ABSTRACT

GOODRUM, SHAYNE GILBERT. The Relation of Sources of Teacher Efficacy to Student Writing Achievement and District Health. (Under the direction of Ruie J. Pritchard.)

The purpose of the research was to determine the relation of five sources of teacher efficacy to student writing achievement and district health. As a construct of social cognitive theory, teacher efficacy has been shown to be related to teachers’ instructional practices. Five categories of sources of efficacy were aligned with indicators of organizational health and research-based instructional practices in teaching writing. Interview transcripts of thirty-two middle and high school English teachers who provided essays from their students and voluntarily reported their practices and perceptions were coded in each of the five categories. Ratings of positive, neutral, or negative teacher efficacy were assigned to each source category based on the preponderance of evidence found in coding each interview. Ratings were analyzed with previously determined student writing scores using a step-down multiple linear regression protocol. No significant relationship between any category of efficacy source and student writing achievement was found, but the Mastery Experiences and Physiological and Emotional States source categories were found to be related to the Vicarious Experiences category suggesting a positive impact of professional development on classroom practice. To determine the relation to district health, ratings were aggregated by school district and analyzed with previously determined district health scores using a step-down multiple linear regression protocol finding that 3.4% of the variance in district health was accounted for by the five efficacy source categories, with 2.1% accounted for by the Mastery Experiences category which includes most of the indicators for best practices in
writing instruction. Effects between high and low district health subjects were
determined using Multiple Analyses of Variance. In tests of between-subjects effects, the
Mastery Experiences category was determined to have a high effect size of .17. Further
studies of teacher efficacy in relation to student writing achievement and district health
are needed if the construct is to provide practical guidance for teachers and schools.
The Relation of Sources of Teacher Efficacy to Student Writing Achievement and District Health

by
Shayne Gilbert Goodrum

A dissertation submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the Degree of Doctor of Philosophy

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APPROVED BY:

_____________________________  _____________________________
Jon C. Marshall                    Carol A. Pope

_____________________________  _____________________________
Hiller A. Spires                    Malina K. Monaco

_____________________________
Ruie J. Pritchard
Chair of Advisory Committee
BIOGRAPHY

Shayne Gilbert Goodrum graduated from the University of Georgia in 1971 with an A.B. in English. While teaching junior high several years later, she entered the State University of New York at Brockport, earning a Masters of Arts in English in 1975. Throughout her career, frequent coursework and other explorations attest to her zeal for life-long learning.

In 1992, as a fellow of the Capital Area Writing Project at North Carolina State University, Shayne discovered new talent for leading professional development and realized the importance of educational research for practicing teachers. Since then, she has been a frequent facilitator for professional development, written on-line courses for several educational organizations, taught courses for North Carolina Central University and North Carolina State University, and trained Facilitative Leadership® for the North Carolina Network. She continues to provide professional development in reading in association with the Strategic Literacy Initiative’s Reading Apprenticeship Framework. Shayne was among thirty-one educators selected to participate in the National Writing Project’s Legacy study, examining the contributions of teachers who participated in local writing project sites, and her writing is included in the study’s Vignette Anthology (2006).

Professionally, Shayne has taught English in grades 7 to 12, served as Academic Coordinator for the Summer Programs of Duke University Talent Identification Program, coordinated secondary English and literacy for Durham Public Schools, and now works with Comprehensive Support in the North Carolina Department of Public Instruction.
Excited about the completion of her doctoral degree, Shayne looks forward to time for pleasure reading and learning more new things.
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CHAPTER 1 – INTRODUCTION

Social cognitive theory focuses on how humans use the capacity to reflect on social experience in order to learn, and understanding this relationship points the way to interventions that may enhance learning (Bandura, 1997). Two aspects of the theory are self-efficacy and teacher-efficacy, both of which have been shown to be related to achievement (Stajkovic & Luthans, 1998; Pajares, 1996, 2003; Tschannen-Moran, Wolfolk-Hoy, & Hoy, 1998). Self- and teacher-efficacy are indicators of the internalized belief in one’s capacity to bring about specific desired results. Teacher efficacy beliefs have also been shown to be related to teachers’ professional commitment, instructional practices and the academic achievement of their students (Ware & Kitsantas, 2007; Tschannen-Moran, Wolfolk-Hoy, & Hoy, 1998).

Higher teacher efficacy has been shown to be correlated to the use of good instructional practices (Trentham, Silvern, & Brodgon, 1985) and the use of more innovative and humanistic teaching methods (Ghaith & Yaghi, 1997; Guskey, 1988). Higher teacher efficacy enhances student achievement in both cognitive and affective domains (Guskey, 1988; Ross, 1994; Ross, 1992). This study builds on the connection of teacher-efficacy to instructional practices by looking at two aspects of the construct, the relation of the sources of teacher-efficacy to student achievement in writing and to district health.
Historical Context

American education is no stranger to challenge, challenge that has inspired many improvements in schooling throughout our history. However, the early years of the twenty-first century bring together forces that may test the integral components of public education in ways never yet seen. Questions concern the focus of instruction, pressures regarding the quality of public education, the quality of individual schools and districts, and the indecision about the direction of professional development, and these come at a time when standardized testing has become the norm for assessment, the teaching force is being depleted by the retirement of the baby boomers, and education schools lack sufficient candidates to meet the need for replacements. A closer look among these forces shows their interaction and the challenge to intervene in ways to set the system aright.

The timeline of American education indicates that well before the nation itself existed, laws in the colonies ensured the beginnings of a public education system. With a pattern of causes and effects driving change, the system has become a bedrock of American society. A pattern of responses to issues has promoted societal and cultural change in education since its early days. For example, in the mid-nineteenth century, the first compulsory attendance laws were enacted, responding, in part, to issues related to child labor. In the twentieth century, emerging economic changes led to requirements that mandated high school for all students, now a norm rather than a choice. Other emerging issues deepened the look at quality of education. In the 1950s, the Soviet Sputnik made the nation question the direction of public education and gave impetus to stronger science
and mathematics instruction. By 1983, when *A Nation at Risk* anchored the educational reform movement, this graphic depiction painted a dire picture: “If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves. We have even squandered the gains in student achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems which helped make those gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament” (National Commission on Excellence in Education, 1983).

While *A Nation at Risk* called for improved education for American students, varied responses did little to make fundamental change in the educational system. In 1990, the National Center on Education and the Economy warned that America faced a fundamental challenge to its educational system and recommended educational reform. This new paradigm requires that all American students, not just some, be more highly prepared to read, write, speak and use historical and global contexts to build secure futures. Science and technology have moved society into a new era that has made a shift in what Thomas Friedman (2005), in his now iconic book, *The World is Flat*, refers to as the “wiring of the world.” The digital economy is making it increasingly possible for collaborative work teams to cross national boundaries and time zones everyday, creating an innovation and research industry that is increasingly international. Routine work is increasingly performed by machine or by out-sourcing to other country’s workers,
leaving the growth sector of American work to those prepared to work creatively with ideas (National Center on Education and the Economy, 2006).

Given this emerging paradigm, schools are seeking ways to shift from a factory-era model to a model of a true learning organization, anchored in the multiplicity of learning opportunities afforded by the digital age. As with any change, teachers and teaching are at the center of this shift. Pressures on teachers and schools are increasing and will continue to do so until the change paradigm gives way to that of the status quo. Currently, changes dated to the varied responses to *A Nation at Risk* include the impetus for states to develop grade-level and subject specific standards. The most dramatic and far reaching of these responses is the controversial No Child Left Behind Act of 2001. This federal law reauthorized the Elementary and Secondary Education Act (ESEA) of 1965, tightened the schools’ accountability for student success, and imposed sanctions for lack of progress. It placed requirements on states to set academic standards for students and measured the progress of districts and schools in meeting the standards with the 2014 goal of having all students proficient. The NCLB law also mandated states publish report cards on school districts and individual schools that show student progress toward achieving proficiency by subgroups that include economic background, ethnicity, English language proficiency, and disabilities. These report cards must also show the qualifications of teachers at the school. Schools not making Annual Yearly Progress toward the goal of full proficiency in the same subject and subgroup for two years are determined to be in need of improvement.
While the goals of No Child Left Behind cannot be faulted, the consequences have been far reaching and subject to diverse opinions and scrutiny. State testing has given rise to a multi-billion dollar industry ranging from test production and grading to curricular supplements aimed at preparing students for the test and remedial tutorial software. While tests are being viewed as a lever to change classroom practice, the already limited teacher availability for professional development is often co-opted by topics addressing test preparation as opposed to those improving instructional skills that would better prepare students to perform on the tests. Discouragingly, a 2003 survey of teachers indicated that 7 out of 10 perceive that the state test has required them to teach in ways contrary to their ideas of best practice (Pedulla, Abrams, Madaus, Russell, Ramos, and Miao, 2003).

As the severity of consequences attached to state tests increases, the impact of the tests on instructional practice and both teacher and student stress increases. In addition, the unintended consequences of the tests affect instruction. For example, the use of computers for writing instruction has declined because state writing assessments are hand written (Pedulla, et al., 2003). While No Child Left Behind has had sweeping effects on education, the speed of this impact has allowed little time for the thorough study that is needed and will no doubt come. However, Nichols and Berliner (2007), in citing a host of unintended consequences, note the outworking of what has come to be called Campbell’s (1975) law: "The more any quantitative social indicator is used for social decision making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." Even more
troubling may be the unintended consequences for the teaching profession. A small-scale study of twelve English teachers found them to be frustrated by testing’s impact on their instructional decision-making and enthusiasm for their jobs and concluded that the gains for student achievement may be overshadowed by the unintended consequence on the teaching profession, one in which the “deskilling of teaching. . . may not only push seasoned, talented teachers out of the profession, it may also invite a different kind of young person into the profession – a person more comfortable with standardized, teacher-proof curricula and less committed to a nuanced classroom practice that is informed by a knowledge of students and their communities” (Graham, P., Marshall, J., Power, C., & McWhorter, P. (2007), p. 4).

With the dual impact of No Child Left Behind’s requirement that public schools hire only highly qualified teachers and raise student achievement, the pressure on teachers and districts continues to increase. Added to this pressure is the 50% attrition rate of teachers within the first five years of practice (Ingersoll, 2003). These challenges come at a time when the retirement of the baby-boomer generation, one third of the current teaching force (Carroll, 2007), adds further pressure to the educational system. Clearly, a priority must be to find ways of helping teachers become simultaneously more effective in their teaching so that students achieve at higher levels and more satisfied with their work so that they continue in the field. Teacher efficacy and self-efficacy studies hold promise in developing ways of understanding these issues and potential pathways to enhance both student achievement and teacher satisfaction with their work in schools and districts, but much work remains to be done.
Much teacher efficacy research has focused on measurement, but increasingly there are calls for different kinds of studies to interpret the construct in light of teaching and learning (Tschannen-Moran et al., 1998; Henson, 2004; Labone, 2002; Wheatley, 2005). This study is anchored in teachers’ reflective interviews rather than in teachers’ self-assessment of their efficacy. The teachers’ self-reported practices in teaching writing while working in a school setting are related to student writing achievement and to sources of efficacy that research has already determined (Bandura, 1986; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). By focusing on only one content area, writing, and attending to voluntarily self-reported practices and perceptions, a window into efficacy, a teacher’s confidence and competency to effect learning, may be seen. Rather than asking teachers to define their level of efficacy, this research draws on the commonality between the sources of efficacy and aspects of teaching process writing to identify their connections to student achievement and to district health. Further studies can turn to designing better ways to help teachers blend what they learn through professional development with what they do in the classroom, leading to stronger instruction for all students.
CHAPTER 2 – LITERATURE REVIEW

Writing Instruction

The drive for human beings to express their thoughts and ideas in some written form can be seen in the archeological records from cave paintings and pictographs around the globe. From the ancient Greeks to the present, the ability to write well has been a fundamental measure of public power and as such, a central part of education. Tracing the history of writing instruction, as James Murphy (2001) does, provides insight into the values of a society. In ancient Greek society, writing became accessible beyond the elite and its power in sustaining democracy was demonstrated. The Roman society reciprocally valued both speaking and writing giving rise to writing for eloquence as well as expression of ideas. The Middle Ages saw the rise of letter writing using the vernacular and the practical applications of writing emerged. Renaissance writing instruction reclaimed the Roman emphasis on the oral and the written, seeing these skills as important to upward mobility. English grammar schools were patterned on this model and were exported to colonial America where they were used to teach moral values as well as writing skills (Murphy, 2001). But the centrality of writing instruction to education remains constant because “Whether inscribed on rock, carved in cuneiform, painted in hieroglyphics, or written with the aid of an alphabet, the instinct to writing down everything from mundane commercial transactions to routine daily occurrences to the most transcendent ideas – and then have others read them, as well as to read what others have written – is not simply a way of transferring information from one person to
another, one generation to the next. It is a process of learning and hence, of education” (Gregorian, 2007, p. 2).

However, in the world of literacy education, teaching writing has long played second fiddle to teaching reading. Partially due to popular misconceptions like “writers are born not made,” teaching writing has lacked urgency, but the necessity of writing in the current information age, paired with the current era of accountability through test scores, is casting new light on the pedagogy of writing instruction. Reports by the National Commission on Writing (2003, 2004, 2005, 2006) have brought the necessity for stronger writing instruction to the spotlight. According to the National Assessment of Educational Progress in 2002, seventy percent of students in grades 4–12 are low-achieving writers, with growth in writing flattening out beginning in middle school and continuing to flatten or decline in high school (Persky, Daane, & Jin, 2003). ACT reports that nearly one third of high school graduates are not ready for college-level English composition courses (2005). Achieve, an organization created by the nation’s governors and business leaders to help states raise academic standards and achievement so that students graduate better prepared for the demands of college, work, and twenty-first century life, reports that college instructors estimate that half of high school graduates are not prepared for college-level composition classes (2005). Clearly, we need to know and do more to support the teaching of writing.

From the 1800s to the 1970s, writing instruction was based primarily in the reading of well-written, if not classical, essays and then writing essays using similar
rhetorical strategies. In fact, this traditional model of writing instruction is still quite common today, although the process oriented approach is the premier instructional method that many states have designated for their curricular standards (Patthey-Chavez, Matsumura & Valdes, 2004) and is the implicit model advocated in all eleven strategies of the *Writing Next: Effective strategies to improve writing of adolescents in middle and high schools* meta-analysis (Graham and Perin, 2007). (See Appendix A.)

Janet Emig’s *The Composing Processes of Twelfth Graders* (1971), is the landmark study usually referred to as beginning process writing research, but the groundwork that allowed that study to fall on fertile ground had already begun. References to writing as a multi-step process occur earlier (Day, 1947; Mills, 1953; Cowley, 1958) while James Moffett’s *Teaching the Universe of Discourse* (1968) and James Britton’s *Language and Learning* (1970) prepare the way for process writing to change the landscape of writing instruction. Interest in improving writing instruction was fueled by the literacy crisis of the mid-1970s, with its blame on the public schools for failing students, a close parallel to today’s news citing student achievement declining in literacy and calling for improved instruction to meet the needs of the burgeoning knowledge-based economy.

Emig (1971) used a think aloud approach in her case study that determined that writing was either extensive, conveying a message, or reflexive, exploring feelings. Peter Elbow (1973) saw writing as a series of problem-solving steps in determining what and how to write. His influence encouraged looking at the process as more than writing and editing, leading toward the popular five-step model. Donald Graves’ (1973) work added
to the list of variables that writers were managing in the composing process. The writing process was considered to be linear until Flowers and Hayes’ (1981) work, followed by that of Bereiter and Scardamalia (1987), showed it to be more recursive. However, the definition of a process approach to teaching writing is somewhat elusive. Pritchard and Honeycutt’s (2006) review of the effectiveness of the process approach cites the difficulty of pinning down the exact effect it has had on writing instruction as they trace the research history of the construct across various descriptions from the indirectly taught natural process to the more complex and current interacting set of stages and strategies.

Encompassing the process approach while it “eschews a singular formula for teaching writing” (Friedrich & LeMahieu, 2004, p.19), the National Writing Project is probably the most influential and well-researched professional development model for instructional practice. The National Writing Project contends that writing is a process that must be taught intentionally and systematically, although it does not espouse any single way to teach writing. The NWP model of teacher-led professional development emerging from groups of teachers coming together to write and explore their processes for writing has profoundly influenced professional development practices, but the difficulty of studying professional development (Pritchard & Marshall, 2002; Wilson & Berne, 1999) is comparable to that of studying the impact of writing instruction (De La Paz, S. & Graham, S., 2002).

While there is still no easy or completely effective writing pedagogy, the process model of writing instruction has expanded teachers’ repertoire of instructional strategies. Pritchard and Honeycutt (2007) describe six categories of lesson foci as best practices in
writing pedagogy: “(1) dealing with the emotions surrounding writing, (2) developing students’ understanding of the writing process, (3) modeling and teaching self-regulation processes, (4) training and monitoring peer response partners and groups, (5) guiding writing development through targeted strategy instruction that addresses ideas and content, organization, voice, word choice, sentence fluency, and conventions . . . , and (6) developing a writing vocabulary” (pp. 31-32). The similarity of these categories to Bandura’s (1986) sources of self-efficacy development – the interplay of one’s history of achievement in a particular context, vicarious or observational learning, arousal or one’s physiological state when performing the action, and persuasion of others – integrates writing instruction and the milieu of this investigation.

Five categories representing the Bandura’s (1986) sources of efficacy, plus one representing persistence based on Gibson and Dembo’s (1984) work validating the teacher-efficacy construct, were developed, incorporating the elements of the Pritchard and Honeycutt (2007) lesson foci. (See Tables 1-5.) Mastery Experiences, a category that encompasses many indicators of best practices in a process approach to teaching writing, includes targeted strategy instruction, support in understanding the writing process, teaching self-regulation strategies, use of peer groups for revision, and development of a writing vocabulary. Dealing with Physiological and Emotional States is a category incorporating indicators of attention to the emotions surrounding writing. The category of Vicarious Experiences deals with elements of both student and teacher observational learning that may come through classroom practices like modeling writing
Table 1. Sample Indicators for Source Category Mastery Experiences (ME)

- Increased time on / for writing
- Focuses on the student as writer over the written product
- Sets Process Goals for Students rather than performance goals
- Explicitly teaches writing skills: such as planning, revising, and text structures
- Models and talks about, demonstrates own writing process
- Leads students to be metacognitive (reflective) about their own writing process
- Uses rubrics to provide task specific responses
- Uses trained peer groups/small groups
- Shows confidence in teaching all aspects of writing, including grammar
- Builds on students’ strengths/ successes
- Structures class for positive reinforcement/ teacher speaks encouragement
- Teaches grammar in context
- Holds conferences for revision
- Helps students persist in revising until product is good

Table 2. Sample Indicators for Source Category Physiological and Emotional States (PES)

- Confidence in self as a writer
- Creating classroom elements that reduce writing anxiety
- Providing emotional support in written and verbal responses to student writing
- Teaching students to provide emotional support with each other

Table 3. Sample Indicators for Source Category Vicarious Experiences (VE)

- Perceive project ideas easy to incorporate into their teaching.
- Continued use of project methods after end of the project
- Mention impact of professional development in teaching
- Teacher takes credit for student achievement

Table 4. Sample Indicators for Source Category Social Persuasion (SP)

- Teachers feel supported by administration
- Perceive a positive school and classroom atmosphere
- Feel a sense of community

Table 5. Sample Indicators for Source Category Persistence in the Face of Difficulty (PFD)

- Efforts to reach the unreachable
- Duration / intention to remain in the field
- Helps students persist in revising until product is good
processes or from professional development in which the teacher observes and participates in writing instruction. The category of Social Persuasion indicates elements related to interaction with others, including building and classroom level practices related to building community and supportive working relationships. Persistence in the Face of Difficulties is a category that deals with the tenacity of efforts to reach all students and indicators of intention to continue work with instructional practices, students, and schools. These categories connect writing pedagogy with the constructs of social cognitive theory to enable the teachers’ self-reported practices, as seen through texts of interviews, to be aligned to evidence of their efficacy beliefs.

**Social Cognitive Theory**

Albert Bandura’s work (1986) is considered to be the foundation of social cognitive theory, although its roots go back much further into behavioral and social psychology. Social cognitive theory focuses on the ways in which humans reflect on their social experiences and how these thoughts influence behavior and development. Among the constructs of social cognitive theory are self-efficacy and the subset teacher-efficacy that Bandura (1997) defines as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Much research has focused on the correlation between self-efficacy beliefs and achievement outcomes (Stajkovic & Luthans, 1998). More specific to educational research is work that shows students’ self-efficacy beliefs to be related to their motivation, academic performance, and achievement (Pajares, 1996, 2003). In addition, teacher-efficacy
beliefs are positively related to teachers’ instructional practices and to the academic achievement of their students (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). This exploration begins from the theoretical underpinnings of teacher efficacy beliefs as mediators of instructional practice and leads to the interface with writing instruction and district health.

Social cognitive theory views human behavior as a complex interaction of personal factors, behavior, and the environment (Bandura, 1986). Through self-referent cognition, the mind sifts and selects information, creating values and imposing structure on its own actions. Behavior is explained through reciprocal determinism, which are complex interactions among the environment, personal factors, and human behavior, but these factors do not interact equally or have the same level of influence in all situations (Bandura, 1986). Inherent in the concept of reciprocal determinism is the concept that humans can influence their destiny through their cognitive processing. In processing information, symbols, such as mental pictures or words, are the means of thought allowing humans to store information to guide future behavior, developing foresight. Because of this ability, humans can think through the consequences of a behavior without having actually performed the action in the past. This symbolizing capacity allows humans to learn, not just from personal experiences, but also from vicarious experiences. Observational learning saves the time of trial and error learning, enabling the formation of patterns quickly and creating the potential for learning on which formal educational systems are based (Bandura, 1986).
Observational learning occurs through attention span, retention processes, motor reproduction processes, and motivational processes. Attention span is the determiner of the particular information extracted from an observation, and often gives preferential attention to behaviors modeled by those most like or most associated with the observer. Retention processes allow the symbols from observed behavior to be stored in memory; their retrieval and use coming through the motor reproduction processes. Motivation, the degree to which a behavior is valued as producing a desired outcome, influences the likelihood of its becoming a modeled behavior (Bandura, 1986).

The interaction of forethought, self-regulatory and self-reflective capacities account for other behaviors. Forethought, the capacity to guide actions by anticipating outcomes, leads to the development of expectations, which create incentives or actions through the self-regulatory capability. Self-regulation allows internal control mechanisms to develop and substitute for external controls of behavior. Motivational standards work through a process of discrepancy production, goal-setting, and discrepancy reduction, the work to achieve the goal. People continually set goals for themselves and compare the goals to their personal accomplishments, motivating a person to work harder to achieve a standard. Three factors seem to determine the degree of self-motivation that occurs: self-efficacy, feedback, and anticipated time for goal attainment (Bandura, 1986). Self-reflection allows people to analyze their experiences and alter their thinking accordingly. Self-efficacy is a type of this self-reflective thought. Self-efficacy develops through an interplay of one’s history of achievement in a
particular context, vicarious or observational learning, arousal or one’s physiological state when performing the action, and persuasion of others (Bandura, 1986).

**Self-Efficacy in Writing**

Given that self-efficacy beliefs seem to be a more consistent predictor of outcomes than other self-beliefs (Graham and Weiner, 1996), much research has been directed toward it and some of that research deals with self-efficacy in writing. Since self-efficacy is very context dependent, it is important that efficacy assessment instruments be carefully matched to the specific task. Three methods of measuring writing self-efficacy have been most frequently used with good reliability -- measuring confidence in writing skills, in completing writing tasks, or in obtaining a specific grade on writing products (Pajares, 2003). In each of these methods, getting accurate, reliable information depends on a careful understanding of the specific demands of the writing being investigated, making the assessment tools only partially transferable across writing tasks and domains.

Most of the early work on self-efficacy in writing was done with college undergraduates, with multiple regression models finding that self-efficacy beliefs were more predictive of writing performance than were other variables such as writing apprehension or other motivation variables. Self-efficacy beliefs were also correlated with grade goals, depth of processing, and expected outcomes (Pajares, 2003). More recent findings with students of other ages and educational situations confirm these results (Pajares, Miller & Johnson, 1999; Pajares & Valiante, 2001; Schunk & Swartz,
One complexity any research into writing achievement must consider is the issue of lack of control for previous writing experiences which were themselves influenced by these affective factors. Given that the studied writing experiences were also affected by previous self-efficacy beliefs, it is possible that the influence of these factors could be greater than effect sizes would indicate and, in any case, these factors should be kept in mind when interpreting these data (Pajares, 2003).

Writing anxiety has also been found to be correlated to writing achievement, but when self-efficacy beliefs are controlled, the influence of the apprehension is nullified (Pajares & Valiante, 1999; Pajares et al., 1999). This finding seems logical considering that Bandura (1986) contends that anxiety is a result of, while still contributing to, self-efficacy beliefs. So classroom practices designed to reduce writing anxiety might improve performance and also increase subsequent self-efficacy beliefs. Students’ perceived self-regulatory skills also predict the confidence with which they approach academic tasks and has been linked to greater strategy use, higher motivation, and academic achievement (Pintrich and De Groot, 1990; Schunk & Zimmerman, 1998). Students’ writing confidence and competence also increase when they are provided with process goals linked to feedback on their use of the processes (Schunk & Swartz, 1993). Having writing task goals where students are concerned with mastering specific material has been found to be positively correlated to writing self-efficacy, while performance-approach goals, where students are concerned with displaying their ability, is negatively correlated (Pajares & Valiante, 2001; Pajares, et al, 1999). Students who were taught strategies for planning and composing stories wrote longer, more complete, and better
stories than their peers. This knowledge was generalized into informational writing, but the strategy instruction had no effect on their self-efficacy scores (Graham, Harris & Mason, 2005).

Although differences in writing achievement are related to gender (Cole, 1997), social cognitive theory does not see gender itself as providing agency or motivation. Research has looked at the relationship between gender and academic confidence. Pajares and Johnson (1996) reported ninth grade boys as having stronger writing self-efficacy beliefs than girls. It is interesting that, while girls typically score better in writing and are rated as better writers by their teachers, they do not display stronger confidence in their writing skills. This phenomenon may be related to the reported drop in their academic motivation and perceptions of competence at the high school level (Bruning & Horn, 2000). One issue that must be considered in looking at students’ writing self-efficacy beliefs is the degree to which these are accurate. Graham and Harris (1989) reported that learning disabled students showed unrealistically high self-efficacy beliefs and concluded that the sophisticated metacognitive skill of evaluating one’s own abilities may need development in learning-disabled or younger students. However, work with college freshmen and community college students also shows their initial self-efficacy beliefs to be higher than their performance standards and gradually become more aligned, which may indicate that there is a learning curve for accurate self-efficacy beliefs related to performance across ages and abilities (Zimmerman & Bandura, 1994; Campillo & Pool, 1999).
Given the importance of self-efficacy beliefs to students’ writing performance, teachers’ choices of classroom practices and interactions can foster students’ self-efficacy beliefs as well as their growth as writers. Classroom practices, such as writers’ workshop (Atwell, 1998; Calkins, 1994), that support students in both the emotional and cognitive aspects of writing should help foster students’ self-efficacy beliefs. The additive impact of successful writing experiences increases motivation and the probability of continued growth as a writer. The positive verbal responses that teachers give to students convey their capacity to write. Schunk’s (2003) work with modeling, goal setting, and self-evaluation suggests that teachers should make task-specific comments about student successes and attribute the success to process strategies that have been taught in the classroom. His work suggests that teachers include the extensive use of cognitive modeling, a Think Aloud, in which the writer models the problem-solving strategies used in the writing task; cooperative groups, including peer groups, as models for students; support for fostering students’ ability to set goals and to evaluate their own performances; and strategies, including goal-setting strategies, that are directly taught, (Schunk, 2003; Schunk & Swartz, 1993). Changing the assessment context so that it reflects a learning orientation can help students focus on learning processes and their capacity to use effective strategies (Walker, 2003). These efficacy-building instructional strategies foster the kinds of mastery experiences with writing tasks that coders marked as indicators of efficacious practice.
Teacher Efficacy

If students’ self-efficacy beliefs influence their ability to perform academically, it is no surprise that teacher-efficacy beliefs should also influence their work. However, the impact of teacher-efficacy extends beyond their own work to their students’ performance, making teacher-efficacy a rich venue for study. Teachers’ efficacy beliefs are a self-assessment of their capacity to bring about student engagement and learning. They influence how much effort they will put forth, how long they will persist in the face of difficulties, how resilient they are in demanding situations, and how much stress or depression they experience. Those with higher efficacy show greater persistence and resilience with lower levels of stress and depression (Bandura, 1986; Ware & Kitsantas, 2007). These indicators are largely reflected in the category labeled Persistence in the Face of Difficulties. In 1977, Bandura identified teacher-efficacy as a type of self-efficacy (Tschannen-Moran et al., 1998) and a great deal of research has focused on defining and measuring it.

The first studies of teacher efficacy were embedded within two items in a RAND study of reading programs in the Los Angeles schools. Together these two items, one on agreement with a statement indicating that teachers could do little to overcome the motivational and performance impact of students’ home environment and the second indicating the belief that with effort the teacher can reach the most difficult students, accounted for variations in reading achievement in minority students (Tschannen-Moran et al., 1998). Subsequent research also found higher teacher efficacy strongly related to the percentage of project goals achieved, the amount of teacher change, and the continued
use of project methods after the end of project funding (Tschannen-Moran et al., 1998). The two items in the RAND study became determiners for two subsets of the teacher efficacy construct. Teachers’ beliefs about the power of external factors have been labeled general teaching efficacy (GTE), and beliefs about their own teaching is labeled personal teaching efficacy (PTE). Higher general and personal teaching efficacy have been shown to be related to greater student achievement, increased teacher willingness to introduce innovation, longer intention of remaining in the field, and lower stress levels (Tschannen-Moran et al., 1998).

Guskey (1981) developed a thirty-item inventory for measuring responsibility for student achievement. Teachers were asked to distribute 100 percentage points on a continuum that ranged from being caused by the teacher to occurring because of events outside the teacher’s control. In general, teachers took more responsibility for positive outcomes than for negative ones. Gibson and Dembo (1984) developed a more reliable measurement tool for teacher efficacy by merging the RAND items with Bandura’s work on social cognitive theory. Their instrument contained thirty items marked on a six-point Likert scale ranging from strongly disagree to strongly agree. The Gibson and Dembo instrument has been the most widely used measure of teacher efficacy. With it, researchers have solidified the general teacher efficacy and the personal teacher efficacy factors, finding that in studies of both preservice and inservice teachers between 18% and 30% of the variance can be explained by these two factors (Tschannen-Moran & Woolfolk Hoy, 2001). Gibson and Dembo (1984) postulated that teachers who score high on both measures would be active and assured in their responses to students and that
these teachers would persist longer in working with students having difficulty. These teachers would have a stronger academic focus in their classrooms, be more likely to divide the class for small group activities, and be less likely to be critical of a student who gave an incorrect response than would those who scored low on the teacher efficacy measures. Teacher efficacy measured with the Gibson and Dembo scale has been related to openness to new ideas as well as to influence on their students’ achievement, attitudes, and affective growth (Tschannen-Moran et al., 1998).

Teacher efficacy is seen as being both context and subject-matter specific (Tschannen-Moran & Woolfolk-Hoy, 2001). Therefore, it has proved difficult to use one instrument for a variety of research purposes. The Gibson & Dembo (1984) scale has been widely adapted to look at specific teaching tasks and behaviors, including science teaching, classroom management, and special education (Tschannen-Moran et al., 1998). Still there is little movement toward one means of measuring teacher efficacy. In fact, Bandura has suggested that teachers’ efficacy is probably not uniform in all the varieties of tasks that are encompassed in teaching and suggested the following seven subscales: “efficacy to influence decision-making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate” (Tschannen-Moran & Woolfolk-Hoy, 2001, p. 791).

A new instrument for measuring teacher efficacy, the Ohio State Teacher Efficacy Scale (OSTES), has been developed incorporating the Bandura subscales (Tschannen-Moran & Woolfolk-Hoy, 2001). The instrument is available in a twenty-four item and a
twelve item form that uses a 9-point scale with anchors at 1-nothing, 3-very little, 5-some influence, 7- quite a bit, and 9-a great deal. Studies show the instrument to be reasonably reliable and valid. With this instrument capturing more aspects of teaching, it shows promise for looking at how teacher efficacy develops from preservice through the career cycle and may shed light on issues of teacher induction and retention (Tschannen-Moran & Woolfolk-Hoy, 2001).

Graham, Harris, Fink, and MacArthur (2001) have studied teacher efficacy in the area of writing with primary school teachers. They developed an instrument based on a modification of the Gibson and Dembo (1984) Teacher Efficacy Scale and also explored whether teacher beliefs about writing, as measured by their Writing Orientations Scale which assesses the value teachers put on explicit instruction, correctness in writing, and natural or incidental learning approaches, predict their level of efficacy (Graham et al.). Subsequently their research asked whether teachers with high and low efficacy scores differed in their self-reported classroom practices. The adapted instrument proved to be valid and reliable. This validity was further supported by differences in the classroom practices of high and low efficacy teachers. Results show that teachers with a high sense of personal teaching efficacy spent more time teaching writing processes as well as grammar and usage than those with low efficacy scores. Teachers who were more confident in their ability to teach writing were more likely to be positive about natural or incidental learning methods. Correctness in the mechanics of writing was more highly correlated to general teaching efficacy than to personal teaching efficacy scores (Graham et al.).
The correlation of teacher efficacy beliefs to innovation and persistence of change in practices is of particular interest. Change is always stressful and that stress is reflected in teacher efficacy scores. In the midst of a change process, teacher efficacy scores seem to go down, then rise. Upon initiating a change in practice, teacher efficacy scores fall but as improvements in student achievement are seen due to the new skills and practices, scores rebound to higher levels (Ross, 1994; Stein & Wang, 1988; Guskey, 1986). Among teachers exposed to new methods, those with higher efficacy scores tend to view the new methods as being more important, less difficult to implement, and more consistent with their own teaching practices than do those with lower efficacy scores (Guskey, 1988; Ware & Kitsantas, 2007).

**Sources of Efficacy and Writing Instruction**

With the four sources of efficacy identified by Bandura (1986) and the additional element of persistence as identified by Gibson and Dembo (1984), categories of five sources of efficacy align to elements of best practice in teaching writing (Pritchard & Honeycutt, 2007) and were used in the current study to classify indicators of higher efficacy in teachers’ self-reported practices in writing instruction. These categories are the provision of Mastery Experiences (ME), attention to Physiological and Emotional States (PES), use of Vicarious Experiences (VE), use of Social Persuasion (SP), and Persistence in the Face of Difficulties (PFD). For example, classroom practices indicative of higher efficacy that teachers might use to lead students toward more mastery experiences in writing might include providing increased time for writing (Graham,
Harris, Fink, & MacArthur, 2001), focusing more on the student as writer than on the written product, setting process goals rather than performance goals, building on students’ strengths and successes (Schunk, 2003; Schunk & Swartz, 1993).

The Mastery Experiences category includes many practices commonly thought of as direct teaching of writing. (See Table 1 for sample indicators.) Practices classified as Mastery Experiences, or more accurately the provision of Mastery Experiences, include the explicit teaching of writing strategies, how much time was devoted to teaching writing in successful experiences with writing. It also includes the stance the teacher takes regarding successful experiences with writing and the stance the teacher takes regarding the relative importance of the student as writer to the importance of the written product itself.

Efficacy grows more and is better aligned to capacity through a focus on process goals rather than performance goals (Bandura, 1986; Tschannen-Moran, Hoy, & Hoy, 1998) so using a process approach that includes practices such as the explicit teaching of writing skills like planning, revising, and using text structures would be indicators of process goals. Teachers who indicated regular practice of assigning writing tasks to be submitted for grades without regard to teaching component skills would be focusing more on product than on process, a practice associated with lower efficacy (Graham, Harris, Fink, & MacArthur, 2001). Among other ways that teachers focus on process would include modeling or demonstrating their own writing processes, using trained peer groups to help with revision, building on students’ strengths, conferences for revision, and teaching grammar in context. Use of rubrics to provide task-specific expectations and
helping students think metacognitively (use self-regulation strategies) on their writing process also fell under the Mastery Experiences category (Pritchard & Honeycutt, 2007).

Bandura’s (1986) source referred to as “physiological arousal” relates well with the power of emotions that impact writing (Rose, 1985; Csikszentmihalyi, 1990; Maisel, 1999). Practices dealing with emotional support are captured in the category labeled Physiological and Emotional States. (See Table 2 for sample indicators.)

Teachers who reported attending to the reduction of writing anxiety and providing emotional support in their written and verbal responses to student writing rated positive for high efficacy in this category (Schunk, 2003). Other ways of building safety for the student to take risks as a writer and teaching students positive ways of responding to one another as writers are also included in this category in the current study.

The use of vicarious experience is a lynchpin concept in social cognitive theory, since transferring learning from observed behavior to one’s own practice mediates all learning having to come from individual trial and error (Bandura, 1986). The entire concept of schooling hinges on the ability to learn from observation. The coding category derived from this source was of particular importance since the criterion for districts to be selected into the original study from which these interviews were derived was that they had participated in the same teacher-led professional development program in writing (Marshall, Pritchard, & Gunderson, 2000, 2001; Pritchard and Marshall, 2002). Among the indicators included in use of Vicarious Experiences were practices that have been frequently cited as being indicative of high efficacy, including the perception that ideas seen in professional development are easy to incorporate into one’s teaching
practice and the continued use of practices learned in professional development after the end of the training (Ross, 1994; Stein & Wang, 1988; Guskey, 1988; Guskey, 1986).

(See Table 3 for sample indicators.)

Closely related to the category of vicarious experiences is that of Social Persuasion. (See Table 4 for sample indicators.) Higher teacher efficacy has been associated with characteristics related to building and district-level factors (Ware & Kitsantas, 2007; Ross, Hogaboam-Gray & Gray, 2003; Goddard, 2001; Tschannen-Moran et al., 1998; Hipp & Bredeson, 1995; Hoy & Woolfolk, 1993; Moore and Esselman, 1992; Lee et al., 1991; Ashton and Webb, 1986) that connect to district health and student achievement in writing (Pritchard & Marshall, 2002; Pritchard, Morrow, and Marshall, 2005). Bandura (1997) cites the powerful impact of social factors within and outside the school community on student achievement through the mediation of teachers’ self-efficacy beliefs. In the social persuasion category, indicators such as teachers feeling supported by the administration, the perception of the school or classroom as a community, and evidence of a sense of ownership and capacity to impact school decisions and success would be found.

The fifth category for coding was Persistence in the Face of Difficulty and came from a composite of findings about the construct related to high teacher efficacy. (See Table 5 for sample indicators.) Teachers with high efficacy have been found to persist longer when things do not go well, to be more resilient when encountering setbacks, and to be less critical of students having difficulty (Ware & Kitsantas, 2007; Ashton & Webb, 1986). They also work longer with struggling students (Ware & Kitsantas, 2007; Gibson,
& Dembo, 1984) and are less likely to refer difficult students to special education (Meijer & Foster, 1988; Podell & Soodak, 1993; Soodak & Podell, 1993). Indicators for persistence included the above factors as well as other indicators of efforts to teach students who seem hard to reach.

**Teacher Efficacy in School Contexts**

Since social cognitive theory posits reciprocal determinism between the environment and personal factors, looking at how school context impacts teacher efficacy has yielded interesting results. In two studies, high school teachers were asked to use the RAND measure to rate their personal teaching efficacy for each of the classes they taught (Raudenbush, Rowen, Cheong, 1992; Ross, Cousins & Gadalla, 1996). They found teacher efficacy to be lower for nonacademic track classes than for academic and honors classes. School context also affects teacher efficacy. Moore and Esselman (1992) found that teacher efficacy was higher when teachers perceived a positive school atmosphere and the ability to influence decision-making beyond the classroom. Lee, Dedick, and Smith (1991) found a sense of community in the school to be the single greatest predictor of teacher efficacy. Teachers felt more efficacious when their school environment was supportive and respectful, with administration and staff sharing a single vision and common values.

The principal’s leadership also has an impact on teacher efficacy. Teachers who felt their principals were influential with superiors in the district hierarchy showed higher personal teacher efficacy (Hoy & Woolfolk, 1993). When principals used their authority
within the building to provide resources and to buffer teachers from disruptive aspects while allowing them flexibility within their classrooms, efficacy increased (Lee et al., 1991). Higher general teacher efficacy was associated with having a principal who inspired a sense of purpose in the faculty (Hipp & Bredeson, 1995). In one of very few qualitative studies, Ashton and Webb (1986) found organizational structures, such as a middle school model with teachers in interdisciplinary teams and fewer students rather than a junior high model with individual classrooms divided into content area departments, to be related to higher teacher efficacy. Middle school teachers also had higher expectations for their students and were more satisfied with teaching as a career.

Collective efficacy, the extent to which perceptions of efficacy are shared throughout a faculty, has received only limited study. Goddard (2001) studied 91 urban elementary schools and found that after controlling for student demographics and prior achievement, collective efficacy was positively and significantly related to student achievement. Interestingly, the level of consensus among faculty regarding efficacy perceptions was not predictive of student achievement, nor was it significantly related to school racial make-up or socio-economic status (Goddard, 2001). School processes that promote teacher ownership of school decisions show stronger influence on collective teacher efficacy than does prior student achievement (Ware & Kitsantas, 2007; Ross, Hogaboam-Gray & Gray, 2003). Although Bandura suggests that collective efficacy may spread through a faculty creating a cycle of low teacher efficacy which leads to low student efficacy and low academic achievement, relatively little research has been
conducted on this cycle (Tschannen-Moran et al., 1998). In the current climate of accountability, collective efficacy appears to be an area ripe for further study.

While there have been many years of study on teacher efficacy, most of those studies have focused on various forms of its measurement rather than its practical use in the field. Increasingly there are calls to make the construct more valuable for both pre- and inservice educators (Wheatley, 2005). The complexity of the meaning of teacher efficacy scores and the interrelatedness of its sources make interpreting or enhancing efficacy difficult. Much of the difficulty may be due to the almost exclusively quantitative research on measuring the construct, and there have been calls for more qualitative research into the construct (Tschannen-Moran et al., 1998; Henson, 2004; Labone, 2002; Wheatley, 2005). Labone (2004) sees the need for broadening the construct to explore interpretations of teacher efficacy and enhance its potential to guide educational reform. Wheatley (2005) also calls for more interpretative research encompassing “elements that make it [teacher efficacy] a coherent and meaningful belief for an individual teacher” (p. 759). Henson (2002) calls for intensive qualitative research because “To fully understand the relationships between the sources of efficacy information, the meaning teachers attach to this information, and any ultimate change in their efficacy beliefs, in-depth study of teachers is necessary” (p. 147).

**Teacher Efficacy and School Climate**

The relationship between teacher efficacy and school climate has found that a healthy school climate is conducive to the development of teacher’s beliefs that they are
able to influence student learning, resulting in higher teacher efficacy scores (Hoy & Woolfolk, 1993). School climate has been shown to affect student achievement with the influence persisting several years (Hoy, Hannum, & Tschannen-Moran, 1998). While much research has been done with teachers and the health of their schools, fewer studies have addressed the larger issues of the health of districts that run the schools and set the parameters that subtly or directly affect schools’ capacity to impact student achievement. Pritchard and Marshall (2002) have developed an Organizational Health Scale that can be used with districts based on Kanter’s (1983) concept of a Culture of Pride and Climate of Success. The Culture of Pride and Climate of Success is embodied in organizations that build emotional connections between the individual and the organization that provide a feeling of belonging which supports the realization of individual goals while the individual also contributes to the work of the organization. The Organizational Health Scale looks broadly at district health through the interaction of assumptions, values and norms operating within the organization (Pritchard & Marshall, 2002). This instrument addresses issues of “philosophical orientation toward learning for students and faculty; origin of responsibility for problems and solutions as outside or inside the school system; fit of beliefs and focus across all levels of the district; pattern of leadership; and attitudinal features such as trust, commitment, and co-operation” (Pritchard & Marshall, 2002, pp. 122-123). Based on the use of the Organizational Health Instrument, Pritchard and Marshall (2002) determined ten characteristics of professional development that set high health districts apart from their low health counterparts. Healthy districts show high levels of interconnectedness and trust within and across different levels of the
organization, while mistrust and isolation characterize unhealthy districts. In a subsequent study, a high correlation between the degree of implementation of Deming’s 14 points for Total Quality Management and the organizational health of school districts was found. High health districts were more likely to exhibit a constancy of purpose, philosophically adopting continuous improvement, as well as reducing dependence on mass inspections, such as standardized testing, to ensure that the focus remained on teaching and learning. There was also significant correlation to high student achievement in the healthy districts (Marshall, Pritchard, & Gunderson, 2004).

These studies (Pritchard & Marshall, 2002; Marshall, Pritchard, & Gunderson, 2004), with their connections to student achievement, raise many questions of how district health may be related to teacher efficacy. This research on the relation of the sources of teacher efficacy to knowledge of the writing process and its relation to student writing achievement and district provides a look into the interpretive aspects of the construct, particularly sources of information that come together to create teacher efficacy. By attending to teachers’ voluntarily self-reported practices in implementing professional development in writing instruction, a window into their self-perceptions of their confidence and competency can be found. By coding interviews with the sources and correlations that teacher efficacy research has already found, new connections emerge that shed light on the practical application of this construct.
CHAPTER 3 – METHODOLOGY

This study is embedded within a larger study of the characteristics of districts that had successfully implemented a nationally disseminated teacher-led staff development program in writing (Marshall, Pritchard, & Gunderson, 2000, 2001, 2004; Pritchard and Marshall, 2002). The researchers made site visits, averaging five days in length, to eighteen randomly selected school districts in the U.S. drawn from a national sampling frame consisting of over 1,500 sites which had participated in the same teacher-led staff development initiative in writing. The researchers collected over 400 hours of interviews from trainers, teachers, principals, central office administrators, and others who might shed light on system characteristics which support or impede district health. These vocal recordings were transcribed, creating texts for analysis. While on site for four to five days, the researchers studied a broad spectrum of artifacts such as school and district goals, planning documents, student assessments, photographs, bulletin boards, professional development offerings, and other pertinent material. Student compositions written on the topic of their schools were collected and analyzed from more than 2,000 students in randomly selected classrooms in grades 4, 8, and 11. This study only draws on student compositions from grades 8 and 11 from teachers who were also interviewed.

The focus of this study is an analysis of self-reported practices, gathered in researcher interviews with teachers, which correlate to Bandura’s (1986) sources of efficacy as aligned to writing pedagogy of 32 middle and high school English Language Arts teachers and the writing achievement of their students in healthy and non-healthy
districts. Each middle or high school teacher in the sample provided student essays which were scored for writing quality in the previous study (Marshall, Pritchard, & Gunderson, 2000, 2001, 2004; Pritchard and Marshall, 2002). For this study, only essays contributed by middle and high school English teachers were used and these were derived as follows: 320 from schools in high health districts; 264 from schools in moderate health districts; 410 from schools in low health districts, for a total of 994 essays (N = 994). Writing Achievement, district health, and placement of teachers in high or low-health districts had been determined in prior research, but this information was not available to the researcher or to those coding the interview transcripts in the current study.

In the previous study (Marshall, Pritchard, & Gunderson, 2000, 2001, 2004; Pritchard and Marshall, 2002), 1,283 student papers written on the topic of the student’s school were scored by two independent readers (Pritchard, Morrow, & Marshall, 2005). A 6-point rubric for quality of writing was developed. (See Appendix B.) Anchor papers were identified for each score point in a 6-point scale. Two experienced teachers at different grade levels were trained to apply the scale using the anchor papers. Working independently, the teachers scored each paper. If scores differed by more than one point, a third rater scored the paper. In subsequent analysis, inter-rater reliability was determined to be 0.92, a very high coefficient of agreement (Pritchard & Marshall, 2002). Based on two readers the score range was 2-12. The mean score for the 1,283 papers was 8.08 with a standard deviation of 0.45 (Pritchard, Morrow, & Marshall, 2005).
In the previous study (Marshall, Pritchard, & Gunderson, 2000, 2001, 2004; Pritchard and Marshall, 2002) the districts in which the teachers worked were classified as to district health according to an analysis using the Organizational Health Scale (Pritchard and Marshall, 2002). (See Appendix C.) A district was classified as having a high/positive health if its total score on the Organizational Health Scale was 12-20, moderate/mixed if its score was 9-11, or low/negative if its score fell between 0-8. The health ratings of the 13 districts in this sample were not known to the researcher or those coding interviews in the current study.

The sample on which the original study was based included teachers in many disciplines who taught in schools at all levels in 18 districts randomly selected from across the United States from a population of 1500 districts that had implemented the same teacher-led professional development in writing (Marshall, Pritchard, & Gunderson, 2000, 2001, 2004; Pritchard and Marshall, 2002). In the original study, high districts included two rural, one small town, and four urban districts in the Northeast, Northwest, Midwest, and South United States; low districts included three rural, two small town, and two urban districts in the Northwest, Midwest, South, and Southeast United States. Minority students – Native American, Black, and Hispanic - made up approximately 27% of the data collected in high organizational health districts and 23% of the data collected in low organizational health districts. For that study, the researchers employed a “nested contexts” approach (Marshall & Rossman, 1995) to gather data from multiple levels and various sources. Researchers collected over 400 hours of interviews from teachers, principals, central office administrators, and others who might shed light on system
characteristics that support or impede a culture of continual improvement. They gathered nearly 3,000 essays from students at grades 4 (age 9), 8 (age 13), and 11 (age 16) writing about their schools. Additionally, photographs and documents such as school and district improvement plans, professional development offerings, trends in student achievement, accreditation studies, district policy manuals, etc. were collected and reviewed to determine district health.

The sample for this study was a subset of that group and was determined according to the criteria of teachers’ level and content area being middle or high school English, of teachers having been interviewed, and of their students having submitted papers which had been scored. The resulting sample of 32 teacher interviews from 13 different districts and 21 schools comprised the data set for this study. Of these, 9 classrooms in 4 districts had been classified as having high/positive district health, 9 classrooms in 4 districts had been classified as having moderate/mixed district health, and 14 classrooms in 5 districts had been classified as having low/negative district health).

**Research Hypotheses**

One research hypothesis for this study was that a significant positive relation exists between the level of Teacher Efficacy, as evidenced through the self-reporting of pedagogy indicative of Bandura’s (1986) sources of efficacy in professional practice, and student achievement in writing. The second hypothesis is that there was a significant positive relation between the level of these sources of teacher efficacy and district health.
This study delineates five categories of elements relating to evidence of efficacy. Bandura (1986) cites four of these as direct sources of efficacy: the interplay of one’s history of achievement in a particular context, arousal or one’s physiological state when performing the action, vicarious or observational learning, and persuasion of others. Additionally, persistence in the face of difficulties (Gibson and Dembo, 1984) has been shown to correlate to high efficacy and was thus included as an indicator of efficacy. These five elements provided categories of teaching practices that were rated, as indicators of teacher efficacy in writing. (See Appendix D.) Since one of Bandura’s (1986) sources of efficacy is history of achievement in the subject, looking for pedagogical evidence that teachers were teaching writing in ways that increase students’ mastery of and success in writing was used as an indicator of higher efficacy. Most of the indicators for strong writing pedagogy were considered part of this category, referred to as Mastery Experiences. Since arousal or attention to physiological states is a source of increased efficacy, indicators for this category, Physiological and Emotional States, included attending to classroom elements that reduce writing anxiety or providing emotional support in responses to student writing. Higher efficacy due to increased use of vicarious experiences would include practices such as modeling writing, implementing practices learned in professional development, or seeing compatibility between their own teaching practices and those encouraged in professional development. These were categorized as Vicarious Experiences. Sources of efficacy based on the category of Social Persuasion would be evidenced by creating community within the classroom, being part of a community within the school, or feeling supported by administration in
teaching practices. The category of Persistence in the Face of Difficulties might be indicated by efforts to reach difficult students or duration of efforts to implement successful practices learned in professional development.

**Procedures for Coding Teacher Practice**

Pritchard and Marshall (2002) interviewed teachers with an open-ended protocol that included questions about professional development in writing, each teacher’s practices in teaching writing, building-wide writing instruction, issues related to school and district health. The teacher interviews had been transcribed and were assigned random numbers for identification in the coding for this study. The coding was completed without any indication of student writing achievement levels or district health scores.

Using the literature-based sources of efficacy categories, lists of indicators representing each category were determined. (See Tables 1-5.) After training in identifying indicators in the five sources of efficacy categories, three independent coders analyzed each interview transcript, using a two-step coding protocol. The coders first worked independently to code the interviews for evidence of each indicator, highlighting indicators in different colors for each category. For each indicator spoken of in the teacher interviews, coders recorded whether or not that reference was a negative, neutral, or positive indicator of the practice. Determinations of negative or positive were based on the literature findings of the practices as related to lower versus higher efficacy. Neutral ratings were given for categories in which the indicator references were either
equivocal or for categories in which no indicators were found. Once this initial coding of
indicators was complete in each interview, every efficacy source category for each
interview was then assigned a score for negative or low efficacy, neutral, or positive or
high efficacy practice of the indicators based on the preponderance of evidence in each
category. (See Appendix D.) For indicators with impact in more than one category,
raters were asked to mark the practice in each category that applied.

The inter-rater agreement was determined for scoring in the sources of teacher
efficacy categories. It was expected that the inter-rater reliability would be high because
the indicators were explicitly defined and raters trained for coding interviews. However,
when scores were analyzed and inter-rater reliability was checked, it was determined that
one coder was significantly out of line with the ratings of the other two. Therefore, the
researcher made a determination to eliminate the outlier’s scores, leaving the analysis
based on two coders.

The ratings within each category were combined for the two coders and the mean
scores (total of references divided by the number of references) determined. These raw
scores were converted to z-scores to standardize the score distributions. Each category
was given an efficacy score for each teacher.

**Hypothesis: Sources of Teacher Efficacy Related to Student Achievement**

There is a significant positive relation between the level of sources of teacher
efficacy and student achievement in writing. Each teacher efficacy category, including
Mastery Experiences which includes indicators of writing pedagogy, was considered a
separate factor in predicting student achievement. The student achievement scores were based on combined scores, with a possible range of 2 to 12, on quality of essays as determined through holistic evaluation by two raters using a 6-point scale, with 6 being high. Average writing scores for each teacher interviewed were determined. Given that the variables were normally distributed, linearly aligned, measured reliably, and indicated homoscedasticity, these four assumptions for the use of multiple regression were met (Osborne & Waters, 2002). Appropriate statistical procedures were determined. With each category independently identified in each of the 32 teacher interviews, normally distributed, and analyzed regarding the single independent variable of student writing achievement, the relation between teacher efficacy and student achievement was then determined using step-down multiple linear regression analysis.

**Hypothesis: Sources of Teacher Efficacy Related to District Health**

There is a significant positive relationship between the level of teacher efficacy and district health. The purpose of this part of the research was to determine whether there is a relation between categories indicating high teacher efficacy as evidenced in interviews and district health that researchers identified using the Organizational Health Scale in a prior study (Pritchard and Marshall, 2002).

For this part of the study, the teacher efficacy category scores were aggregated by school districts. Assumptions were checked and statistical procedures were determined (Osborne & Waters, 2002). The relation between teacher efficacy and district health was determined using a step-down multiple linear regression analysis, and effects between
means of high and low health district subjects were determined using Multiple Analyses of Variance (MANOVA).
CHAPTER 4 – RESULTS

Rather than asking teachers to measure their sense of efficacy or report on specific teaching practices that build efficacy, this study looked at efficacy through the lens of self-reported practices and focused on the relation that exists between efficacy source categories and student achievement in writing, then it took a second look at these categories with regard to district health. The sample for the study was comprised of 32 middle and high school English Language Arts teachers who had participated in interviews about their beliefs and practices and who had provided on-demand writing samples from their students. The districts in which these teachers worked were randomly selected from a database of 1500 sites that had participated in the same teacher-led staff development in teaching writing (see Marshall, Pritchard, & Gunderson, 2000, 2001; Pritchard and Marshall, 2002). While the sample was small, the open nature of the interview process provided a window into teacher practice with little bias regarding the types of practices that researchers might expect to be reported in the teaching of writing.

The 32 teachers in this sample submitted 994 student papers written on the topic of their schools. These papers had previously been scored as part of a larger group of student essays (N=1,283) by two independent readers (see Pritchard, Morrow, & Marshall, 2005) but results were not available to the current researcher or coders. The scores for the full group of papers in the previous study (N=1,283) had a range of 2-12 with a mean score of 8.08 and a standard deviation of 0.45 and inter-rater reliability of 0.92 (Pritchard, Morrow, & Marshall, 2005). For the subset of papers for this study
Table 6. Descriptive Statistics: Student Writing Achievement

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Essay Ratings – Mean Combined Essay Scores</td>
<td>8.4086</td>
<td>.96136</td>
<td>32</td>
</tr>
<tr>
<td>Mastery Experiences</td>
<td>.0000</td>
<td>1.00000</td>
<td>32</td>
</tr>
<tr>
<td>Physiological and Emotional States</td>
<td>.0000</td>
<td>1.00000</td>
<td>32</td>
</tr>
<tr>
<td>Vicarious Experiences</td>
<td>.0000</td>
<td>1.00000</td>
<td>32</td>
</tr>
<tr>
<td>Social Persuasion</td>
<td>.0000</td>
<td>1.00000</td>
<td>32</td>
</tr>
<tr>
<td>Persistence in the Face of Difficulties</td>
<td>.0001</td>
<td>.99999</td>
<td>32</td>
</tr>
</tbody>
</table>

(N=994) the mean was 8.41 and a standard deviation of 0.96. Since the papers were scored for the full study the inter-rater reliability remains 0.92. (See Table 6.)

Using these lists of possible indicators generated for each category, raters color-coded the interviews, marking each instance in which the teacher spoke about using one of the practices listed or a similar practice and categorizing it as either a negative, neutral, or positive expression of the indicator. After marking all references to indicators of each category in each interview, each category in each interview was reviewed and given an overall negative, neutral or positive summative rating for practices in the category. Each source of efficacy category was rated either positive for high efficacy, neutral for equivocal or no references, or negative for low efficacy.

**Source Category: Mastery Experiences**

Teachers spoke about practices in each category to varying degrees. (See Table 7.) The most consistently reported were practices classified as providing students with mastery experiences in their writing with 417 total references.
Table 7. Summary of Numbers of Coded References by Source Category and Indicator

<table>
<thead>
<tr>
<th>Category and Indicators</th>
<th>Count of References</th>
<th>Category and Indicators</th>
<th>Count of References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery experiences</td>
<td>417</td>
<td>Physiological and Emotional States</td>
<td>97</td>
</tr>
<tr>
<td>Increased time on / for writing</td>
<td>25</td>
<td>Shows confidence in self as a writer</td>
<td>45</td>
</tr>
<tr>
<td>Focuses on the student as writer over the written product</td>
<td>34</td>
<td>Creates classroom elements that reduce writing anxiety</td>
<td>22</td>
</tr>
<tr>
<td>Sets Process Goals for Students rather than performance goals</td>
<td>36</td>
<td>Provides emotional support in written and verbal responses to student writing</td>
<td>19</td>
</tr>
<tr>
<td>Explicitly teaches writing skills: such as planning, revising, and text structures</td>
<td>39</td>
<td>Teaches students to do this with each other Mastery</td>
<td>9</td>
</tr>
<tr>
<td>Models and talks about, demonstrates own writing process Vicarious</td>
<td>18</td>
<td>Other:</td>
<td>2</td>
</tr>
<tr>
<td>Leads students to be metacognitive (reflective) about their own writing process [How they write]</td>
<td>16</td>
<td>Vicarious experiences</td>
<td>99</td>
</tr>
<tr>
<td>Uses rubrics to provide task specific responses</td>
<td>38</td>
<td>Perceives project ideas easy to incorporate into their teaching</td>
<td>38</td>
</tr>
<tr>
<td>Uses trained peer groups/small groups Social</td>
<td>39</td>
<td>Continues use of project methods after end of the project [mention impact of PD in teaching or abandoning practices]</td>
<td>39</td>
</tr>
<tr>
<td>Shows confidence in teaching all aspects of writing, including grammar</td>
<td>31</td>
<td>Teacher takes credit for student achievement [do they own negative achievement]</td>
<td>14</td>
</tr>
<tr>
<td>Builds on students’ strengths/ successes Emotional</td>
<td>19</td>
<td>Other:</td>
<td>8</td>
</tr>
<tr>
<td>Structures class for positive reinforcement/ teacher speaks encouragement Emotional</td>
<td>15</td>
<td>Social Persuasion</td>
<td>213</td>
</tr>
<tr>
<td>Teaches grammar in context</td>
<td>31</td>
<td>Teachers feel supported by administration</td>
<td>103</td>
</tr>
<tr>
<td>Uses conferencing for revision</td>
<td>29</td>
<td>Perceives a positive school and classroom atmosphere – feel a sense of community</td>
<td>83</td>
</tr>
<tr>
<td>Helps students persist in revising until product is good</td>
<td>23</td>
<td>Other:</td>
<td>27</td>
</tr>
<tr>
<td>Other:</td>
<td>24</td>
<td>Persistence in the face of difficulties</td>
<td>45</td>
</tr>
<tr>
<td>Efforts to reach the unreachable</td>
<td>19</td>
<td>Duration / intention to remain in the field</td>
<td>25</td>
</tr>
<tr>
<td>Other:</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8. Numbers of Teacher Interviews Coded Positive, Neutral, and Negative by Coder

<table>
<thead>
<tr>
<th>Category</th>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coder 1</td>
<td>Coder 2</td>
<td>Coder 1</td>
</tr>
<tr>
<td>Mastery Experiences</td>
<td>25</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Physiological and Emotional States</td>
<td>17</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Vicarious Experiences</td>
<td>13</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Social Persuasion</td>
<td>15</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Persistence in the Face of Difficulties</td>
<td>8</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>

In this category, the correlation coefficient for coders was .788 (p<.01). Reporting sufficient practices to be scored positive, Coder 1 identified 25 teachers while Coder 2 identified 22. With neutral levels of reported practices in this category, 7 teachers and 9 teachers were identified by the coders respectively. One teacher was coded as having negative practice by one coder. (See Tables 7 and 8.) Examples of indicators supporting a positive rating included practices such as teaching grammar in context, having student revise until the product is good, and/or using peer groups. A negative rating was supported by practices such as teaching grammar in isolation, grading student writing without revision, and/or assigning writing without teaching component skills.

Source Category: Physiological and Emotional States

The practices classified as providing positive attention to the physiological and emotional states that occur during teaching writing and in the writing process were less frequently reported in the interviews with 97 total references. For this category, the correlation coefficient for Coders 1 and 2 was .659, indicating significance at the 0.01 level.
level. Coder 1 identified 17 teachers as positive, 14 as neutral, and 1 as negative. Coder 2 identified 14 teachers as positive, 17 as neutral, and 1 as negative. (See Tables 7 and 8.) Examples of practices supporting a positive rating included attention to reducing writing anxiety, responding to student papers in an emotionally supportive way, and/or teaching students to respond supportively to one another’s writing. Examples of practices that might lead to a negative rating included inattention to emotional components of writing, grading without response to content of writing, and/or expressing a lack of confidence in writing.

**Source Category: Vicarious Experiences**

The practices classified as incorporating the use of vicarious experience were also reported somewhat less frequently with 99 total references. The correlation coefficient for Coders 1 and 2 in this category was .749, again indicating significance at the 0.01 level. Coder 1 identified 13 teachers reporting as positive and 19 as neutral. Coder 2 identified 12 teachers as positive, 17 as neutral, and 3 as negative. (See Tables 7 and 8.) Examples of positive practice included continued use of methods learned in professional development and/or the perception that new practices learned in professional development were easy to incorporate. Negative practice might have been shown by ceasing to use methods learned in professional development or the perception that these methods did not fit with the way writing should be taught.
Source Category: Social Persuasion

The practices classified as social persuasion were also frequently reported with 213 total references, but these varied more broadly across the levels of positive, neutral, and negative. The correlation coefficient for Coders 1 and 2 in this category was .754, again indicating significance at the 0.01 level. Coder 1 identified 13 teachers as positive, 15 as neutral, and 2 as negative. Coder 2 classified 12 teachers as positive, 15 as neutral, and 5 as negative. (See Tables 7 and 8.) Positive ratings in this category were supported by indicating efforts to create community in the classroom, perceiving a supportive community in the school, and/or feeling supported by school administration. Negative ratings were supported by indicators such as neglect for building classroom community, remaining isolated from other teaching in the school or department, and/or perceiving a lack of support from administration.

Source Category: Persistence in the Face of Difficulties

The practices indicating persistence in the face of difficulties were the least frequently reported of the categories with 45 total references but were most consistently marked by Coders 1 and 2. The correlation coefficient for Coders 1 and 2 in this category was .917, again indicating significance at the 0.01 level. For these practices, Coder 1 identified 8 teachers as positive, 24 as neutral, and none as negative. Coder 2 classified 7 teachers as positive, 25 as neutral, and none as negative. (See Tables 7 and 8.) A positive rating could have been supported by such indicators as never giving up on students or intending to continue in the field, while a negative rating might be supported
by indicators such as lack of persistence with students having difficulty or expressing the intention of leaving the field.

**Variability in Coded References**

Given the open nature of the interview protocol, the relative frequency of remarks about each efficacy source category may reflect teachers’ general knowledge of practices that relate to the teaching of writing in their schools. The category of Mastery Experiences contained practices that are most overtly related to teaching writing and so teachers probably reported on these direct practices most often. Other categories contained practices that teachers might not have been aware of as relating to their writing pedagogy and so these may have been less frequently reported. The advantage of an open protocol was that it provided a less biased window into the subject’s view of writing pedagogy; however, not being prompted in specific directions may mean that some practices in use may not have been articulated.

Another factor affecting the numbers of coded references in each category was variability in the lens coders bring to text. If a teacher responds at length regarding practices related to a specific indicator, a coder may interpret the full response as one reference while another may see discrete factors within the same response and so mark this as several references to the indicator. Both coders may have the same positive, neutral, or negative interpretation of the rating for the reference but the count for the indicator may vary. Inter-rater reliability was calculated on the basis of the source
category rating of positive, neutral, or negative, so these differences do not impact the results determined from the count.

**Relation of Student Writing Achievement to Efficacy Source Categories**

The correlation of the student essay ratings to each efficacy category was calculated. No source category was significantly related to student writing achievement. Two categories, Mastery Experiences and Physiological and Emotional States, yielded significant results at the .01 level when correlated to the category of Vicarious Experience. The correlation coefficient for Mastery Experiences was .412 and the correlation coefficient for Physiological and Emotional States was .624. (See Table 8.)

To test the hypothesis a step-down multiple regression protocol was used. (See Table 9.) In this procedure, initially all categories were included to test the alignment of the teacher ratings in each of the categories to the student writing achievement scores.
Table 10. Model Summary of Student Writing Achievement and Efficacy Source Categories Using Step-Down Multiple Regression

<table>
<thead>
<tr>
<th>Model Predictors</th>
<th>R</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFD, SP, ME, PES, VE (All Categories)</td>
<td>.349</td>
<td>.122</td>
</tr>
<tr>
<td>PFD, ME, PES, VE</td>
<td>.348</td>
<td>.121</td>
</tr>
<tr>
<td>PFD, ME, VE</td>
<td>.346</td>
<td>.120</td>
</tr>
<tr>
<td>PFD, ME</td>
<td>.343</td>
<td>.118</td>
</tr>
<tr>
<td>PFD</td>
<td>.247</td>
<td>.061</td>
</tr>
</tbody>
</table>

ME = Mastery Experiences  
PES = Physiological and Emotional States  
VE = Vicarious Experiences  
SP = Social Persuasion  
PFD = Persistence in the Face of Difficulty

12.2% of the variance in student achievement is accounted for by using all categories  
6.1% of the variance in student achievement is accounted for by Persistent in the Face of Difficulty

Then, in each subsequent step of the regression, a removal statistic was calculated to determine the least useful category to the model which was then removed. When residuals were accounted for and the R-square was determined, 12.2% of the variance was accounted for using all categories while 6.1% of the variance was accounted for by the Persistence in the Face of Difficulties category.

**Relation of District Health to Efficacy Source Categories**

With thirty-two subjects, the combined district health ratings yielded a range of scores from 0-12 with a mean of 9.625 and a Standard Deviation of 4.897. Correlations between teacher ratings for efficacy sources were not significantly (p > .05) related to district health. (See Tables 11 and 12.)

To test the hypothesis that district health was related to the teacher ratings in each of the efficacy categories, the step-down multiple regression protocol was again used. (See Table 12.) As the step-down model was analyzed, 3.4% of the variance in district
Table 11. Descriptive Statistics: District Health

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Health Ratings – Mean Combined Health Ratings</td>
<td>9.6250</td>
<td>4.8973</td>
<td>32</td>
</tr>
<tr>
<td>Mastery Experiences</td>
<td>.0000</td>
<td>1.0000</td>
<td>32</td>
</tr>
<tr>
<td>Physiological and Emotional States</td>
<td>.0000</td>
<td>1.0000</td>
<td>32</td>
</tr>
<tr>
<td>Vicarious Experiences</td>
<td>.0000</td>
<td>1.0000</td>
<td>32</td>
</tr>
<tr>
<td>Social Persuasion</td>
<td>.0000</td>
<td>1.0000</td>
<td>32</td>
</tr>
<tr>
<td>Persistence in the Face of Difficulties</td>
<td>.0001</td>
<td>.9999</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 12. Model Summary of District Health and Efficacy Source Categories Using Step-Down Multiple Regression

<table>
<thead>
<tr>
<th>Model Predictors</th>
<th>R</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFD, SP, ME, PES, VE (All Categories)</td>
<td>.185</td>
<td>.034</td>
</tr>
<tr>
<td>PFD, ME, PES, VE</td>
<td>.185</td>
<td>.034</td>
</tr>
<tr>
<td>ME, PES, VE</td>
<td>.171</td>
<td>.029</td>
</tr>
<tr>
<td>ME, VE</td>
<td>.155</td>
<td>.024</td>
</tr>
<tr>
<td>ME</td>
<td>.146</td>
<td>.021</td>
</tr>
</tbody>
</table>

ME = Mastery Experiences  
PES = Physiological and Emotional States  
VE = Vicarious Experiences  
SP = Social Persuasion  
PFD = Persistence in the Face of Difficulty

3.4% of the variance in student achievement is accounted for by using all categories  
2.1% of the variance in student achievement is accounted for by Mastery Experiences

health was accounted for by the teacher ratings in the efficacy categories. In particular, 
2.1% of the variance in district health was accounted for by the Mastery Experiences category.
Teacher efficacy ratings were then analyzed in groups of high versus low health districts. Means for each source category by groups of high and low health districts were determined. (See Table 13.) Eight teachers taught in districts with a low health rating, while 5 taught in high health districts. A multiple analysis of variance (MANOVA) was used to analyze the data. (See Table 14.) Four of the five categories had low effect sizes when compared to district health. The fifth category, Mastery Experiences had a large effect size of .17.

The teachers in low health districts had a negative practices rating of -.068 while the teachers in high health districts had a positive practices rating of .616. This suggests that teachers in high health districts were more likely to use practices indicative of higher efficacy than the teachers in low health districts.

<table>
<thead>
<tr>
<th>Means High/Low Health Districts</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME .00 Low 1.00 High Total</td>
<td>-.068</td>
<td>1.002</td>
<td>8</td>
</tr>
<tr>
<td>PES .00 Low 1.00 High Total</td>
<td>-.517</td>
<td>.724</td>
<td>8</td>
</tr>
<tr>
<td>VE .00 Low 1.00 High Total</td>
<td>-.177</td>
<td>.873</td>
<td>8</td>
</tr>
<tr>
<td>SP .00 Low 1.00 High Total</td>
<td>.000</td>
<td>.960</td>
<td>8</td>
</tr>
<tr>
<td>PFD .00 Low 1.00 High Total</td>
<td>-.260</td>
<td>.840</td>
<td>8</td>
</tr>
</tbody>
</table>
Table 14. Test of Between-Subject Effects -- High and Low District Health

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME</td>
<td>1.440</td>
<td>1</td>
<td>1.440</td>
<td>2.250</td>
<td>.162</td>
<td>.170</td>
</tr>
<tr>
<td>PES</td>
<td>.002</td>
<td>1</td>
<td>.002</td>
<td>.969</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>VE</td>
<td>.684</td>
<td>1</td>
<td>.684</td>
<td>.453</td>
<td>.052</td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>.001</td>
<td>1</td>
<td>.001</td>
<td>.975</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>PFD</td>
<td>.098</td>
<td>1</td>
<td>.098</td>
<td>.114</td>
<td>.742</td>
<td>.010</td>
</tr>
<tr>
<td>Error</td>
<td>7.039</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PES</td>
<td>12.388</td>
<td>11</td>
<td>1.126</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VE</td>
<td>12.444</td>
<td>11</td>
<td>1.131</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>13.754</td>
<td>11</td>
<td>1.250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFD</td>
<td>9.454</td>
<td>11</td>
<td>.859</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ME = Mastery Experiences  
PES = Physiological and Emotional States  
VE = Vicarious Experiences  
SP = Social Persuasion  
PFD = Persistence in the Face of Difficulty  

Low Effect Size < .08  
Moderate Effect Size .08 -.14  
High Effect Size > .14
CHAPTER 5 – DISCUSSION

Limitations of Analytic Results

While these results suggest a relation between some categories of efficacy sources and student writing achievement and between some categories and teacher placement in high-health districts, there are reasons to use these results cautiously. With a relatively small sample size of 32 teachers, the indication of relation must be addressed carefully. More testing with larger groups of teachers is needed to corroborate these findings.

Some complexities were due to the nature of open interview protocols and even more to the coding for efficacy indicators in writing practice. The open interview protocol provided strong evidence of the way teachers think about their writing pedagogy because the interview did not lead the teacher to comment on specific areas. However, since open interview protocols give little guidance about specific items to address, if the teacher was unaware of the importance of a practice in the realm of writing pedagogy, it may not have been mentioned and so received a neutral rating. Also, due to individual differences ranging from time available for the interview to personal volubility, some teachers may have commented more fully on aspects found in the categories than did others. Other teachers got caught up in some parts of their interviews and may not have gotten around to speaking of other aspects. However, the value of hearing the practices that the teacher viewed as most relevant offset some of the limitations of the protocol.

Unlike the more directly quantifiable efficacy research that looks at teacher ratings of efficacy, studying categories of efficacy sources as seen in practice was less
discrete due to significant crossover among the various categories. Coders were instructed to classify all such practices in all relevant categories. For example, one indicator in Mastery Experiences, “Use of trained peer groups/small groups,” could also have been coded in the category of Social Persuasion. Other indicators had similar overlap. Modeling, talking about, or demonstrating one’s own writing process was an indicator for Mastery Experiences but could also have been coded under Vicarious Experiences. Other indicators of Mastery Experiences, like building on students’ strengths, structuring class for positive reinforcement, and speaking encouragingly, were also indicators of Physiological and Emotional States. Helping students persist in revising until the product is good provided Mastery Experiences but was also an indicator of Persistence in the Face of Difficulties. Coders, although instructed to do so, may or may not have marked all these and other crossover indicators in both categories. The same familiarity with writing pedagogy that may have led teachers to speak more of Mastery Experiences than of other categories may have also led coders, less familiar with the other categories of efficacy, to mark these more frequently as Mastery Experiences. This complexity may account for some of the differences in inter-rater reliability that led to one coder’s scores being found to be an outlier. It also may have provided less concrete surety that practices in every category were fully represented by either interview subjects or by coders.
Key Practices in Significant Categories

With practices associated with Mastery Experiences being correlated with both student achievement in writing in other studies (Hillocks, 1986) and with district health in this study, a closer look at the indicators that teachers report may clarify practices of note. The category of Mastery Experiences was made up of many of the best practices cited by Pritchard and Honeycutt (2007) and was also noted as having large effect sizes by Graham and Perin (2007). (See Appendix A.) Among these were the most frequently reported practices in the interviews, such as the explicit teaching of writing skills, the use of rubrics, and confidence in teaching all aspects of writing including grammar. Conferencing for revision and use of peer groups were also mentioned frequently. Among the practices that were not as frequently reported were increased time for writing, modeling or demonstrating one’s own writing process, and structuring the class for positive reinforcement and speaking encouragingly. (See Table 7 from Results.)

The practice of having students keep journals was mentioned as one way that some teachers write with and model their own writing with their students. One teacher mentioned that field trips provide an opportunity for everyone to write about similar experiences and that in the journaling process the focus is on content rather than “basics like punctuation . . . and all these things, we learn them. . . . We will get to editing after we get all of the other things down.” Another teacher used journals as a way to have ongoing, written, one-to-one dialogue with students creating “more of a rapport just through the journals instead of actually verbally speaking.”
Teachers often discussed ways of teaching writing skills or the stages of the writing process. They focused on ways of brainstorming at some times while at others they taught strategies for revising. Some teachers reported process writing instruction being a school or grade-level push, while others were implementing process writing because of their own college training or experiences in professional development. In one school, a teacher shared that there “are three different teachers who teach eighth grade and at least two of us... really push the idea of process and spend a lot of time... trying to get the students to look at themselves as writers on that metacognitive level, where they are looking at their own process.” While another teacher shared the isolation felt when she made the transition to teaching with a process approach – “It was a very lonely feeling because... I was breaking away from the ‘do the worksheet everyday’ mode and a prescriptive writing mode into ‘let’s just flow with this.’”

Teachers approached teaching writing using a process approach in different ways. One teacher said, “I don’t necessarily go through every single stage one right after another. There’s a lot of times we’ll do pre-writing and brainstorming and then leave it for a day or two, then go back and do a draft. We might leave it for a couple of weeks, go back, and revisit that draft when they’ve had time to clear it out of their heads, and then use some editing and some revision either through peer editing, or self editing, and then go ahead and write their final copy...I have found that... they’ll self correct anyway when you leave a week or two in between.” Some teachers reported using the process approach for teaching creative writing but relying on more traditional methods to teach expository writing and to prepare for state writing tests.
The Relation of Efficacy Source Categories to Writing Achievement

While this study found no efficacy source category significantly related to student writing achievement, two categories, Mastery Experiences and Physiological and Emotional States, were significantly related to Vicarious Experiences at the .01 level. The category of Mastery Experiences encompassed many indicators of practices generally recognized as teaching writing. The category of Physiological and Emotional States contained indicators relating to building confidence and lessening the impact of anxiety in writing. It is interesting that the categories of Mastery Experience (ME) and Physiological and Emotional States (PES) are related to Vicarious Experience (VE), but not to each other. One explanation might lie in the fact that VE encompasses professional development in writing, suggesting that professional development in writing had positively impacted the practices of teachers that are included in the ME and PES categories. This means that those teachers who show positive efficacy in the ME and PES categories also show positive efficacy in the VE category. But showing high efficacy in ME does not indicate PES, and vice-versa. This finding suggests that professional development in writing had positively impacted the practice of teachers in these schools, since the sites were initially selected from a database of those having participated in the same teacher-led professional development in writing (Pritchard & Marshall, 2002). Mastery Experiences and Physiological and Emotional States were the two categories most directly reflective of the practices that are affirmed by research on process-oriented approaches to writing instruction (Pritchard and Honeycutt, 2007; Graham and Perin, 2007) and are strongly encouraged in professional development and
courses teaching a process approach to writing instruction. Because each source category was coded separately, these results do not indicate that the category Physiological and Emotional States was significantly related to the category Mastery Experiences, but since both are encouraged in process writing professional development, the finding was aligned to the Vicarious Experiences category which contains indicators reflective of learning these practices through professional development. The source category of Vicarious Experiences contained indicators that reflect the ease with which teachers incorporate ideas learned in professional development, coursework, or from other teachers. This category also reflected teachers’ continued use of these methods after the training was complete. Teachers mentioned the impact of the professional development or course on their teaching and talked about continued efforts to utilize strategies and practices learned outside their own classrooms. Another indicator of Vicarious Experience that was also reflected as providing Mastery Experiences was modeling the writing process and talking about their own writing processes with their students.

With regard to the provision of Mastery Experiences, a category comprised of strategies that lead students to have successful experiences in writing, one might conclude that teachers who teach writing rather than assign writing have students with higher achievement in writing. The conclusion seems almost too obvious and raises the question of why the impact of teaching writing was not even greater. The reason may be that teachers’ inclusion of these strategies was somewhat haphazard. Rather than implement what Pritchard and Honeycutt (2007) refer to as a “comprehensive, holistic instructional model” (p. 29), teachers could have picked and chosen among strategies that
they liked, found easy to implement, or believed to be successful without incorporating all aspects of a process approach.

Teachers mentioned a variety of practices that they use but often cited other practices that they know are good but have not incorporated. These practices were coded as neutral since they were not being used, unless the teacher indicated no intent to ever incorporate the practice. For example, few teachers reported using peer groups for revision and collaborative writing, yet this strategy has been shown to have a positive impact on writing quality (Graham and Perin, 2007; Yarrow & Topping, 2001; McArthur, Schwartz, & Graham, 1991; Olson, 1990). Teachers indicated that they knew about the practice and thought they should be using it, but were not. One teacher said, “I haven’t set up a time for peer response, and that’s one of my weaknesses” and another shared that “I wanted to implement that last year, and I just, and I know it sounds horrible, but I never really found the time to do it. . . .I haven’t gotten that far yet.” The way that these teachers spoke of effective practices that were not part of their repertoire of teaching strategies was a reminder that teaching writing well is a hard job, one that may leave conscientious teachers feeling burdened or guilty.

The category of attention to the Physiological and Emotional States also proved significantly correlated to Vicarious Experiences. Teachers who learn from others and are open to modeling as a means of learning about writing may be more aware of the emotional components related to writing performance. The research connecting a positive emotional state and supportive environment to writing success is well documented (Pritchard and Honeycutt, 2007; Maisel, 1999; Csikszentmihalyi, 1990;
Boice, 1985). There were significant crossovers among indicators coded as addressing Physiological and Emotional States with those indicators coded as providing Mastery Experiences. For example, “Structuring class for positive reinforcement/teacher speaks encouragement” was an indicator classified under Mastery Experiences while “Providing emotional support in written and verbal responses to student writing” was an indicator categorized under Physiological and Emotional States. Coders were instructed to mark such crossover indicators in both categories, but the degree to which differences in the ways teachers expressed these issues may have led to their sometimes being coded in one category versus the other.

Teachers expressed their work in reducing anxiety and tension for student writers in a variety of ways. General ways of ensuring that students feel accepted in the class were often expressed. As one teacher said, “We see the value of different personalities in our classrooms.” Teachers also spoke of ways that they allow students to bring their non-writing strengths to the work of writing, such as encouraging students with artistic talents to illustrate their written compositions and allowing students the choice of writing about their own experiences. Other practices that teachers reported such as allowing students to revise work and resubmit it for a higher grade may also lessen stress around the writing task and build a more emotionally supportive writing environment for students.

**The Relation of Efficacy Source Categories to District Health**

The category of Mastery Experiences having a .17 effect size with relation to district health indicates that teachers providing instruction leading to students having
more successful experiences with writing were more frequently found in high health
districts. This finding is aligned to studies and initiatives that call attention to the impact
of teacher expertise and effectiveness on student achievement in all content areas (Carey,
writing teachers appear to be found in higher health districts may relate to various aspects
of district elements such as providing on-going support for professional development,
establishing expectations for teachers around teaching writing, or setting cultural norms
with regard to writing.

The efficacy source category of Social Persuasion was not related to district
health. Pritchard and Marshall’s (2002) Organizational Health Scale, from which the
district health scores were taken, rates aspects of district leadership that would seem to be
well-aligned to indicators for Social Persuasion. Their Organizational Health Scale
includes behaviors of educators, placement of responsibility for problems and solutions,
support for district focus, leadership style, levels of trust and relationship, and levels of
communication and relationship between teachers and principals. Elements and
indicators for Social Persuasion as a source of efficacy (Bandura, 1986) included
indicators for feeling supported by administration, perceiving a positive school
atmosphere, and being part of a community. In interview coding, indicators for the
Mastery Experiences and Social Persuasion categories were the most frequently
discussed by teachers. (See Table 7 in Results.) It was surprising that high teacher
ratings in Social Persuasion did not relate to high district health. However, the numbers
of teachers rated positive in the Social Persuasion category (15) were fewer than those

63
rated positive in Mastery Experiences (25), so the greater frequency of positive practice in Mastery Experiences may indicate a more specific understanding of these practices, while there may be a broader range of perception of the Social Persuasion category. However, it must be noted that indicators reported under Mastery Experiences were entirely those of the teacher while those in Social Persuasion were related to the teacher’s perception of relationships beyond the individual, and this individual as opposed to group dynamic may account for these results. Another factor that may play into this result might be the teacher’s perception of the school as opposed to the perception of the district. However, the Pritchard & Marshall (2002) tool does incorporate some aspects of the school as well as the district, and their study found that district health influences school health. More refined studies directly relating to these aspects would be needed to expand the understanding of the relationship of Social Persuasion to district health.

Conclusions and Questions

Drawing conclusions from a study this limited in scope must be undertaken with caution, as corroborating study is needed to fully develop the nature of the relationship of sources of teacher efficacy with student writing achievement and with district health. The complexity of all the constructs involved in this study is great and much work remains if they are to become practical components that can be used to understand and to enhance teacher practice and student outcomes. The interrelated nature of teacher efficacy and student efficacy and the limited research on collective efficacy all point toward potential understandings that may one day guide schools and teachers toward
enhancing student learning, job satisfaction, and capacity to change. However, some understandings about writing practice, district health, professional development, and efficacy constructs do arise from even this brief look at a limited sample of teachers.

While no relation of sources of teacher efficacy to student writing achievement was found in this study, the relation among Mastery Experiences, Physiological and Emotional States, and Vicarious Experiences validates the implementation of professional development practices in writing pedagogy to affect classroom practice. The teacher voices that emerge from these interviews cast light on the complexity of the task they face in teaching writing. If the teachers heard in this study were to be placed on a continuum that reflects their level of implementation of a process approach to teaching writing, most of the teachers in this study would lean toward the process approach. However, the interviews clearly surface a segment of practitioners who continue to assign writing products with little, if any, instruction or direction for students. Other voices that give concern are those who, often proudly, speak of isolated grammar instruction which has a long and consistent research history of negative correlation to writing achievement (Graham & Perin, 2007; Noguchi, 1991; Hillocks, 1986; Braddock, Lloyd-Jones, & Schoer, 1963). Given that the sampling of districts from which these teachers were drawn had all participated in the same writing professional development, one that encourages teaching grammar in context, the tenacity of dated and less effective approaches to writing instruction is apparent and troubling. Recent studies of English classes reveal that teachers who implement research-based strategies are rare, with typical classes continuing the traditional transmission model (Applebee, 1996; Applebee,
Burroughs, & Stevens, 2000; Gamoran & Carbonaro, 2002; Langer, 2002). Most of the teachers interviewed in the current study would fall somewhere along the continuum of partial implementation of a process approach and best practices in teaching grammar, but few could be seen as implementing the process approach as a “comprehensive, holistic instructional model, including understanding the limitations of the approach” (Pritchard and Honeycutt, 2007, p. 29).

The study, using interviews addressing writing practice, also surfaces some issues regarding professional development given that these districts were selected based on use of a writing professional development model. Bandura’s (1986) social cognitive theory is anchored in the premise that humans learn from observation, and Vicarious Experiences as a category of efficacy sources does show significance in this study when related to the provision of Mastery Experiences and Physiological and Emotional States. The difficulty of transferring practices learned in training to practices implemented in the classroom is well-documented (Joyce & Showers, 1983), continuing to be a challenge for instructional leadership, but these results, even though taken from a small sample, indicate that practices do transfer and become part of regular practice. Among the teachers interviewed are a solid group who do indicate that they have implemented in their classrooms elements learned in writing professional development and college course work. Fewer report implementing practices they learned in professional development or course work but subsequently ending their use. Still, this study raises more issues for further investigation. One issue may be that teachers do not always know how to get what they need from professional development in order to move from their current
practices to more effective practices. Specific studies of efficacy building as a result of professional development might provide direction for planning professional development sequences that more directly enhance and reinforce classroom practice. Another issue requiring further study is the degree to which teachers are intentionally and systematically implementing sound instructional practices in writing as opposed to incidentally or haphazardly using them. Results from this study might provide insight into moving discrete writing instruction toward more comprehensive, holistic practice.

Given that, even in this small study, the range of efficacy source categories explained some of the variance in district health scores and that Master Experiences in particular have impact, there are rich avenues open for exploration relating teacher efficacy constructs to district health. The dynamic of collective efficacy that Bandura (1986) posits as driving student achievement through interaction with teacher efficacy could prove very important. The lack of research on the relation of district practices to teacher efficacy and to student achievement calls for study. State education agencies, including North Carolina’s, realize their obligation to support student achievement but recognize that the most feasible approach, given the numbers of districts and the numbers of schools, is to work through the districts to build districts’ capacity to support their own schools. Without further research on district health and its relation to efficacy and effective teaching practices, initiatives to support districts have little data to direct their efforts.

Teacher efficacy itself as a construct also calls for more research. This study, showing small correlations with categories of efficacy sources, confirms questions raised
by Wheatley (2005) about how practical the construct may be for teacher educators and school leadership. As yet, research does not confirm that any increases in teacher efficacy lead to any greater teacher effectiveness in terms of achievement for all students (Soodak & Podell, 1996). This study tries to link writing instructional practices that have been validated by research (Pritchard & Honeycutt, 2007; Graham & Perin, 2007) to efficacy sources and does provide some evidence that the source category Mastery Experiences, the one most directly related to the researched practices, is related. Further study of teacher practice as related to efficacy beliefs is needed and Wheatley’s (2005) call for interpretive research as opposed to measurement research seems consistent with the results of this study. Clearest from a study of even this small sample of teachers, is the incredible complexity involved in both teaching and learning and how much is yet to be learned in order to maximize student achievement.
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*Teaching and Teacher Education, 21*, 747-766.


APPENDIX
Appendix A: The 11 Key Elements of Adolescent Writing Instruction

1. Writing Strategy Instruction (Effect Size = 0.82)
2. Summarization Instruction (Effect Size = 0.82)
3. Collaborative Writing (Effect Size = 0.75)
4. Specific Product Goals (Effect Size = 0.70)
5. Word Processing (Effect Size = 0.55)
6. Sentence Combining (Effect Size = 0.50)
7. Pre-writing (Effect Size = 0.32)
8. Inquiry Activities (Effect Size = 0.32)
9. Process Writing Approach (Effect Size = 0.32)
10. Study of Models (Effect Size = 0.25)
11. Writing for Content Area Learning (Effect Size = 0.23)

### Appendix B: Rubric Used to Score Student Essays

#### Rubric for Writing About Your School

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
</table>
| **6** | Reader has good idea of school environment and activities  
Substantial reasons are given to support the position that school is special  
Reasons are supported with elaborations which might include details, quotes, personal experiences, etc.  
Reasons seem relevant to a particular audience (e.g., reader the same age)  
Essay may be insightful  
Essay may show originality of thought or expression  
Original words/phrases are used rather than clichés and overused words/phrases  
Strong active verbs may be used that “show” rather than “tell”  
There is a sense of beginning, development, and ending  
Ideas/examples seem to progress in a logical order  
Paper exhibits generally mature sentence structure for the age/grade level of writer, with sentence variety  
Mechanics and spelling do not interfere with readability |
| **5** | Essay exhibits a reasonable command of how to show that writer’s school is special  
Writer presents one or two good reasons and develops at least one or  
Writer presents an extended list of reasons with some elaboration  
Overall, essay is adequate for age/grade level of writer, but not strong  
Paper is less insightful, imaginative, concrete, or developed than a 6  
Paper shows greater fluency than a 4  
There is some sense of logical progression  
Essay is generally coherent and complete  
Sentence structure is generally mature for age/grade level of writer, but may show little sentence variety  
Paper is readable, although not mechanically perfect |
| **4** | Reader has general idea of school environment and activities  
Writer states reasons for why school is special, but some ideas may be weak, general, or trite  
Supporting details may be weak or irrelevant  
There is evidence of fluency, but not of unified development  
A sense of order is evident  
Mechanical errors may persist, but do not affect readability |
<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Essay indicates that writer has read prompt and is attempting to respond appropriately. Reader has vague idea of why school is special. Writer presents at least one idea with some supporting material. There is little focus on the topic of why school is special. Paper is less fluent or detailed than a 4. Sentence, vocabulary, or details may be simplistic. There may be serious mechanical errors and misspellings, but sentence structure is more mature than a 2.</td>
</tr>
<tr>
<td>2</td>
<td>Fluency and thought are minimal. Writer may present a list of reasons with no elaboration or details. Contradictions may be evident. Essay may include ideas which are unclear or do not support position. Paper demonstrates little sense of control over the essay form. There are many mechanical errors that make reading difficult.</td>
</tr>
<tr>
<td>1</td>
<td>Essay is almost devoid of content and/or totally inadequate in development. Reading is very difficult due to spelling, handwriting, or mechanics.</td>
</tr>
<tr>
<td>NS</td>
<td>Paper is completely illegible or unintelligible. Page is blank. Essay is off the topic or incoherent. Paper is a restatement of the prompt. Paper is written in a foreign language.</td>
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</tbody>
</table>

Source: Ruie J. Pritchard, June 2007
Appendix C: Organizational Health Scale

Organizational Health Scale

**Directions:** Think in terms of the overall character of the school district.
Do not think in terms of a single administrator or teacher or of a specific incident.
Focus on your general perception of the behavior of the educators in the district being rated. Mark one response for each of the following six items.

1. How would you describe the general behaviors of educators in the district?
   a. Doing the right thing (for kids) \[A=1\]
   b. Doing things right (for management) \[B=0\]

2. Where is the responsibility placed for district problems and solutions to problems?
   a. Internally on educators (e.g., staff take responsibility) \[A=1\]
   b. Externally on parents or others (e.g., blame parents) \[B=0\]

3. What is the level of agreement/support for district focus among central office, administrators and teachers?
   a. High \[A=2\]
   b. Moderate \[B=1\]
   c. Low \[C=0\]

4. What type of leadership is the norm in the district?
   Pattern A, Hard \[A=0\]
   Pattern B, Soft \[B=1\]
   Pattern C, Collaborative \[C=2\]

5. What level of trust & relationship is typical between central office and schools?
   a. High \[A=2\]
   b. Moderate \[B=1\]
   c. Low \[C=0\]

6. What level of communication & co-operative relationships is typical among and between teachers and principals?
   a. High \[A=2\]
   b. Moderate \[B=1\]
   c. Low \[C=0\]

*Source:* Based on Kanter’s (1983) concept of a Culture of Pride and Climate of Success

### Appendix D: Coding Chart with Sample Indicators

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Talley/Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td><strong>Mastery Experiences</strong></td>
<td></td>
</tr>
<tr>
<td>Increased time on / for writing</td>
<td></td>
</tr>
<tr>
<td>Focuses on the student as writer over the written product</td>
<td></td>
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<tr>
<td>Sets Process Goals for Students rather than performance goals</td>
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<tr>
<td>Explicitly teaches writing skills: such as planning, revising, and text structures</td>
<td></td>
</tr>
<tr>
<td>Models and talks about, demonstrates own writing process Vicarious</td>
<td></td>
</tr>
<tr>
<td>Leads students to be metacognitive (reflective) about their own writing process [How they write]</td>
<td></td>
</tr>
<tr>
<td>Uses rubrics to provide task specific responses</td>
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</tr>
<tr>
<td>Uses trained peer groups/small groups Social</td>
<td></td>
</tr>
<tr>
<td>Shows confidence in teaching all aspects of writing, including grammar</td>
<td></td>
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<tr>
<td>Builds on students’ strengths/ successes Emotional</td>
<td></td>
</tr>
<tr>
<td>Structures class for positive reinforcement/ teacher speaks encouragement Emotional</td>
<td></td>
</tr>
<tr>
<td>Teaches grammar in context</td>
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<tr>
<td>Uses conferencing for revision</td>
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<tr>
<td>Helps students persist in revising until product is good</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Talley/Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td><strong>Physiological and Emotional States</strong></td>
<td></td>
</tr>
<tr>
<td>Shows confidence in self as a writer</td>
<td></td>
</tr>
<tr>
<td>Creates classroom elements that reduce writing anxiety</td>
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<tr>
<td>Provides emotional support in written and verbal responses to student writing</td>
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</tr>
<tr>
<td>Teaches students to do this with each other Mastery</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
<tr>
<td>Vicarious Experiences</td>
<td></td>
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<tr>
<td>-------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Perceives project ideas easy to incorporate into their teaching.</td>
<td></td>
</tr>
<tr>
<td>Continues use of project methods after end of the project [mention impact of PD in teaching or abandoning practices]</td>
<td></td>
</tr>
<tr>
<td>Teacher takes credit for student achievement [do they own negative achievement]</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Persuasion</td>
<td></td>
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<tr>
<td>Teachers feel supported by administration</td>
<td></td>
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<tr>
<td>Perceives a positive school and classroom atmosphere – feel a sense of community</td>
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<tr>
<td>Other:</td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Persistence in the Face of Difficulties</td>
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<tr>
<td>Efforts to reach the unreachable</td>
<td></td>
</tr>
<tr>
<td>Duration / intention to remain in the field</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>