Halloween, the pod culture became the hub of activity. Each year the social committee selected a theme for the building and in turn, each pod determined their corresponding costumes. Throughout the day, multiple events were planned with costume judging and festivities. Students captured the celebrations each year in their yearbook with a multiple-page spread. This was one of the many activities that helped students and staff build Jefferson traditions and culture. In general, the pod culture created a unique dynamic for facilitating collaboration, communication, and also socialization.

Although the building was primarily organized around the pod culture, there still existed a strong department structure. Department meeting were held once or twice a month to discuss specific department concerns, curriculum, equipment/supplies, and methodology. Admittedly, there was much less collegial sharing amongst teachers within the department as a whole. The majority of the daily collaboration occurred in the pods unless teachers were proactive in seeking each other out to discuss specific concerns. Interestingly, most teachers did not report missing their departments, instead they had acclimated to the pod culture and still felt as though the department structure was in tact.

As positive as the pod experience was for the contained teachers, there were many teachers who were not part of the pod culture; including, science teachers, special education teachers, non-core elective teachers, and guidance counselors. As outsiders to the pod experience, their perspectives were quite different. The Art, Music, Technology, TV/Communications, and Family Consumer Science teachers were all clustered around

the auditorium area of the building (Figure 4.1). In speaking to several teachers in this cluster, they openly described themselves as "recluses" but "even though we don't have a physical pod, we have the spirit of one!" This group of departments took it upon themselves to associate themselves and form their own 'pod.' When spirit activities or faculty meeting activities were clustered according to pod, this group had defined themselves to be an adjunct pod and "had their own thing going!" One teacher described, "we don't have a true pod…we are podless, so we decided as a group to come together and it is a neat group of people because it is 'the creative group' – so it is a lot of fun." The Health and PE departments were housed on the opposite side of the building around the gymnasium, pool and weight room (Figure 41.). They were truly isolated in the building with no pod affiliation or neighbors to join as the Art group did. As a result, they worked solely as a department and were assigned to a random pod for activities that necessitated group affiliation. Two teachers residing in that area were interviewed, they described themselves as outsiders but did not see it in a negative light since they were particularly close with their department members and enjoyed the camaraderie just as much. One teacher even described it, "at faculty meeting activities they will integrate us with everyone else – which is cool because I see people I don't ever interact with. I guess others would say that was a negative, but we work well as a department." Counselors, as a group, also viewed themselves as outsiders to the pod culture. "We don't have the camaraderie that others have, we don't have our own niche and our department is split on three floors," noted one counselor. The counselors seemed to align themselves in three separate groups according to their house office affiliation. However, "it's been six years and honestly it is something we don't really like," lamented one counselor and

another stated, “we are our own islands!” Each of the groups residing outside of the pod areas have found different ways to accommodate themselves as well as make the best of the situation.

For the Science teachers, not being located in a pod had a different connotation. Science teachers were located with the core classes on the house floor, but due to their lab arrangements in the main hallway and ownership of their rooms, they were not clustered within a pod. They typically worked out of their rooms and only floated into the pod for clerical needs, like xeroxing. As one science teacher explained,

> The pod is for teachers that have their own desk in there, they stay in there for their planning period. As science teachers we have our own rooms, so I am taken away from the pod. Still the pod is the place where you do photocopying and can drop in.

Some science teachers use the English/SS pod while others used the Math/Language pod depending on which side of the house office they were located. Science teachers tended to use the pod that was located closest to their classroom. It was anticipated that as enrollment continued to increase, science teachers would eventually become members of pods since their classrooms would eventually be used during their free periods. In that case, science teachers would become active members of the pod; but in the meantime, they were seen as pod visitors or drop-ins without a desk or workspace.

Disaggregating the collective efficacy survey data based on pod affiliation showed slight, but insignificant differences (Table 4.7). The average efficacy of the total sampled staff on the 21-Item Survey was 5.15, for just the pod affiliated teachers (English, Math, Social Studies, and World Language) it was 5.16, for pod accessible

teachers (Science and Special Education) it was 5.19, for non-pod teachers (Art, Business, Family/Consumer Science, Health/PE, Library, Music, Technology Education, and TV/Communication) it was 5.17, and for counselors it was 5.05. (Full item analysis for the subgroups is shown in Table 4.7A – Table 4.7D at the end of the document). These consistently strong efficacy scores, regardless of pod affiliation, supported the notion that teachers outside the pod had effectively found ways to either informally connect themselves to a pod or develop a 'pod-like' culture in their own area. In essence, the pod mentality had permeated the culture and spread beyond the physical structures of the pods.

Table 4.7

Collective Teacher Efficacy – Pod Affiliation

POD AFFILIATION	n	COLLECTIVE EFFICACY
ALL Staff	103	5.15
Pod Residents (Eng, SS, WL, Math)	51	5.16
Pod Access (Science, Special Ed)	28	5.19
Non-Pod Teachers (Art, Bus, FCS, PE, Lib, Music, Tech, TV/Comm)	19	5.17
Counselors	5	5.05

For teachers, the pod represented the fundamental organizational structure of the building. Students were reportedly unaffected by the pod culture. Furthermore, as the only organizational design they had encountered in high school, students viewed the pod as the norm. Teachers had rallied around the concept in a way that no administrator anticipated at the opening of Jefferson. Even amidst similar comments of fragmentation and isolation that were voiced around the house system, the pod culture received

overwhelmingly positive reviews. “The blending of academics has created a positive feeling that visitors feel when they walk into Jefferson,” described one teacher. “It is a tremendous social support, and has built very, very strong family bonds,” echoed the principal. “It creates opportunities for teachers to interact with each other. It is a ‘cross-pollination’ where teachers can share techniques and strategies,” in the words of one house principal. And finally from a veteran teacher with previous experience in the traditional departmental design, “the pod gets me through a lot of days…seeing the same people everyday whether we share things or complain it gets me through….It’s a great structure.”

Leadership/Planning

The next factor impacting collective teacher efficacy beliefs, mentioned by twenty-six interviewees, was the leadership and planning, particularly prior to the opening of Jefferson. Numerous teachers spoke of the principal’s impact and orchestration in cultivating a positive, unified climate. Most teachers indicated that it was his hand that set the tone for the staff and set the wheels in motion for defining the school community. Several examples follow, “[The principal] really created that [energetic] culture here – encouraging teachers to be agents of change,” “I really liked Washington a lot, we were bonded – but [the principal] brought that here and cultivated the environment,” “under no uncertain terms, everything starts with my boss – [the principal] is amazing!” “[The principal] has done a wonderful job – he has a lot to do with it,” “[The principal] has fostered this [positive] feeling; initially we did a lot to bring the teachers together.”

The ‘we’ that worked so hard to bring the faculty together was primarily the Core Team and the work they coordinated through the principal’s leadership. Membership on the Core Team was by invitation from the principal. Most of the teachers selected for the Core Team were more experienced teachers. As one Core Team member described, “The older teachers that left their schools really had to be pioneers - and really want this experience.” By developing a core of “seasoned pioneers”, the principal drew from their experience while also creating liaisons with the faculty at large. As one Core Team member described,

> Another component of the Core Team was getting the veterans to buy in, we knew the younger staff would buy in. Going to the grizzled veterans and getting them to ‘fit our shoes on’ was another key component. There weren’t many that didn’t change.

Core Team members were fully included in the process from beginning to end. “We really had ownership in the process. We sat down with the architects and designed our areas and equipment,” shared one Core Team member. As part of the Core Team, “we watched [the principal] put the staff together. It was a really good mix of older staff, middle age staff and younger staff.” “Teachers that came wanted to be here and that created such a positive culture.” Many of the Core Team members described an interesting, rewarding process; one which connected them to Jefferson in a very unique way.

It was no accident that everything came together the way it did. The superintendent intentionally selected the principal because of his previous success at Washington and his proven ability to cultivate a thriving, positive culture. Choosing him

to 'lead the charge' was certainly orchestrated; indeed it was decisive and defining. The principal and superintendent worked collaboratively to set in motion a plan for cultivating an environment that emphasized community, culture, and relationships. For this reason, it was DuFour and Eaker's (1998) work on professional learning communities that served as the foundation. In conjunction with the principal's proven success and long-standing reputation in the education community, Jefferson was a recipe for success.

The principal, through the Core Team, worked toward developing a sense of community by emphasizing relationships. This also translated into establishing culture and unique traditions in a building that had a blank slate. After only five years, Jefferson has proven success in this area. "Community was a key word and so was culture – developing a culture and identity," reflected one member of the Core Team. In the words of one teacher (not on the Core Team), "The time spent on building climate is worth it…kids appreciate it too, we have a family feeling." And finally from another member of the Core Team, "We all agree fundamentally that relationships are an important piece of what we do all day – everyone here knows that. What's important is relationships with kids, that each individual student needs to feel important and empowered, that's a fundamental belief that was established the day our doors opened. That is a powerful starting point for teachers."

The principal and Core Team were credited for initially setting the tone. Once the building was open, much of the community and culture building was done through the house system and the pod arrangements. These fundamental structures provided the avenue for teachers to forge relationships with each other and most importantly with kids. Building this culture was no small task and was not without its challenges. The principal

was very open in stating that there was initial push back from the Core Team regarding the pod arrangements. Many wanted department planning centers, as this was the structure they were accustomed to at the other schools. This, however, changed quickly once the pod became a reality and teachers had first hand experience with the pod culture. In addition, some of the teachers that joined the Jefferson staff had middle school backgrounds which were structured in inter-disciplinary teams. For these teachers, the notion of pods was very comfortable and also helped the remainder of the staff transition. When the principal was asked to identify the biggest challenge in opening the building, he succinctly stated, "integrating the staffs." And yet, today they are integrated. Perhaps a tribute to the leadership and planning on multiple levels: the superintendent's choice of principal, the principal's choice of the Core Team, the building administration's choice of faculty, and the emphasis on community and relationships.

Teachers throughout the interviews credited the work of the administration in the planning process, citing, "administration went out of their way to bring people together." Teachers were also very complementary of the continued efforts of the administration in fostering the positive climate that was initiated during the opening of Jefferson. "We have an administration that backs us, we feel comfortable and supported in what we do," stated one teacher. "Of all the schools I have been at, this feels the most organized - everybody knows their responsibilities and role. We know who to go to, we have a lot more people to support kids." And finally, "administration here is very encouraging and supportive, that makes us want to be better." Teachers respected the open relationships and positive environment that administration fostered with the faculty; a tone that was set

before Jefferson even opened its doors, an environment that has continued to be cultivated.

Faculty Composition

The next most frequently identified factor during the interviews was the faculty composition and most notably their disposition. Teachers, administrators, and counselors all recognized the positive influence the faculty members made in the culture at Jefferson. As a visitor to the building, this became evident during the first site visit in which a presentation was made at the faculty meeting to introduce the research and administer the survey. The energy and excitement seemed almost unusual for a high school staff! However, through subsequent visits and further conversations with individuals, it became clear that this positive energy was not only genuine but contagious. Teachers were legitimately excited to be a part of Jefferson and consistently demonstrated that in all they did. As one teacher described, "I don't feel like I'm walking into a school building, I can't describe what it is….but it's just such a neat place to be."

The roots of this enthusiasm and positive energy in the staff were attributed to the selection process and Jefferson opening. "People that came to Jefferson, came because they were willing to change, because they were open to doing different things, they aren't stagnant and ultimately the kids connect to that," described one member of the Core Team. Early in the process, teachers in the district were given the opportunity to apply for a transfer and the response was very strong. The majority of the faculty was obtained through teacher application. In some instances teachers were invited by the principal as a strategy for building the foundation and establishing key players. There were only a handful of teachers that were involuntarily transferred, primarily in specialty areas (like

Tech Ed) and higher level courses (like Physics and some of the AP offerings), but once invited they came willingly. Again, much credit was given to the principal for his orchestration, as one teacher stated:

> The people that came from other schools were positive people. [The principal] spent time trying to figure out the right dynamics. He wanted different personalities, not the same person. One that could explain the high level concepts and one that could teach the challenged kids…he built a group that doesn't complain and keeps a positive aura while still being diverse.

And eventually "once the building opened and everyone was there, people really got on board. We all came together," reflected one teacher. "Everybody loves to be here, everyone was either picked to come or volunteered to come….those that came were like pioneers and just willing to do more and willing to make changes," summarized another teacher.

The faculty that initially came to Jefferson was a true blend in terms of age and experience. The majority of the staff was repeatedly described as 'young' in general terms, and based on the survey responses 63 of the 103 had 10 or less years of experience (61.2% of the respondents). Likewise, the Core Team and the more seasoned group noted that many of the teachers were young at the time of the opening. However, they were also quick to reflect that the older teachers who uprooted really forged new ground and were genuinely eager for that experience. Several even described them as "young at heart." One of the house principals described the veterans in the following way,

> The veteran staff chose to come to Jefferson, so they were interested in trying something new, a different school community that was less departmentalized –

> and were open to a different way of delivering secondary education. That being said, the Core Team and administration brought forward the building blocks that we were founded on.

And the younger staff naturally "brought energy, a new energy, and because of that a lot of connections were made amongst the staff…you feel like you are coming to a connected place," described one of the newer staff members. Two different teachers made almost identical comments in describing the positive nature of the staff, stating that those that were not positive did not come to Jefferson because "it's just not part of the psyche here!"

Thus, part of the success was certainly the "blend of experience and youth," as described by several Core Team members. However, much of the success also stemmed from the prior planning and thoughtfulness of the administration. As one teacher stated,

> [The principal] has the magic touch…he is incredibly gifted at picking the right people, he has wisdom. It starts with that, good people at the top. He picked the Core Team and created a culture for everyone else. He was instrumental in choosing the rest of the staff – nobody can hit a homerun every time, but he is unbelievable!

As a result of these efforts, it is quite evident that the faculty spirit is a driving force behind the positive culture at Jefferson. The staff that was in place at the time of research still carried that same spirit. In the words of several teachers, "this is a more positive, open staff than I have ever been a part of…I can't say enough about them," "new staff, old staff, it doesn't matter…we're all part of this team, if we don't get along we're not going to be successful," "nobody complains here, we're all in the boat, rowing oars in the

same direction and we all, from cafeteria, secretary… to you name it, everyone works hard and has a great work ethic," "teachers here are some of the best, a lot of really good teachers, all up for a challenge and a new adventure." It was obvious that the teachers at Jefferson do not mind work; in fact they seemed to embrace it. As the principal described, "they are vibrant and eager, regardless of age or experience." They seemed to function with a common goal as one house principal stated, "they [the staff] are growing up in this culture together as professionals, so they are laying foundations for themselves in conjunction with the principals. It is a culture we are developing - emphasizing connections and relationships." And most importantly, in this refreshing culture that has become the 'Spirit of Jefferson', "our kids know that the staff cares about them, they know the staff is in it with them as opposed to just doing their jobs." This kind of testimonial is every principal's dream.

Titan Forum

The Concept of Titan Forum was another significant component identified toward building collective teacher efficacy beliefs. The Forum concept was the most noteworthy program that evolved from the work of the Core Team. The primary focus of the Core Team was building climate and community with an emphasis on relationships. As such, Titan Forum provided a fifteen-minute advisory period which met daily between first and second blocks with the stated goal, "to increase community, decrease student isolation and alienation, empower students, build self esteem and personalize learning," as described on the Forum wikispace. All staff members were assigned a Forum of approximately 15-20 students from one grade-level that they mentored and advised for

three consecutive years. The Core Team saw the Forum as the primary vehicle for addressing the relationship element.

Members of the Core Team reflected proudly on the development of the Forum concept. The district as a whole had a bit of a sordid history with the notion of homeroom and advisory, according to the principal. The other two high schools had tried several frameworks for homeroom/advisory and were unsuccessful in generating any momentum from either the staff or students. Therefore, when the Core Team tackled the "advisory challenge", they felt strongly that it be unique, empowering and free of any negative connotation. One Core Team member traced Forum back to the tragedy of Columbine, "Forum came out of Columbine….where kids could be invisible and no adult knew them well. We didn't want that to happen. We wanted one adult that knew each student for the entire three years." A counselor and Core Team member stated the charge in this way, "we were a large building with 2000 kids, what could we do to create connections and mentoring – what would it look like?" The house principal responsible for coordinating the Titan Forum referenced *Breaking Ranks II: Strategies for Leading High School Reform* (2004) as further rationale for development of the Forum. Specifically as posted on the Titan Forum wikispace, was the *Breaking Ranks II* (2004) cornerstone strategy which stated, "implement a comprehensive advisory program that ensures that each student has frequent and meaningful opportunities to plan and assess his or her academic and social progress with a faculty member" (p. 6). And further substantiated with several of the core recommendations, "…High schools will create small units in which anonymity is banished…Every high school student will have a Personal Adult Advocate to help him or her personalize the educational experience"

(p.18). And so the concept of Titan Forum was born. A fifteen-minute, daily advisory period with the same staff member all three years provided students with the opportunity to connect with at least one adult in the building as well as with each other. Each day Forum advisors facilitated a discussion on an assigned topic as part of the advisory process.

Inevitably, there were many logistical considerations that accompanied the idea of Titan Forum. Most prominently was the question of content and curriculum. The Core Team struggled with how much structure should be provided for the staff regarding daily plans. Ultimately, it was decided that prepared formal lesson plans would be provided for the entire school year. A binder was prepared during the summer prior to opening as a manual for each staff member, under the direction of a house principal. Each lesson plan included: objective, materials, anticipatory set, and procedure. In addition, references were provided as well as appropriate handouts. Topics included: orientation/team building, educational (test anxiety, qualities of a good teacher, procrastination, technology, plagiarism, internet safety), health (sleep, breakfast, nutrition, caffeine, drugs/alcohol), school events (elections, governor's school, graduation project, PSSA testing, SAT, prom safety), and ethics (tolerance, patriotism). Topics varied by grade level to ensure appropriateness and applicability.

From an administrative perspective, extensive efforts were made to ensure a diverse population in each of the grade-level forums. Each forum contained a mix of students based on: gender, grade-point average, and sending middle school. The house principals responsible for assigning Titan Forum described it in this way, "each forum contained kids that wouldn't necessarily sit at lunch together but by the end of three years

they would often form strong bonds." Once forums were established in the tenth grade year, they remained consistent for each subsequent year. Newly enrolled students were added to already existing forums based on size.

And finally, at one of the preliminary faculty meetings, the concept of Titan Forum was presented to the entire faculty. Core Team members in conjunction with administration explained the philosophy of Forum, distributed the manuals, and discussed the logistics. Teachers were expected to address the daily topic by either implementing the prescribed lesson plan or developing their own strategy to meet the objective. Responsibilities, as posted on the wikispace, included, "implement lesson plans or create lesson plans that meet the day's objective, be a student advocate, ensure that no student becomes anonymous, make a connection with each student, facilitate the articulation of student voices, and encourage participation in student government and school activities." The Core Team felt strongly that Forum not be viewed as an additional prep for teachers, but instead a vehicle for building relationships. Not surprisingly, the concept was met with mixed enthusiasm. Some teachers embraced the idea while others struggled. The principal also described teachers as having different comfort levels with the concept of mentoring which also impacted receptiveness. It was for that reason that plans were provided but not required, thus allowing teachers to personalize their Forum based on their own style and comfort level. Although they did "take a beating at first from some parents and teachers saying it was a waste of time" the structure remained and has evolved, according to the principal.

Once the Forum became operational and through the passage of time, teacher's feelings began to change. As one teacher described, "…the concept of Forum is

phenomenal, the idea of mentoring kids, the idea we share relationships outside the classroom…relationships really happen for those that want them to happen." Counselors were strong proponents of the Forum, "….rarely have I sat in a department meeting when a problem came up that Titan Forum couldn't handle….the adaptability of Forum is great." Another counselor shared, "the Titan Forum does a better job making us a small school than the house system does….it's a key piece!" Teachers were able to see the connections and relationships that Forum fostered, "Forum is amazing….we celebrate birthdays, we decorate together, we work through issues, we bond!" However, not everything was positive. The most prevalent and overarching complaint lodged by teachers as a whole centered on the specific lesson plans. Many teachers echoed the sentiment shared by this teacher,

> We understand the goal is to connect with kids. It is really good we have the same kids for three years, good that they don't get lost….but the lesson plans are a little ridiculous, a little corny…so we get on tangents sometimes, but that's connecting too….many teachers do the same thing, but I know we're 'doing right by the kids.'

Almost every teacher interviewed shared the opinion that the Forum was well-intentioned, but a bit confined and prescribed by the lesson plans. Teachers willingly admitted to "picking and choosing" from the lesson plans in order to have the ability to have "real conversations" and really connect with kids. However, teachers felt that administration supported them in these choices because the ultimate goals were still being met.

Indeed, the house principal responsible for overseeing Forum confirmed the teachers' beliefs,

> Teachers are ok with Forum but they don't always do the plan. We tell teachers (over and over!) that plans are there as a support if and when you need them. Our expectation is they are making connections with kids, providing students with information to have access to ALL programs, clubs and opportunities. We want mentors to be coaches and advocates to kids in terms of development of character – talk about what is respectful and appropriate, what responsible citizens do – so we're not as concerned if they follow the plan exactly. There are teachers that aren't as comfortable stepping out of their content area, interacting with teenagers without a support – that's what the plans are for. It is not our goal that every teacher says the same thing at the same time every day. They need to do it in their own way and so it works for the kids in the room.

Regardless, some teachers still had trouble completely freeing themselves from the prepared plans as the house principal continued, "…we have instilled in our staff that professional responsibilities should be treated with the importance that they deserve – as such, it is hard for them to let go of the lesson plans."

Once the Forum became operational, a house principal was designated to oversee and facilitate the daily operations. The original binder that was developed prior to opening was quickly amended. As issues surfaced both nationally and in the smaller school community, adjunct lesson plans were created and distributed to address concerns. Teachers also provided feedback about the Forum experience and again changes were made. The most significant and positive school change that resulted from the Forum was

with a graduation tradition. It was the tradition at all Cedar Ridge High Schools to read the names of the graduating seniors in alphabetical order. At the first Jefferson graduation this was again the case; however, as the ceremony proceeded most of the Forum teachers came forward to congratulate their Forum students after receipt of their diploma. As a result, it became a flurry of activity on one side of the stage as mentors shuffled to greet their respective students. Therefore, a change to the graduation tradition was made for the following year. Instead of alphabetically reading the list of graduates, names were read according to the assigned Forum allowing the mentor teacher to greet each student and offer congratulations in a group. As one of the house principals described,

> The best example to show the strength of the program – we have reorganized graduation because mentors wanted to hug their kids, and it was an odd little chaos, but it reflected their relationships, so we restructured the ceremony so we graduate by Forum instead of alphabetically….the mentor stands at the edge of the stage after receiving their diploma they are all celebrating – the whole Forum- it literally gives me goose bumps. It is a good indication we are doing something right!

It was no surprise that several teachers mentioned the meaningfulness of this culminating experience at graduation during the course of interviews.

Over time, the students seem to have warmed up to the idea of Titan Forum. "Initially kids complained about Titan Forum but now you don't hear that because it is part of the culture," described one teacher. Another teacher shared several stories about Forum kids supporting each other and bonding, as an example, "….some forums become

so bonded they have sleepovers, and bowling nights….one forum had a student who was so nervous to do her graduation presentation that the whole forum escorted her and waited in the hall with her before she presented…..they find unique ways to support each other." Keeping in mind that these students started out in tenth grade as a completely mixed group with sometimes very little in common, hearing how these relationships evolved was quite impressive. One teacher suggested, "it is a bridge building device that opens their eyes to tolerance and seeing beyond stereotypes…it is a manifest experience in that!"

Most recently, students became involved in the evaluation process of Titan Forum through surveys administered two times each year, one in late fall and one in the spring. Students were asked consistent questions, for example: how Forum helps them feel connected to the building, how it supports their academic and personal goals, how it helps with graduation project, and how it helps them learn about school programs and activities. It also asked students to identify other adults they have connected with, beside their mentor. Survey data were compiled, sorted, and shared with the faculty as a whole. Data were also disaggregated by grade and most recently by individual forum. A newly added component asked teachers to reflect on their forum's individual responses to identify: strengths, areas of growth, staff development options, and programmatic suggestions. Although specific survey results were not shared with the researcher, some general trends were provided. As for the teachers, the data were eye-opening. "There are some mentors that believe they are building relationships when they are just hanging out," described the house principal. It was administration's hope that some targeted staff development might be provided to better support the staff. As for the student's

perspective, the principal reflected, "…from the survey you can see the differences in kids from 10th, 11th, and 12th grade – 10th and 11th really like Forum, by 12th grade they are a little tired of it and drop off a bit….we haven't hit the mark with 12th grade yet." Consequently, the Forum continues to be refined with improvements and modifications made each year.

"Forum is always a work in progress – the main piece we are doing really well is the connection and relationship piece," stated the coordinating house principal. Technology has also played a role in the modification process. Instead of using a paper manual to communicate the daily lesson plans, a private (teacher-only) Titan Forum wikispace was created to post all the information pertaining to Forum, including: individual lesson plans for each grade level, a monthly calendar of topics, lesson archives, games/icebreakers, graduation project information, goal tracking forms, and discussion boards for teachers. Since it had the capability to be changed in 'real time' it allowed for much greater flexibility in changing plans and being able to respond to current issues and concerns as they arose. In viewing the wiki, it was evident that there was a wealth of information available to the teachers. While many of the teachers do access the site for planning purposes, the discussion board feature was used very infrequently. It was the hope of administration that the wiki site would be a continued area for growth. In addition, they also identified, "one area we want to expand and be more effective is providing kids skills in personal learning plans and academic achievement…while also having students monitor their own progress by measuring their grades against their goals. We think that can be a powerful piece of Titan Forum, but it's still in the development phase!"

When asked to define Titan Forum, one teacher responded, “RELATIONSHIPS!” Indeed, Titan Forum has provided students the opportunity to connect to an adult mentor, to CR-Jefferson and to each other. Teachers fundamentally believe in the concept of Titan Forum even though the formal plans, although well intentioned, are often abandoned for a more personal approach. Students have come to accept the structure as a cultural norm. All the while, administration has continued to refine the advisory concept to meet the needs of all students while inspiring the teachers to aspire to the qualities of an effective mentor as posted on the Titan Forum wikispace, “sincerely care about all students, demonstrate enthusiasm toward all students, listen to and value student opinions, model respect and effective communication skills, guide student self-reflection and group cooperation, plan developmentally appropriate activities, identify students needing more intensive guidance and support, assess the progress of the Titan Forum program, understand the mentor’s role and responsibilities, participate in discussions to improve the role of mentor and foster a positive school climate.”

Building/Facility

The actual building was another factor identified by the staff as a contributing factor to the collective efficacy beliefs. Simply stated, the building was amazing. In one teacher’s words, “the newness of the building, the aesthetics, it is beautiful and gives teachers a much more positive place.” The Athletic Director described the reaction of visiting teams when they first step foot in the building, “Away teams are amazed at how nice it is – they just stare!” As an outsider coming into the building, it was hard not to notice the magnitude of the building when stepping into the two-story foyer with terrazzo marble floors, immense windows, and arching open beams. The over 80 million dollar

building was referred to, on more than one occasion, as the 'Taj Mahal'. Teachers described that community members also refer to Jefferson in that way, particularly as it first opened; although that reference has reportedly faded. "People call this the 'Taj Mahal' but it really is a beautiful building," stated one teacher.

Aside from being new, the architecture was quite unique. First and foremost, the building was designed to specifically accommodate the house system, house offices, and the pod arrangement. Therefore, the three-story 'house area' contained three identical, stacked arrangements. Each area shaped as a crescent, or slight U-shape, with the house office in the middle and the two pods on either end (Figure 4.1). In the center of the pod area was the glass-enclosed pod office and an open computer area. Around each pod was a cluster of classrooms arranged in a large circle. One pod housed the math and world language teachers and the other housed English and social studies. Science classrooms with labs were located along the crescent on both sides of the house office, connecting to the pods. One of the most notable features of the architecture was the open space and use of light. Wide hallways, high ceilings, and lots of windows were predominant features. Lockers were placed in low standing islands in route to the pod area instead of along the hallways.

Overwhelmingly, teachers and administrators attributed the physical plant as another positive factor in influencing the culture and collective efficacy beliefs. The "design has a lot to do with it….every room has windows, lots of light, and high ceilings," stated one teacher. While another described,

> The atmosphere is really neat. The hallways are large, there is a lot of light - you don't get the sense that kids are closed off…the pods are all glass and you can see

> people walking in the halls. There is a lot of visibility, the kids respond well to being seen," another teacher described. "The layout does play a huge, huge role…the wide open hallways, low lockers, and general openness….we can see each other…kids you have in class you can see elsewhere in school.

And finally, "part of the positive culture is the layout of the building, it is a beautiful building with great resources….for example, the computers outside the pod area…today a teacher had a group of students at the computers and a group of students in the classroom, you can see your students working – it is open, cordial, and friendly- just a great atmosphere!"

Moving away from the house floors and pods for an examination of the non-core, elective areas revealed the same sense of grandeur. On the main floor a larger U-shape sprawled in the opposite direction of the house floor (Figure 4.1). The main entrance and principal's office were located in the center of the U-shape. On one end resided the auditorium and all of the Art, Music, Tech Ed, and Communication classes. Connecting the Arts to the Main Lobby was a beautiful Library. The Library contained minimal hard-copy resources, but instead had numerous computers, work tables, and lounge areas for students to access material electronically. The space was wide-open and inviting with a two-story wall of windows allowing for natural light and exposed beams. On the other side of the main office was the Physical Education wing, including a 25-meter pool, fitness room, two large gyms, locker rooms, a wrestling room and the trainer's room. As one PE teacher described, "this is a PE teacher's dream!" Connecting the PE area to the main lobby was the cafeteria. The cafeteria would best be described as a 'food court' as opposed to a traditional school cafeteria. Again, exposed beams and lots of windows and

light provided a welcoming, casual environment. Food was served by a contracted food service company and presented in food court style, including: a deli, a salad bar, hot lunch buffet, snacks and frozen novelties. At every turn, the building exhibited the positive energy that so many of the faculty members described and was evident to even an outside visitor.

Another positive factor of the physical plant was the cleanliness and respect of property that was clearly evident. "We have a super maintenance staff. They keep the building clean day in and day out….a lot of the building appearance has to do with them," described one teacher. Likewise, the students were also very respectful of the building. Rarely was there any visible trash, food left on cafeteria tables, or smoke in the bathrooms. "Kids *do* take care of the building," reported one of the guidance counselors. Teachers, staff, and students worked together to maintain the appearance in a building in which they had a great deal of pride.

The immensity of the building was certainly a prominent feature even from the outside of the building. Creating a building with open space, lots of light, house floors, and pods certainly translated into a large physical plant. One of the unintended consequences of this arrangement was the formation of sub-cultures around the building. Each pod seemed to have their own community, as did the art wing and the PE area. As one PE teacher described, "…sometimes we feel removed because PE is completely away from everything else but there is really no other way to do that because the facility, it is just so big." Or in the words of a social studies teacher in describing the pod mentality, "you do feel like you're the only one and there's nothing else going on in the whole school – like a school-within-a-school." Likewise, a veteran Tech Ed teacher of

29 years who came from Washington, and was on the Core Team stated, “I miss standing out in the hallways and getting to know those kids that walk by everyday…the only kids that walk by here are going to Art or Tech Ed….that’s what I miss most, getting to know more kids.” Many teachers did not seem to be bothered by the clustering, while others seemed to miss the camaraderie and larger staff socialization.

Another interesting reflection on the structure was the challenge of creating traditions and culture in a brand new, sterile building. Both Adams and Washington were buildings with rich traditions and long-standing culture. Initially, the transition was difficult. As one house principal described, “making people feel that this brand new facility with nothing on the walls was a home and comfortable and *their* space….students made comments like ‘it’s just bricks, there’s nothing on the walls, it’s like a prison’ so it was hard to make it feel their own.” Teachers and administrators worked hard to develop traditions and culture, inevitably time was a major factor for bridging this gap and some of the sterility had begun to fade. Trophy cases contained CR-Jefferson trophies, music showcases contained playbills from their musicals, and art showcases contained unique student work. A college caliber school store, housed outside the cafeteria, contained a complete line of CR-Jefferson clothing, apparel, and supplies much of which was designed and selected by students. With the passage of time and continued efforts from the staff and students, traditions will continue to grow and become solidified.

There was no doubt that the CR-Jefferson state of the art facility was a contributing factor to the positive culture. Teachers collectively expressed, “we are very fortunate…the design of the building and the set up for Jefferson make for a positive place.” Or in the words of another teacher, “even the architecture lends itself to higher

expectations." Certainly having a quality facility is a contributing factor, but it was not the most significant factor (noted by 18 of the 33 interviewees). One teacher summarized this best, "the building – over 80 million dollars, 80 MILLION dollars! But it means nothing compared to who I share it with….there is so much more, this is just a phenomenal district."

Community Support

Six of the interview respondents mentioned the community as a positively contributing factor to the culture and collective efficacy beliefs at Jefferson. The entire Cedar Ridge school district was located in an upper to upper-middle class area; however, each of the three high schools maintained a unique reputation based on the communities in which they were located. Adams had the reputation of being the most affluent with the strongest focus on academics. Washington and Jefferson were both viewed as upper-middle class communities with solid academics as well as strong athletic programs. Washington was the oldest school in the district and was located in the town center within walking distance to quaint local shops, law offices, the courthouse and other local establishments. CR Jefferson, the newcomer, served the broadest range socio-economically and was located on the outskirts of the district. "Kids have the resources they need, we are a fairly affluent school district and it definitely shows," stated one teacher. Families at Jefferson were reported to be supportive of the schools, this is a great community, parent support is great so it is very positive." A Jefferson math teacher, who previously taught and attended Adams, reported, "[Jefferson] parents value education but they are not as high powered in careers [as Adams]…they are more laid back and put less pressure on their kids. The [Jefferson] parents are more open and

supportive and realistic about who their kids are, which allows us to be here more for the kids." Although a minor contributing factor to the collective teacher efficacy beliefs, the sense of community support was consistently positive.

Student Body

The final contributing factor noted by five staff members was the student body. "We have such good kids, everyone here feels like they know everyone else…they are more social, even outside of their social cliques," described one teacher. A social studies teacher went on to describe, "The student population – you just can't complain! We don't have problems with kids….they come here to learn, their parents are supportive and motivate them too." Across the board, teachers agreed that students rarely presented discipline problems, aside from the occasional issue or attendance concern. In general students were described as "motivated, even the seniors who are close to graduation." In addition, several teachers noted the number of students who stayed after school and got involved with activities. "Kids are much more present, hanging out after school and that helps build relationships too," described one of the math teachers. Overall, teachers were very complementary of the student body, even through the tough transition initially; students have settled in at Jefferson and embraced the culture.

Summary of Efficacy Factors

Several factors were identified as contributing to the collective efficacy beliefs at CR Jefferson. Most prominently mentioned, the house system, provided the fundamental structural feature for downsizing the larger school community into three distinct grade-level subgroups. For faculty, the pod arrangement created interdisciplinary professional learning communities with strong bonds and opportunities for collaboration. The

leadership and planning from the district and building administration provided a strong, research-based foundation for the new CR Jefferson. The faculty members themselves represented a contributing factor to the collective efficacy beliefs, with their positive and youthful vibrance. Titan Forum served as a powerful tool for building relationships and connectedness between the students and staff. In addition, the physical plant fostered a positive culture simply in its grandeur and state-of-the-art architecture. And finally, the supportive community and receptive student body contributed to the culture at Jefferson. Together, these factors contributed to the collective teacher efficacy beliefs in a building established on the ideals of building relationships and strong learning communities.

Sources of Efficacy

Bandura's (1997) work on efficacy identified four sources fundamental in the development of collective teacher efficacy: mastery experience, vicarious experience, social persuasion, and affective states. The final research question explored the ways the small school model contributed to or detracted from the four primary sources of collective efficacy beliefs.

Mastery Experience

Bandura (1997) identified mastery experience as the strongest source of efficacy information. As Goddard, Hoy, and Hoy (2004) stated,

> It is through the learning of group members that organizational learning occurs. Teachers as a group experience successes and failures. Past school successes build teacher' beliefs in the capability of the faculty, whereas failures tend to undermine a sense of collective efficacy…Indeed organizations learn by experience whether they are likely to succeed in attaining their goals (p. 5).

Cedar Ridge as a district had a long-standing tradition of excellence. Following in that custom, the opening of Jefferson was viewed as an extension of an already established and thriving system.

In opening CR-Jefferson, the principal estimated that 85% of the faculty relocated from within the district. Therefore, the collective success of the district was already engrained in the majority of the staff. Mastery experience would also indicate that subsequent years of successful experience builds teachers' beliefs in the capability of the faculty (Goddard, Hoy, & Hoy, 2000). Analyzing the Collective Efficacy Scale survey data based on years of experience supported this notion (Table 4.8). (Full item analysis for the subgroups is shown in Table 4.8A – Table 4.8E in Appendix H).

Table 4.8

Collective Teacher Efficacy – Years of Teaching Experience

YEARS EXPERIENCE	n	COLLECTIVE EFFICACY
1 – 5 Years	35	5.10
6 – 10 Years	28	5.14
11 – 15 Years	22	5.22
16 – 20 Years	8	4.98
20+ Years	10	5.32

Each interval of experience showed an increase in the Collective Efficacy Scale, with one exception, the 8 teachers with 16-20 years experience. In this subgroup there was a slight decline. In general, the survey data did support the mastery experience theory, demonstrating strong collective efficacy scales predicated by sustained success.

Vicarious Experience

The second source of efficacy beliefs, vicarious experience, involves indirect experiences as the source of information about collective efficacy (Goddard, Hoy, &

Hoy, 2000). Organizations learn by observing other organizations (Huber, 1996). Likewise, perceived collective efficacy may also be enhanced by observing successful organizations, especially those that attain similar goals in the face of familiar opportunities and constraints (Goddard, Hoy, & Hoy, 2004). A common example of observational learning is the tendency of schools to replicate educational programs that have succeeded elsewhere (Goddard, LoGerfo, & Hoy, 2004). The Cedar Ridge school district opened CR-Jefferson using the vicarious experience of CR-Adams and CR-Washington, as well as a solid research base.

There were several factors that were improved and refined when plans were made for opening the third high school in Cedar Ridge School District. First and foremost, the building was specifically designed to accommodate the house system and pod arrangement. "It [the house system] is really obvious here [at Jefferson] because we are all on one floor," remarked one teacher. Administration took the already successful house concept from the other two high schools and designed the three-story structure with the designated house office. This was unique from the other two buildings which had modified an already existing comprehensive high school into a small school design. As one teacher stated, "at the other high schools all the administrators were in the main office, and we could go weeks without seeing them. With the house floor design you <u>will</u> see an administrator at least once a day – in a good way!" The Jefferson house system also restructured the guidance department by housing two grade-specific counselors in the house office. It provided a closer partnership for counselors and house principals, particularly when dealing with individual student concerns. As one counselor described, "It is a different mindset, we have to have a team approach, particularly with proximity to

the house principal." In general, the Jefferson infrastructure provided for an improved house structure as one teacher summarized, "…at Jefferson it's really like three small schools in one."

In addition to enhancing the previously existing house system, CR-Jefferson also embraced the concept of professional learning communities through the pod structure. The pods provided an inter-departmental, small learning community organization. DuFour (1998) described professional learning communities as the most promising strategy for sustained, substantive school improvement. For that reason, the superintendent embraced DuFour's (1998) work on professional learning communities and mandated the de-departmentalized pod arrangement. Although many teachers balked at the idea initially, it was quickly accepted and institutionalized. A teacher of 33 years who had previous experience at both Adams and Washington before coming to Jefferson as the Athletic Director articulated this sentiment, "we have a unique culture with the pod system…the faculty has truly developed their own cultures." On a more personal level, one teacher described, "At Washington I was alone 95% of the time in my room and never saw anyone. This is so much better, sharing a planning area with other teachers there is much more communication."

The final major improvement made in the opening of Jefferson was the establishment of the Titan Forum. As the principal described, "Washington had a more traditional advisory period, and Adams had tried several homeroom arrangements….we needed to be sure we would find something successful that was also somewhat different." A Core Team member expressed, "we didn't want 'homeroom' or 'advisory', we wanted to put together both ideas, combine it with graduation project advisement and have the

same person for three years." Ultimately, "The Core Team had a strong feeling about bolstering the house system by building relationships; we explored a number of options and finally picked the idea of 'Titan Forum'," summarized a Core Team member. And although Forum experienced some growing pains, it emerged as the most prominent structure for building relationships with students. One house principal shared the following analogy, "…Titan Forum is to the kids, as the pod is to teachers."

In addition to building on the vicarious experiences from Adams and Washington, the district historically continued to build on research-based initiatives. As the principal described, "We started our planning with DuFour's work on professional learning communities that was our original foundation….and *Breaking Ranks* too – those were the two rocks that we worked from." In April 2006, well after the opening of Jefferson, the superintendent led the district in an initiative from Willard Daggett, emphasizing 'rigor, relevance, and relationships'. Throughout the course of interviews, five separate interviewees mentioned the work of Daggett which specifically validated Jefferson's emphasis on relationships as part of their core values. One teacher described, "the time we spent on building climate was worth it….kids now appreciate it too, we have a family feeling." All in all, the vicarious experiences from Adams and Washington were instrumental for Jefferson in developing the house system, the pod culture and the Titan Forum. These structures were further informed by continued commitment to the research based initiatives from Breaking Ranks (1996, 2004), DuFour (1998) and Daggett (2001). Both of which contributed to the vicarious experience as a source of collective teacher efficacy beliefs for CR-Jefferson, as one teacher described, "a lot of things were done right here– in fact, most things were done right!"

Social Persuasion

Social persuasion is another means of strengthening a faculty's conviction that they have the capabilities to achieve their goals (Goddard, Hoy, & Hoy, 2000). Social persuasion may occur when a strong leader successfully persuades organizational members of their collective capabilities; it may involve discussions in the faculty room, or it may occur through professional development opportunities (Goddard, Hoy, & Hoy, 2004). In the case of Cedar Ridge, the two primary factors identified as positively contributing to the social persuasion at Jefferson were the strong leadership and pod interactions.

During the course of interviews, eight faculty members made direct reference to the strength of the principal in orchestrating and cultivating a positive climate at CR-Jefferson. Many others alluded to the strong, thoughtful planning as a main contributing factor of the climate, and one which indirectly credits the principal. This positive social persuasion on the part of the principal began with the initial planning stages. Members of the Core Team described, "I watched [the principal] put this staff together, he put together a group of teachers to build Jefferson, a really good mix by age, personality and teaching style." There was a general consensus that the Principal created the culture by "getting the right people on board." One teacher stated, "he has the magic touch and is incredibly gifted in picking the right people." Over and over, staff members complemented the principal and showed incredibly high regard for the work he did to set the culture and establish a positive climate. In addition, this was the main reason the superintendent selected the principal for the position initially. Prior to opening Jefferson, the principal had a long-standing positive reputation both in the district and the

community. In a sense, he was somewhat of an icon. Having come through the system as a teacher, athletic director, and principal, he was very highly regarded by all constituencies: staff, students, administration and community alike. It was no accident that the superintendent selected him for the challenge of opening a new building, and no surprise that his leadership provided a social persuasion clearly identifiable to the staff.

Secondly, the pod culture and social interactions within the pod provided a fertile ground for positive social persuasion. The pod was described by many teachers as a "social support" with strong bonds and open communication. As one teacher described, "The social component to the pod makes you feel good about your job – we are social animals and the pod brings us together." The social atmosphere of the pod is "what gets me through the day" described another teacher. The principal noted the following about the pod culture, "there are unique interactions in the pod areas, as teachers walk back and forth and around they see kids unlike you get with long hallways…it is much more social…it lets our kids know that the staff cares about them. They know the staff is in it with them as opposed to just doing their job…the pod is a unique community center in six places." The relationships and social interactions that the pod provided were influential to the teachers in establishing a positive work environment. These small pod communities in conjunction with the strong leadership of the principal, presented mechanisms for social persuasion that were quite powerful.

Affective States

Finally, affective states serve as the final source of collective efficacy beliefs. The affective state of the organization plays a role in influencing the culture and collective efficacy beliefs of the school. The level of arousal, either of anxiety or

excitement, adds to perceptions of group-capability or incompetence (Goddard, Hoy, & Hoy, 2004). For CR-Jefferson, the affective state was an obvious strength based on the overwhelmingly positive culture that was both observed by the researcher and described by the participants. In the words of a veteran teacher and Core Team member, "there is a very different philosophy here, different social interactions; this staff is very open to kids…just a positive environment and I can't say enough about the staff….they are refreshing…a youth mentality." A first year Jefferson teacher with seven years previous experience in another district described, "the faculty here is very connected and energetic, they have a big bearing on the culture and the energy in the building." "The teachers' positive energy channels down to the kids," stated another teacher. There was an overwhelming sense that teachers truly loved being at Jefferson and genuinely shared a common purpose, as one teacher explained, "The staff that are hired have positive attitudes, all are here for the kids – all are here because we want to be here." Another teacher summarized it this way, "We are just happy to be here! The climate is positive, you don't hear complaining. [The principal] didn't bring those people in and when new people come, we teach them – this is how we operate, <u>this</u> is our culture – we don't complain here. We get our job done and we have fun!"

In so many ways, the affective state at CR-Jefferson was overwhelmingly positive. Teachers thrived in the pod culture and small learning communities they created. However, there was also an undercurrent of isolation that was mentioned by twelve interviewees. Most of these comments stemmed from the fact that teachers did not seem to know the faculty in its entirety. Many expressed not knowing or recognizing everyone at the monthly faculty meetings. Teachers tended to socialize and eat primarily

in their pod areas. The physical plant was in and of itself so large that it was described as an inhibiting factor to the larger socialization of the staff. Many teachers not in the pod areas described themselves to be "somewhat isolated" from everything. "The layout really divides people, it can be a little isolating….you don't really know everyone," one teacher expressed. A few teachers, approximately four, conveyed a desire for more department contact, "I don't see two-thirds of my department, more time to talk within our department would be nice." And yet, although many recognized the fragmentation of the building as a whole school culture, that was quickly overshadowed by the positive subcultures that have emerged as a result of the house system and pod culture. As one Physical Education teacher described, "the vibe in this school is amazing….the set up is great….it is quiet down here, but the building is just so big." "Likewise a math teacher stated, "we may not see people the entire year, but you just let that part go and embrace that this is just a big school!" Perhaps this was best summarized in the following statement, "It is a great system - I wouldn't know what would make it better. We can't change that the building is huge, the pods connect the teachers and are great!" In conclusion, the affective state of the building was overwhelmingly positive in a contagious sort of way. The smaller pod structures provided a means for socialization and interaction, and although it was somewhat at the expense of nurturing a building-wide collaboration, all teachers identified the culture to be positive and productive. In summary, the four sources of efficacy identified by Bandura (1997) as: mastery experience, vicarious experience, social persuasion, and affective states were each identified as contributors to the collective teacher efficacy beliefs at CR Jefferson.

Chapter 5

Discussion

Introduction

This purpose of this case study was to investigate the effects of a widely advocated organizational reform for secondary schools, the small school model, on the collective efficacy beliefs of teachers. According to Lee and Ready (2007), school size represents a potential organizational correlate for restructuring our high schools. As Dee, Ha and Jacob (2007) described,

> Recent state and federal policies designed to improve American public schools have generally focused on introducing standards (for example, No Child Left Behind) or choice (for example, charter schools and vouchers). However, another increasingly prominent approach to reform has emphasized the possible benefits of creating smaller schools as well as small, focused learning communities within schools, particularly at the high school level. (p. 77).

The various small school models are intended to split the large comprehensive high school into smaller components, with the intent of creating a more productive and safer learning environment. The small schools movement is based on the theory that organizing schools into smaller educational environments will help build collaborative, collegial communities of teachers (Supovitz, 2002). Therefore, the notion of collective teacher efficacy served as the conceptual framework for investigating possible linkages to the small schools model.

Collective efficacy provided a powerful construct for assessing the small school model because of its emphasis on group goal attainment (Goddard, Hoy, & Hoy, 2004). As Sampson, Morenoff, & Earls (2000) described,

> The power of collective efficacy perceptions to influence organizational life and outcomes lies in the expectations for action that are socially transmitted by collective efficacy perceptions. Furthermore, collective efficacy beliefs are important to group functioning because they explain how organized capacity for action is tapped to produce results. (p. 638)

As such, collective efficacy beliefs directly affect the diligence and resolve with which groups choose to pursue their goals. Perceived collective efficacy is a potent way of characterizing and coming to understand the strong normative and behavioral influence of an organization's culture (Goddard, Hoy, & Hoy, 2004). Therefore, knowledge about collective efficacy beliefs is critical to understanding the influence of school culture on teachers' professional work.

The research questions posed in this study explored the possible linkages between the small school model and teachers' collective efficacy beliefs. Specifically:

1. What contextual factors prompted the shift to the small school model and how was the plan implemented?

2. What structural elements, factors, or processes in the small school design are perceived to most strongly influence (promote/hinder) teachers' collective efficacy beliefs? Why?

3. In what ways does the small school model contribute to or detract from the primary sources of collective efficacy beliefs: mastery experience, vicarious experience, social persuasion, and affective states? Why?

Summary of Results

The case study was conducted at a suburban high school in the northeastern United States which operated under a grade-level house system. The district contained three separate high schools, each with approximately 2000 students in grades ten through twelve. Research was conducted at the newest of the three schools, having opened five years prior with a brand new, state-of-the-art, building costing upwards of 80 million dollars. The researcher utilized the Goddard (2000) 21-item Collective Efficacy Scale, personal interviews, observation and document analysis as data sources. Initially, the written survey was administered to the faculty, capturing 103 of the 126 teachers. Interviews were then conducted with 30 members of the staff, producing the most significant data source. Lastly, observation and document analysis supplemented the data collection process.

The district adopted the house concept for the 1999-2000 school year in response to the tragedy at Columbine High School. The grade-level, house design was implemented as a means of fostering relationships, building smaller communities, and providing a more personalized high school experience. Due to increasing enrollment, a third high school was slated to open for the 2004-2005 school year. A solid transition plan was put in place by the district administration based on the research of *Breaking Ranks* (1996, 2004) and DuFour and Eaker's (1998) *Professional Learning Communities at Work.* In addition, a Core Team and Student Advisory Committee were formed to

supplement the strong leadership of the principal. Despite all efforts, the opening of the new school was delayed by one semester, creating a series of challenges which initially proved difficult, but ultimately unified the staff. For students, the transition was a longer, more difficult process because of their loyalties to their original schools. However, after three years, reports indicated that transition had come to full fruition, with students joining the staff in embracing the culture and community unique to Jefferson.

The staff at Jefferson consistently demonstrated a contagious, positive energy that set the tone since the building's opening. This was further substantiated by the Collective Efficacy Scale that was administered to the staff, with 81.7% staff participation. On a six point scale (six being the highest), the overall staff collective efficacy was 5.15 (Table 4.5). This provided an initial indication of the strong sense of collective efficacy beliefs present throughout the building. Through the interview phase a more detailed understanding of the small school design and possible linkages to the collective teacher efficacy was obtained. Upon analyzing the interview transcriptions, several themes emerged as factors contributing to the teachers' collective efficacy beliefs. Those themes, in order of prominence were: house system, pod arrangements, leadership/planning, faculty composition, Titan Forum, building/facility, community, and student body.

The house system was most frequently identified by teachers as a factor influencing collective efficacy beliefs; more specifically, it was the fundamental structural feature for downsizing the larger school community into three distinct grade-level communities. It instantly subdivided the building with each grade residing on a separate floor. A designated house office contained the house principal, two guidance counselors and a respective secretary for each, all of whom remained with the students

for all three years. Core academic courses were also housed on the corresponding grade-level floors, in hopes of creating three small schools. Teachers praised the house design for providing students a smaller, more communal environment as well as consistency with counselors and house principals. Some did note the challenge of maintaining a pure, grade-level floor based on teacher's room assignments and course load. In addition, a concern was also raised regarding the potential for fragmentation as an unintended consequence of subdividing a large school. However, these sentiments were overshadowed by the overwhelming support for the house structure.

Several other salient features came to light as factors impacting the collective efficacy beliefs in the building. Almost as important as the house system, was the pod arrangement. In lieu of the traditional department structure, pods provided interdisciplinary professional learning communities for teachers, producing strong bonds and opportunities for collaboration. The entire building was described as having a "pod culture," a structure which had become institutionalized and embraced by the entire faculty. The leadership and planning from the district and building administration also provided a strong, research-based foundation and contributed to the collective efficacy beliefs of the staff. The faculty members themselves represented another factor, with their positive and youthful vibrance. Titan Forum, based on an advisory model, served as a powerful tool for building relationships and connectedness between the students and staff. In addition, the physical plant fostered a positive culture simply in its grandeur and state-of-the-art architecture. And finally, the supportive community and receptive student body were identified as contributors to the culture at Jefferson. Together, these factors

were attributed to the strong collective teacher efficacy beliefs in a building established on the ideals of relationships and strong learning communities.

Assessing the data in light of Bandura's (1997) four sources of efficacy substantiated the strong sense of collective efficacy present. Disaggregating the survey data based on teaching experience illustrated the *mastery experience* source by showing a progressively increasing trend as years advanced. Second, the *vicarious experiences,* particularly as gleaned from the other two district high schools, were instrumental for Jefferson as building blocks for implementing programs and establishing culture. Most notably, was the refinement of the house system, the implementation of the pod culture, and the adoption of Titan Forum. Third, *social persuasion* provided a source of efficacy through the strong relationships and social interactions of the pod, as well as through the strong and supportive leadership of the principal that many teachers credited. Fourth, the *affective state* at CR-Jefferson was overwhelmingly positive, vibrant and energetic. Although the building was large with a risk of fragmentation, teachers identified the culture to be both positive and productive. Overall, the four sources of collective efficacy were each identified as contributors to the strong collective efficacy beliefs of teachers at CR Jefferson.

A Caveat

The particular site selected for this case study necessitates a caveat before proceeding to the conclusions. The site for this case study was an extraordinary facility specifically designed to accommodate the small school design, an anomaly in and of itself. This design readily facilitated the implementation of a house system and also provided for the eventual development of the pod culture that was so prevalently noted by

participants. The exceptionalities and advantages of this particular facility, specifically its state-of-the-art design and the inherent and obvious benefits of the physical plant itself, make it difficult to readily generalize to other schools attempting to implement a small school model within an existing structure. As Darling-Hammond, Ross, and Milliken (2007) stated, "questions about the effects of school size may need to be considered very differently when weighing decisions about *starting* new small schools or *breaking up* existing large schools" (p. 180).

The criterion used for site selection in this study was based on evidence of exemplary implementation of the small school design. Selecting an exemplar, a sterling instance of small school success, provided the opportunity to explore connections between the small school model and collective teacher efficacy beliefs. To maximize generalizability beyond the studied case, one must focus on general structural features and programmatic design elements.

Conclusions

The findings from this study are summarized in four general conclusions about the small school design and collective teacher efficacy beliefs. First, the house system serves as an effective downsizing strategy, but alone is not enough for impacting collective teacher efficacy beliefs. Second, professional learning communities, specifically pods, provide a necessary and meaningful structure for building collective efficacy beliefs through collaboration when embedded in the small school design. Third, an advisory component, such as Titan Forum, is fundamental in personalizing learning and fostering relationships which ultimately enhance the sense of community and efficacy beliefs. Fourth, inspired leadership, research-based planning, and a vibrant staff

are essential in building a small school model with strong collective efficacy beliefs. It is the nexus of these elements: the house system, small learning communities, advisory structure and strong staffing that collectively contribute to the strong sense of efficacy.

The House Is Not Enough

The movement toward small school models for high schools continues to be popular in the lexicon of contemporary school reform and reflects the nation's ongoing emphasis on school improvement (Lee & Ready, 2007). Contemplating restructuring strategies requires an assessment of the two theories of school organization, bureaucratic and communal. As Lee and Smith (1995) described,

> The theories defining these alternative forms of teaching and learning are well established in American education and have undergirded historical and theoretical debates about the proper direction of school reform for at least a century….One form has been dominant in secondary schools, the bureaucratic, comprehensive high school….Calls to restructure schools suggest a fundamental shift from the bureaucratic model toward the communal organizational model. (p. 243)

George and McEwin (1999) expanded on this notion,

> Contemporary attempts at restructuring the high school can be characterized as aimed at restoring the balance between curriculum and community. High schools must have both a rich and rigorous curriculum and a strong sense of community, where faculty and students feel connected to one another in appropriately personal ways. (p.15)

And thus, educators are searching for ways to make large schools feel smaller, restructuring the schools so there is smallness inside the larger whole.

For traditional comprehensive high schools, the school-within-a school model presents an economically advantageous method for maintaining present buildings while still reaping the benefits of a smaller school; in essence, reducing the size without building new schools. As Lee, Ready, and Johnson (2001) described, "Two threads bind together suggestions for reforming high schools: (1) to deepen and broaden the personal connections among school members, and (2) to reduce the size of organizational units" (p. 366). And thus, the study of small school models might logically be grounded in literatures about school size or social relationships, or both. Two large-scale quantitative studies focused on how high school organizations and size influence academic outcomes concluded that "smaller is better" (Lee & Smith, 1995, 1997). As McQuillan (1997) described,

> What may be the most radical and difficult change to enact that I propose is simple: Make schools smaller. The main rationale for endorsing smaller schools derives from the benefits promoted by a more personal context, in particular enriched student-teacher relations. (p. 645)

Indeed at CR Jefferson, the house system served as *the* downsizing instrument by immediately breaking the building into thirds. More specifically, three grade-level houses. Lee, Ready, and Johnson (2001) believed that reducing size by creating smaller organizational units within larger schools may be a useful mechanism for facilitating more personalized social relationships within high schools, as a smaller number of students and teachers would see one another more frequently and over more sustained periods. However, in the case of CR Jefferson faculty members did not describe the house system as a device for building social relations, but merely a downsizing structure.

This sentiment was echoed by Darling-Hammond, Ross, and Milliken (2007) stating, "Quite often house structures are little more than a 'superficial overlay'" (p. 180). Furthermore, this capability was somewhat compromised by the fact that most students at CR Jefferson attended at least one of four daily classes outside of the house. In other words, many students traveled outside the designated house confines for either elective courses or for courses that met off the grade-level floor. This opinion was also shared by administrators in discussing the challenges of maintaining a pure grade-level house when assigning teachers to classrooms. The house system implementation did not strictly adhere to Lee, Ready, and Johnson's (2001) notion, "a full-model SWS high school, all students and most teachers are members of only one subunit" (p. 365). In some instances students and teachers traveled between house floors, compromising the purity of the house system. And thus the effort to personalize students' educational experiences through downsizing did not seem to reach its full potential, contributing to the notion that "the house is not enough."

Hence, the house system proved to be necessary but insufficient in promoting the strong sense of community and fostering collective efficacy beliefs. During the course of interviews, all respondents readily identified more than one factor as contributing to the collective efficacy beliefs at CR Jefferson. Responses ranged from three to eight factors, with an average of five factors named by each staff member. This further substantiates the notion that the house structure, although *the* fundamental downsizing framework, did not stand alone as a restructuring tool for fostering collective efficacy beliefs. Lee and Smith (1995) also recognized the need for a multi-tiered approach for effective restructuring; in their recommendation, "schools should target their reform efforts to a

modest number of communal practices – practices that probably should be adopted neither singly and serially nor in large number to 'showcase' a school's superficial commitment to reform" (p. 263). Darling-Hammond, Ross, and Milliken (2007) offered the following,

> Although it is possible to tease out elements that appear to have been associated with more and less successful small-school initiatives, it is not possible to articulate a set of factors that will guarantee successful reform. There are so many variables at play in the schools and districts were reforms are undertaken that an approach which appears to have been successful in one district may be less successful in another. (p. 192)

At CR Jefferson, the most frequently noted factor, the house system, clearly provided the foundation for several other structures for fostering strong collective efficacy beliefs. Ultimately, it *was* the downsizing through the house system that cultivated opportunities for personalization and relationship building as further manifested in the pod structure and Titan Forum.

Professional Learning Communities – The Pod Culture

With the house system providing the framework, the pod arrangement fostered teacher collaboration through the creation of small learning communities. Indeed, the physical layout of the building allowed and encouraged this unique expression of community. Teachers repeatedly reflected on the camaraderie and collaboration provided by the pod structure, both of which are essential in building a strong sense of collective teacher efficacy. As Bryk and Driscoll (1998) described,

> Literature suggests that school communities provide more support for the work of teaching and learning than traditional bureaucratic structure; they are less a coexisting alternative than a replacement for it. What distinguishes school communities from bureaucratic organizations is that their members are bound by personal as opposed to purely utilitarian ties. Members of a community care about one another because they share experiences and knowledge of each other in common as well as perform practical functions for one another. (p. 2)

As such, the pods provided an opportunity for collaboration and community; a structure uniquely different than the traditional departmentalized system so prevalent in high schools. George and McEwin (1999) strongly recommended a movement away from strict departmentalization to interdisciplinary teams as a way of empowering teachers. In essence, this translated into using an organizational strategy to build a sense of community and collaboration amongst the faculty, as Jefferson did in designing the building around the pod structure.

Initially, many teachers were cautious and even resistant to the pod concept and wished for a purely departmental organization. However, within the first year of operation, teachers quickly embraced the idea of pods which have continued to flourish and even grow. As Lee and Smith (1996) described, “besides the obvious personal benefits that accrue to teachers through social contact with their peers, cooperative professional relationships are also important in developing an effective school culture” (p. 106). Indeed, the pod concept was quickly subsumed as a fundamental element of the culture at Jefferson. Supovitz (2002) expressed the idea that these collegial and supportive communities of practice fostered the sharing of information so that teamwork

becomes a functional goal of the school. The "pod culture" defined the professional, social structure at Jefferson so strongly that teachers not assigned to a pod, created their own. Again, this provided a further validation to the strength of community and collaboration perpetuated by the pod structure.

Pods also served as a fundamental source for building collective efficacy beliefs. As Hoy, Sweetland, and Smith (2002) described,

> Teachers need role models to demonstrate how skills are applied to achieve successful outcomes. Direct positive experiences and vicarious experiences are two critical aspects in the development of efficacy. As teachers experience success and observe the accomplishments of their colleagues as well as success stories, they develop beliefs in their own capabilities. (p. 81)

The pod structure provided these direct positive experiences and vicarious expereices through collaborative opportunities on a daily basis. Teachers consistently reported how important the pod was in their daily interactions and some even shared that it was "what got them through the day." The direct observations and artifacts in the pods not only validated this statement, but also provided an explanation for the overwhelmingly positive culture. Goddard, Hoy, and Hoy (2004) discussed the idea of collective efficacy and culture in this way,

> A faculty's sense of collective efficacy helps to explain the differential effect that school cultures have on teaches and students. Hence, it is reasonable (and correct) to expect that some schools have a positive influence on teachers whereas the impact on other schools is much less productive. For example, some teachers will find themselves in schools with low morale and a depressed sense of

> collective efficacy whereas other teachers will work in schools possessed by a high degree of mutuality, shared responsibility, and confidence in the conjoint capability of the faculty. (p. 8)

The latter was certainly the case at Jefferson. The positive culture at Jefferson was contagious and the sense of collective efficacy strong. While it is difficult to conjecture on the directionality in this relationship, suffice it to say the positive culture and strong sense of collective teacher efficacy positively impacted each other. The small collaborative communities provided by the pod structure were a fundamental component of this operative culture.

"Developing a professional community in a school requires both deprivatizing practice and increasing collaboration among teachers across discipline – in essence, dissolving the specialized task structures that typify most secondary schools" (Lee & Smith, 1996, p. 106). Pods represented the vehicle for accomplishing that goal, and in doing so, further fostered the positive culture. Moreover, evidence suggests that teachers' sense of collective efficacy is positively related to aspects of organizational context such as positive school climate (Goddard, Hoy, & Hoy, 2004). For teachers, the pod was the prevailing and fundamental organizational element that impacted their efficacy beliefs through daily interactions. An element implemented and supported by the initial design of the building's structural layout.

The Power of Advisory

Titan Forum served as *the* cornerstone structure for building relationships. Within the house system, it provided another vehicle for promoting community and connecting adults and students. As such, it also served as an efficacy building structure which many

teachers identified as pivotal to the school community. The concept of Titan Forum was based on the advisory model promoted in *Breaking Ranks II: Strategies for Leading High School Reform* (2004). The core recommendations of *Breaking Ranks II* (2004) suggest, "high schools create small units in which anonymity is banished" and "every high school student should have a Personal Adult Advocate to help him or her personalize the educational experience" (p. 18). Furthermore, one of the seven cornerstone strategies for improving student performance stated, "Implement a comprehensive advisory program that ensures that each student has frequent and meaningful opportunities to plan and assess his or her academic and social progress with a faculty member" (National Association for Secondary School Principals, 2004, p. 6). Therefore, CR Jefferson implemented the Titan Forum based on the research outlined in *Breaking Ranks II* (2004) as a means of providing opportunities for teachers to team with colleagues and develop closer relationships with students.

The concept of advisory is strongly supported by the research on social relations in schools. As McQuillan (2008) stated, "'Relationships are key,' in a smaller setting, students, teachers and administrators interact more intensively, over time and in multiple contexts allowing a greater opportunity to develop trust" (p. 1792). "There is general agreement on the importance of positive social relations for adolescents' academic and social development and little dispute that the high school should be a major locus for generating and sustaining such supportive relationships" (Lee, Ready, & Johnson, 2001, p. 367). And from Lee & Smith (1995), " 'restructuring practices' make a difference in student achievement and engagement when they support personal and sustained connections between students and adults in the school setting, and when they facilitate

the sharing of knowledge about students as individuals and learners" (p. 263). The research base for personalizing students' experiences is robust. The preponderance of the sociological evidence about high schools suggests that 'smaller is better' since social relations are more positive in smaller schools (Lee & Ready, 2007). Thus, the Titan Forum advisory model, was the essential mechanism for building social relations, another fundamental and necessary element supported by teachers as strengthening the collective efficacy beliefs and sustaining the positive culture.

A Sustainable Plan with Key People

Restructuring a school around the communal, small school model with an emphasis on relationships naturally elevates the importance of people within the system. First and foremost is the leadership provided by the administration. Bryk and Driscoll (1988) described, "the actions of a school principal, more than any other single individual, can shape the academic and social environment of a school, and as a result play a major role in the development and sustenance of a communal organization" (p. 30). Bandura's (1997) four sources of efficacy allude to this notion when discussing the affective states of organizations. The behavior of school leaders influences the affective state of a school in either positive or negative ways (Hoy, Sweetland, & Smith, 2002). In the current research, the principal's sustained leadership was an essential contributor to the affective state of the organization and in turn, the collective efficacy beliefs.

Furthermore, the principal's leadership was the impetus for developing and fostering a dynamic, efficacious staff. "It is not enough to hire and retain the brightest teachers…administrators should be attentive to the dimensions of efficacy" (Goddard, Hoy, & Hoy, 2000, p. 503). When teachers believe they are members of a faculty that is

both competent and able to successfully meet the challenges of the task at hand, collective efficacy flourishes (Goddard, Hoy, & Hoy, 2000). The contagious enthusiasm and positive climate amongst the staff was consistently evident and supported by the strong response in the areas of leadership/planning and faculty (Table 4.6). These factors contributed to the social persuasion and affective state as sources of collective teacher efficacy.

Likewise, attending to the sustainability of the plan is also an essential component for effectiveness.

> Changing school size or structure without attending to the purpose for such changes may not improve outcomes….the challenge is not just to adopt innovation, but to learn how to use new structures to enhance faculty and student concern for learning of high intellectual quality. Without aiming toward this end, there is little reason to implement innovative structures (Darling-Hammond, Ross, & Milliken, 2007, p. 180).

The strong research base and thoughtful architectural design at CR Jefferson provided a framework for the small school design. When coupled with the strong leadership and dynamic staff, a foundation for positive culture and efficacy beliefs was established.

Recommendations

This case study constitutes a useful addition to the growing literature focus on small schools models and especially the connection between small schools and collective teacher efficacy beliefs. The extant literature contains limited investigations of collective teacher efficacy and fewer yet examine the relationship between collective efficacy beliefs and the dynamics of the small school model. Collective teacher efficacy

represents a powerful construct for investigating the small school design because of its potential for impacting student achievement. Bandura's (1993, 1997) studies provided evidence that teacher beliefs about the capabilities of their faculty are systematically related to student achievement. Further research has supported the strong connection between collective teacher efficacy and student achievement (Goddard & Skrla, 2006; Goddard, Hoy, Sweetland, & Smith, 2002; Goddard, Hoy, & Hoy, 2000). Thus, collective efficacy provides a meaningful conceptual framework for investigating the small school design.

Evidence from this case study suggests that the small school downsizing is not solely sufficient for positively impacting collective efficacy beliefs. Indeed, it is a powerful scaffolding from which to begin, but additional factors are necessary to effectively support the communal structure, specifically, structures for building professional learning communities (pods), advisory models for students (Forum), and a dynamic personnel (administration and staff). These conclusions present several recommendations for consideration.

First, utilize the small-school downsizing structure as the framework for personalizing learning and fostering community. The school-within-a-school design represents a shift toward the more communal organizational model. In particular, the structural features that resonated, include autonomous sub-units, consistent leadership, and an emphasis on community. In order to maximize the effectiveness for the SWS model several considerations should be made. Maintain the purity of the sub-units through appropriately designed physical space that minimizes blending, ideally on separate floors. Lee and Ready's (2001) findings emphasized the value of coherent,

autonomous units and the positive results achieved in schools where students were separated into distinct subunits. Darling-Hammond, Ross, and Milliken (2007) described, "one set of problems with the design of some small schools includes splitting teachers' time and obligations between the school within a school and the larger school in ways that dilute the possibilities for personalized relationships between teachers and students" (p. 188). To that end, eliminate teacher ownership of classrooms. Instead of remaining in one classroom, teachers should float into rooms that maintain the integrity of the house and keep students within the proper house confines to the greatest degree possible. Leadership and support (house principals and counselors) should remain with their assigned house for three years to provide autonomy and foster relationships with students. The small school design should maintain an emphasis on school climate and relationships at its core. A strong house design serves as the scaffolding for additional programmatic options for enhancing efficacy.

Second, beware of fragmentation. An unintended consequence of creating smaller structures within the larger school community is the potential for isolation. Opportunities for school-wide activities should be provided with intentionality. This applies to both students and staff. The sense of school unity should remain strong regardless of the small school model implementation. In essence, the small school model should support the efforts of the larger school community, requiring a duality in principle and purpose.

Third, establish a culture that fosters relationships and collaboration. For staff members, implement professional learning communities. Abandon the traditional department centers and instead institute a system of inter-disciplinary professional

learning communities. This provides a focus on social relations amongst faculty resulting in collegiality and greater personalization. Eliminating the curricular commonality connects teachers around the core work of teaching and students instead of content area. In turn, interactions are enhanced and opportunities provided for vicarious experience and social persuasion as sources of efficacy. For students, institute a well-planned advisory program for building relationships amongst staff and students. Effectively implemented, advisory programs instill a core value on relationships and school climate. The smaller learning community is enhanced by providing opportunities for teachers to team with colleagues and develop closer relationships with students.

In the larger scope, an additional recommendation would call for further research to explore the effects of collective efficacy beliefs on student achievement. Limited research exists exploring the connection between collective teacher efficacy and student achievement. Extant research (Goddard, Hoy, & Hoy, 2000; Goddard, LoGerfo, & Hoy, 2004; Hoy, Sweetland, & Smith, 2002) suggests a positive relationship between collective teacher efficacy and student achievement. In an era of accountability that focuses heavily on student achievement, research examining how collective teacher efficacy impacts student achievement proves to be fertile ground. Such research could expand on specific subgroups to address larger populations, including rural, suburban, and urban schools along with various socio-economic groups. On the basis of the research findings in this case study, further exploration of collective teacher efficacy beliefs and student achievement suggests a powerful opportunity for future investigation.

In sum, many high schools undertaking restructuring efforts are utilizing the small school models based on the reform research addressing high school improvement. The

reform of downsizing large high schools into smaller subunits offers much promise. Collective teacher efficacy provides a powerful framework for exploring the organizational transformation of the small school design and the communal structure because of its suggested connection to student achievement and in light of increased accountability. This study of small school design, through the lens of collective efficacy beliefs, presents an opportunity to understand organizational culture and its influence on participants and groups in promising new ways for practical understanding concerning the improved function of the modern high school.

References

Allinder, R.M. (1994). The relationship between efficacy and the instructional practices of special education teaches and consultants. *Teacher Education and Special Education, 17*, 86-95.

Armor, D., Conroy-Oseguera, P., Cos, M., King, N., McDonnell, L., Pascal, A., Pauly, El, & Sellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angles schools.* Santa Monica, CA: Rand Corporation (ERIC Document Reproduction Service No. ED130243)

Ball, S.J., Lacey, D. (1995). Revisiting subject disciplines as the opportunity for group action: A measured critique of subject subcultures. In L.S. Siskin & J.W. Little (Eds.), *The Subjects in Question: Departmental organization and the high school* (pp. 95-122). New York: Teachers College Press.

Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Bandura, A. (1995). *Self Efficacy in Changing Societies.* Cambridge: Cambridge University Press.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28(2),* 117-148.

Bandura, A. (1997). *Self efficacy: The exercise of control.* New York, NY: W. H. Freeman and Company.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1-26.

Birks, M., Chapman, Y. & Francis, K. (2008). Memoing in qualitative research. *Journal*

of Research in Nursing, 13, 1, 68-75.

Bryk, A.S. & Driscoll, M.E. (1988). *The high school as community: Theoretical foundations, contextual influences, and consequences for student and teachers.* Madison, WI: Center on Effective Secondary Schools, University of Wisconsin. (ERIC Document Reproduction Service No. ED302539)

Buzacott, J. A. (1982). *Scale in production systems.* New York: Pergamon.

Caldas, S. J. (1987). Reexamination of input and process factor effects on public school achievement. *Journal of Educational Research, 86(4),* 206-214.

Carnoy, M., Elmore, R., & Siskin, L. S. (Eds.). (2003). *The new accountability: High schools and high-stakes testing.* New York: Routledge-Falmer.

Chambers, J.G. (1981). An analysis of school size under a voucher system. *Educational Evaluation and Policy Analysis, 3,* 29-40.

Cohen, L., & Manion, L. (1994). *Research methods in education* (4th ed.). New York, NY: Routledge.

Conant, J. B. (1959). *The American high school today: A first report to interested citizens.* New York: McGraw-Hill.

Cotton, K. (1996a). *Affective and social benefits of small-scale schooling.* ERIC Digest. Charlestown, WV: ERIC Clearinghouse on Rural and Small Schools. (ERIC Document Reproduction Service No. ED410088)

Cotton, K. (1996b). *School size, school climate, and student performance* (Close-Up #20). Portland, OR: Northwest Regional Educational Laboratory.

Cotton, K. (2001). *New small learning communities: Findings from recent literature.* Portland, OR: Northwest Regional Education Laboratory.

Cotton, K. (2004). *New small learning communities: Findings from recent literature.*

Cresswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, CA: Sage Publications. Portland, OR: Northwest Regional Education Laboratory.

Czerniak, C.M., & Schriver, M.L. (1994). An examination of preservice science teachers' beliefs and behaviors as related to self-efficacy. *Journal of Science Teacher Education, 5(3),* 77-86.

Daggett, W. R. (2001). *Rigor and relevance: From concept to reality.* Rexford, NY: International Center for Leadership in Education.

Darling-Hammond, L., Ancess, J., & Ort, S. (2002, Fall). Reinventing high school: Outcomes of the coalition campus schools project. *American Educational Research Journal, 39(3),* 639-673.

Darling-Hammond, L., Ross, P., & Milliken, M. (2007). High school size, organization, and content: What matters for student success? In T. Loveless & F. M. Hess (Eds.), *Brookings papers on education policy* (pp. 163-203).

Dee, T. S., Ha, W., & Jacob, A. A. (2007). The effects of school size on parental involvement and social capital: Evidence fro the ELS: 2002. In T. Loveless & F. M. Hess (Eds.), *Brookings papers on education policy* (pp. 77-97). Washington, D.C., Brookings Institution Press.

Dewees, S. (1999, December). *The school-within-a-school model.* ERIC Digest. Charlestown, WV: ERIC Clearinghouse on Rural and Small Schools. (ERIC Document Reproduction Service No. ED438147)

DuFour, R. & Eaker, R. (1998). Professional *learning communities at work: Best*

practices for enhancing student achievement. Bloomington, IN: Solution Tree.

Duke, D.L., Trautvetter, S. (2001, March). *Reducing the negative effects of large schools.* Washington, D.C.: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED454698)

Eberts, R. W., Kehoe, E. & Stone, J.A. (1982, June). *The effect of school size on student outcomes.* Eugene, OR: Center for Educational Policy and Management, University of Oregon. (ERIC Document Reproduction Service No. ED245382)

Enochs, L.G., Scharmann, L.C., & Riggs, I.M. (1995). The relationship of pupil control to preservice elementary science teacher self-efficacy and outcome expectancy. *Science Education, 79(1),* 63-75.

Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational Researcher, 16(7),* 16-21.

Flick, U. (1998). *An introduction to qualitative research.* Thousand Oaks, CA: Sage Publications.

Fowler, W.J. (1995). School size and student outcomes. *Advances in Educational Productivity, 5,* 3-26.

Fowler, W.J, & Walberg, H.J. (1991). School size, characteristics and outcomes. *Educational Evaluation and Policy Analysis, 13(2),* 189-202.

Fox, W.F. (1981). Reviewing economics of size in education. *Journal of Education Finance, 6,* 273-296.

Friedkin, N.E., & Necochea, J. (1988). School size and performance: A contingency perspective. *Educational Evaluation and Policy Analysis, 10(3),* 237-249.

Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of*

Educational Psychology, 7(4), 569-582.

George, P.S., & McEwin, C.K. (1999, April). High schools for a new century: Why is the high school changing? *National Association of Secondary School Principals: NASSP Bulletin, 83,* 606.

Goddard, R.D. (2001, September). Collective efficacy: A neglected construct in the study of schools and student achievement. *Journal of Educational Psychology, 93(3),* 467-476.

Goddard, R.D. (2002, February). A theoretical and empirical analysis of the measurement of collective efficacy: The development of a short form. *Educational and Psychological Measurement, 62 (1).* 97-110.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000, Summer). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37(2),* 479-507.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2004, April). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher, 33(3),* 3-13.

Goddard, R. D., LoGerfo, L., & Hoy, W. K. (2004, July). High school accountability: The role of perceived collective efficacy. *Educational Policy, 18(3),* 403-425.

Goddard, R. D., & Skrla, L. (2006, April). The influence of school social composition on teachers' collective efficacy beliefs. *Educational Administration Quarterly, 42(2),* 216-235.

Goodlad, J. I. (1984). *A place called school*. New York, NY: McGraw-Hill.

Gregory, T. (1992). *Small is too big: Achieving a critical anti-mass in the high school.*

Minneapolis, MN: Minnesota University, Hubert H. Humphrey Institute of Public Affairs, Oak Brook, IL: North Central Regional Educational Laboratory. (ERIC Document Reproduction Service No. ED361159)

Gregory, T. (2001, December). *Breaking up large high schools: Five common (and understandable) errors of execution.* ERIC Digest. Charlestown, WV: ERIC Clearinghouse on Rural and Small Schools. (ERIC Document Reproduction Service No. ED459049)

Haller, E.J, Monk, D.H., & Tien, L.T. (1993). Small schools and higher-order thinking skills. *Journal of Research in Rural Education, 9(2),* 66-73.

Hamilton, S.F. (1993). Synthesis of research on the social side of schooling. *Educational Leadership, 40(5),* 65-72.

Hampel, R.L. (2002, January). Historical perspectives on small schools. *Phi Delta Kappan, 83(5),* 357-363.

Hannay, L.M., & Ross, J.A. (1997, December). Initiating secondary school reform: The dynamic relationship between restructuring, reculturing, and retiming [Supplement]. *Education Administration Quarterly, 33,* 576-603.

Hargreaves, A., Macmillan, R. (1995). The balkanization of secondary school teaching. In L.S. Siskin & J.W. Little (Eds.), *The Subjects in Question: Departmental organization and the high school* (pp. 141-171). New York: Teachers College Press.

Hill, F. (2001). "Smaller schools are good"…It depends! *School Business Affairs, 68(12),* 16-19.

Howe, K., & Eisenhart, E. (1990). Standards for qualitative (and quantitative) research: A

prolegomenon. *Educational Researcher, 19(4),* 2-9.

Howley, C.B. (1994). *The academic effectiveness of small scale schooling.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED389503)

Hoy, W. K., Sweetland, S. R., & Smith, P. A. (2002, February). Toward an organizational model of achievement in high schools: The significance of collective efficacy. *Educational Administration Quarterly, 38 (1),* 77-93.

Huber, G. P. (1996). Organizational learning: The contributing processes and literatures. In M.D. Cohen & L.S. Sproull (Eds.), *Organizational learning* (pp. 124 – 162). Thousand Oaks, CA: Sage.

Krysiak, F.H., DiBella, D.M. (2002, July-August). Why small schools now? *School Business Affairs, 68 (7),* 25-29.

Lee, V.E. (2000). School size and the organization of secondary schools. In Maureen T. Hallinan (Ed.), *Handbook of the sociology of education.* New York: Kluwer Academic/Plenum.

Lee, V.E., & Bryk, A.S. (1988). Curriculum tracking as mediating the social distribution of high school achievement. *Sociology of Education, 61(2),* 78-94.

Lee, V.E., & Bryk, A.S. (1989). A multilevel model of the social distribution of high school achievement. *Sociology of Education, 62,* 172-192.

Lee, V.E., Bryk, A.S., & Smith, J.B. (1993). The organization of effective secondary schools. *Review of Research in Education, 19,* 171-268.

Lee, V.E.& Ready, D.D. (2007). *Schools within schools: Possibilities and pitfalls of high school reform.* New York, NY: College Teachers Press.

Lee, V.E., Ready, D.D., Johnson, D. (2001, Winter). The difficulty of identifying rare samples to study: The case of high schools divided into schools-within-schools. *Educational Evaluation and Policy Analysis, 23(4),* 365-379.

Lee, V.E., & Smith, J.B. (1995). Effects of high school restructuring and size on early gains in achievement and engagement. *Sociology of Education, 68(4),* 241-270.

Lee, V.E., & Smith, J.B. (1996, Feb). Collective responsibility for learning and its effects on gains in achievement for early secondary school students. *American Journal of Education, 14(2),* 103-147.

Lee, V.E., & Smith, J.B. (1997, Fall). High school size: Which works best and for whom? *Educational Evaluation and Policy Analysis, 19(3),* 205-227.

Lincoln, Y. S, & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hill, CA: Sage Publications.

Little, B. L., & Madigan, R. M. (1997). The relationship between collective efficacy and performance in manufacturing work teams. *Small Group Research, 28(4),* 517-534.

Loveless, T, & Hess, F. (Eds.). (2007). Brookings papers on education policy: 2006-2007. Washington D.C.: Brookings Institution Press.

McAndrews, T., & Anderson, W. (2002, January). *Schools within schools.* Washington, D.C.: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED 461915)

McGuire, K. (1989) School size: The continuing controversy. *Education and Urban Society, 21(2),* 164-174.

McMillan, J. H., & Schumacher, S. (2001). *Research in education: A conceptual approach* (4th ed.). New York, NY: Longman.

McQuillan, P.J. (1997, December). Humanizing the comprehensive high school: A proposal for reform [Supplement]. *Education Administration Quarterly, 33,* 644-682.

McQuillan, P.J. (2008). Small school reform through the lens of complexity theory: "It's good to think with." *Teachers College Record, 110(9),* 1772-1801.

Merriam, S. B. (1998). *Qualitative research and case study application in education.* San Francisco, CA: Jossey-Bass Publishers.

Miles, M. B. (1979). Qualitative data as an attractive nuisance: The problem of analysis. *Administrative Science Quarterly, 24(2),* 590-601.

Monk, D., & Haller, E.J. (1993). Predictors of high school academic course offerings: The role of school size. *American Education Research Journal, 30,* 3-21.

Multon, K.D., Brown, S.D., & Lent, R.W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38*, 30-38.

National Association for Secondary School Principals, Commission on Restructuring the American High School. (1996). *Breaking ranks: Changing an American institution.* Reston, Va.: NASSP.

National Association for Secondary School Principals. (2004). *Breaking ranks II: Strategies for leading high school reform.* Reston, Va.: NASSP.

National Commission on Excellence in Education. (1983). *A nation at risk: The Imperative for educational reform.* Washington, D.C.: The Commission.

Owens, R.G. (1982). Methodological rigor in naturalistic inquiry: Some issues and answers. *Educational Administration Quarterly, 18(2),* 1-21.

Oxley, D. (1997, December). Theory and practice of school communities. [Supplement]. *Education Administration Quarterly, 33,* 624-643.

Pajares, F. (1994). Role of self efficacy and self concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational Psychology, 86,* 193-203.

Pajares, F. & Graham, L. (1999). Self-efficacy, motivation constructs, and mathematics performance of entering middle school students. Contemporary Educational Psychology, 24, 124-139.

Patton, M. Q. (1990). *Qualitative evaluation methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Raywid, M.A. (1995). *The subschools/small schools movement: Taking stock.* Madison, WI: Center on Organization and Restructuring of Schools. (ERIC Document Reproduction Service No. ED397490)

Raywid, M.A & Oshiyama. (2000). Musing in the wake of Columbine. *Phi Delta Kappan, 81(6),* 444-49.

Raywid, M.A., Schmerler, G, Phillips, S.E., & Smith, G.A. (2003). *Not so easy going: The policy environment of small urban schools and schools-within-schools.* Charlestown, WV: ERIC Clearinghouse on Rural and Small Schools. (ERIC Document Reproduction Service No. ED474653)

Ready, D. D., Lee, V. E., & Welner, K. G. (2004). Educational equity and school structure: School size, overcrowding, and schools-within-schools. *Teachers College Record, 106(10),* 1989-2014.

Rist, R. C. (1977). On the relations among educational research paradigms: From disdain to détente. *Anthropology and Education Quarterly, 8(2),* 42-49.

Rist, R. C. (1982). On the application of ethnographic inquiry to education: Procedures and possibilities. *Journal of Research in Science Teaching, 19(6),* 439-450.

Robinson-Lewis, G. (1991, August). *Summative evaluation of the school-within-a school (SWAS) program: 1988-89, 1989-90, 1990-91*. Kansas City, MO: Kansas City School District. (ERIC Document Reproduction Service No. ED346203)

Ross, J.A. (1992). Teacher efficacy and the effect of coaching on student achievement. *Canadian Journal of Education, 17(1),* 51-65.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80,* 1-28.

Rowan, B., Raudenbush, S.W. & Kang, S.J. (1991). Organizational design in high schools: A multilevel analysis. *American Journal of Education, 99,* 238-266.

Rutter, R.A. (1988). *Effects of School as a Community*. Madison, WE: National Center on Effective Secondary Schools. ERIC Document Reproduction Service No. ED313470)

Samson, R. J., Morenoff, J.D., & Earls, F. (2000). Beyond social capital: Spatial dynamics of collective efficacy for children. *American Sociological Review, 64,* 633-660.

Schoggen, P., & Schoggen, R. (1988). Student voluntary participation and high school size. *Journal of Educational Research, 81(5),* 288-293.

Siskin, L.S. (1995). Subject divisions. In L.S. Siskin & J.W. Little (Eds.), *The Subjects in Question: Departmental organization and the high school* (pp. 23-47). New

York: Teachers College Press.

Siskin, L.S. (1997, December). The challenge of leadership in comprehensive high schools: School vision and departmental divisions [Supplement]. *Education Administration Quarterly, 33,* 604-623.

Sizer, T.R. (1984). *Horace's compromise: The dilemma of the American high school.* Boston: Houghton Mifflin.

SRI International. (2003). *High time for high school reform: Early findings from the evaluation of National School District and Network Grants Program.* Menlo Park, CA: American Institutes for Research. (ERIC Document Reproduction Service No. ED476004)

Stake, R. E. (1995). *The art of case study research.* Thousand Oaks, CA: Sage Publications.

Stern, D., Raby, M., & Dayton, C. (1992). *Career academies: Partnerships for reconstructing American high school.* San Francisco, CA: Jossey-Bass.

Strike, K.A. (2004, May). Community, the mission element of school reform: Why schools should be more like congregations than banks. *American Journal of Education, 110,* 215-232.

Supovitz, J.A. (2002, December). Developing communities of instructional practice. *Teachers College Record, 104(8),* 1591-1626.

Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource* (3rd ed.). New York, NY: John Wiley & Sons, Inc.

Tschannen-Moran, M., & Hoy, A.W., (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17,* 783-805.

Tschannen-Moran, M., Hoy, A.W., & Hoy, W.K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*, 202-248.

U.S. Department of Education Office of Planning, Evaluation and Policy Development. (2008). *Implementation study of smaller learning communities: Final report*. Cambridge, MA: Abt Associates, Inc.

Visher, M.G., Teitelbaum, P., & Emanuel, D. (1999). *Key high school reform strategies: An overview of research findings. New American high schools: High schools at the leading edge of reform.* Washington, D.C.: Office of Vocational and Adult Education. (ERIC Document Reproduction Service No. ED430271)

Walford, G. (2001). Site selection within comparative case study and ethnographic research. *Compare, 31(2),* 151-164.

Weber, M. (1947). *Theory of social and economic organization.* New York: Macmillan.

Woolfolk, A., & Hoy, W.K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*, 81-91.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks,

APPENDIX A

October 15, 2008

Cedar Ridge School District
XXXXX
XXXXX,XX XXXXX

Dear Cedar Ridge Administration:
I am currently engaged in a study of collective teacher efficacy in small-school high school structures through Pennsylvania State University. Your district is of particular interest because of your small-school (house) design and your significant experience with this model. To help me gain further insight into this area, I am asking teachers and administrators to participate in the study. Participation will involve a brief survey (approximately ten minutes to complete), which will ask teachers to respond to twenty-one statements about their perceptions of collective teacher efficacy in the high school. The Collective Efficacy Scale is a research-based tool developed by Goddard, Hoy, and Hoy (2000) and has been used in numerous studies of collective efficacy. Several respondents will then be invited to participate in a thirty-minute follow-up interview, to be conducted at the teacher's school, which will focus on their overall perceptions of collective teacher efficacy and the small school design. In addition, administrators will be interviewed regarding the background of the small school design and implementation history.

I am requesting permission to conduct the survey described above at Cedar Ridge Jefferson High School. Please note that, although permission to survey may be granted, each teacher and/or administrator has the right to individually determine whether he/she will agree to participate in the study.

It is understood that participation in and responses to questions in the survey, and the interview session, will be held in the strictest confidence, and the rights of all employees will be respected at all times.

Respectfully,

Amy A. Meisinger

****

On behalf of the Cedar Ridge School District, I hereby grant permission to survey the administrators and teachers of the Cedar Ridge Jefferson High School in an attempt to collect data for the doctoral study you are completing for Pennsylvania State University. Your study pertains to influence of the small school structure on collective teacher efficacy.

Cedar Ridge School District, Administrator

APPENDIX B

Recruitment Letter

October 6, 2008

To the Staff of Cedar Ridge Jefferson High School:

My name is Amy Meisinger and I am currently conducting research as required by Pennsylvania State University for the fulfillment of my doctoral dissertation. My research focuses on the impact of the small school (house) design on collective teacher efficacy. Collective efficacy is the perceptions of teachers in a specific school that the faculty as a whole can positively affect student achievement.

Your school is of particular interest because of your small-school (house) design and your significant experience with this model. This research has been approved by the administration at Cedar Ridge School District. To help me gain further insight, I am asking teachers and staff to participate in the study. Participation will involve:

> (1) a brief **survey** (approximately ten minutes to complete), which will ask teachers to respond to twenty-one statements about their perceptions of collective teacher efficacy in the high school.
>
> (2) a voluntary follow-up **interview**, which respondents will be invited to participate in at the conclusion of the survey. The interview will be conducted at the teacher's school, and will focus on their overall perceptions of collective teacher efficacy and the small school (house) design.

I kindly ask that you consider participating in my research. If interested, please read the enclosed implied consent form and complete the brief survey. An invitation for the follow-up interview is also enclosed. **Please return all completed forms to the designated box in the main office.**

It is understood that participation in and responses to questions in the survey, and the interview session, will be held in the strictest confidence.
Respectfully,

Amy A. Meisinger

APPENDIX C

TEACHER SURVEY: Collective Efficacy Scale

The following survey will assess the level of collective efficacy in your school. Please respond to each of the following statements according to the scale: strongly disagree, moderately disagree, disagree slightly more than agree, agree slightly more that disagree, moderately agree, and strongly agree. This survey is a research-based tool developed by Goddard, Hoy, and Hoy (2000) and has been used in numerous studies of collective efficacy.

At the end of the survey you will be asked to provide data pertaining to your professional status. You will NOT be asked to provide your name at any point.

Thank you in advance for your participation.

	Strongly disagree	Moderately disagree	Disagree slightly more than agree	Agree slightly more than disagree	Moderately agree	Strongly agree
1. Teachers in this school have what it takes to get the children to learn.	1	2	3	4	5	6
2. Teachers in this school are able to get through to difficult students.	1	2	3	4	5	6
3. If a child doesn't learn something the first time, teachers will try another way.	1	2	3	4	5	6
4. Teachers here are confident they will be able to motivate their students.	1	2	3	4	5	6
5. Teachers in this school really believe every child can learn.	1	2	3	4	5	6
6. If a child doesn't want to learn teachers here give up.	1	2	3	4	5	6
7. Teachers here need more training to know how to deal with these students.	1	2	3	4	5	6
8. Teachers in this school think there are some students that no one can reach.	1	2	3	4	5	6
9. Teachers here don't have the skills needed to produce meaningful student learning.	1	2	3	4	5	6
10. Teachers here fail to reach some students because of poor teaching methods.	1	2	3	4	5	6
11. These students come to school ready to learn.	1	2	3	4	5	6

12. Home life provides so many advantages they are bound to learn.	1	2	3	4	5	6
13. The lack of instructional materials and supplies makes teaching very difficult.	1	2	3	4	5	6
14. Students here just aren't motivated to learn.	1	2	3	4	5	6
15. The quality of school facilities here really facilitates the teaching and learning process.	1	2	3	4	5	6
16. The opportunities in this community help ensure that these students learn.	1	2	3	4	5	6
17. Teachers here are well prepared to teach the subjects they are assigned to teach.	1	2	3	4	5	6
18. Teachers in this school are skilled in various methods of teaching.	1	2	3	4	5	6
19. Learning is more difficult at this school because students are worried about their safety.	1	2	3	4	5	6
20. Drug and alcohol abuse in the community make learning difficult for students here.	1	2	3	4	5	6
21. Teachers in this school do not have the skills to deal with student disciplinary problems.	1	2	3	4	5	6

Demographic Information:

Position: Faculty Support Staff Administrator
(circle one)

If faculty, department: _____

Total Years in Education: _____

Total Years at this school: _____

Were you present during implementation of the house system? YES / NO

Do you have previous experience in a school-within-a-school design? YES / NO

APPENDIX D

Interview Protocol

I am conducting a research project as required by Pennsylvania State University for the fulfillment of my doctoral dissertation. The research focuses on the impact of the small school design on collective teacher efficacy. Collective efficacy is the perceptions of teachers in a specific school that the faculty as a whole can execute courses of action required to positively affect student achievement.

I will ask you several questions and I would like you to take your time and answer them as honestly and as openly as possible. I am audio taping our conversation in order to ensure accuracy. No one other than myself will have access to the tapes or my notes. Do you understand? Do you have any questions before we begin?

Please state your position in the school.
Please state your total years of professional service in education and the number of years service at Cedar Ridge Jefferson High School.

1. The results of the initial survey indicated that many staff members felt that collective efficacy was generally [high/moderate/low]. In other words, teachers at your school feel that they are able (or not so able) to positively affect student achievement. Can you identify some factors that might make teachers here feel that way?
How do they promote/hinder?

2. Can you identify any characteristics of the small school design that make teachers feel that they can positively affect student achievement? How do they promote/hinder?

3. Can you describe the implementation of the small schools model?
What factors made for a smooth transition?
What factors posed challenges to implementation?

4. What changes, if any, could be made to improve teachers' feelings about reaching students in this building?

APPENDIX E

INTERVIEW VOLUNTEER FORM

As part of my doctoral research with Pennsylvania State University, I am asking teachers to participate in a 30-minute interview. If interested, I would appreciate the opportunity to visit your school to conduct an interview in which you will be asked questions regarding the small school design and the effect on collective teacher efficacy (teachers' feelings that they can positively impact student achievement).

The data you provide will be recorded by utilization of a letter-coding system, and your responses will be identified as Participant 1A/1B/1C… 2A/2B/2C, etc. Your participation in and responses to questions in the survey and the interview session will be held in the strictest confidence.

I welcome questions about the research at any time. Your participation in the study is on a voluntary basis, and you may refuse to participate at any time without consequence or prejudice. Any questions you have about the research can be directed to me, Amy Meisinger, office phone (610) 240-1018, or email meisingera@tesd.net.

Signing your name to this form indicates that you agree to take part in the interview portion of this study. I appreciate your willingness to participate and will be in contact to arrange a time for the interview. Please return this form to the designated box in the main office.

_____

Participant's Name Participant's Signature Date

Contact Information: _____
(phone # or email address)

APPENDIX F

Implied Informed Consent Form - Survey

The Pennsylvania State University

Title of Project: The Influence of Small School High School Redesign on Teachers' Collective Efficacy

Principal Investigator: Amy A. Meisinger, Graduate Student
Conestoga High School
200 Irish Road
Berwyn, PA 19312
(610) 240-1018; aam186@psu.edu

Advisor: Dr. Nona Prestine
302 Rackley Hall
University Park, PA 16802
(814) 863-3762; nap11@psu.edu

1. **Purpose of the Study:** The purpose of this research study is to examine the communal nature of high schools and collective teacher efficacy (perceptions of teachers that they can positively impact student achievement) through analysis of the small school redesign model.

2. **Procedures to be followed:** You will be asked to complete a 21-question survey. At the conclusion of the survey, participants may elect to participate in a follow-up interview for more in-depth discussion. Interviews will occur at the participant's school and will be tape recorded.

3. **Duration:** It will take about 10 minutes to complete the survey and the interview, if elected, will take approximately 30 minutes.

4. **Statement of Confidentiality:** Your participation in this research is confidential. The survey does not ask for any information that would identify to whom the responses belong. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared because your name is in no way linked to your responses.

5. **Right to Ask Questions:** Please contact Amy Meisinger at (610) 914-0102 with questions or concerns about this study.

6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study.
Completion and return of the survey implies that you have read the information in this form and consent to take part in the research. Please keep this form for your records or future reference.

APPENDIX G

Informed Consent Form - Interview

The Pennsylvania State University

Title of Project: **The Influence of Small School High School Redesign on Teachers' Collective Efficacy**

Principal Investigator: Amy A. Meisinger, Graduate Student
Conestoga High School
200 Irish Road
Berwyn, PA 19312
(610) 240-1018; aam186@psu.edu

Advisor: Dr. Nona Prestine
302 Rackley Hall
University Park, PA 16802
(814) 863-3762; nap11@psu.edu

1. **Purpose of the Study:** The purpose of this research study is to examine the communal nature of high schools and collective teacher efficacy (perceptions of teachers that they can positively impact student achievement) through analysis of the small school redesign model.

2. **Procedures to be followed:** You will be asked to participate in an interview to discuss your experiences with the small school model and the teacher's perceptions about their ability to positively impact student achievement. The interview will occur at the participant's school and will be tape recorded.

3. **Duration/Time:** The interview will take approximately 30 minutes.

4. **Statement of Confidentiality:** Your participation in this research is confidential. At no point will you be asked to provide your name. Data will be collected through a coding system in which each participant will be assigned a number. The data will be stored and secured at researcher's residence in a locked file accessible to the researcher only. Recordings will be transcribed solely by the researcher and retained for five years. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

5. **Right to Ask Questions:** Please contact Amy Meisinger at (610) 914-0102 with questions or concerns about this study.

6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

_____ _____

Participant Signature Date

_____ _____

Person Obtaining Consent Date

APPENDIX H

Table 4.7A

Collective Efficacy Scale: Pod Residents

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	8	43	51	5.84
2	0	0	1	4	34	12	51	5.12
3	0	0	0	5	20	26	51	5.41
4	0	0	1	4	21	25	51	5.37
5	0	0	2	7	29	13	51	5.04
6	26	20	5	0	0	0	51	5.41
7	11	10	9	13	6	2	51	4.02
8	12	16	7	12	3	1	51	4.37
9	45	6	0	0	0	0	51	5.88
10	19	21	14	4	3	0	51	5.75
11	3	2	7	18	18	3	51	4.08
12	3	1	6	18	16	6	50	4.22
13	36	9	1	0	2	3	51	5.33
14	16	22	8	4	0	0	50	5.00
15	0	1	1	3	12	34	51	5.51
16	0	0	1	10	22	17	50	5.10
17	0	0	0	1	13	37	51	5.71
18	0	0	0	4	19	28	51	5.47
19	48	3	0	0	0	0	51	5.94
20	15	14	14	7	0	1	51	4.67
21	22	19	7	2	0	1	51	5.14
							AVG	5.16

Table 4.7B

Collective Efficacy Scale: Pod Access

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	3	25	28	5.89
2	0	0	0	4	14	10	28	5.21
3	0	0	0	1	12	14	27	5.48
4	0	0	0	0	13	15	28	5.54
5	0	0	0	2	10	16	28	5.50
6	16	11	1	0	0	0	28	5.54
7	5	3	4	11	5	0	28	3.71
8	13	4	8	1	1	1	28	4.86
9	27	1	0	0	0	0	28	5.96
10	16	9	1	0	2	0	28	5.32
11	3	1	4	3	16	1	28	4.11
12	0	1	3	13	9	2	28	4.29
13	21	3	2	1	0	1	28	5.46
14	10	13	3	2	0	0	28	5.11
15	2	0	0	0	6	20	28	5.43
16	0	1	1	2	9	15	28	5.29
17	1	0	0	1	10	16	28	5.39
18	0	1	0	2	12	13	28	5.29
19	26	2	0	0	0	0	28	5.93
20	6	11	5	5	1	0	28	4.57
21	12	11	2	2	0	1	28	5.07
							AVG	5.19

Table 4.7C

Collective Efficacy Scale: Non-Pod

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	2	17	19	5.89
2	0	0	0	0	13	6	19	5.32
3	0	0	0	0	7	12	19	5.63
4	0	0	0	1	9	8	18	5.39
5	0	0	0	0	10	9	19	5.47
6	8	9	1	0	1	0	19	5.21
7	1	8	1	4	5	0	19	3.79
8	6	7	2	4	0	0	19	4.79
9	17	2	0	0	0	0	19	5.89
10	8	7	4	0	0	0	19	5.21
11	3	1	4	1	9	1	19	3.79
12	0	3	1	8	6	1	19	4.05
13	12	4	1	0	2	0	19	5.26
14	7	11	1	0	0	0	19	5.32
15	0	0	0	1	4	14	19	5.68
16	0	0	0	2	15	2	19	5.00
17	0	0	0	1	7	11	19	5.53
18	0	0	0	0	7	12	19	5.63
19	13	6	0	0	0	0	19	5.68
20	2	12	3	1	1	0	19	4.68
21	7	10	2	0	0	0	19	5.26
							AVG	5.17

Table 4.7D

Collective Efficacy Scale: Counselors

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	1	4	5	5.80
2	0	0	0	1	2	2	5	5.20
3	0	0	0	0	4	1	5	5.20
4	0	0	0	0	2	3	5	5.60
5	0	0	0	0	2	3	5	5.60
6	2	2	0	1	0	0	5	5.00
7	0	0	2	0	2	1	5	2.60
8	2	2	1	0	0	0	5	5.20
9	4	1	0	0	0	0	5	5.80
10	2	2	1	0	0	0	5	5.20
11	2	1	0	1	1	0	5	2.60
12	0	0	0	2	2	1	5	4.80
13	5	0	0	0	0	0	5	6.00
14	1	4	0	0	0	0	5	5.20
15	1	0	0	0	1	3	5	4.80
16	0	0	0	0	3	2	5	5.40
17	0	0	0	0	2	3	5	5.60
18	0	0	0	0	3	2	5	5.40
19	5	0	0	0	0	0	5	6.00
20	1	0	1	2	1	0	5	3.60
21	2	3	0	0	0	0	5	5.40
							AVG	5.05

Table 4.8A

Collective Efficacy Scale: 1-5 Years

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	6	29	35	5.83
2	0	0	0	5	22	8	35	5.09
3	0	0	0	2	15	17	34	5.44
4	0	0	0	2	14	19	35	5.49
5	0	0	2	3	16	14	35	5.20
6	20	12	3	0	0	0	35	5.49
7	1	9	8	8	8	1	35	3.54
8	8	9	8	8	2	0	35	4.37
9	31	4	0	0	0	0	35	5.89
10	14	17	2	1	1	0	35	5.20
11	3	0	5	13	13	1	35	4.03
12	1	2	3	17	9	3	35	4.14
13	27	3	2	1	2	0	35	5.49
14	7	19	6	2	0	0	34	4.91
15	1	0	0	2	8	24	35	5.51
16	0	0	0	2	18	14	34	5.35
17	0	0	0	2	14	19	35	5.49
18	0	0	0	3	17	15	35	5.34
19	30	5	0	0	0	0	35	5.86
20	5	12	14	3	0	1	35	4.46
21	10	17	5	2	0	1	35	4.91
							AVG	5.10

Table 4.8B

Collective Efficacy Scale: 6-10 Years

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	0	28	28	6.00
2	0	0	1	2	16	9	28	5.18
3	0	0	0	1	14	13	28	5.43
4	0	0	1	0	12	15	28	5.46
5	0	0	0	2	16	10	28	5.29
6	13	12	3	0	0	0	28	5.36
7	6	6	2	8	5	1	28	3.89
8	8	11	5	2	2	0	28	4.75
9	26	2	0	0	0	0	28	5.93
10	13	10	3	1	1	0	28	5.18
11	3	2	4	7	10	2	28	3.89
12	1	2	4	9	10	2	28	4.11
13	16	7	1	0	1	3	28	5.00
14	11	12	4	1	0	0	28	5.18
15	1	0	0	1	9	17	28	5.43
16	0	0	1	5	14	8	28	5.04
17	0	0	0	1	9	18	28	5.61
18	0	0	0	1	12	15	28	5.50
19	25	3	0	0	0	0	28	5.89
20	6	10	5	5	2	0	28	4.46
21	13	12	2	1	0	0	28	5.32
							AVG	5.14

Table 4.8C

Collective Efficacy Scale: 11-15 Years

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	4	18	22	5.82
2	0	0	0	2	12	8	22	5.27
3	0	0	0	3	8	11	22	5.36
4	0	0	0	2	13	6	21	5.19
5	0	0	0	4	8	10	22	5.27
6	10	11	0	1	0	0	22	5.36
7	6	3	2	9	2	0	22	4.09
8	10	6	2	3	0	1	22	4.91
9	19	3	0	0	0	0	22	5.86
10	7	6	4	2	3	0	22	4.55
11	3	1	1	2	13	2	22	4.23
12	0	1	1	9	7	3	21	4.48
13	19	3	0	0	0	0	22	5.86
14	9	11	1	1	0	0	22	5.27
15	0	1	0	1	3	17	22	5.59
16	0	0	0	6	7	9	22	5.14
17	0	0	0	0	5	17	22	5.77
18	0	0	0	2	7	13	22	5.50
19	21	1	0	0	0	0	22	5.95
20	8	9	1	4	0	0	22	4.95
21	11	7	2	1	0	1	22	5.14
							AVG	5.22

Table 4.8D

Collective Efficacy Scale: 16-20 Years

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	2	6	8	5.75
2	0	0	0	0	6	2	8	5.25
3	0	0	0	0	2	6	8	5.75
4	0	0	0	1	3	4	8	5.38
5	0	0	0	0	6	2	8	5.25
6	2	4	1	0	1	0	8	4.75
7	0	2	3	3	0	0	8	3.88
8	3	2	0	3	0	0	8	4.63
9	8	0	0	0	0	0	8	6.00
10	3	5	0	0	0	0	8	5.38
11	2	0	3	1	2	0	8	3.13
12	0	0	1	3	3	1	8	4.50
13	5	1	1	0	0	1	8	5.00
14	2	4	0	2	0	0	8	4.75
15	1	0	0	0	1	6	8	5.25
16	0	1	0	1	6	0	8	4.50
17	1	0	0	0	3	4	8	5.00
18	0	1	0	0	4	3	8	5.00
19	6	2	0	0	0	0	8	5.75
20	2	3	0	3	0	0	8	4.50
21	2	6	0	0	0	0	8	5.25
							AVG	4.98

Table 4.8E

Collective Efficacy Scale: 20+ Years

Item #	SD	MD	D-A	A-D	MA	SA	TOTAL #	Item Value
1	0	0	0	0	2	8	10	5.80
2	0	0	0	0	7	3	10	5.30
3	0	0	0	0	4	6	10	5.60
4	0	0	0	0	3	7	10	5.70
5	0	0	0	0	5	5	10	5.50
6	7	3	0	0	0	0	10	5.70
7	4	1	1	1	3	0	10	4.20
8	4	1	3	1	0	1	10	4.50
9	9	1	0	0	0	0	10	5.90
10	8	1	1	0	0	0	10	5.70
11	0	2	2	0	6	0	10	4.00
12	1	0	1	3	4	1	10	4.20
13	7	2	0	0	1	0	10	5.40
14	5	4	1	0	0	0	10	5.40
15	0	0	1	0	2	7	10	5.50
16	0	0	1	0	4	5	10	5.30
17	0	0	0	0	1	9	10	5.90
18	0	0	0	0	1	9	10	5.90
19	10	0	0	0	0	0	10	6.00
20	3	3	3	0	1	0	10	4.70
21	7	1	2	0	0	0	10	5.50
							AVG	5.32

VITA

Amy A. Meisinger is the principal of Conestoga High School in Berwyn, Pennsylvania. Amy graduated from Villanova University in 1993 with a Bachelor of Science in Math Education and *Phi Beta Kappa* honors. After gradating, Amy taught math for ten years at Radnor High School in Radnor, Pennsylvania. She earned a Master's degree in Education from Villanova University in 1996 and received her principal certification from Pennsylvania State University in 2003. She worked as an Assistant Principal for three years at Perkiomen Valley High School in Collegeville, Pennsylvania and three years at Conestoga High School before assuming the principalship. In 2009, Amy earned her Ph.D. in Educational Administration from Pennsylvania State University. Amy currently resides in Malvern, Pennsylvania and is the first daughter of John and Julie Meisinger of Columbia, Maryland.