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# An evaluation of instructional coaching at selected high schools in North Louisiana and its effect on student achievement, organizational climate, and teacher efficacy

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**AN EVALUATION OF INSTRUCTIONAL COACHING AT  
SELECTED HIGH SCHOOLS IN NORTH LOUISIANA  
AND ITS EFFECT ON STUDENT ACHIEVEMENT,  
ORGANIZATIONAL CLIMATE, AND  
TEACHER EFFICACY**

By

Richard M. Hearn; B.S., M.S.

A Dissertation Presented in Partial Fulfillment  
Of the Requirements for the Degree  
Doctor of Education in Educational Leadership

COLLEGE OF EDUCATION  
LOUISIANA TECH UNIVERSITY

May 2010

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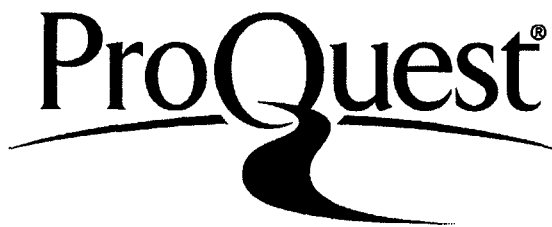
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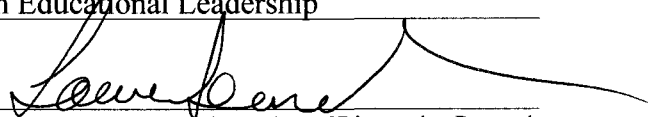
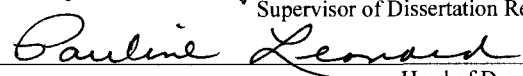
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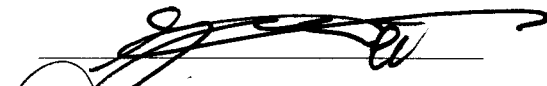
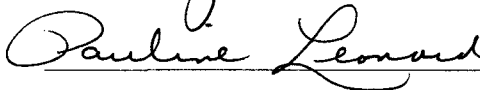
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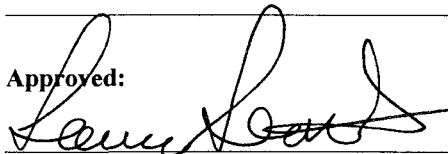
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## **ABSTRACT**

The purpose of this study was to compare high schools in north Louisiana to determine if the presence or absence of instructional coaches influenced student achievement, organizational climate, and/or teacher efficacy in any significant manner. The 11 high schools in north Louisiana utilizing instructional coaches were matched to 11 high schools in the region that were not using instructional coaches and comparisons were made between the group performances in the areas of student achievement, organizational climate, and teacher efficacy. Student achievement data were determined based upon the percent proficient on the subtests of the 2009 administration of the Louisiana Graduate Exit Exam, (GEE). Organizational climate and teacher efficacy were measured using the Organizational Climate Description for Secondary Schools (OCDQ-RS) and the Teachers' Sense of Efficacy Scale (TSES) where the mean scores were analyzed using the t-Test for Paired Samples. Mean differences in student achievement reflected positively toward the schools using instructional coaches though no significant differences were determined. Mean differences for the directive behaviors and general openness components of the OCDQ-RS and for the classroom management and overall efficacy components of the TSES were determined to be statistically significant ( $p < .05$ ).

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Author Richard M. Heavin

Date April 24, 2010

## **DEDICATION**

TO

My beautiful wife, Terri,

for her unceasing support and encouragement throughout this endeavor;

my children, Jake, Erica, and Jessica,

for their inspiration and the privilege of being their dad;

in memory of my late father, Earlon, and my mother, June,

for providing a lifetime of unconditional love and support;

and Carl and Jean Gilstrap,

for making me feel like a son instead of a son-in-law.

A special thanks to:

Dr. Lawrence Leonard, Major Professor

Dr. Wilton Barham,

Dr. Pauline Leonard,

Dr. George Rice

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## **INTRODUCTION**

### **Statement of the Problem**

Across the northern region of Louisiana, little is known about instructional coaches, the work they do, or the real or perceived impact of their efforts. The use of instructional coaches is not an entirely new initiative in education with the concept having been applied to strengthen professional development prior to 1980 (Joyce & Showers, 1980). However, many educators may still not know fully what these positions are despite the fact they are being increasingly utilized in our nation's schools (United States Bureau of Labor Statistics, 2009). This apparent increase in the number of instructional coaches is due in part because educational leaders appear to have begun to question the effectiveness of the more traditional methods of professional development (Knight, 2006; Little, 1994; Louisiana Staff Development Council, 2005; North Central Regional Educational Laboratory, 1997; & Petrilli, 2008;) and because of the demands placed under the No Child Left Behind Act (NCLB) (United States Department of Education, 2004) for schools to expand professional development when schools fail to achieve adequate yearly progress (Steiner & Kowal, 2007a). Northern Louisiana has experienced growth in this area as well with the number of instructional coaches experiencing a gradual increase over the past decade.

Achieving greater implementation of research-based practices is the impetus behind the coaching phenomenon. In Joyce and Showers (1980), numerous studies were cited (e.g., Orme, 1966; Edwards, 1975; Hough, Lohman, & Ober, 1969; Borg, 1975; Borg, Langer, & Kelly, 1971; Friebel & Kallenbach, 1969) that featured various combinations of modeling, presentation, practice, feedback, and coaching. Their analysis of these studies led the researchers to conclude, “the most effective training activities then will be those that combine theory, modeling, practice, feedback, and coaching” (pp. 384, 385). Joyce and Showers (1996) pointed out that although the education profession had been slow to do so, it was beginning to edge away from the more traditional models of professional development where the probability of implementation is very low, toward means where these odds may be reversed. Darling-Hammond and McLaughlin (1995) argued against the traditional model as well by adding that professional development “must be collaborative, involving a sharing of knowledge among educators and a focus on teachers’ communities of practice rather than on individual teachers.” (p. 598). This seems in line with what is now known about effective schools. The call for collaborative professional development continued as Little and Houston (2003) pressed teachers to be supported through mentoring and coaching in a continuous, goal-oriented manner. Fullan (1993) acknowledged the importance of collaboration in education, adding that there is a “ceiling effect to how much we can learn if we keep to ourselves” (p.17).

While the use of instructional coaches is on the rise and vast amounts of monies are being appropriated from both public and private entities, the phenomenon remains a mystery in terms of its actual impact on student achievement (Neufeld & Roper, 2003;

Richard, 2003; Poglinco & Bach, 2004; Green, 2004; Deussen & Riddle Buly, 2006; Reeves, 2007). With an increasing number of districts turning to the use of instructional coaches as a means of improving instructional practices, there remains to be discerned a definitive answer as to whether the reform can actually deliver increases in student achievement. However, Knight (2007a) suggested that educators should be optimistic about the reform as preliminary findings have been positive concerning gains in student achievement.

This lack of evidence is complicated by the fact that the reform has yet to be broadly implemented to a degree large enough to generate such data. With many coaches being utilized in a whole-school change capacity and with content expertise clearly established as a key to coaching success (Steiner & Kowal, 2007a), the impact of this application on any particular content area is virtually unknown. The Pennsylvania High School Coaching Initiative (PAHSCI) has been funded based on the emergence of instructional coaching as a “promising strategy for increasing student achievement” (Pennsylvania High School Coaching Initiative, 2009, About Us section, para. 1). In a statement supporting PAHSCI, the Alliance for Excellent Education (2006) noted that teacher quality is often the most important factor influencing student achievement. Bean (2007) expressed the urgent need for data on the relationship between coaching and its effect on student achievement adding that without evidence, the endeavor may disappear just as other initiatives have.

Much of the data returned from instructional coaching models have revealed that while frustration exists over the many challenges of the model, many teachers have demonstrated satisfaction with the use of coaches. Some study participants reported

experiencing a change in the culture of the school, indicating greater collegiality and collaboration among staff members. According to Harwell-Kee (1999), the coaching model promotes collegiality in making instructional decisions as well as increasing teacher efficacy and job satisfaction resulting in a more collaborative school culture. Neufeld and Roper (2003) suggested that in addition to achieving improved instructional practices, the use of embedded professional development might help to promote a positive cultural change.

Researchers continue to develop new knowledge of the coaching phenomenon. Yet, with little definitive proof of any significant relationships between instructional coaches and student achievement, organizational climate, and teacher efficacy, more work must be done. This is most certainly the case in northern Louisiana where little if any empirical investigation has been undertaken to measure the impact of the school districts' investments. Because of the similar applications of the instructional coaching function, and similarities between school districts in the areas of population demographics and culture, this area has been chosen for the study of the effectiveness of instructional coaches in promoting greater academic achievement, positive school climate, and increases in teacher efficacy.

### **Purpose Statement**

The purpose of this quantitative study is to highlight the achievements and challenges of previous applications of the coaching model and to determine the impact on student achievement, organizational climate, and teacher efficacy of instructional coaches at the high school level in north Louisiana.

### Theoretical Model

The theoretical model for this study is graphically presented in Figure 1. As demonstrated in the figure, the application of an instructional coach will lead to an impact on student achievement, organizational climate, and teacher efficacy.

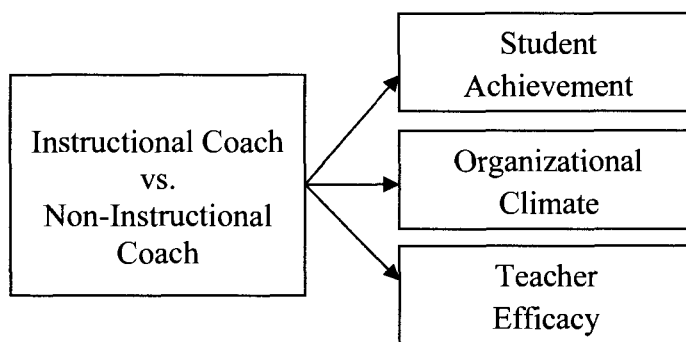


Figure 1: Theoretical Model

### Research Questions

The questions to be addressed during this investigation include:

1. Is there a significant relationship between the presence of instructional coaches and student achievement on the criterion-referenced sections of the Louisiana Graduate Exit Exam (GEE)?
2. Is there a significant relationship between a school's use of instructional coaches and the organizational climate of that school?
3. Is there a significant relationship between a school's use of instructional coaches and teacher efficacy?



### **Research Hypotheses**

The following list contains the research hypotheses for this study:

1. There is a significant relationship between the instructional coach and student performance on the criterion-referenced sections of the GEE.
2. There is a significant relationship between the instructional coach and the organizational climate of the school.
3. There is a significant relationship between the instructional coach and the level of teacher efficacy exhibited by teachers.

### **Significance of the Problem**

Since the inception of NCLB (United States Department of Education, 2002), Louisiana has been very progressive in its accountability efforts and has been ranked second among all other states in the nation in regard to how it measures educational performance and sixth in its efforts to improve teacher quality (Education Week, 2009). Greater inclusion of teacher leadership and instructional coaching positions has been a byproduct of the state's efforts to achieve improved marks in school accountability. Because of the great variance in the application of the coaching models being implemented around the country, generalizations of predicted success or failure cannot easily be made. Rather, because school districts in Louisiana have seemingly implemented the coaching position a la carte rather than as a whole-school reform package, an initial investigation is needed to gauge the effectiveness of the position. Such an investigation would potentially afford school districts valuable insight into how the creation of the instructional coaching position in north Louisiana has affected not

only student achievement, likely to be the primary motivation behind the use of coaches, but also organizational climate and teacher efficacy.

How districts might choose to use such information would likely vary, of course, but there are several positive implications for this research initiative. Due to the commonality of the challenges facing instructional coaches across the varied applications of the model, it is possible that districts in north Louisiana will be in better position to evaluate their respective capacities to support their instructional coaches. Currently, few districts are using coaches as district-wide resources; rather they are placed in one or two selected high schools or middle schools within the districts. Therefore, should it be determined that there are significant relationships between the use of coaches and the dependent variables, districts might seek to expand the use of instructional coaches across a larger number of schools in need. Finally, this initial look into the instructional coaching phenomenon in north Louisiana should serve as a springboard to additional inquiries to determine with greater specificity what aspects of the instructional coaches' activities offer the greatest returns relative to student achievement, organizational climate, and teacher efficacy.

### **Assumptions and Limitations**

A number of assumptions were made in preparing the current study. First, when provided with the operational definition used in the current study for the position of instructional coach, education leaders from the participating schools verbally acknowledged the presence or absence of personnel matching this description. The researcher, however, did not conduct observations or collect other forms of evidence to verify these statements. Additionally, no effort was made to determine the specific

type, or types, of behaviors being engaged in by instructional coaches as this assumption might be explored through further study. In applying the organizational climate instrument, it was assumed that behaviors associated with the instructional leadership capacity of school principals are transferrable to that of instructional coaches, thus not affecting the validity or reliability of the instrument through substitution of *instructional coach*, or the term applied to the coaching position at each respective school, for the term *principal*. Finally, the researcher assumed that participants provided honest and sincere responses in self-reporting his or her unique perspectives to the survey items.

Generalizations of this research to future investigations will be constrained by how those researchers choose to define the coaching position. The current study has been limited to those instructional coaching positions described as the primary providers of professional development as a means of whole school improvement. Because the term *instructional coach* serves as an umbrella term for a variety of non-administrative, teacher-support positions, future extensions of this research should be limited to studies meeting the operational definition for instructional coaches in the current study.

### **Operational Definition of Variables**

For the purpose of this study, the following definitions are provided:

1. Instructional Coach: This is the term used to describe any full-time, on-site faculty member charged with the provision of professional development in an effort to improve instructional practices of teachers (Knight, 2007a; Knight, 2007b.). Schools using instructional coaches will constitute one of the two

groups identified for data collection. The other group will consist of those demographically similar schools that are not using instructional coaches.

2. Louisiana Graduate Exit Exam: This criterion-referenced test is used to measure how well students have mastered the state content standards in English/Language Arts and mathematics at grade 10, first administered in 2002, and in social studies and science at grade 11, first administered in 2003 (Louisiana Department of Education, 2008b).
3. Organizational Climate: This term will be used interchangeably with school climate, representing the general perceptions of teachers regarding their work environment. It is influenced by the formal and informal relationships within the school, personalities of the collective members, and leadership within the organization (Hoy, Tarter, & Kottkamp, 1991). As a dependent variable in this investigation, organizational climate will be measured using the Organizational Climate Description for Secondary Schools (OCDQ-RS) (Hoy, Tarter, & Kottkamp, 1991). A thorough description of this instrument is provided in Chapter 3 and the two versions of this instrument may be viewed in Appendices E and F.
4. Student Achievement: For the purpose of this study, student achievement will be determined by the level of student performance as measured on spring administration of first-time test takers of the Louisiana Graduate Exit Exam (GEE). Students will be considered proficient with scores of *basic*, *mastery*, or *advanced*, whereas they will be considered non-proficient with scores of

*unsatisfactory* or *approaching basic* (Louisiana Department of Education, 2008a).

5. Teacher efficacy: This is the term used to describe a teacher's belief that he or she has the capability to bring about a desired student achievement outcome regardless of other factors that may be outside of his or her control (Armor et al., 1976; Bandura, 1977; Tschannen-Moran & Woolfolk Hoy, 2001). As a dependent variable in this investigation, this construct will be measured using the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). A thorough description of this instrument is provided in Chapter 3 and the instrument may be viewed in Appendix G.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

Education professionals have been very active in recording the application of instructional coaches in the school setting. For the better part of three decades, educational leaders and researchers have declared the great promise that instructional coaches offer to the profession. This review of literature will include what is known about the use of instructional coaches and explore what is known about their influences on student achievement, school climate, and teacher efficacy. Findings will be included from the works of pioneering researchers as well as the conclusions from more contemporary and concentrated studies.

#### **The Emergence of Instructional Coaching**

Although the term “instructional coaching” is a relatively new means of referring to the provision of additional support for teachers, the simple reference to “coaching” is not. The work of Joyce and Showers (1980, 1981, 1982, 1987, 1996, & 2002) in evaluating effective staff development would lead to the development of the instructional coaching position with the goal of assisting teachers in the transfer of skills to classroom applications. Their evaluations of staff development from the 1970s uncovered that as few as 10 % of participants were implementing the skills being presented in the trainings. An initial examination by Joyce and Showers (1980) recorded the findings from their two-year study on professional development in an

evaluation of over 200 studies that examined the effectiveness of various training methods. The researchers reported that teachers were competent in their abilities to adapt their existing skills or develop skills that were new to them and were generally able to demonstrate them. However, their evaluation also indicated that teachers need certain conditions that were not considered in traditional staff development. The conditions or components identified through the course of study were classified into five categories: (a) presentation of theory or description of skill, (b) modeling or demonstration of skills, (c) simulation or practice in classroom setting, (d) performance evaluation or feedback about performance of skill, (e) coaching for application or hands-on, in-class assistance with skill implementation. The researchers concluded that the greatest effectiveness of professional development could be achieved through the combination of some or all of the components. It was deemed an important distinction for leaders to differentiate between the desire for teachers to fine-tune an existing skill or engage in the acquisition of an entirely new one. If fine-tuning was the objective, Joyce and Showers (1980) indicated that modeling, practice, and feedback would likely be sufficient to bring about the desired change. However, if the teachers were to acquire new skills, the suggestion was made that if each of the five components were used to present and develop the skill, the great majority of teachers would be able to add the new skill effectively to their repertoire of teaching or curricular approaches. It was further suggested that if any of the components were left out, the development would be weakened resulting in fewer numbers of teachers able to develop the skill to a transfer or application level.

The investigation of instructional coaching progressed as Joyce and Showers (1981) continued to emphasize the significance of the transfer of skill acquisition and distinguished transfer from the concept of mastery. The authors acknowledged a need for more intensive in-service training based upon records of implementation, research on effective training and transfer. Their findings that skill acquisition was subject to dissipation over time provided the rationale for the recommendation of continued research on coaching models. Specifically, the research team pointed out that where the study of theory, practice of the skill, and provision of feedback may be proficient in allowing teachers to obtain a thorough understanding of the skill, trainings that were limited to these three components were resulting in a low impact at the classroom level. On-site coaching was presented as an additional and critical step in securing teachers' abilities to transfer knowledge gained through professional development to an application level. It was further suggested that there is a degree of learning that is available to teachers only through the transfer process where problem solving is required due to the many unique aspects of the classroom experience. Such exceptionalities often present themselves in manners that were inconceivable during training, making the presence of an instructional coach such a valuable resource.

Through the 1980s, instructional coaching would continue to be evaluated for its effectiveness in improving transfer. Bush (1984) examined the efficacy of the Joyce and Showers model (1980) for staff development. His finding was that when only presentation of the skill was included in the training, 10% of the participants were able to transfer the skill to the classroom. A small increase of around 3% was found when modeling of the skill was also included. Additional 3% gains were established when



allowed to practice with peers and given performance feedback. However, when teachers were offered coaching as part of the professional development process, 95% of the participants were able to exhibit transfer of the skill. Baker and Showers (1984) provided additional evidence to support the inclusion of coaches as part of the professional development process as their study also found that teachers who had received coaching demonstrated greater long-term retention of new skills and also greater use of the skills than teachers that had not received assistance from coaches.

### **Defining the Position**

With a wide range of associations, the term instructional coach has become a prominent means of referring to such positions as instructional coordinator, content coach, staff development teacher, or other terms used for positions that provide primary support to teachers and principals as a means of school improvement (Steiner & Kowal, 2007a). For the purpose of this study, an instructional coach will be defined as an on-site professional developer who teaches educators how to use proven teaching methods (Bean, 2008; Knight, 2007a; Knight, 2007b; Steiner & Kowal, 2007a; University of Kansas Center for Research on Learning, 2007). This definition is consistent with how most schools and districts have attempted to utilize the position, although under a variety of titles such as curriculum coordinator, education consultant, professional development coordinator, and literacy coach (Internet System for Education and Employment Knowledge, 2008). Coaches in some locations may work in the position on a full-time basis or may serve part-time in conjunction with other duties including a teaching load (Feger, Woleck, & Hickman, 2004; Wren 2005). Some coaches are assigned to a single school whereas others may serve several schools (Neufeld & Roper,

2003). While some coaching positions are created within the framework of a specific content area, such as reading coaches or math facilitators, others are broader in nature and the job descriptions are defined by the principal (Killion & Harrison, 2007). These broadly defined positions often include curriculum coordinators, professional development coordinators, or accountability specialists. Specific job definitions may be made by school need or by the particular expertise of the individual filling the instructional coaching position. Thus, there are many different varieties of instructional coaches being employed in our nation's schools (Steiner & Kowal, 2007a). Researchers agree that there is no uniformity to how instructional coaches are utilized within the various educational agencies (Bean, 2007; Steiner and Kowal, 2007b).

Typically, instructional coaches are supportive in nature and are seldom used in a supervisory capacity or for official performance evaluations. According to Cameron (2005), evaluation of teachers is not a role that instructional coaches should be playing. In addition, information possessed by instructional coaches should not be shared with administrators to be used in evaluations. All efforts of the instructional coach should be part of the creation of a safe environment in which teachers may ask for and receive assistance. Regardless of their particular duties, most instructional coaches find their way into these positions after first becoming highly successful teachers (Killian & Harrison, 1997; Richard, 2003; Knight 2004).

The use of instructional coaches as a measure of guiding school improvement at the local level is on the rise (Richard, 2004). Instructional coaches are being increasingly used to act as the driving forces behind school improvement efforts aimed at raising the performance of a district's elementary, middle, and secondary schools. In

recent years, demand for instructional coaches has increased dramatically with the position expected to grow at an above average rate in the near future. According to the United States Department of Labor's Bureau of Labor Statistics (2009), the instructional coordinators held about 129,000 jobs in 2006. This represents a 10% gain over the two-year period from 2004. The demand for instructional coaches is expected to continue this trend over the ten year period to 2016 with a forecasted growth rate of 22%, deemed "much faster than the average for all occupations" according to the federal agency.

Jim Knight (2006), a leading researcher with the Kansas University Center for Research on Learning, acknowledged the staggering growth of the position. Knight suggested that many other educational leaders have also recognized the failure of time-honored forms of professional development have a significant affect student achievement. The observation regarding more conventional forms of professional development was also made by Russo (2004) who added that these did little to increase collaboration and establish a sense of community and offered one of the most compelling rationales for the use or instructional coaches. Neufeld and Roper (2003) agreed adding that the new national policy of assisting all children in reaching challenging academic standards as the primary motive in districts' decisions to solicit the assistance of instructional coaches. Of course, the national policy referred to was NCLB (United States Department of Education, 2002). This piece of sweeping federal legislation demanded that states and school districts demonstrate accountability for the federal dollars being received. In the face of tightening accountability measures,

districts and schools began to look for “instructional experts” that could assist teachers in meeting the needs of what has become a very diverse national student population.

In selecting an instructional coach who has the potential to become successful, researchers are largely consistent in identifying content knowledge, pedagogical skills, and interpersonal abilities as characteristics that potential coaches should possess. Cameron (2005) insisted that instructional coaches must be able to: (a) work well with others, including teachers, principals, and other coaches, (b) demonstrate a deep knowledge of the content in which they are being asked to assist, (c) continue their learning through research and professional development, and (d) model a wide range of best teaching practices in the classroom. Kowal and Steiner (2007) concisely reported that instructional coaches should have adequate pedagogical knowledge, content expertise, and interpersonal skills. Knight (2007b) identified qualified coaches as those with a deep understanding of the interventions to be shared with teachers. The author went further to establish that coaches should be comfortable in any classroom, have a love for children, be energetic with a positive outlook, and what he indicated as the most important attribute, be able to communicate an honest belief in teachers even while they are providing suggestions for improvement.

Instructional coaches perform a miscellaneous assortment of duties that are extremely varied across the country as the positions are often fashioned after the specific needs of a particular school or district and within the parameters of available resources (Steiner & Kowal, 2007a). While instructional coaches are not cast out of a mold, Killion and Harrison (2005) have developed a comprehensive list of descriptions as to what an instructional coach may potentially accomplish. Included in the authors’

nine-point analysis of the position, is the assessment that instructional coaches serve as catalysts for change where the status quo has been unsuccessful in promoting high student achievement. The pair also alluded to the mentorship, instructional support, and resource allocations that coaches must provide to classroom teachers. Possessing and disseminating knowledge about how students learn as well as specific matters of curriculum are among other roles specified by the research team. The final recommendations of Killion and Harrison for the position are in mastery of the data relevant to school performance and capacity of the coach to serve as a school leader. While these recommendations are not exhaustive, they do provide a broad sense of the comprehensive nature of the position. It is important to recognize that school principals will have a great deal of influence in determining the specific roles of instructional coaches relative to the needs of their individual schools.

### **Student Achievement**

As has already been stated, there has been little conclusive evidence linking instructional coaches to increases in student achievement. However, the number of promising applications of the coaching model has resulted in gains in student achievement and other variables associated with highly effective schools. District-initiated engagement in the use of instructional coaches have been undertaken in Boston, Los Angeles, Chicago, and other locations as well as a state-wide application of the coaching model across the state of Pennsylvania. Researchers charged with the evaluation of these programs have published some positive findings regarding the link between instructional coaches and increased student achievement.

The Boston Public School System (BPS) has been among the most active of the educational agencies using instructional coaches in their efforts to promote student achievement. These efforts to reform public education in Boston date back to 1984 with the founding of the Boston Plan for Excellence (BPE), an organization of individuals from both the public and private sector. Initially, the group supported public schools in Boston through teacher mini-grants and college scholarships to graduates. In 1995, the volunteer board of trustees approved reorganization and the focus of the foundation shifted to collaborating with the district to improve professional development for all teachers and principals in the district as a primary means of improving instruction (Boston Plan for Excellence, 2009).

The use of instructional coaches was at the heart of reform efforts in Boston during the 1996-1997 school year as the system was awarded \$20 million in assistance from the Annenberg Foundation, a private foundation supportive of education and other public service organizations. Additionally, \$10 million was provided from other locally affiliated corporations and foundations as BPS initiated the plan to allow teachers and principals to determine their own learning needs and to address them with on-site professional development. Boston's initiative, Whole-School Change, was implemented over a four-year period with the system's schools being divided into four cohorts, with one quarter of the system's schools being added each September. Schools entering into the initiative were referred to as "21<sup>st</sup> Century Schools" and each school was provided a part-time whole-school change coach and developed instructional leadership teams.

The whole-school change coaches selected for this endeavor were recruited and trained by BPE and represented former principals and teachers who had exhibited skill in facilitating whole-school change. With them, these coaches carried the message that teachers could transform low-achieving students into high-achieving ones by improving their own instructional practices. During this first year, change coaches worked one day per week as instructional resources with their respective school staffs to assess instructional needs, encourage and facilitate collaboration, and bring an instructional focus to the use of new and existing resources (Neufeld & Guiney, n.d.).

A study completed during the second year of the initiative to determine the district's progress offered a positive outlook. Neufeld, Woodworth, Evans, Garcia, Huebner, and Swanson (1998) discovered that at the end of the first year, the initial cohort of schools was experiencing an overall benefit from the initiative. Although the report was largely positive, progress in the area of student achievement was apparently not accelerating at the rate desired. Year Two of the initiative coincided with the first administration of the Massachusetts Comprehensive Assessment System (MCAS). According to the BPE (Boston Plan for Excellence, 2001), the December, 1998 release of the student performance data from the spring administration of this assessment revealed the difficulty of the task ahead for the district's educators. The organization disclosed that 57% of BPS 10<sup>th</sup> graders failed the English/language arts portion of the exam and a full 75% failed the math portion. The results were not much better among the district's 4<sup>th</sup> and 8<sup>th</sup> graders as failure rates for both sub-tests ranged between 32% and 71%. Guiney (1998) recognized that student achievement was somewhat below

expectations, suggesting that educators were not willing or able to keep pace with the development of the accountability process.

Efforts were begun to strengthen the coaching component of the district's initiatives, especially in regard to clarification of the coaching role (Boston Plan for Excellence, 1998). Changes initiated during the second year included collegial professional development opportunities for the coaches themselves, a draft of clear expectations for the change coaches, and the addition of content coaches one day each week to provide individual assistance to teachers that included consultation and in-class demonstration of best-practices. In December of 1999, a release of the second administration of the MCAS revealed that improvement in Boston schools had occurred at a rate greater than the state average, yet officials were again disappointed as more than half, 55%, of the district's 10th graders failed the English/language arts test, and 73% failed the math assessment. Performance was also below expectations for 4<sup>th</sup> and 8<sup>th</sup> graders as failure rates ranged between 27% and 63% for these groups (Boston Plan for Excellence, 2001).

As the 21<sup>st</sup> Century Schools initiative was winding down, Neufeld, Baldassari, Johnson, Parker, and Roper (2002) offered a final report on coaches' perceptions of that reform endeavor that would help to shape future implementations of the coaching model. The team reported that "significant, positive changes" (p. 9) had occurred in many of the Boston area schools but that serious challenges remained. During the final year of the 21<sup>st</sup> Century Schools initiative, BPS was awarded a three-year grant to continue its efforts at school reform including the continued development of its coaching model. Although there had been some improvements in the cultures of



isolation prevalent at many schools, the district determined that the once-per-week coaching model had been ineffective in bringing about the large-scale changes that were desired by the district's leadership and the decision was made to redesign the coaching model. A new plan would emerge that would stipulate district-wide standards for implementation including the use of teacher research and inquiry, classroom experiences in a laboratory setting, and follow up activities. This model would become known as Collaborative Coaching and Learning (CCL) as the district would again take aim at the culture of isolation and attempt to establish a more collaborative nature to professional development.

Procedurally, CCL provided that a team of teachers working collaboratively with its coach would use existing student performance data to select a course of study. Then, throughout a six week cycle, the team would participate in an inquiry, lab, and follow-up with each focused on the selected course of study. During the inquiry, team members would meet weekly to discuss research on their course of study. Also weekly, team members took turns observing and teaching in a host classroom, or lab site, using the research-based practices discovered through research. Activities conducted during lab included pre-conferences, demonstrations and observations, and debriefings with follow-up observations conducted by coaches and other members of the team.

In a summary of the progress recorded by the district during the decade overseen by Superintendent Pyzant, Neufeld (2006) pointed to heavy investments made into utilizing instructional coaches to provide bi-weekly professional development to the district's teachers. The author lauded the creation of the whole-school improvement agenda and the focus of school leaders on the instructional practices of their teachers

due to increased training opportunities in this area. Although coaching does not figure as prominently in current reform efforts within the district, Pызant has most certainly influenced school improvement efforts across the country as his work has been published in over 50 publications throughout his educational career (Boston Public Schools, 2006). Reforms initiated under his watch have brought about significant improvements in student achievement. The increase in the 2008 student performance scores represent a remarkable improvement over those published in 1998 at the onset of the district's educational reform efforts. Student performance on the ELA and math portions of the 2008 MCAS rose from 43% to 91% and 25% to 84% respectively over the period. Passing rates in the fourth and eighth grades also saw increases as the scales improved from a range of 29% to 68% in 1998 to a range of 60% to 85%.

With nearly a decade of instructional coaching in the Boston Public Schools, Pennsylvania entered into a similar reform initiative with the assistance of the Annenberg Foundation (Pennsylvania High School Coaching Initiative, 2009). Attempting to serve 24 of the most at-risk high schools across the state, the Pennsylvania High School Coaching Initiative (PAHSCI) placed one literacy and math coach for every 600 students. The state's intentions for the program included the attainment of increased student achievement with a focus on literacy aimed at better preparing these students for entry into the workforce. Additionally, the state hoped that the program would result in the development of professional learning communities that would build teacher capacity and lead to an expansion of the coaching model in the future.

As with most of the instructional coaching models, the PAHSCI was designed around the use of on-site, job-embedded professional development for teachers and administrators. The state placed 180 coaches in high schools across the state to support student achievement and teacher capacity in the Pennsylvania Literacy Network (PLN), the state's plan to address literacy needs across the curriculum (Brown, Reumann-Moore, Hugh, du Plessis, & Christman, 2006). With the application of the coaching model as a statewide initiative, this represented a significant distinction from most other uses of instructional coaches that have been found to be largely at the district level. An additional distinct feature of the PAHSCI was that coaches, in addition to leading professional development for teachers and administrators, were also recipients as the initiative included a provision to provide coaches and administrators with mentoring to model the same kinds of supports that teachers were to be provided. Such mentors were commonly retired teachers and administrators with strong backgrounds in education and had participated in a centralized professional development to assist them in lending their expertise during the four monthly visits with their assigned school coaches and administrators.

Describing the initiative, Eisenberg (2008) noted that PAHSCI called for coaches to participate in before, during, and after consultations with teachers. After pre-conferences, coaches were expected to execute the plans made jointly including the modeling of lessons. Eisenberg added that the most important segment of coach and teacher interactions was the post-conferences that allowed coaches to provide teachers with invaluable feedback on the strengths and limitations of the lesson. Although simplistic in its approach, Eisenberg (2007) pointed out that significant improvements

in schools have been shown to be directly tied to quality instruction and quality teachers. With this in mind, Eisenberg and the other leadership in the PAHSCI sought to change teacher practices through the work of instructional coaches well trained in math and literacy content, data analysis, and adult learning styles.

With an increased sense of professional community and improved student performance as intermediate and long-term goals, the work of instructional coaches in these Pennsylvania schools began. In a mixed methods study conducted at the end of the first year of the initiative, Brown et al. (2006) focused on the knowledge and practices of the participants and the culture and capacities of the schools but did not include student performance. The researchers reported that the PAHSCI was already responsible for bringing about significant cultural changes in half of the participating schools. School leaders were changing how they delivered professional development to teachers. District-level leaders were also rethinking means of leadership development. At the classroom level, researchers indicated those teachers who were participating in professional development with coaches were significantly more likely to use the designated research-based literacy strategies and actively engage students in the learning process. The report also acknowledged the creativity that coaches have employed to overcome obstacles such as poor administrative support, teacher resistance, and time constraints. The team found that as a whole, teachers and principals held instructional coaches in high regard.

At the conclusion of the second year of the initiative, researchers determined through means of observation, interview, document analysis, and survey that English and math teachers with high levels of participation in the PAHSCI were changing their

practices in significant ways (Brown, et al., 2007). The team suggested that the findings from the PAHSCI support those from Joyce and Showers (1996) that teachers participating in coaching relationships were more likely to change their instructional practices in positive ways than teachers who were working alone. Additionally, the researchers found increased student engagement in the classrooms of participating teachers and predicted this to be an early indicator of increased student achievement. Changing school culture was also cited in the evaluation as researchers determined that this component continued to change in positive ways over the course of the second year of the endeavor.

Critical questions were asked during the review as the final year of evaluation approached. Although significant gains had been seen in the intermediate goals for the program, would these lead to significant findings of increased student achievement? Also, could the instructional coaching program in Pennsylvania be sustained and in what form? Researchers acknowledged the significant challenges facing the initiative as the final year of the fledgling program approached. Time was cited yet again as an obstacle for instructional coaches in meeting with all teachers. Continued professional development for coaches was identified as a critical need to allow progressive improvements to be made with teachers in the areas of differentiated instruction and classroom management. Finally, researchers recommended that mentors give more focus to supporting the roles of administrators and coaches to remove those barriers that continue to limit the abilities of coaches to promote whole school instructional change, especially cross-curricular literacy.

In their final evaluation of the PAHSCI, researchers determined that the transformation from teacher-centered classrooms to student-centered classrooms had continued (Brown et al., 2008). The group continued to infer that student learning was taking place due to the high level of student engagement in the types of classroom practices that have historically led to increases in student achievement. Eisenberg (2008) offered several results from the 2007 administration of the Pennsylvania System of School Assessment (PSSA). According to Eisenberg, 15 of the 21 schools with assessment data during the period from 2004 to 2007 returned a rate of change in the proportion of students scoring at the advanced or proficient levels in reading that exceeded that of the whole state figure. In addition, Eisenberg reported that 18 of the schools participating in PAHSCI with data during that period exceeded the state's rate of change on the math portion of the PSSA. While actual numbers from the PSSA were likely excluded because the PAHSCI schools still have a considerable ways to go, the dramatic response by student scores during the initiative seem to support the inferences by Brown et al. (2008) that student achievement was taking place due to increased use of best practices. This included, among other findings that 72% of teachers that had strongly participated in one-on-one coaching relationships reported that their coach had played a significant role in increasing student achievement whereas only 43% of teachers who had not strongly participated in coaching activities responded with such support of the coaching role.

Although reviews for the coaching model have been positive, researchers reported that those taking part in the initiative have expressed concerns over its sustainability. As a statewide initiative, the fate of the reform will be determined by the

willingness of the state's legislative body to make continued funding available. The PAHSCI also experienced issues with the loss of key personnel due to attrition or other causes of leadership change. Time continued to represent an obstacle for the sustainability of the reform, as was some degree of teacher, principal, and district administrator resistance to the use of coaches or other aspects of the reform.

In 1998, the National Center on Education and the Economy began the America's Choice program as a means of assisting the nation's lowest performing schools. Initially providing technical assistance, consultation, and professional development to 40 at-risk schools, the program had grown to encompass more than 1000 schools by 2008. By that time, America's Choice had begun to offer assistance to schools and districts in establishing their own coaching programs (America's Choice, 2009). According to Poglinco, Bach, Hovde, Rosenblum, Saunders, and Supovitz (2003), coaching was at the heart of the program's efforts to improve the instructional capacities of its schools. In this version of the coaching model, instructional coaches received extensive professional development on the instructional strategies they were to impart to school faculty during a variety of both individual and small group settings. The middle school version of the coaching model called for coaches to spend one class period modeling best practices, followed by a period of co-teaching and finally, a period of observations where the teacher themselves utilize the strategies.

The Consortium for Policy Research in Education was contracted by the National Center on Education and the Economy in 1998 to serve as an external evaluator for the America's Choice reform. In addition to determining if the application was being implemented with fidelity to the design, researchers also were asked to

determine if instructional practices were being changed in ways that would promote student learning and, if so, to what degree these changes could be associated to America's Choice design (Consortium for Policy Research in Education, 2007). Researchers throughout the period from 1998 to 2003 used both quantitative and qualitative methods in measuring the impact of this reform. In their study of 42 schools in the initial year of the America's Choice implementation, Corcoran, Hoppe, Luhm, and Supovitz (2000) reported overall gains in student achievement as well as progress made in reduced absenteeism and discipline referrals and an increase in parental involvement. May, Supovitz, and Perda (2004) engaged in a longitudinal study of students in Rochester, New York from 1998 to 2003. The purpose of this study was to determine the impact of the America's Choice design on student achievement. Sixteen of the 52 Rochester's schools had participated in the reform for at least one year at the time of the study. Data used in this study spanned 11 years, including test scores from the 1992 to 2003 school years. Researchers determined that students in America's Choice schools outscored other students in both reading and mathematics performance as measured on the Stanford Achievement Test. Specifically, reading and math achievement across all grades was statistically significant ( $p < .001$ ) when compared to their counterparts in non-Choice schools. The rate of learning was also found to be greater among America's Choice students as an additional three weeks of learning was made by students in grades one through three and an additional two months of learning was had by students in grades four through eight.

Galm and Perry (2004) reported on the positive applications of the instructional coaching model in San Diego and Long Beach, California and Corpus Christi, Texas.



These efforts were part of a middle school project initiated by the Edna McConnell Clark Foundation that began in 1994. Galm and Perry found that two of the three schools targeted in San Diego demonstrated significant gains in student achievement, including a doubling of their required growth targets on the 2002-2003 state assessments. The team reported similar success in the Long Beach schools. In Corpus Christi, each of the five schools showed increases in the number of students that passed the state's 2002 assessment and in 2003, each school exceeded performance expectations for all schools by as much as 40%. The pair also found that as much as a third of the students in these schools increased their reading performance by more than three grade levels during the period and the overall trend of declining reading comprehension scores was reversed.

In Alaska, a review of the state's efforts with Reading First offered some insight to the use of coaches with the implementation of this program (Davis & Roccograndi, 2007). In this study that included interviews, surveys, and observations, teachers across the state reported coaches as the primary vehicle for receiving professional development, including lesson demonstrations that were especially noted by teachers. Student achievement results from the 2006-2007 school year were mixed with increases seen in some grade levels and decreases in others over the previous year. However, dramatic growth was experienced by the state's minority populations and those considered English language learners (ELL) or from low socio-economic backgrounds.

The 2007-2008 school year marked the beginning of the Chicago Public School System's experiment to increase student achievement using instructional coaching. Dieger, Goldwasser, and Hurtig (2008) conducted an investigation of the In School

Instructional Coaching Program to provide the system with an external analysis of the activities of the instructional coaches and the impact they were having in schools. In this qualitative study, researchers interviewed and observed 20 coaches, interviewed 10 principals and teachers, and conducted focus group interviews of an additional 25 coaches. Through their investigation, researchers made a number of determinations including the nature of coaches' work in teachers' classrooms, coaches' feelings of role legitimacy, challenges and supports, and impact on schools.

Coaches were observed performing a variety of tasks within teachers' classrooms. Where coaches were seen performing multiple tasks, such as modeling and co-teaching, the researchers suggested that teacher engagement was high and offered great benefit whereas less benefit was attached to observations allowing little teacher engagement. The team of researchers reported seven of the ten principals interviewed offered positive remarks about the impact of the coaching initiative. Two principals indicated that coaches were at least partially responsible for an increase in test scores at their schools. Three principals added that teachers were more adept at talking about and using data. An additional two principals associated their teachers' utilization of new instructional strategies and discussions with their instructional coaches. Two of these principals thought that their coaches had helped reluctant teachers to adapt to the literacy program while three acknowledged the work of their coaches with new teachers. Teachers, with only one exception, were very positive about the impact of coaches in their schools. Overall, both principals and teachers commended coaches with having a positive impact on student achievement.

While most studies included in this review have demonstrated the great potential of instructional coaching, a study performed by Ai and Rivera (2003) on the use of instructional coaches in the Los Angeles Unified School District returned less positive results. In this study to determine the impact of coaches on the teaching practices of elementary and secondary math teachers, researchers were unable to determine any significant correlation. This was true even though a majority of teachers that had access to coaches reported these relationships to be beneficial. In their discussion of the Los Angeles version of the coaching model, representation was seen from many of the same barriers that have already been discussed in this paper. Ai and Rivera found that the one-on-one coaching relationship had not been accessed by a majority of the teachers, including classroom observations and feedback that have been proven to be instrumental to successful coaching models by Joyce and Showers (1980).

Other barriers cited by Ai and Rivera (2003) included time, role confusion, teacher resistance, and lack of trust. Coaches in Los Angeles reported not having enough time to see all teachers, leading them to work with more groups of teachers rather than individuals. The lack of adequate scheduled meeting times further complicated coaches' opportunities to work with teachers. Coaches in the Los Angeles district appeared to have been caught between what they believed to be their role and what principals believed it to be. Coaches reported as serving as tutors, substitute teachers, or administrative assistants in addition to, or sometimes in lieu of attempting to fulfill their coaching responsibilities. Teacher resistance was among those challenges indicated by coaches, especially among the more experienced teachers. Finally, Ai and Rivera found there to be a lack of trust among teachers for the coaching role. A

prevailing perception included that coaches were more administrative or evaluative rather than a resource to teachers.

### **School Climate**

There is now a great deal of evidence available to support the notion that schools do have a significant impact on student achievement. However, there is very little research to support the idea that instructional coaches themselves may impact school climate in meaningful ways. In this section, evidence gathered over the past half-century will be presented to support the assertion that school climate may be affected by those in a variety of leadership positions, including that of the instructional coach.

Much of the work that has been conducted in the area of school climate has emerged in response to the controversial findings of the “Coleman Report” (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield, & York, 1966). Coleman concluded that the quality of a school, such as its library size, teacher/student ratios, or spending per pupil, had little impact on the academic achievement of the students attending, whereas variance among students’ family backgrounds did have dramatic effects. Ron Edmonds, widely regarded as the father of the effective schools movement (Thomas & Bainbridge, 2001; Jerald, 2006; Raptis & Fleming 2003) was among the first to research effective schools, those that were able to successfully educate all students regardless of backgrounds, and identify the characteristics that allowed them to stand out as exemplary schools. Edmonds, along with other pioneering researchers began to systematically challenge Coleman’s assertions and promote an agenda whereby all students, regardless of racial or family histories, could achieve academic success. Edmonds (1979) identified a series of factors that could be influenced by schools that

would promote the equitable education of all students. The collective body of research on effective schools would continue to lead to the greater understanding of what schools do to promote student learning (Marzano, 2003). Among these, researchers would identify the critical importance of orderly and safe climates as necessary to providing an atmosphere conducive to teaching and learning. Lezotte (2008), who collaborated with Edmonds during the early days of effective schools research, recognized the impact that is still felt in the education profession from the original work on effective schools. The researcher acknowledged the depth of study that has been conducted on effective schools and the refinements and expansions to the original body of work. Moreover, the author declared that the original assertion made in the initial research was still applicable today: “All children can learn.” Thus, out of Coleman’s controversial work in the late 1960s, “effective school research” was born and the work to identify and promote effective schools continues.

A great deal of contemporary research on effective schools has been performed by Robert Marzano. The body of work completed by Marzano is based upon the premise that schools can indeed have a remarkable impact on student achievement when the recommendations of effective schools research are followed. In Marzano’s, *What Works in Schools* (2003), the case is made that public education is nearing what historically may be determined as its “best of times”. Marzano’s work has led him to separate the factors influencing school effectiveness into three distinct categories: school-level factors, teacher-level factors, and student-level factors. Throughout the history of school effectiveness research, those in the education field have advanced an abundance of school-level factors that influence student achievement. The works of

such notable effective schools researchers as Edmonds and Lezotte are featured among others in Marzano's cross-researcher comparison of school-level factors, not the least of which are school climate, collegiality, and professionalism. Leadership is notably absent from this compilation of factors, although the characteristic was identified as a school-level factor by Edmonds (1979), Lezotte (1991), and Marzano himself (2003). Marzano's decision to not identify leadership as a school-level factor in this comparison was due to the fact that researchers' definitions for the term were either too restrictive or too broad and in such encompassed parts or all of the other factors. Instead, Marzano chose to identify leadership as an all-encompassing phenomenon that impacts each of the school-level factors as well as those associated with students and teachers. An important omission from Marzano's description of effective leadership is a recurring use of the word "principal". As instructional coaches are used more frequently in schools to provide instructional leadership (Annenberg Institute for School Reform, 2004), it is logical to assume that their actions may impact the climate of a school in much the same way as schools' principals do.

A primary motivation of researchers studying school climate is in establishing a relationship between positive school climates and increased student achievement. Frieberg (1998) wrote, "school climate can be a positive influence on the health of the learning environment or a significant barrier to learning" (p. 22). The works of Cohen (2007), Hoy and Hannum (1997), Levin and Wiens, (2003), and Sweetland and Hoy (2000) would seem to affirm this through their reports linking together this pair of affective and cognitive variables. Defining school climate has been difficult, however, and a source of debate among researchers. Frankly, there is no definitive list of factors

that constitute what school climate is or is not. Evidence of the wide ranging views regarding school climate can be seen in the works of Marshall (2004), who reported dimensions featuring teacher and student interactions and perceptions, safety, and academic performance; Cohen (2007), who suggested a 10 dimensional model, and the Center for Social and Emotional Education (2009) featuring a 12 dimensional description. However, as Cohen pointed out, most models refer in some capacity to the dimensions of safety, relationships, academics, and environment.

As early leaders in the effective schools movement, Brookover and Lezotte (1979) and Edmonds (1979), long ago advocated for the development of instructional leadership in the nation's schools. Three decades later, instructional leadership has begun to be a role being increasingly played by teachers in the form of instructional coaches. Hoy, Tartar, and Kottkamp (1991) suggested that this is especially true in secondary schools where teachers often have extensive working relationships with teacher leaders in lieu of the actual school principal. While little research is yet available on the true impact that instructional coaches and other teacher leaders may have on school climate, there is optimism that positive effects may be found. The Annenberg Institute for School Reform (2004) maintains that the guiding principles of coaching models are based upon what research has proven in the areas of professional development and professional learning communities. According to the organization, coaching offers great promise in the areas of both instruction and school climate.

### **Teacher Efficacy**

Teacher efficacy is the term used to describe a teacher's belief that he or she can impact student learning (Guskey & Passaro, 1994; Ross & Bruce, 2007; Woolfolk Hoy

& Burke-Spero, 2005). A number of studies have been conducted that connect teacher efficacy with a variety of positive outcomes. However, of special significance to the current study are the effects on student achievement by teacher efficacy (Ashton & Webb, 1986; Dembo & Gibson, 1985; Goddard, Hoy, & Woolfolk Hoy, 2004; Ross 1992, 1998; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998) and how the latter is affected by the behaviors of those in school leadership positions (Hipp, 1996; Hoy & Woolfolk, 1993; Lieberman, 1995; Scribner, 1998). Teacher efficacy is an important construct in the ongoing study of effective schools and in school improvement measures undertaken by educational leaders. In addition, teacher efficacy represents another area that may be affected through the activities of the instructional coach. Because of the association between teacher efficacy and student achievement, the nature of the relationship between the activities of instructional coaches and teacher efficacy will be investigated as well.

Research efforts to understand and measure teacher efficacy have emerged from two conceptual strands based upon the early social learning theories of Rotter (1966) and Bandura (1977) (Cantrell & Hughes, 2008; Ross, 1992; Ross & Bruce, 2007). Rotter's research featured what he called an individual's "locus of control", or the individual's perception that control over what happens in one's life is either internal, within one's own control, or external, outside of one's control. Rotter visualized that one's locus of control existed as a one-dimensional continuum representing the degree to which an individual believed that internal or external factors determined a person's outcomes. Internal forces could be represented by individual effort or abilities whereas external forces could be exemplified through divine intervention, fate, or luck. Armor,



et al. (1976), otherwise known as the Rand researchers, were the first to apply this concept to education in their study to determine the significance of a combination of internal and external factors on sixth grade reading achievement. Two questions were inserted into the survey to serve as a measure of teacher efficacy. The first question, *“When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment.”*, would later be identified as a measure of general teacher efficacy rather than personal teacher efficacy (Ashton, Olejnik, Crocker, & McAuliffe, 1982). This question addressed the extent to which teachers agreed that student motivation and achievement could be influenced by the actions of teachers. The second question, *“If I really try hard, I can get through to even the most difficult or unmotivated students.”* was asked to gain insight into the teachers’ beliefs about their own abilities to influence student motivation and achievement. The Rand researchers determined that teacher efficacy had a significant role in student reading achievement.

A follow-up study conducted by Berman, McLaughlin, Bass-Gould, Pauly, and Zellman (1977) found a significant relationship between teacher efficacy and student achievement as well as other positive teacher behaviors. Researchers found that those teachers who identified with the idea of an internal locus of control were more likely to have effectively implemented the projects; engaged in project-related teacher-change; continued use of the project methods and materials after funding was discontinued; and perhaps most importantly, demonstrated a positive relationship with increased student achievement. However, concerns over the reliability of the two-item measure would lead to continued refinement of Rotter’s theory and eventually spawn multi-dimensional

approaches to the efficacy construct (Ashton & Webb, 1986; Duttweiler, 1984; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

Bandura (1977) would be credited with the emergence of a second line of thought based upon his theories on social learning and self-efficacy (Cantrell & Hughes, 2008; Ross, 1992; Ross & Bruce, 2007). According to Bandura, self-efficacy is the belief a person has in his or her ability to execute a course of action or achieve some specific outcome. In contrast to the single-dimension of motivation proposed by Rotter (1966), Bandura suggested that individuals are motivated primarily by two distinct factors: outcome expectation and efficacy expectation. Outcome expectations represent the degree to which a person believes that a specific behavior will lead to a specific outcome whereas efficacy expectations represent the degree to which a person believes that they may be able to execute a specific behavior. Bandura (1997) added that self-efficacy is not uniform across all tasks a person might perform and the construct is shaped by a variety of inputs. According to Bandura, self-efficacy is most significantly influenced by the previous performance, or mastery experiences, associated with a given task. The researcher determined that individuals with higher perceptions of self-efficacy generally set loftier goals and approached difficult situations as challenges to be overcome rather than as insurmountable barriers. Rather than make excuses for failure, Bandura argued that individuals described by high levels of self-efficacy would view such circumstances as having occurred due to their own lack of knowledge, skill, or effort and would then commit their energies toward remediation of these personal weaknesses.

Those at the forefront of the effective schools research would also take up the task of evaluating the impact of teacher efficacy. In conducting their research on effective schools, Brophy and Evertson (1978) found that teachers of academically successful students were more likely to have higher expectations for their students and feel personally responsible for their academic success. Brookover, Schwietzer, Schneider, Beady, Flood, and Wisenbaker (1978) determined that teachers in high performing schools made more committed efforts to impact their students' learning in positive ways. Brophy (1979) determined that teachers who believed that their role in the school was to provide instruction and held high expectations of doing so were generally more successful than those who did not share these same beliefs. In his efforts to help create effective urban schools, Lezotte (1979) documented the connection between effective schools and efficacious school staff, pointing to staff members' beliefs that they have the capacity to provide the required instruction. Lezotte emphasized that the beliefs of teachers about their abilities to teach and students' abilities to learn were necessary in order to realize the intended educational outcomes

Although effective schools researchers were acknowledging the connections between effective schools and highly efficacious teachers, the debate over how best to measure the construct continued. Combining the theoretical underpinnings of both Rotter (1966) and Bandura (1977), Gibson and Dembo (1984) would attempt to create a more extensive and reliable instrument of measure for the teacher efficacy construct. The resulting Teacher Efficacy Scale (TES) was a 30-item measure that through factor analysis revealed the two distinct factors, personal teacher efficacy (PTE) and general

teacher efficacy (GTE), based upon the interpretation that PTE was a measure of self-efficacy and GTE served to measure outcome expectancy. The two factors would be confirmed in replications of the study (Hoy & Woolfolk, 1993; Soodak & Podell, 1993) as TES would serve for more than a decade as the standard instrument for teacher efficacy research (Henson, 2002; Henson, Kogan, & Vacha-Haase, 2001; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Because the items loaded inconsistently on the two factors, Gibson and Dembo would recommend that other factor analyses be conducted, a call that Henson (2002) felt went unheeded. A number of researchers would reach conclusions that there were both conceptual and statistical problems with the TES (Henson, 2002; Henson, Kogan, & Vacha-Haase, 2001; Soodak & Podell, 1993; Tschannen-Moran and Woolfolk Hoy, 2001; Woolfolk Hoy, 1990). Specifically, the authors reported faults in the lack of clarity given to definitions of the two factors as well as in findings of inconsistencies in how the questions in the survey loaded on the two factors. Henson (2002), in her critique of the TES, points out that the instrument was originally fashioned in the spirit of Rotter's (1966) research on locus of control but was later interpreted to be more reflective of Bandura's (1977) description of self efficacy.

With questions regarding the validity and reliability of the TES and other instruments being used to measure teacher efficacy, it was becoming increasingly evident that a new, more effective means of determining the construct was needed. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) would attempt to answer the calls from the field for the creation of a new theoretical model to measure teacher efficacy with their own contribution. Tschannen-Moran and Woolfolk Hoy (2001) would

publish the product of this research, the Ohio State Teacher Efficacy Scale (OSTES), or as the authors preferred, the Teachers' Sense of Efficacy Scale (TSES). A full accounting of this instrument and other proposed instrumentation will be delivered in the chapter on methodology.

Teacher efficacy has remained a subject of keen interest among researchers that continue to investigate what constitutes effective schools. A number of these studies have shown there to be a strong association between levels of teacher efficacy and perceptions of leadership within the school. Brownell and Pajares (1996, 1999) acknowledged that teacher efficacy is affected by several factors, not the least of which is administrative support. In their study, it was suggested that general education teachers that receive administrative support would have stronger efficacy regarding their instruction than teachers who were not supported. A qualitative study on the declining commitment of elementary teachers completed by Joffres and Haughey (2001) also determined an association between teacher efficacy and school leadership. In revealing the results of their study, the authors reported that teachers' sense of efficacy was influenced by a combination of factors including the perceived lack of support from the principal in enforcement of discipline policies and the principal's failure to establish a cultural norm within the school to promote continued professional development. Studying the influences on teacher efficacy among a group of sixth grade math teachers, Ross, Hogaboam-Gray, and Gray (2004) found that empowering school leadership was among several school processes that exhibited a greater influence on teacher efficacy than the prior achievement of the students.

There has been little research completed to reflect associations between the work of instructional coaches and teacher efficacy. However, a number of studies have suggested that professional development may have positive effects on teacher efficacy (Bandura, 1997; Borchers, Shroyer, & Enochs, 1992; Ross & Bruce, 2007; Ross, Ertmer, & Johnson, 2001) thereby offering logical means by which to suggest the possibility of positive relationships between instructional coaches and teacher efficacy.

### **Challenges and Recommendations**

As with any position, there are obstacles that instructional coaches face on the path to effective performance of their respective positions. Some of these are common to all positions of leadership, while others are more specific to the position of the instructional coach itself. While coaches reported teacher resistance as a major obstacle to achievement of the potential success of the coaching model, most were matters relative to the leadership position. As data on the use of instructional coaches becomes increasingly available, it is becoming more apparent that successful implementation of the coaching model can be aided with the application of certain conditions. Concerns have been raised regarding the selection of qualified coaches, inadequate or ineffective initial and ongoing training, and perceptions of teacher resistance and administrative support. Other complications include confusion over the precise roles and responsibilities of the coaching position in addition to concerns regarding deficits of time that have impeded efforts at fulfilling the requirements of the position.

Successful implementation of the coaching model is dependent on a number of factors, not the least of which is the selection of quality coaches (Poglinco, Bach, Hovde, Rosenblum, Saunders, & Supovitz, 2003). The group of researchers identified

two of the means of accomplishing this task would be to clearly identify the responsibilities of the position to better guide those involved in the hiring process and to provide adequate information to applicants interested in the position. Richard (2003) also noted the importance of personnel decisions and offered suggestions regarding the selection of instructional coaches, recommending that each have adequate experience, effective communication skills, and participate in professional development focused on working with adult learners in order to have the greatest opportunity to become successful.

The concept of ongoing professional development is another factor that researchers have promoted as being key to the success of any coaching model. Joyce and Showers (2002) submit that the routine and structured peer interactions represent “one of the hallmarks of a profession” (p. 82). However, as school districts around the country increasingly continue to use instructional coaches as instruments of reform, these individuals are often placed without appropriate professional development to help them achieve success (University of Kansas Center for Research on Learning, 2007). Kamil (2006) recommended the use of intensive professional development and concluded that although coaches were probably selected because they were excellent classroom teachers, they likely lacked any formal training in the education of adult learners. Burkins and Ritchie (2007) suggested that because of the lack of support given to their professional learning, coaches must seek their own learning opportunities or possibly forego their continued learning altogether.

To increase coaches’ capacities to assist teachers, Kamil (2006) advocated the use of a pre-service licensing requirement and the implementation of targeted, sustained

professional development to promote the abilities of coaches to provide effective assistance to teachers. While not advocating pre-service licensing, Neufeld and Roper (2003) did recognize the need for districts to develop professional development for coaches. The pair of researchers recommended that coaches be made aware of the “big picture” of the reforms in which they are engaged, participate in strong initial orientation programs as well as more differentiated programs for the more experienced coaches (p. 11). In summarizing the professional development goals for instructional coaches, Neufeld and Roper suggested that in order for coaches to continue to advance the instructional capacity of teachers and principals, they must continue to advance their own.

Reiss (2008) suggested that resistance to change is to be expected and is a part of the change process. However, numerous reasons have been advanced regarding sources of teacher resistance to the coaching model. Barth (2001) indicated that teacher resistance might represent the greatest challenge to the teacher leadership position adding that teachers may willfully decide not to follow a teacher leader because they lack a traditional leadership title or authoritative power. Mangin (2005) reported that in a study on teachers’ perspectives of teacher leaders, teacher resistance was common to each of the teacher leaders participating in the study and ranged from subtle to overt forms of resistance. The conclusion of Galm and Perry (2004) was that a strong administrative presence was an important factor in establishing trusting relationships with such support needed to convey the message to teachers that coaches are there to support rather than evaluate them. Sharing this view were Borman and Feger (2006) who suggested that teacher resistance could often result from the perception that



coaches were serving in an administrative capacity. Steiner and Kowal (2007b) agreed that there might be some reluctance on the part of teachers based upon their discomfort with being routinely observed by coaches or other teacher leaders. The authors also suggested that teacher resistance might sometimes be a by-product of the mandated nature of the coaching model as teachers are often not included on the front-end of reform initiatives. Such resistance may also be affected by the fact that many teachers do not hold a big picture view of school reforms including the instructional coaching model (Feldman & Tung, 2002).

Steiner and Kowal (2007b) indicated numerous ways that supportive principals might provide assistance to coaches. These include maintaining transparency in the implementation of the coaching model, clearly demonstrating their support of the model, and offering available human and financial resources as evidence of a long-term commitment to the coaching model in order to reduce the resistance of teachers. Galm and Perry (2004) suggested that by actively conveying trust in the coach, the principal might help to reduce teacher resistance. These authors also add that principals may serve coaches in helping them to protect their time by reducing or eliminating requests that coaches serve as substitute teachers, manage curricular materials, conduct assessments, or other non-coaching duties. Barth (2001) advanced the notion that principals or other administrators may develop feelings of insecurity as those in teacher-leadership positions demonstrate passion and energy in their reforming activities. Commitment and support from school and district leadership have also been indicated as potential obstacles faced by instructional coaches. Both the Annenberg Institute for School Reform (2004) and Russo (2004) recognized that insufficient support from

either school-level or district leadership would hinder the efforts of the instructional coach. Russo predicted that without an institutional commitment towards sustainment of the efforts of the instructional coaches, their efforts would result in failure. Richard (2003) reported that coaches often lack direction and support from those in leadership resulting in coaches being forced into leading the school improvement efforts single-handedly. Specifically in regard to principals' efforts in support of teacher leaders, Moller and Pankake (2006) recognized that the principals who have been redefining school leadership have been those that have looked to expand the leadership potential of those around them. Rote delegation of responsibilities and assignments does little to develop leadership potential. Rather, the authors suggested that principals remain involved in the process and continue to provide these budding leaders with the support and resources that are needed to complete the instructional coaching function effectively.

Both Gabriel (2005) and Russo (2004) recognized the impact of a teacher leader's colleagues on the ability to carry out the teacher leader function. The authors acknowledged that teacher leaders walk a fine line within the school hierarchy because they are neither teacher nor administrator and summarized the relationship by writing that while nurturing colleagues, they must retain allegiance to the administration. Gabriel went further to address the formal authority that teacher leaders lack and observed that this knowledge is not lost on teachers or administrators, and pointed to the irony of this fact given their essential participation in the formidable task of school improvement. Russo more softly speculated that teachers might simply not be accustomed to talking about their teaching in the terms that a coach might attempt to do

so. Poglinco and Bach (2004) suggested that ambiguity regarding the coaching role and uncertainty surrounding the definition of relationships between coaches and the staff members they are to serve may reduce the effectiveness of those selected to serve in coaching positions. Because instructional coaches are often neither administrators nor teachers, they lack any recognizable group identity leading to confusion over how they should be treated or what interactions with them might be like. Galm and Perry (2004) reported that instructional coaches were most effective when principals established clear expectations regarding how coaches would work with staff members, engaged in regular communication with coaches, and allowed them to work autonomously with individual teachers. Steiner and Kowal (2007b) advocated the clear definition of the roles and responsibilities assigned to coaches within a specific coaching model. The researchers added that historically, problems have arisen when coaches have been made to be responsible for such duties as servicing multiple schools, performing extensive administrative tasks, and providing tutoring to students.

Teachers across a broad number of studies have reported that time limitations have served as barriers to effective implementation of the coaching model (Ai & Rivera, 2003; Feldman & Tung, 2002; Mangin, 2005; Poglinco et al., 2003). Barth (2001) cited the already full plate of responsibilities to which additional leadership roles are added as one of the impediments to effective teacher-leadership. Borman and Feger (2006) concluded that while collaborations were often easily arranged during class time, opportunities for debriefing, curriculum planning, and post-observation conferences were harder to obtain. Finding time for teacher collaborations was also found to be a barrier to effective professional development aimed at changing teacher practices by

Johnson (2006). Steiner and Kowal (2007b) also acknowledged the wealth of research pointing to time as a barrier to effective implementation of the coaching model and pointed specifically to difficulties in the allocation of time for coaches and teachers to meet outside the classroom in collaborative discussion. Providing coaches sufficient time to work with teachers is considered by Knight (2006) to be one of the most important components of a successful coaching model. According to the author, the bulk of a coach's time must be spent working with teachers to improve instruction rather than performing tasks that are non-instructional in nature.

As data on the use of instructional coaches become increasingly available, it is becoming more apparent that successful implementation of the coaching model can be aided with the application of certain conditions. Researchers have made recommendations based upon their discovery of factors associated with successful instructional coaching models. These recommendations include activities aimed at increasing teacher acceptance of the position, promoting administrative leadership and support of the position, and enhancing the amount and quality of time available to coaches in fulfilling the requirements of their respective positions.

As Richard (2003) pointed out, the insertion of an instructional coach into the school setting dramatically alters the school culture, initiating a change that is not always welcome by those who have become comfortable with the status quo. All of this adds to the pressures associated with meeting the needs of new teachers, trying to win over the veteran teachers, juggling the varied expectations of school and district administrators, and finally, trying to find a way to improve test scores. The author claims that many instructional coaches continue to struggle in acquiring the skills

necessary to complete their assignments and added that before these individuals can help others, they themselves need leadership training and professional development on adult learning theories. Additionally, the author recommended that instructional coaches be given the opportunity to form professional learning communities with other coaches. This would not only help coaches reduce feelings of isolationism, but would allow opportunities for reflection and to share challenges and successes with their peers.

### **Extending the Literature**

The debate will continue on whether the use of instructional coaches will become a fixture in education or be one of the many fads that has held great promise before quietly slipping into obscurity (Reeves, 2007; Richard, 2003; Russo, 2004;). As investigations continue to be undertaken, conclusions will become clearer regarding the role played by instructional coaches in the school improvement process. As has been demonstrated, the instructional coaching phenomenon has not been widely studied and many researchers still consider it to be lacking the conclusive evidence needed to garner widespread support for the use of school personnel in a coaching capacity. While the educational community at-large appears to remain skeptical of investing in the use of instructional coaches, this reluctance may be diminished should future investigations return findings supportive of the position.

Predictably, the fate of this endeavor will ultimately depend upon the willingness of school and district leadership to provide adequate support through allocations of time and other resources. It is the hope of this researcher that through the current study, school and district leaders find the information valuable in making informed decisions regarding use of the instructional coaching position. Finding

conclusive empirical evidence of relationships between the work of instructional coaches and variables of achievement, climate, and efficacy is the goal of this research. Such evidence would further serve the educational community in the ongoing debate over the real or perceived benefits of the instructional coaching position. Furthermore, this study should serve as a catalyst to additional inquiry into the types of coaching activities that most greatly influence positive instructional practices and outcomes in instructional climate and teacher efficacy.

## **CHAPTER 3**

### **METHODOLOGY**

The primary purpose of this study was to determine the significance of any relationships between instructional coaches and the student achievement, school climate, and teacher efficacy in north Louisiana high schools. This chapter features a discussion of the methods used to demonstrate these relationships. A restatement of the problem is provided as well as a posing of the research questions addressed and the null hypotheses tested. The researcher also describes the research design as well as the population and samples represented in the current study. Further elaboration of the processes by which permissions and access to the selected schools were granted are also outlined. A thorough background of the instrumentation will be provided including supporting evidence for the reliability and validity of each. The chapter concludes with a discussion of the steps taken to ensure the integrity of the study.

#### **Research Design**

A causal-comparative design was used to determine the extent to which student achievement, organizational climate, and teacher efficacy are impacted by the presence of instructional coaches. This design was appropriate for the current study as the two groups used in comparison were formed prior to the beginning of the investigation and the independent variable was beyond manipulation (Crowl, 1996). The presence, or absence, of instructional coaches at the schools represented an independent variable

with the dependent variables being student achievement, teacher efficacy, and organizational climate. Schools were selected from within the two groups: those with instructional coaches and those without instructional coaches. Student achievement data were taken from the 2009 spring administration of the Louisiana Graduate Exit Exam (GEE). New data were generated through teacher participation in the instruments selected to measure organizational climate and teacher efficacy.

### **Population, Sample, and Sites**

While the nationwide use of instructional coaches appears to be increasing, the implementation of the position within the northern region of Louisiana remains small by comparison. At the time of this investigation, only 4 of the 22 school districts in the northern half of the state made use of the position as a means of promoting student achievement at the high school level. All four of these districts are located in the northeast region of the state, Region VIII, which accounts for 15 of the state's 68 school districts. Within the four districts, there are eleven positions that match the operational definition for instructional coaches. At the time of this study, there are no school districts in the northwest corner of the state, Region VII, which are currently using instructional coaches. There are similarities between the two regions, each featuring a sizeable metropolitan area with Monroe in Region VIII and Shreveport in Region VII, which would make for allowable and interesting comparison. Three of the districts in Region VII contain a combination of rural, suburban, and urban school settings that allow for matched comparisons. Within these matches there are other demographic similarities such as enrollment, racial makeup, and socio-economic distribution that make them appropriate for comparison (see Table 1). It was these demographic



similarities, available in School Matters (2009), which were used to select the purposefully matched sample of 11 high schools not using instructional coaches to the population of 11 regional high schools that were.

Table 1

*Matched Sample*

Schools with Coaches	No. Students	% Low SES	% White Or Black	Schools w/o Coaches	No. Students	% Low SES	% White/Black
IC-1	1154	41	49/48	NC-1	1330	30	53/45
IC-2	1937	30	82/16	NC-2	1895	34	52/43
IC-3	935	28	94/5	NC-3	1005	31	80/17
IC-4	468	26	79/16	NC-4	498	42	98/1
IC-5	550	81	1/99	NC-5	483	75	1/99
IC-6	849	40	43/55	NC-6	961	44	59/40
IC-7	625	83	0/100	NC-7	737	84	1/99
IC-8	471	67	43/56	NC-8	409	57	56/42
IC-9	168	87	4/94	NC-9	118	82	16/84
IC-10	712	60	57/41	NC-10	668	63	30/59
IC-11	215	52	68/31	NC-11	443	45	68/29

**Procedural Details**

The general procedures followed during completion of this investigation have been chronologically outlined as follows:

- Step 1: Permission to conduct the study was obtained from the Human Use Committee at Louisiana Tech University. The approval letter received from the committee may be viewed in Appendix A.
- Step 2: District superintendents were contacted by letter to inform them of the study and to request permission to contact the principals of each high school

regarding participation in the study. Permissions were received via e-mail response. A copy of this letter may be viewed in Appendix B.

Step 3: Principals were contacted via e-mail to share details of the study and request assistance in the dissemination of the surveys to teachers. This letter may be viewed in Appendix C. Upon response, principals were sent a teacher version of the e-mail containing the link to the respective surveys to be forwarded to the teaching staff. A copy of this e-mail may be viewed in Appendix D.

Step 4: Follow-up contact was initiated with the principals of each high school to encourage teachers that might not yet have responded.

Step 5: Each school's GEE scores were accessed via the Louisiana Department of Education website and the proficiency percentages for each subtest from the spring 2009 test administration were recorded.

Step 6: The appropriate Likert-style conversions were applied to the teacher responses from the respective versions of the climate instrumentation and the scores were analyzed using the t-Test for Paired Samples.

Step 7: Teacher responses from the efficacy instrumentation were analyzed using the t-Test for Paired Samples.

### **Instrumentation**

The current study attempted to discern the measurable impact instructional coaches have on the following dependent variables: student achievement, organizational climate, and teacher efficacy. Each of the three constructs was operationally defined in Chapter One and was measured using three unique instruments, also specifically identified in the initial chapter of this study. While information on student achievement

was taken from the spring 2009 administration of the GEE, new data were required in order to assess organizational climate and teacher efficacy. The two instruments selected to measure organizational climate and teacher efficacy included the Organizational Climate Description for Secondary Schools (OCDQ-RS) (Hoy, Tarter, & Kottkamp, 1991) and the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). A discussion of each of these instruments, including validity and reliability information, will be included in the paragraphs to follow.

### **Louisiana Graduate Exit Exam**

In the spring of 2009, students across the State of Louisiana participated in standardized testing in grades three through twelve. At the high school level, the Louisiana Graduate Exit Exam (GEE) was administered to students to determine each student's proficiency in the core subject areas. Tenth graders were assessed in English/language arts and math, whereas eleventh graders were assessed in science and social studies. For the purpose of this study, student achievement was determined by the percentage of students at each school that were proficient within each content area assessed. As defined in Bulletin 111 (Louisiana Department of Education, 2008a), accountability policy for the state of Louisiana, proficient students are those that score in the *basic*, *mastery*, or *advanced* ranges on the state's standardized assessments of core content knowledge. Non-proficient students are those students that score in the ranges established for *approaching basic* or *unsatisfactory*.

The Louisiana Department of Education releases an annual report containing information relative to the technical aspects of its standardized testing. In the 2008 Technical Summary Report (Louisiana Department of Education, 2008b), the

educational agency described the process involved in ensuring content validity for the GEE. Beginning with the definition of a content domain by in-state committees consisting of educators, state department curriculum and assessment personnel, and outside consultants, content standards were developed for each testable area. After statewide public reviews and necessary committee revisions, content frameworks were developed, as well as a test blueprint, allowing for alignment of the state's assessments with its content standards. Content validity was verified by a triad of reviewers consisting of content review committees, state department personnel, and outside consultants. Reportedly, the items developed for testing face review for alignment with grade and content standards before being field-tested as a final evaluation of content validity.

The reliability of the GEE is given in two statistical forms: Cronbach's alpha and Stratified alpha. In the report, the educational agency argued that the Chronbach's alpha typically provides an underestimation of test reliability with the secondary measure taking into account the inclusion of constructed response items, which are normally graded across a range of possible scores. The Cronbach's alphas for the English/language arts, math, science, and social studies assessments were .88, .92, .86, and .89 respectively. Stratified alphas for the same assessments were found to be .89, .93, .87, and .90 respectively.

### **Organizational Climate Description for Secondary Schools**

The Organizational Climate Description for Secondary Schools (OCDQ-RS) (Hoy, Tarter, & Kottkamp, 1991) was used to determine the organizational climate of the matched pairs sample. The researchers credited Halpin and Croft (1961, 1963) with

much of the pioneering work in the area of school climate and the development of the original *Organizational Climate Descriptive Questionnaire* (OCDQ). While Hoy, Tartar, and Kottkamp described the original survey as “dated, flawed, and inappropriate for secondary schools”, the authors suggested there to be a great deal of merit in the original conception of climate existing along a continuum ranging from open to closed (p. 39). In clarifying open principal behaviors, Hoy, Tartar, and Kottkamp described them to be associated with genuine relationships with teachers that resulted in support and encouragement of teachers and the freedom of unnecessary non-instructional tasks. Open teaching behaviors were characterized by positive relationships with administrators, students, and colleagues where commitment to the school was evident and teachers were motivated by the success of their students without unnecessary frustrations. Closed behaviors of both principals and teachers could be described in terms opposite of those used in description of open behaviors. In defining the second general category of school climate, intimacy, the researchers suggested that the construct exists where faculty members are interconnected in close personal friendships with frequent social interaction. Examples of the five categories of open and closed demonstrated by principals and teachers may be examined in Figure 2.

Principal		Teachers		
Open	Closed	Open		Closed
Supportive Behaviors	Directive Behaviors	Engaged Behaviors	Intimate Behaviors	Frustrated Behaviors
Positive work ethic	Dominates principal-teacher conferences	Assists individual students in need	Colleagues are considered to be closest friends	Finds other faculty to be annoying
Sincere interest in personal and professional well-being of teachers	Maintains control over all aspects of school	Demonstrations of respect for colleagues and willingness to help and support	Expresses knowledge of colleagues' family background	Perceives the non-instructional workload to be too high
Offers assistance during or after school	Oversees all activities of teachers	Friendly interactions with students	Often visits other faculty socially	Interrupts colleagues
Provides constructive feedback		Exhibits school pride and high morale	Often invites other faculty to visit at home	
Often complimentary				

Figure 2: Examples of Open and Closed Behaviors

Within the two general categories, openness and intimacy, the authors developed descriptions for the behaviors of both the principals and teachers. Behaviors of the principal were described as either supportive or directive whereas teachers' behaviors were identified as engaged, frustrated, or intimate. Principals were identified as supportive or directive based upon their engagement in such positive behaviors as helpfulness, expressions of concern, and setting good examples for staff members to follow versus conduct involving inflexible, oppressive, or micro-managing behaviors. Teachers were identified as either engaged or intimate based upon the degree to which they exhibited school pride, enjoyed and supported their peers, placed a priority on the success of their students, and were involved in interconnected relationships with other staff. Conversely, teachers were designated as being frustrated if there were

expressions of feelings of annoyance or pessimism due to excessive non-instructional duties.

A number of limitations were cited relative to the original OCDQ, including the forced description of schools into discrete climate types and lack of transference of the instrument into urban or secondary settings. To address these, Hoy, Tartar, and Kottkamp (1991) simplified the instrument into five subtests and reduced the number of questions from 64 to 34 as a result of factor analyses. What emerged was a streamlined version of the original survey that maintained the earlier researchers' views of climate along an open to closed continuum, but consolidated the multiple factors associated with climate into five dimensions under the umbrella of the two general categories. To determine the merits of the new instrument, the Organizational Climate Description for Secondary Schools (OCDQ-RS), the researchers utilized the measure in a study of 78 New Jersey high schools. The researchers determined that the five dimensions in the OCDQ-RS accounted for 63% of the variance in school climate in the selected schools. Furthermore, the authors reported that each of the items loaded on the appropriate subtest with high reliability scores: Supportive (.91), Directive (.87), Engaged (.85), Frustrated (.85), and Intimate (.71). Factor analysis conducted by the authors supported construct validity.

Numerous replications involving the OCDQ-RS have been undertaken around the world and have resulted in optimistic accounts for the validity and reliability of the revised instrument as well. In one case, Westhuizen and Mentz (1993) reported similar reliability coefficients in their application of the instrument in Black communities in South Africa with reliabilities for the subtests ranging from .61 to .91. In a separate but

related study, the authors also reported similar findings when the instrument was applied in White communities with reliability ranges from .74 to .96 (Mentz & Westhuizen, 1993). In each of the South African studies, the OCDQ-RS was found to provide a valid and reliable measure of the openness of the participating schools. In Michigan, the instrument was used as a viable part of an action research project to explore perceptions of climate in 42 of the state's high schools (Kelley & Williamson, 2006). Through their research, the authors concluded that the behaviors of the principal contributed to the general openness of school's climate and that both leadership style and climate may contribute to increased student achievement. Additional studies offering verification of the validity and reliability of the OCDQ-RS were provided in the doctoral studies of Barr (2006) and Pilar (2007) respectively. Both researchers concluded that the instrument was a reliable means of establishing the connection between principal leadership styles and school climate.

### **Teachers' Sense of Efficacy Scale**

The teacher efficacy construct was measured using the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). The creation of the TSES was based upon the recommendations and model of Bandura (1977, 1997). Particularly, the researchers attempted to include a variety of task demands and increase the range of response options available to respondents. The team especially noted the difficulties associated with determining the level of specificity to include in each item in order to allow the scale to be generalizable across a wide range of applications. Out of several years of research and development, the two researchers would introduce long and short versions of the instrument. Three distinct factors were discovered in the



TSES that significantly accounted for the greatest percentages of variance. The three factors that emerged included efficacies for instructional strategies, classroom management, and student engagement.

Beginning with over 100 items, Tschannen-Moran and Woolfolk Hoy (2001) pared them down to 36 before taking the eight highest-loading items from each factor. The researchers reported subjecting these 24 items to principal-axis factoring with varimax rotation resulting with the same three factors being identified with loadings ranging from .50 to .78. Subscale reliabilities were found to be adequate at .91 for instruction, .90 for management, and .87 for engagement. Additionally, intercorrelations between the subscales were found to be significant ( $p < 0.001$ ). Reliabilities remained high when the 12-item form was evaluated with scores for instruction, management, and engagement at .86, .86, and .81, respectively. Intercorrelations remained high as well with each of the three factors at or above .95. Factor analyses conducted with inservice teachers (N=255) determined that the three factors accounted for 54% of the variance when using the long form and 65% of the variance when using the short form. An evaluation of the construct validity of the TSES was made through an assessment of the correlations of the new instrument to previous measures of teacher efficacy. Positive correlations were discovered between both the short and long versions of the TSES and these earlier measures ( $p < 0.01$ ). Reliability scores for the engagement, instruction, and management subscales were .81, .86, and .86 with the score of .90 for the overall scale itself. Furthermore, replications of teacher efficacy research have been conducted by Ritchie (2006), Ryan (2007), and

Larson and Goebel (2008) with each having successfully used the TSES as a valid and reliable instrument of measure.

### **Permissions**

In efforts to achieve gains in regard to what is known about organizational climate and teacher efficacy, Dr Wayne K. Hoy and Dr. Anita Woolfolk Hoy have been gracious regarding permissions to use their respective instruments. While a permission letter accompanied the download of the Teachers' Sense of Efficacy Scale (TSES) (Woolfolk Hoy, 2008), permission to use the Organizational Climate Description for Secondary Schools (OCDQ-RS) was requested and granted from Dr. Hoy through e-mail correspondence prior to its download (Hoy, 2009). Additionally, Dr. Hoy approved the researcher's request to adapt the survey to allow for the impact of instructional coaches on organizational climate to be determined. Specifically, on questions using the term "principal", the researcher used an alternate form of the term "instructional coach" in order to measure the effects of the instructional coach in lieu of the school principal.

### **Research Questions**

The research questions posed by the researcher and explored through this investigation have been presented below in the order in which each respective dependent variable has been addressed throughout the chapters of this manuscript.

1. Is there a significant relationship between the presence of instructional coaches and student performance on the criterion-referenced sections of the Louisiana Graduate Exit Examination (GEE) (ELA, Math, Science, and Social Studies)?

2. Is there a significant relationship between a school's use of instructional coaches and the organizational climate of the school?
3. Is there a significant relationship between a school's use of instructional coaches and the level of teacher efficacy exhibited by teachers?

### **Null Hypotheses**

The null hypotheses developed by the researcher and considered during this investigation have been presented below in the order in which each respective dependent variable has been addressed throughout the chapters of this manuscript.

1. There is no significant relationship between the instructional coach and student performance on the criterion-referenced sections of the GEE.
2. There is no significant relationship between the instructional coach and the organizational climate of the school.
3. There is no significant relationship between the instructional coach and the level of teacher efficacy exhibited by teachers.

### **Potential Ethical Issues**

As with any research endeavor, there were ethical concerns to be addressed in the current study. To limit the risk of an ethical breach, the researcher took steps to be forthcoming with all involved superintendents and principals regarding the purpose and scope of the proposed study. School and district leaders were asked to emphasize the voluntary nature of teacher participation in the survey while stressing potential benefits arising from the study. The privacy of teachers employed in the participating schools was maintained by limiting researcher contact strictly to superintendents and school

principals or their designees. Additionally, teachers received the electronic link to the proposed survey via e-mail from the school principal allowing both teachers' decisions to respond and actual responses to remain anonymous. As the researcher is employed as an instructional coach at one of the schools included in this investigation, the principal handled all email communication and the transfer of data during analysis was verified by third party personnel to ensure that teacher confidence and anonymity were maintained as well as providing transparency during the process on the part of the researcher. Schools and districts have been provided summaries of the results from this investigation and were not specifically identified in the final reporting.

### **Data Analysis**

The researcher utilized a t-Test for Paired Samples in the efforts to prove or disprove the null hypothesis that there is no significant difference between the presence of instructional coaches and student performance on the criterion-referenced sections of the GEE. According to Mertler and Vanatta (2005), this statistical measure was appropriate given that the dependent variable, student achievement, is interval in form and the independent variable, instructional coaching, exists in two categories: with coaching or without coaching. The percentage of students scoring at the proficient level at each respective school on each of the subtests of the 2009 administration of the GEE was located via the Louisiana Department of Education website.

The researcher also used a t-Test for Paired Samples in proving or disproving the null hypothesis that there is no significant difference between the presence of instructional coaches and organizational climate as measured on the Organizational Climate Description for Secondary Schools (OCDQ-RS). Again, the independent

variable was represented by either the presence or absence of instructional coaches and the dependent variable was gathered in the form of interval data. For organizational climate and the survey items associated with the OCDQ-RS, unweighted means were determined for each school from the items designated for each of the subscales from each instrument. These subscales include behaviors identified as supportive, directive, engaged, frustrated, and intimate. Per the recommendations of the author (Hoy, 2009), these means were converted to standardized scores using normed means and standard deviations from each subscale. The standardized scores from each subtest were entered for each school to be analyzed using the t-test.

In proving or disproving the final null hypothesis that there is no significant difference between the presence of instructional coaches and teacher efficacy as measured on the Teachers' Sense of Efficacy Scale (TSES), the researcher again used the t-Test for Paired Samples. The two predetermined groups, with coaches and without coaches, once again represented the independent variable as the relationship between coaching and the dependent variable, teacher efficacy, is investigated. The dependent variable was measured using the TSES with an unweighted mean determined for each school from the items designated for each of the efficacy subscales as well as the instrument as a whole. The subscales of the TSES include engagement, instruction, and management. See Figure 3 for a graphical representation of the data analysis model.

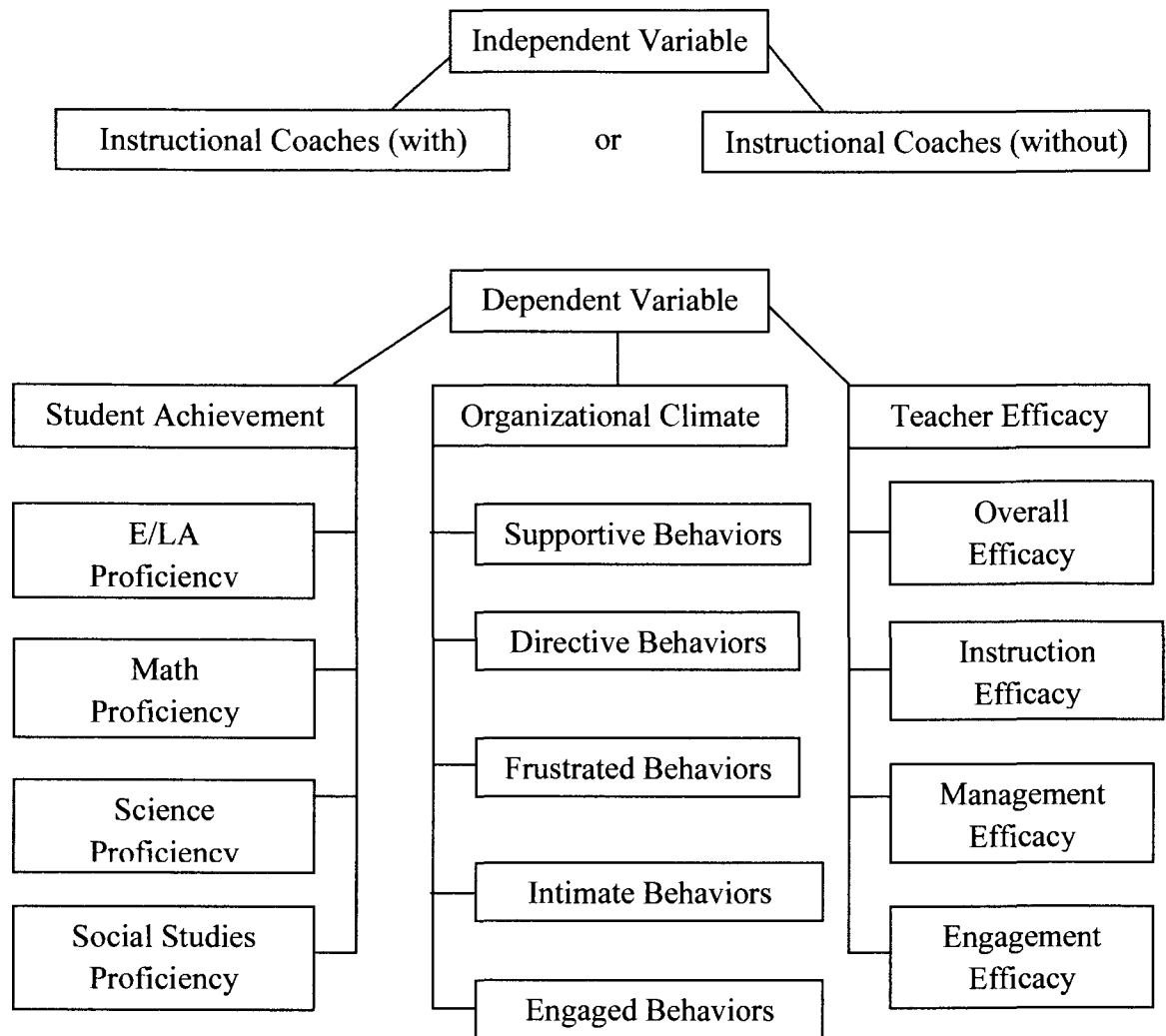


Figure 3: Dependent and Independent Variables

## CHAPTER 4

### RESULTS OF DATA ANALYSIS

The purpose of this study was to compare the population of north Louisiana high schools using instructional coaches to a demographically matched sample of high schools in north Louisiana that were not currently using instructional coaches to determine the presence or absence of significant differences in student achievement, organizational climate, and teacher efficacy. Eleven schools and their demographically matched pairs were included in the comparison of student achievement scores. However, organizational climate and teacher efficacy data were limited to comparisons between nine of the matched pairs as the researcher was denied access to personnel from two of the schools in the matched sample and no appropriate substitute was available in the north Louisiana area. The results of these comparisons are discussed in this chapter.

#### **Descriptive Analysis of Student Achievement Data**

Student achievement was measured using the spring 2009 administration of the Louisiana Graduate Exit Exam (GEE). Four subtests were administered that included English/language arts, math, science, and social studies. For the purpose of this study, student achievement was defined as the percentage of students at each school identified as proficient on the subtest areas of the exam. Specifically, proficient students are those that obtained achievement level classification of *basic*, *mastery*, or *advanced*. The data

used for this investigation were taken from the Louisiana Department of Education website (Louisiana Department of Education, 2008b) and included results from each of the four GEE subtests: After recording the mean proficiency percentages for each respective school, the overall means of proficient students associated with each group were subjected to comparison using the t-Test for Paired Samples. Results of this comparison are discussed later in this chapter. The proficiency percentages associated with students from each of the 11 high schools in both groups have been represented generically in Table 2.

Table 2

*Distribution of GEE Subtest Proficiency Percentages*

Schools with Coaches	E/LA	Math	Science	Social Studies	Schools without Coaches	E/LA	Math	Science	Social Studies
IC-1	64%	71%	60%	72%	NC-1	72%	75%	64%	66%
IC-2	74%	86%	83%	80%	NC-2	78%	79%	73%	75%
IC-3	77%	88%	75%	74%	NC-3	62%	70%	64%	64%
IC-4	67%	86%	69%	69%	NC-4	70%	85%	70%	60%
IC-5	45%	49%	27%	30%	NC-5	37%	49%	30%	36%
IC-6	72%	85%	71%	77%	NC-6	62%	65%	57%	53%
IC-7	36%	53%	37%	28%	NC-7	35%	50%	18%	26%
IC-8	61%	65%	41%	50%	NC-8	42%	48%	50%	50%
IC-9	58%	78%	40%	41%	NC-9	68%	90%	31%	27%
IC-10	59%	65%	56%	45%	NC-10	32%	49%	44%	43%
IC-11	58%	72%	50%	41%	NC-11	59%	71%	72%	68%

### **Descriptive Analysis of Organizational Climate Data**

The mean scores were determined for each of the 34 items for each of the 18 schools considered in this investigation. Combining the factors that have been shown through analyses to load on each of the sub-areas of the climate instrument (Hoy,



Tartar, & Kottkamp, 1991), the means for each of the six subdivisions were converted to standardized scores based upon the normative data provided by the instrument's authors. These mean scores were then compared between the two groups of high schools.

In determining teachers' perceptions on the organizational climate of the participating schools, the researcher utilized Hoy, Tartar, and Kottkamp's (1991) *Organizational Climate Description for Secondary Schools* (OCDQ-RS). The 34-item survey measured teachers' perceptions on the degree to which principals and instructional coaches exhibited supportive and directive behaviors. Also measured were teachers' perceptions regarding the instructional staff's engaged, frustrated, and intimate behaviors. The survey was made available to teachers electronically via e-mail link forwarded by each school's respective principal. A follow-up email to encourage teachers to participate in the study was sent to principals the week following the initial forwarding of the link by the principal. Surveys sent to teachers in schools using instructional coaches were modified such that the survey items with references to the school principal were changed to reference each school's respective instructional coaching position. No modifications were made to these items for schools not using instructional coaches as the reference to the principal was already in place. Response rates of teachers participating in the survey process were varied and ranged from 22% to 80% of each school's reported total instructional staff. The total number responses and rate of response for each school participating in the survey process have been included in Table 3.

Table 3

*Teacher Response Rate*

School	Number of Responses	Rate of Response	School	Number of Responses	Rate of Response
IC-1	57	80%	NC-1	17	22%
IC-2	34	28%	NC-2	43	35%
IC-3	30	40%	NC-3	30	48%
IC-4	15	60%	NC-4	8	67%
IC-6	19	29%	NC-6	13	27%
IC-8	19	56%	NC-8	12	30%
IC-9	7	50%	NC-9	8	62%
IC-10	15	37%	NC-10	41	65%
IC-11	8	53%	NC-11	7	46%

Upon concluding data collection, the mean scores were determined for each of the 34 survey items associated with each of the 18 respective schools considered in this investigation. Combining the factors that have been shown through analyses to load on each of the sub-areas of the climate instrument (Hoy, Tartar, & Kottkamp, 1991), the means for each of the six subdivisions were converted to standardized scores based upon the normative data provided by the instrument's authors. These mean scores were then compared between the two groups of high schools using the t-Test for Paired Samples. The results of this comparison are reported later in this chapter.

### **Descriptive Analysis of Teacher Efficacy Data**

In determining teachers' perceptions of efficacy, the researcher used the Teachers' Sense of Efficacy Scale (TSES, short form) (Tschannen-Moran & Woolfolk Hoy, 2001). The TSES measured efficacy as a whole construct as well as three separate components that included student engagement, instructional strategies, and classroom management. The researcher obtained the data used to measure the construct of teacher efficacy from the combined online survey that was also used to determine

organizational climate. As was the case with organizational climate, only 9 of the 11 schools in each group participated due to lack of access to two of the demographically matched schools not using instructional coaches. Each participating school was administered the same version of the 12-item TSES. Unweighted means were subsequently calculated for each of the schools on the factors related to efficacies of student engagement, instructional strategies, and classroom management. The mean of the overall instrument was also determined, providing a general efficacy score that was used for additional comparison.

### **Null Hypothesis No. 1**

The first null hypothesis for the current investigation regarding the relationship between the instructional coach and student achievement was stated:

H<sub>1</sub> There is no significant relationship between the instructional coach and student performance on the criterion-referenced sections of the Louisiana Graduate Exit Exam (GEE)

Student achievement data from each of the participating schools were subjected to statistical comparison using the t-Test for Paired Samples. While it is interesting to note that the achievement means were higher across all subtests for the group of high schools using instructional coaches, Null Hypothesis No. 1 cannot be rejected due to there being no significant differences indicated in the statistical comparisons of the two groups ( $p > .05$ ). A number of plausible circumstances likely exist that could offer explanations on the finding that there were no significant differences between the two groups on the student achievement construct. Because of the variety of measures undertaken by school leaders that target student achievement, with the utilization of

instructional coaches being only one of these measures, it is logical that the differences between the groups on this variable may be small enough to lack statistical significance. This may be especially true given the diminutive size of the comparison groups. Other conclusions reached through this analysis have been included in the ensuing chapter. The statistical differences between the group means for each subtest have been included in Table 4.

Table 4

*Student Achievement Means, t-Scores, and Significance*

Pair	Components	Mean	t-Score	Significance (2-tailed)
Pair 1	NC ELA	56.0909	-1.374	.200
	IC ELA	61.0000		
Pair 2	NC Math	66.4545	-1.943	.081
	IC Math	72.5455		
Pair 3	NC Science	52.0000	-.932	.373
	IC Science	55.3636		
Pair 4	NC Social Studies	51.6364	-8.69	.405
	IC Social Studies	55.0000		

**Null Hypothesis No. 2**

The second null hypothesis for this investigation regarding the relationship between the instructional coach and organizational climate was stated:

H<sub>2</sub> There is no significant relationship between the instructional coach and the organizational climate of the school.

As with student achievement, data gathered to measure teachers' perceptions of the organizational climate of their respective schools were also grouped and examined for the presence or absence of statistically significant differences using the t-Test for

Paired Samples. As were found in the comparison of student achievement means, positive results were again associated with the schools utilizing instructional coaches. The perceptions of teachers at these schools revealed that the behaviors of instructional coaches were generally more supportive and less directive when compared to principals in non-coaching schools. The means also indicated that students were generally more engaged at schools utilizing instructional coaches and that teachers at these schools indicated less frustration in their jobs. Finally, mean scores regarding intimacy and openness were higher among schools using instructional coaches than those that were not.

Because one null hypothesis was developed to represent the construct of organizational climate, including all of its sub-components, the researcher determined that any significant difference found to exist between the groups would serve to justify rejection of the null hypothesis that supposes the existence of no significant relationship. Although all of the mean differences reflected positively upon the high schools using instructional coaches, when put to statistical comparison using the t-Test for Paired Samples, only two of the differences in means were found to be significant. While this does not represent a majority of the components sub-defined within the instrument, the Organizational Climate Description for Secondary Schools (OCDQ-RS), the conclusion of the researcher is that Null Hypothesis No. 2 must be rejected as there proved to be significant differences between the two groups on this measure.

Specifically, both of the mean differences on the measures of directive behaviors and general openness were found to be significantly different ( $p < .05$ ). Within the context of this population and matched sample, the teachers at the high schools using

coaches perceived the behaviors of instructional coaches to be significantly less directive and the general climate of the school to be significantly more open than were perceived by the group of teachers at high schools not using coaches. Although the mean standardized measurements of supportive, frustrated, and intimate behaviors indicated that in schools using coaches, instructional coaches were generally more supportive, teachers less frustrated, and faculties more intimate, these differences were not found to be statistically significant. Data related to the mean comparisons of these groups can be found in Table 5.

Table 5

*Organizational Climate Means, t-Scores, and Significance*

Pair	Component	Means	t-Scores	Significance (2-tailed)
Pair 1	NC Supportive	541.24	-1.715	.125
	IC Supportive	616.09		
Pair 2	NC Directive	576.54	5.774	.000
	IC Directive	479.65		
Pair 3	NC Engaged	465.30	-1.291	.233
	IC Engaged	525.64		
Pair 4	NC Frustrated	488.89	1.852	.101
	IC Frustrated	421.83		
Pair 5	NC Intimate	618.51	-.256	.805
	IC Intimate	634.37		
Pair 6	NC Openness	485.28	-2.854	.021
	IC Openness	560.06		

### Null Hypothesis 3

The third null hypothesis for this investigation regarding the relationship between the instructional coach and teacher efficacy was stated:

H<sub>3</sub> There is no significant relationship between the instructional coach and the level of teacher efficacy exhibited by teachers.

In reaching a conclusion regarding this final null hypothesis, the presence or absence of statistically significant differences between groups on the measure of teacher efficacy was again determined using the t-Test for Paired Samples. As the researcher concluded in the application of the results of the administration of the Organizational Climate Description for Secondary Schools (OCDQ-RS), a significant difference between the groups on even a single component of the instrument provides sufficient evidence to reject Null Hypothesis No. 3. Of the four components evaluated using the Teachers' Sense of Efficacy Survey (TSES), significant differences were found between the groups on two of them ( $p < .05$ ). In light of the determination that there were significant differences between the groups, the researcher concluded that Null Hypothesis No. 3 must be rejected

The first significant difference between the two groups was found in considering the instrument as a whole. The survey data revealed that the teachers in high schools with instructional coaches perceived themselves to be more efficacious in general than their peers in non-coaching schools. This was reflected in the group means of 7.29 and 7.03 for the coaching and non-coaching high schools, respectively. Using the t-Test for Paired Samples, the difference between these two means was found to be statistically significant ( $p < .05$ ). Coincidentally, teachers from both groups of high schools indicated

perceptions of greater efficacy when compared to the 7.1 mean efficacy score of the normed group as established by Tschannen-Moran and Woolfolk Hoy (2001).

Secondly, teachers in high schools using instructional coaches indicated greater efficacy in managing their classrooms than their non-coaching peers. The mean difference of the two groups on the measurement of classroom management efficacy was determined to be statistically significant ( $p < .05$ ) when subjected to the t-Test for Paired Samples. Teachers in the group of high schools using coaches returned a mean of 7.7 on this construct compared to the mean of 7.03 returned by the teachers in the non-coaching group of schools. The normed mean for this construct was 6.7 (Tschannen-Moran & Woolfolk Hoy, 2001) and as with general efficacy, both groups' means were higher than the pre-established normed mean.

In a comparison of teachers' perspectives on their efficacies in the student engagement and instructional strategies, comparisons remained complimentary to the schools using instructional coaches. Teachers in this group again demonstrated a greater sense of efficacy than was demonstrated by the teachers in non-coaching schools. With means of 6.52 and 7.63 on the instructional and engagement constructs respectively, the coaching-schools group means were higher than the non-coaching high schools with means of 6.3 and 7.42. However, the mean differences between the groups on student engagement and instructional strategies were not found to be statistically significant under t-test analyses. Compared against the normed means, teachers' perceptions of their efficacy in instructional strategies were higher although student engagement means were lower than normed means. Teachers in the non-coaching group perceived themselves to be less effective in both student engagement and



instructional strategies than those in the normed sample of schools. The results of these analyses are summarized in Table 6.

Table 6

*Teacher Efficacy Means, t-Scores, and Significance*

Pair	Component	Means	t-Scores	Significance (2-tailed)
Pair 1	NC Student Engagement	6.30	-1.191	.268
	IC Student Engagement	6.52		
Pair 2	NC Instructional Strategies	7.42	-1.521	.167
	IC Instructional Strategies	7.63		
Pair 3	NC Classroom Management	7.36	-3.261	.012
	IC Classroom Management	7.72		
Pair 4	NC Overall Efficacy	7.03	-2.343	.047
	IC Overall Efficacy	7.29		

## **CHAPTER 5**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

#### **Summary**

The purpose of this study was to compare the student achievement, organizational climate, and teacher efficacy of schools using instructional coaches to schools not using them. This study included 11 high schools in a region currently using instructional coaches and had used them during at least the previous three years. The researcher used a causal-comparative research design due to the pre-existing nature of the independent variable, the presence or absence of instructional coaches. Student achievement was measured using archival data from the 2009 spring test administration of the Louisiana Graduate Exit Exam (GEE). The researcher gathered data on teachers' perceptions of their organizational climates and teaching efficacies using the Organizational Climate Description for Secondary Schools (OCDQ-RS) (Hoy, Tartar, and Kottkamp, 1991) and Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). Results of the study demonstrated that there are significantly positive results associated with the use of instructional coaches in at least 9 of the 11 high schools in north Louisiana.

In attempting to provide empirical evidence that instructional coaching is having an impact on student achievement, the sizes of the population and sample represent what are possibly the primary obstacles in establishing a significant difference between

the two groups. As there have been few other attempts to examine this phenomenon quantitatively, it may be suggested that other researchers have had similar difficulties in dealing with the fewer applications of the coaching model. In the current study, the population of 11 high schools using instructional coaches in north Louisiana was examined along with the 11 high schools that provided the closest demographic matches and shared proximity to an urban center.

Student achievement was defined as the percentage of students who were considered to be proficient on the 2009 spring administration of the GEE. To be considered proficient, students must have scored *basic*, *mastery* or *advanced*. An interesting discovery was the finding that the mean student achievement percentages were higher across each of the subtests for the group of high schools using instructional coaches. However, this trend did not result in a statistically significant finding when a comparison of the mean differences between the two groups was conducted using the t-Test for Paired Samples. Because the means were not found to be significantly different, the null hypotheses stating that there is no significant relationship between the instructional coach and student performance on the criterion-referenced sections of the GEE cannot be rejected.

After gaining permissions for the investigation from district superintendents, the researcher contacted each of the 18 schools via e-mail to provide information regarding the investigation and to request their assistance in initiating the study in their respective schools. Because the researcher was denied access to two of the non-coaching schools due to internal matters that were not disclosed by the superintendent, the total number of schools evaluated in this group was reduced to nine. As the investigation was based

upon the use of matched pairs, the demographic matches within the group of schools using coaches were also excluded in the comparison of group means for the measures of organizational climate and teacher efficacy. In determining the presence or absence of significant differences between the two groups on the basis of organizational climate, the researcher administered the Organizational Climate Description for Secondary Schools (OCDQ-RS) (Hoy, Tartar, & Kottkamp, 1991). The 34-item survey was used to determine teachers' perceptions of the organizational climate at their respective high schools. The instrument provided a measure of the mean perceptions of teachers on the degree to which: (a) behaviors of instructional coaches or principals were supportive or directive, (b) behaviors of teachers were engaged, frustrated, or intimate, and (c) the general climate of the school was open.

When subjected to the t-Test for Paired Samples, the comparison of the two groups' again revealed that the group of high schools using instructional coaches achieved mean scores that were more favorable in each of the subcomponent analyses than the group of schools not using coaches. Concerning teachers' perceptions that their respective principals and coaches engaged in supportive or directive behaviors, it was determined that instructional coaches engaged in behaviors that were more supportive and less directive than their principal counter-parts. Additionally, mean scores for the two groups indicated that the behaviors of teachers in schools using instructional coaches were less frustrated and more engaged and intimate than the behaviors of teachers in non-coaching schools. Finally, the openness of the climates was perceived to be greater at schools using instructional coaches than those without. Each of these results reflected positively upon the use of instructional coaches,

however, results for statistical significance using the t-Test for Paired Samples were mixed as only the mean differences for directive behaviors and openness of climate were found to be significant ( $p < .05$ ). Due to this finding, however, the null hypothesis that stated there is no significant relationship between instructional coaches and organizational climate must be rejected.

In addition to the favorable comparison of means found in the analysis of climate data, the comparison of mean standardized scores attributed to the high schools using instructional coaches also compared favorably with the normative data provided by Hoy, Tartar, and Kottkamp (1991). With a mean standardized score above 600 on supportive and intimate behaviors, teachers' perceptions place the high schools using instructional coaches above 84% of the schools in the original sample. Conversely, the same group enjoyed a mean lower than over 84% of the normative sample when directive and frustrated behaviors were considered. Finally, comparison of the mean standardized scores for engaged behaviors and general openness among the high schools using coaches were also higher than most of the group in the original sample. The comparison of the non-coaching high schools to the normed group was less positive as the principals in this group were perceived by teachers to display more directive behaviors and teachers fewer engaged behaviors. The general openness of this group of schools was also found to be below the average for the schools participating in the original sample.

As a final component of this study, an attempt was undertaken to measure teachers' perceptions of their teaching efficacy using the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). The short form of this study

containing 12 items was provided to teachers at the 18 participating high schools via the same electronic link that directed teachers to the climate survey and was forwarded by school principals. The TSES was used to generate the mean teacher perceptions on their overall efficacy as well as three subcomponents, efficacy in student engagement, instructional strategies, and classroom management.

Data analysis of the teachers' perceptions on their efficacy determined that the favorable trend associated with positive findings on behalf of the group of high schools using instructional coaches continued in the examination of the efficacy constructs. It was found that in both overall efficacy, as well as in the efficacy subcomponents, the mean scores were higher for the group of schools where instructional coaches were present than in schools where coaches were not used. While each of the mean differences favor the group of schools using instructional coaches, only two of the differences in means returned evidence of statistical significance. The teachers' perceptions in this analysis indicated that those in schools using instructional coaches believed themselves to generally more efficacious than their peers in non-coaching schools. Additionally, teachers in the high schools using coaches demonstrated perceptions of greater efficacy in classroom management than those in the non-coaching group. The mean differences between the groups were statistically significant at the .05 level. Because of the finding that the means of these two constructs were significantly different, the null hypothesis that stated there is no significant relationship between the instructional coach and the level of teacher efficacy exhibited by teachers must be rejected.

As with the climate instrument, the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) provided normative data that allowed the researcher to make a determination of how the schools in the current study fared against those in the original sample. During these comparisons, the researcher found that the means associated with the group of high schools using instructional coaches were higher than three of the four normed means for the efficacy constructs. The group of schools not using coaches had mean scores higher than the norming sample on two of the four constructs. Specifically, the means for both of the groups in north Louisiana were higher in the constructs related to instructional strategies and classroom management than the original sample. Additionally, the mean efficacy for the group of high schools using coaches was higher than that of the normed mean in overall efficacy where the group of schools not using coaches returned a mean slightly less. A final conclusion reached was that teachers from both of the groups participating in the study indicated that they were less efficacious in measures related to student engagement than the teachers that took part in the initial sample.

### **Conclusions**

The results of this investigation allow the researcher to conclude that the overall influences of the instructional coaches on the areas of student achievement, organizational climate, and teacher efficacy are positive. These conclusions are in concordance with those reached in previous investigations of the coaching model in Boston (Boston Plan for Excellence, 2009; Boston Public Schools, 2006; Neufeld, 2006; Neufeld, Baldassari, Johnson, Parker, & Roper, 2002; Neufeld & Guiney, n.d.; & Neufeld, Woodworth, Evans, Garcia, Huebner, & Swanson, 1998), the state of

Pennsylvania (Brown, Reumann-Moore, Hugh, du Plessis, & Christman, 2006, 2007, 2008; Eisenberg, 2007, 2008; & Pennsylvania High School Coaching Initiative, 2009) and across the United States (America's Choice, 2009; Poglinco, Bach, Hovde, Rosenblum, Saunders, and Supovitz, 2003). The current study provides yet another version of the many replications involving instructional coaches, an overwhelming number of which allude to the positive aspects of the coaching model.

Although there have been many studies that have attributed positive findings to the instructional coaching position, many researchers also acknowledge that the phenomenon lacks definitive evidence of any measurable impact. Although this may be true, as both the circumstantial and empirical arguments for using instructional coaches continue through additional claims of positive associations between coaches and the various components of effective schools, it is likely that the predicted growth in the use of the position will come to fruition. In the context of the current study, the researcher concluded from the findings that instructional coaches did impart a measurable effect on two of the three general constructs measured in this investigation. Whereas no statistically significant differences were found between the means of the two groups on the measure of student achievement, the analysis of mean differences between the groups on the measures of organizational climate and teacher efficacy did return some significant findings.

Because of the lack of empirical evidence pointing to any significant relationship between instructional coaches and student achievement, the null hypothesis must be retained. However, of the three overall constructs investigated, student achievement undoubtedly has been the recipient of the greatest focus and initiatives



aimed at improvements in the past 30 years of educational reform. In the more recent past, this is certainly understandable given the emphasis placed on the construct both nationally and statewide with the inception and continued influence of the No Child Left Behind Act (United States Department of Education, 2002). School and district improvements in student achievement have been required under the national piece of legislation and the legislative efforts of the states that quickly ensued. Based upon the laser-like focus of educational agencies at all levels on student achievement, there are many attempts at the local, state, and national level to influence this construct. As a result of the many different initiatives being undertaken to bring about positive changes in student achievement, at both schools with and without instructional coaches, it is conceivable that the impact of coaches on this construct could be diminished in light of districts' attempts to raise student achievement by means other than use of the coaching model.

As was pointed out in the literature review in Chapter 2, few investigations into the potential impact of instructional coaches on the construct of organizational climate have been undertaken. This is true in light of the widely accepted views of educational researchers that school climate has a direct and measureable impact on student achievement (Cohen, 2007, Hoy and Hannum, 1997, Levin and Wiens, 2003, and Sweetland and Hoy, 2000). By inference then, although no statistically significant determination was found between coaches and student achievement, the impact that instructional coaches are making in regard to organizational climate is having a positive impact on student achievement as well. Based upon determinations made through the course of this investigation, the research hypothesis that there is a significant

relationship between instructional coaches and the organizational climate was confirmed and the null hypothesis rejected.

In the current study, the mean differences between the two groups suggest that instructional coaches engaged in more supportive and less directive behaviors than their principal counterparts in the matched sample. However, statistical significance was associated with only the directive behaviors component. Given that each school principal and district leaders determine the actual job descriptions of the respective instructional coaches, it is possible that a great deal of variance could exist between the schools depending on the actual nature of the actual assignments carried out by the respective instructional coaches. These findings may be explained by the recommendations of Borman and Feger (2006) and Steiner and Kowal (2007b) who suggested that the job descriptions of instructional coaches be constructed in such a way to avoid an evaluative component as it may interfere with the coaches' abilities to support teachers effectively. Evidence of this restriction was documented in the work of Ai and Rivera (2003) in the Los Angeles application of the coaching model and may help to explain the difference in perceptions of the two groups of teachers in the current study. In this application, the researchers suggested that coaches had taken on overly administrative job description and that a prevailing perception among teachers existed that coaches served more of an evaluative role than a supportive or resourceful one.

No significant impact was seen in the components of frustrated behaviors or engaged behaviors although the mean scores favored the group of schools using instructional coaches. Influences to these components are likely to be very broad within the context of the school although the instructional coaching position is one of the tools

that may be used to address some of the concerns indicated by frustrated teachers. Regardless of the presence or absence of an instructional coach, the school principal is a primary figure in determining organizational climate. As Hoy, Tartar, and Kottkamp (1991) indicated, teachers that are frustrated generally have concerns with routine interference that detracts from their abilities to teach effectively. Typically, teachers become frustrated due to the over-application of non-instructional duties and assignments, of which the instructional coach would theoretically have little control over. It is possible that the presence of an instructional coach would allow the principal to delegate some of these administrative or non-instructional tasks to the instructional coach in lieu of teachers. Engaged behaviors represent just the opposite as this construct reflects high morale and faculty members that are supportive of each other. In respect to both, the instructional coach may be able to do a great deal in assisting the principal in promoting engaged behaviors and lessening frustration, possibly evidenced in this study by the favorable means in both areas associated with the group of high schools using instructional coaches. Coincidentally, the more positive staff members' interactions are with each other and the more they value the success of their students, the more open the climate is determined to be. Again, the instructional coach can be expected to serve as a tool or resource to promote these types of interactions and values. This perspective would explain the finding of a significant difference between the mean scores of the two groups on this measure.

The current study represents an early attempt to determine not only the significance of the relationship between instructional coaches and organizational climate, but also between instructional coaches and teacher efficacy. It was determined

through the course of this study that instructional coaches can have a significant impact on teachers' sense of efficacy. In determining that the null hypothesis regarding the relationship between instructional coaches and teacher efficacy should be rejected, the researcher provided evidence that instructional coaches may play a significant part not only in promoting teachers' sense of efficacy, but also in promoting student achievement. This may be further supported by the connections established between teacher efficacy and student achievement by Ashton and Webb (1986), Dembo and Gibson (1985), Tschannen-Moran, Woolfolk Hoy, & Hoy (1998) among others.

Assisting teachers in becoming more efficacious in their crafts would seem an ideal undertaking for the position of instructional coach. Given that the coach did not have to serve in an evaluative capacity, a trusting relationship shared between the two could serve as a platform whereby the teacher might improve skills related to promoting student engagement, instructional strategies, classroom management, and other attributes that would add to their overall efficacy. In the current study, it is possible that the role of instructional coaches very much mirrored the above scenario. Certainly instructional coaches played a valuable part in promoting efficacy among teachers in the area of classroom management and added significantly to the teachers' sense of overall efficacy as each were evidence by significant values during data analysis ( $p < .05$ ).

With the task of increasing student achievement firmly entrenched as a priority for all educational professionals, it is again logical to assume that districts have undertaken many initiatives in an attempt to promote teachers' sense of efficacy in instructional strategies and student engagement. Previous studies have shown that teacher efficacy may be positively influenced through the use of professional

development initiatives (Bandura, 1997; Borchers, Shroyer, & Enochs, 1992; Ross & Bruce, 2007; Ross, Ertmer, & Johnson, 2001). The use of instructional coaches is certainly one of these initiatives and have likely influenced teacher efficacy in these areas through their work with efforts. The mean for these constructs, though not statistically significant, is but another piece of supportive evidence that might be used to advocate for the position as each was higher among the high schools that utilized instructional coaches than for the group of schools not using them.

While the results of this study do not provide overwhelming evidence that the use of instructional coaches are the answer to every high school's school improvement issues, a number of positive outcomes were achieved. Whereas some of these outcomes bear greater significance than might others, the current study has, at a minimum, advanced the body of research available on the phenomenon and given educational leaders in the north Louisiana region valuable information relative to the coaching model. When considered in conjunction with has been published about instructional coaches to date, the potential of the position to impact positive gains in student achievement, organizational climate, and teacher efficacy certainly seems to be great.

### **Recommendations**

The following recommendations are offered by the researcher based upon the review of literature and information that that has been discovered through this investigation:

1. Additional empirical evidence is needed to add to the body of works in existence to support or refute what is relevant to the use of instructional coaches and their capacities to increase student achievement and improve organizational climate

and teacher efficacy. As the researcher in the current study concluded, the results of this study are not conclusive, but rather constitute another piece of evidence that supports the use of instructional coaches in school improvement efforts.

2. Action research or case studies may be useful undertakings for district and school leaders in making determinations as to the effectiveness and efficiency of existing instructional coaching programs. References should be made to Knight (2007b), Steiner and Kowall (2007a, 2007b), and Killion and Harrison (2005) for selection criteria, best coaching practices, and effective supports for the position. Job descriptions of coaches and routine tasks and assignments should be evaluated against these resources.
3. An additional study of the instructional coaching group would probably provide further insight to the specific activities of the instructional coaches and the relationship between these activities and outcomes relative to student achievement, organizational climate, and teacher efficacy. Such a study might examine the incidence of particular coaching activities and relationships to student achievement, organizational climate, and teacher efficacy. Qualitative methods might also be utilized to explore teachers' perceptions of their respective instructional coaches in greater depth.
4. The instrument used to measure student achievement could be modified in coming years as the state of Louisiana transitions from the Louisiana Graduate Exit Exam to End of Course testing in algebra I, English I, English II, geometry, biology I, and American history. Future research could be conducted to

determine if the student achievement mean continued to favor the group of schools using coaches over the matched sample. The investigation could be expanded to include schools on a statewide basis.

5. As school districts have begun to include instructional coaches in middle and junior high schools, the investigation could be expanded to compare the students' performances on standardized assessments against the performances of students in similar local or regional schools.

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**APPENDIX A**

**HUMAN USE COMMITTEE LETTER**



LOUISIANA TECH  
UNIVERSITY  
MEMORANDUM

OFFICE OF UNIVERSITY RESEARCH

TO: Mr. Richard Hearn and Dr. Lawrence Leonard  
FROM: Barbara Talbot, University Research  
SUBJECT: HUMAN USE COMMITTEE REVIEW  
DATE: January 29, 2010

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

**“An Evaluation of Instructional Coaching at Selected High Schools in North Louisiana and its Effects on Student Achievement, Organizational Climate, and Teacher Efficacy”**

# HUC-731

The proposed study’s revised procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. *This approval was finalized on January 21, 2010 and this project will need to receive a continuation review by the IRB if the project, including data analysis, continues beyond January 21, 2011.* Any discrepancies in procedure or changes that have been made including approved changes should be noted in the review application. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of University Research.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Research or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

If you have any questions, please contact Dr. Mary Livingston at 257-4315.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 3092 • RUSTON, LA 71272 • TELEPHONE (318) 257-5075 • FAX (318) 257-5079  
AN EQUAL OPPORTUNITY UNIVERSITY

**APPENDIX B**

**LETTER TO SUPERINTENDENTS**

Date

Name of Superintendent  
 Name of School District  
 Address of School District

Dear Superintendent \_\_\_\_\_,

The purpose of this letter is to seek your approval and assistance in gathering information for a doctoral study titled *An Evaluation of Instructional Coaching at Selected High Schools in North Louisiana and its Effect on Student Achievement, Organizational Climate, and Teacher Efficacy*. The purpose of this study is to compare high schools using instructional coaches with demographically similar high schools not using instructional coaches to determine significant differences between the two on measures of student achievement, organizational climate, and teacher efficacy. Student achievement will be measured using the percentage proficient in each of the core areas on the 2009 administration of the GEE. Organizational climate and teacher efficacy will be measured using a teacher survey consolidating the *Organizational Climate Description for Secondary Schools* (Hoy, Tarter, & Kottkamp, 1991) and the *Teachers' Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001).

I assure you that no school or its personnel will be identified in the final account of this study. For your consideration, a copy of the survey has been attached to this letter. Surveys will be completed online and links to the survey will be provided to each principal to be forwarded to his or her respective staff members. It is expected that completion of the survey will take no longer than 5 minutes.

As several districts are now using instructional coaches, also known as curriculum coordinators or instructional facilitators, this study will offer district leaders the opportunity to assess these positions in terms of actual empirical evidence. It is my expectation that the results of this study will allow district and school leaders to know with certainty of the effects that activities of these personnel are having on student achievement, organizational climate, and teacher efficacy. I look forward to sharing the results of this study with each district involved to use at their discretion.

I respectfully request your permission to include (name of schools) in this important investigation. Upon receipt of your letter of permission, I will contact the principals of these schools to initiate the study. If you have questions, please feel free to contact me by phone at 318-680-7827 or by e-mail at [hearn@opsb.net](mailto:hearn@opsb.net). Dr. Lawrence Leonard is the major professor and committee-chair in this endeavor and may be contacted by phone at 318-257-3229 or by e-mail at [leonard@latech.edu](mailto:leonard@latech.edu).

Sincerely,

Richard M. Hearn  
 Doctoral Student  
 Louisiana Education Consortium

**APPENDIX C**  
**E-MAIL TO PRINCIPALS**



Date:

Dear Principal \_\_\_\_\_,

With the approval of your superintendent, I am requesting your assistance in conducting a survey of the teachers at your school. Information gathered through this survey will be used to complete the doctoral study titled *An Evaluation of Instructional Coaching at Selected High Schools in North Louisiana and its Effect on Student Achievement, Organizational Climate, and Teacher Efficacy*. The purpose of this study is to compare high schools using instructional coaches with demographically similar high schools not using instructional coaches to determine significant differences between the two on measures of student achievement, organizational climate, and teacher efficacy. Student achievement will be measured using the percentage proficient in each of the core areas on the 2008 administration of the GEE. Organizational climate and teacher efficacy will be measured using a teacher survey consolidating the *Organizational Climate Description* (Hoy, Tarter, & Kottkamp, 1991) and the *Teachers' Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001). Additionally, surveys will measure descriptive statistics such as years of teaching experience.

I assure you that neither your school nor personnel will be identified in the final account of this study. I have attached a cover letter containing the electronic link to the survey and request that you please forward these to each core or elective teacher that was also employed at the school during the previous school year. Surveys will be completed online and require only that you forward the link to the appropriate teachers. Although teacher participation is voluntary, the validity of the study is dependent upon receipt of a sufficient number of responses. With this in mind, I request that you personally encourage teachers to participate in the survey, which should take fewer than 5 minutes to complete. Because results of this research will be shared with all schools and districts involved, a higher rate of response rate will benefit all involved.

As an increasing number of schools are now using instructional coaches, also known as curriculum coordinators or instructional facilitators, this study will offer district and school leaders the opportunity to assess these positions in terms of actual empirical evidence. It is my expectation that the results of this study will allow those in leadership positions to know with certainty of the effects that activities of these personnel are having on student achievement, organizational climate, and teacher efficacy. I look forward to sharing the results of this study with each school and district involved to use at their discretion. Thank you in advance for your efforts on my behalf.

If you have questions, please feel free to contact me by phone at 318-680-7827 or by e-mail at [hearn@opsb.net](mailto:hearn@opsb.net). Dr. Lawrence Leonard is the major professor and committee-chair in this endeavor and may be contacted by phone at 318-257-3229 or by e-mail at [lleonard@latech.edu](mailto:lleonard@latech.edu).

Sincerely,  
Richard M. Hearn

Doctoral Student  
Louisiana Education Consortium

**APPENDIX D**

**E-MAIL REQUEST TO TEACHERS**

Date

Dear Teacher,

With the approval of your superintendent and principal, I am requesting your assistance in conducting a survey that will be used to complete the doctoral study titled *Instructional Coaching: An Evaluation of Instructional Coaching at Selected High Schools in North Louisiana and its Effect on Student Achievement, Organizational Climate, and Teacher Efficacy*. The purpose of this study is to compare high schools using instructional coaches with demographically similar high schools not using instructional coaches to determine significant differences between the two on measures of student achievement, organizational climate, and teacher efficacy.

As an increasing number of schools are now using instructional coaches, also known as curriculum coordinators or instructional facilitators, this study will offer district and school leaders the opportunity to assess these positions in terms of actual empirical evidence. It is my expectation that the results of this study will allow those in leadership positions to know with certainty of the effects that activities of these personnel are having on student achievement, organizational climate, and teacher efficacy. I look forward to sharing the results of this study with each school and district involved to use at their discretion.

Your participation in this process is strictly voluntary. However, I am respectfully requesting your assistance in completing this investigation, the culminating event in my doctoral studies. I assure you that neither your school nor any of its personnel will be identified in this process. Your responses will remain completely confidential, identified only by the school code, (insert school code), which will be used to separate responses into the appropriate groups.

The validity of the study is dependent upon receipt of a sufficient number of responses. Therefore, I would like to thank you in advance for your efforts on my behalf. This process should take fewer than 10 minutes.

*By clicking on the link below, I am acknowledging that I understand that my participation in this survey is voluntary and confidential and that my responses, including my choice to either participate or opt out, will not be known to anyone, including the researcher and the school principal, and cannot in any way affect my employment status. I voluntarily agree to participate in this survey.*

If you agree to the preceding statement, please click on the following link to be directed to the survey.  
[insert survey link here]

Sincerely,

Richard M. Hearn  
Doctoral Student  
Louisiana Education Consortium

**APPENDIX E**

**ORGANIZATIONAL CLIMATE DESCRIPTION**

**FOR SECONDARY SCHOOLS (ORIGINAL)**

<b>OCDQ-RS</b>					
<b>DIRECTIONS: THE FOLLOWING ARE STATEMENTS ABOUT YOUR SCHOOL. PLEASE INDICATE THE EXTENT TO WHICH EACH STATEMENT CHARACTERIZES YOUR SCHOOL BY CIRCLING THE APPROPRIATE RESPONSE.</b>					
<b>(RO) RARELY OCCURS</b>	<b>(SO) SOMETIMES OCCURS</b>	<b>(OO) OFTEN OCCURS</b>	<b>(VFO) VERY FREQUENTLY OCCURS</b>		
1	The mannerisms of teachers at this school are annoying	RO	SO	O	VFO
2	Teachers have too many committee requirements	RO	SO	O	VFO
3	Teachers spend time after school with students who have individual problems	RO	SO	O	VFO
4	Teachers are proud of their school	RO	SO	O	VFO
5	The principal sets an example by working hard himself/herself	RO	SO	O	VFO
6	The principal compliments teachers	RO	SO	O	VFO
7	Teacher-conferences are dominated by the principal	RO	SO	O	VFO
8	Routine duties interfere with the job of teaching	RO	SO	O	VFO
9	Teachers interrupt other faculty members who are talking in faculty meetings	RO	SO	O	VFO
10	Student government has an influence on school policy	RO	SO	O	VFO
11	Teachers are friendly with students	RO	SO	O	VFO
12	The principal rules with an iron fist	RO	SO	O	VFO
13	The principal monitors everything the teachers do	RO	SO	O	VFO
14	Teachers' closest friends are other faculty members at this school	RO	SO	O	VFO
15	Administrative paperwork is burdensome at this school	RO	SO	O	VFO
16	Teachers help and support each other	RO	SO	O	VFO
17	Pupils solve their problems through logical reasoning	RO	SO	O	VFO
18	The principal closely checks teacher activities	RO	SO	O	VFO
19	The principal is autocratic	RO	SO	O	VFO
20	The morale of teachers is high	RO	SO	O	VFO
21	Teachers know the family background of other faculty members	RO	SO	O	VFO
22	Assigned non-teaching duties are excessive	RO	SO	O	VFO
23	The principal goes out of his/her way to help teachers	RO	SO	O	VFO
24	The principal explains his/her reason for criticism to teachers	RO	SO	O	VFO
25	The principal is available after school to help teachers when assistance is needed	RO	SO	O	VFO
26	Teachers invite other faculty members to visit them at home	RO	SO	O	VFO
27	Teachers socialize with other faculty members on a regular basis	RO	SO	O	VFO
28	Teachers really enjoy working here	RO	SO	O	VFO
29	The principal uses constructive criticism	RO	SO	O	VFO
30	The principal looks out for the personal welfare of the faculty	RO	SO	O	VFO
31	The principal supervises teachers closely	RO	SO	O	VFO
32	The principal talks more than listens	RO	SO	O	VFO
33	Pupils are trusted to work together without supervision	RO	SO	O	VFO
34	Teachers respect the personal competence of their colleagues	RO	SO	O	VFO

**APPENDIX F**

**ORGANIZATIONAL CLIMATE DESCRIPTION**

**FOR SECONDARY SCHOOLS**

**(REVISED)**

<b>OCDQ-RS</b>					
<b>DIRECTIONS: THE FOLLOWING ARE STATEMENTS ABOUT YOUR SCHOOL. PLEASE INDICATE THE EXTENT TO WHICH EACH STATEMENT CHARACTERIZES YOUR SCHOOL BY CIRCLING THE APPROPRIATE RESPONSE.</b>					
	<b>(RO) RARELY OCCURS</b>	<b>(SO) SOMETIMES OCCURS</b>	<b>(OO) OFTEN OCCURS</b>	<b>(VFO) VERY FREQUENTLY OCCURS</b>	
1	The mannerisms of teachers at this school are annoying	RO	SO	O	VFO
2	Teachers have too many committee requirements	RO	SO	O	VFO
3	Teachers spend time after school with students who have individual problems	RO	SO	O	VFO
4	Teachers are proud of their school	RO	SO	O	VFO
5	The instructional coach sets an example by working hard himself/herself	RO	SO	O	VFO
6	The instructional coach compliments teachers	RO	SO	O	VFO
7	Teacher-conferences are dominated by the instructional coach	RO	SO	O	VFO
8	Routine duties interfere with the job of teaching	RO	SO	O	VFO
9	Teachers interrupt other faculty members who are talking in faculty meetings	RO	SO	O	VFO
10	Student government has an influence on school policy	RO	SO	O	VFO
11	Teachers are friendly with students	RO	SO	O	VFO
12	The instructional coach rules with an iron fist	RO	SO	O	VFO
13	The instructional coach monitors everything the teachers do	RO	SO	O	VFO
14	Teachers' closest friends are other faculty members at this school	RO	SO	O	VFO
15	Administrative paperwork is burdensome at this school	RO	SO	O	VFO
16	Teachers help and support each other	RO	SO	O	VFO
17	Pupils solve their problems through logical reasoning	RO	SO	O	VFO
18	The instructional coach closely checks teacher activities	RO	SO	O	VFO
19	The instructional coach is autocratic	RO	SO	O	VFO
20	The morale of teachers is high	RO	SO	O	VFO
21	Teachers know the family background of other faculty members	RO	SO	O	VFO
22	Assigned non-teaching duties are excessive	RO	SO	O	VFO
23	The instructional coach goes out of his/her way to help teachers	RO	SO	O	VFO
24	The instructional coach explains his/her reason for criticism to teachers	RO	SO	O	VFO
25	The instructional coach is available after school to help teachers when assistance is needed	RO	SO	O	VFO
26	Teachers invite other faculty members to visit them at home	RO	SO	O	VFO
27	Teachers socialize with other faculty members on a regular basis	RO	SO	O	VFO
28	Teachers really enjoy working here	RO	SO	O	VFO
29	The instructional coach uses constructive criticism	RO	SO	O	VFO
30	The instructional coach looks out for the personal welfare of the faculty	RO	SO	O	VFO
31	The instructional coach supervises teachers closely	RO	SO	O	VFO
32	The instructional coach talks more than listens	RO	SO	O	VFO
33	Pupils are trusted to work together without supervision	RO	SO	O	VFO
34	Teachers respect the personal competence of their colleagues	RO	SO	O	VFO

**APPENDIX G**

**TEACHERS' SENSE OF EFFICACY SCALE (SHORT FORM)**



<b>Teachers Sense of Efficacy Scale</b>						
<b>Teacher Beliefs</b>		<b>How much can you do?</b>				
<b>Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.</b>		<b>Nothing</b>	<b>Very Little</b>	<b>Some Influence</b>	<b>Quite a Bit</b>	<b>A Great Deal</b>
<b>1</b>	<b>How much can you do to control disruptive behavior in the classroom?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>2</b>	<b>How much can you do to motivate students who show low interest in school-work?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>3</b>	<b>How much can you do to get students to believe they can do well in school work?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>4</b>	<b>How much can you do to help your students value learning?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>5</b>	<b>To what extent can you craft good questions for your students?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>6</b>	<b>How much can you do to get children to follow classroom rules?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>7</b>	<b>How much can you do to help calm a student who is disruptive or noisy?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>8</b>	<b>How well can you establish a classroom management system with each group of students?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>9</b>	<b>How much can you use a variety of assessment strategies?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>10</b>	<b>To what extent can you provide an alternate explanation or example when students are confused?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>11</b>	<b>How much can you assist families in helping their children do well in school?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>
<b>12</b>	<b>How well can you implement alternative strategies in your classroom?</b>	<b>(1) (2)</b>	<b>(3) (4)</b>	<b>(5) (6)</b>	<b>(7) (8)</b>	<b>(9)</b>