

A QUALITATIVE ANALYSIS OF ELEMENTARY TEACHERS' PERCEPTIONS  
ABOUT THE IMPACT OF THE IPI PROCESS ON CLASSROOM PRACTICES

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In Partial Fulfillment  
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Doctor of Education

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by

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Dr. Joyce Piveral, Dissertation Supervisor

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The undersigned, appointed by the dean  
of the Graduate School,  
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A QUALITATIVE ANALYSIS OF  
ELEMENTARY TEACHERS' PERCEPTIONS  
ABOUT THE IMPACT OF THE IPI PROCESS  
ON CLASSROOM PRACTICES

presented by Beverly Deis,

a candidate for the degree of  
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and hereby certify that,  
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## DEDICATION

This work is dedicated to my family, John, Mac, Missy, Dad, Mom, and Karle with love and gratitude for your constant support and encouragement throughout this process.

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This dissertation marks the end of a three year journey. The journey went by quickly with many personal and professional successes and setbacks. The road to the doctorate could not be traveled alone. Family members and friends supported me all of the way.

My husband John has always supported me no matter what path I chose. So when I asked him about the doctoral program, he was probably more excited than I was! Many nights and many Saturdays we would sit across the table from each other – he would be doing his work and I would be doing homework and eventually writing a dissertation. We would occasionally glance up from our computers and smile at each other. I thank John for being my personal “desk help” guy assisting me with all sorts of technical questions. He was always there for me when I needed encouragement and a push to continue traveling down the path.

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	ii
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
ABSTRACT.....	xi
CHAPTER	
1. INTRODUCTION TO THE STUDY.....	1
Conceptual Underpinnings for the Study.....	3
Rationale for the Study .....	6
Statement of the Problem.....	9
Specific Evaluative Question.....	11
Definitions of Key Terms .....	12
Delimitations of the Study .....	16
Limitations of the Study.....	16
Assumptions.....	17
Summary.....	17
2. REVIEW OF RELATED LITERATURE .....	19
Introduction.....	19
History of Instructional Practices.....	20
Background of Instructional Practices Inventory Process .....	26
Classroom Walkthroughs.....	37
Summary.....	39

3. RESEARCH DESIGN AND METHODOLOGY .....	42
Problem and Purpose of the Study.....	43
Overarching Research Question and Interview Questions .....	45
Research Design.....	49
Study Participants .....	51
Demographics of Participants .....	54
Ethical Considerations .....	54
Data Collection Methods .....	55
Analysis.....	60
Summary .....	66
4. RESEARCH FINDINGS .....	68
Study Overview .....	68
Presentation of Data.....	75
Triangulation of Data.....	96
Summary .....	97
5. DISCUSSION WITH RECOMMENDATIONS AND SUMMARY .....	99
Summary of Findings.....	100
The Keys to Meaning.....	103
Implications .....	105
Adding to the Depth of Knowledge .....	106
Discussion and Application of New Knowledge .....	107

Recommendations for Future Research .....	110
Summary .....	111
6. REFERENCE LIST .....	113
7. APPENDICES	
A. IPI Teacher Interview Questions.....	122
B. IPI Principal Interview Questions .....	124
C. Six Coding Categories and Look-Fors Rubric .....	126
D. IPI Protocols.....	127
E. Sample IPI Profile .....	128
F. Interview Protocol Statement .....	129
G. Signed Permission Letter .....	130
H. Explanatory Letter and Informed Consent.....	131
8. VITA.....	132

## LIST OF TABLES

Table	Page
1. 2009 Demographics of Teacher Participants and Their Student Population .....	78
2. Emergent Themes from Interviews with Teachers .....	81
3. Emergent Themes from Interviews with Principals .....	82

## LIST OF FIGURES

Figure	Page
1. Conceptual framework depicting research paradigm and underpinnings .....	6
2. Conceptual framework illustrating research design .....	43

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ABSTRACT

The Instructional Practices Inventory (IPI) process is a way to collect information to accurately measure student-engaged learning from various instructional practices in order to improve student achievement and direct classroom instruction. The purpose of this study was to explore teachers' perceptions through conversations using personal open-ended, semi-structured interviews in order to gain information on the IPI process and its impact on instructional practices used in the classroom. Based on the research setting, problem, and purpose the overarching research question was: To what extent does the Instructional Practices Inventory process impact the instructional practices or strategies used by elementary classroom teachers?

The research for this study was qualitative using open-ended, semi structured interview questions and observations. A literature review provided background information on relevant topics to the study. The interviews were conducted with twelve teachers from six different schools and their respective principals from purposeful sampling within the given predetermined geographic location. Interviews were transcribed and the data were analyzed through open and axial coding. Themes emerged and were filtered through the literature review.

Several key findings surfaced as a result of this study. First was the positive impact the IPI process had on instructional practices based on teachers' perceptions. This

positive impact was also relevant to student active engagement. Another key finding was the relationship between the IPI process and the use of Kagan Structures. Finally, professional development was an essential part of the IPI process being successfully implemented within the schools.

Future research might benefit from expanding the geographical area for participants to include teachers outside of the Northwest Missouri geographic area. Interviewing teachers in the middle schools and high schools would add variation to the participants as well. This study was based on interviews and observations, but surveys and focus groups would add more data for comparison. Finally, the review of literature would be more informative if it contained information on the Kagan Structures and student active engagement.





## CHAPTER ONE

### INTRODUCTION TO THE STUDY

Criticism mounted concerning public education throughout the nation during the 1960s and 1970s. The next decade cast even darker denigration about education with the 1983 landmark report, *A Nation at Risk: The Imperative for Education Reform*. In this “open letter to the American people,” the National Commission on Excellence in Education found “declines in educational performance are in large part the result of disturbing inadequacies in the way the educational process itself is often conducted” (US Department of Education, 1983, p.1). This report publicized by the commission “was considered by some as proof that K-12 education had indeed devolved to a state of irreversible disrepair” (Marzano, 2003, p. 3). Even with recommendations for schools to have more rigorous and measurable standards, the effects of *A Nation at Risk* caused more alarm instead of corrective behavior.

As education continued to suffer, politicians remained hopeful. “The movement toward standards-based education and assessment that began with *A Nation at Risk* ‘went national’ with the passage of the *Improving America's Schools Act of 1994* (IASA)” (Jorgensen & Hoffman, 2003, p.4). With the passage of the IASA and another important 1994 law, the *Goals 2000: Educate America Act*, the focus in education was now on meeting the needs of all students. Specifically, the *Goals 2000: Educate America Act* was signed with a focus on raising student achievement through comprehensive change, school improvement, and achievement for all children (US Department of Education, n.d.a). With the educational focus already on comprehensive change and student achievement for all children, the federal *No Child Left Behind Act of 2001* (NCLB) was signed into law to assist with this effort to reform public education basically by bringing

“considerable clarity to the value, use, and importance of achievement testing of students in kindergarten through high school” (Jorgensen & Hoffman, p. 6).

“Under *No Child Left Behind*, individual states are working to close the achievement gap and make sure all students, including those who are disadvantaged, achieve academic proficiency” (US Department of Education, n.d.b, p. 1). In response to the federal NCLB guidelines for each state to meet Adequate Yearly Progress (AYP), Missouri has developed their own AYP time line requiring all students to meet or exceed the State’s proficient level for communication arts and math during or before the school year 2013-2014 (Department of Elementary and Secondary Education [DESE], 2006). *No Child Left Behind* is a meticulous act forcing schools in America to move quickly to improve student achievement levels. “*No Child Left Behind* puts emphasis on determining which educational programs and practices have been proven effective through rigorous scientific research” (US Department of Education, p. 1). However, Elmore (1995) discovered the pressures for increased student achievement do not result in the massive change in teaching practices that one might expect. Rather, Elmore suggests teaching practices should reflect best practices within the school organization.

As schools hurriedly seek answers in their attempts to improve student achievement, many educational programs and practices are being tested and tried. While educational programs and practices come and go, research-based strategies become the main focus for educational reform. Today, more than ever, schools are utilizing research to make informed decisions about instruction, achievement, and school improvement. As stated by Kachur, Stout, and Edwards (2010):

NCLB dramatically raised the bar on expectations for all students (including students with disabilities and recent immigrants) to become proficient in reading

and mathematics by 2014. This law has increased the level of accountability for schools, causing instructional leaders to assume a more active and visible role in school improvement and the professional development of teachers. (p. 7)

As accountability grows, so does the need for a research knowledge base on how to improve student achievement. School leaders often select new programs based on knowledge and research in hopes of increasing student achievement. After adopting these new programs, some school leaders and teachers simply sit around and wait on the next AYP report to see if student achievement has increased. While most of these newly adopted programs focus on student achievement, the Instructional Practices Inventory (IPI) process is one of the few research based programs developed to provide information based on student engaged learning (Valentine, 2005). This information is then used as the basis for teachers to reflect upon instructional strategies used within the classrooms, subsequently focusing upon instructional improvement through student active engagement (Valentine), thus leading to improved student achievement. With this in mind, the researcher designed this qualitative study to analyze elementary classroom teachers' perceptions about the impact of the IPI process on classroom instructional strategies and practices used in rural Northwest Missouri school districts.

### Conceptual Underpinnings for the Study

Conceptual underpinnings were used as the lens for this study in reviewing the data and related literature. The conceptual underpinnings guiding this study were based on Marzano's researched based instructional strategies (2003, 2007; Marzano, Pickering, & Pollock, 2001; Waters, Marzano, & McNulty, 2004). Those strategies include (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing

effort and providing recognition, (d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.). Even though the researcher did not focus on all nine strategies during this study, the theory undergirding the instructional strategies provided the theoretical framework for the literature review, the data analysis, the findings, and the recommendations.

Several studies found effective leadership is positively correlated with higher levels of student achievement (Waters et al., 2004; Quinn, 2002). Classroom walkthroughs also benefit student achievement (Kachur et al., 2010), specifically in the areas of communication, intellectual stimulation, monitoring, and evaluating. Furthermore, Marzano, Waters, and McNulty (2005, as cited in Kachur et al.) give the following definitions as they relate to classroom walkthroughs:

- Communication – walkthroughs establish strong lines of communication with and among teachers and students;
- Intellectual stimulation – walkthroughs ensure that faculty and staff are aware of the most current theories and practices and make the discussion of these a regular aspect of the school's culture;
- Monitoring/evaluating – walkthroughs help monitor the effectiveness of school practices and their impact on student learning. (p. 16)

Pressley, Rankin, and Yokoi (1996) concur in suggesting leadership within the classroom is related to student achievement and can involve a variety of instructional

practices. These instructional practices are specific teaching methods guiding interaction in the classroom (Primary Source Learning, 2008). Moreover, Marzano (2007) states:

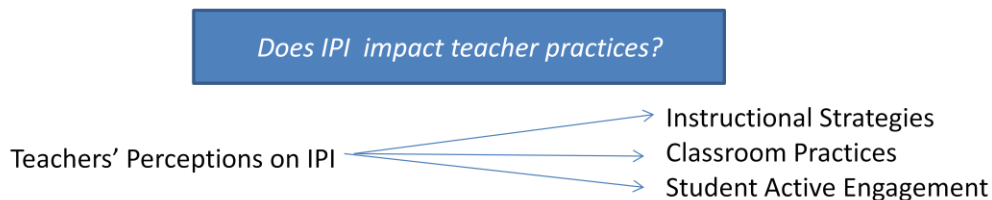
In short, research will never be able to identify instructional strategies that work with every student in every class. The best research can do is tell us which strategies have a good chance (i.e., high probability) of working well with students. Individual classroom teachers must determine which strategies to employ with the right students at the right time. (p. 5)

Teachers use a variety of instructional strategies as suggested by Burns (1979) and Dolly and Katz (1987) further this thought in stating, “Data . . . support the notion that using a variety of instructional techniques can facilitate student learning” (p. 35). In conclusion Burns states, the one common goal prevalent in education is quality learning for all students.

The IPI instrument was designed by Painter and Valentine in 1995-1996 to better understand the impact of instructional strategies used within the classrooms (Valentine, 2005, 2007a). This “data collection profiling system” was revisited with Valentine making the most recent revision in 2007 (Valentine, 2007a, p. 3). The IPI data collection profile system establishes a process to accurately measure the student engaged learning based on various instructional practices within classrooms (Valentine). The data collection profile using the IPI instrument displays the findings in numbers and percentages showing comparisons of various instructional strategies in relationship to student engagement. The IPI instrument does not address teachers’ perceptions on the impact of the IPI process in relationship to specific teaching strategies or student achievement. The perceptions of teachers were utilized to study and generate knowledge

about specific teaching practices associated with the IPI process. Figure 1 presents the conceptual framework for this qualitative study.

A QUALITATIVE ANALYSIS OF ELEMENTARY TEACHERS' PERCEPTIONS ABOUT THE  
IMPACT OF THE IPI PROCESS ON CLASSROOM PRACTICES



*Figure 1.* The conceptual framework depicting the research paradigm and the conceptual underpinnings for research related to teachers' perceptions on Instructional Practices Inventory (IPI).

#### Rationale for the Study

Instructional practices or strategies are used on a daily basis in elementary classrooms. There are many conventional methods of instructional practices used by elementary teachers in public school classrooms (Pressley et al., 1996). Burns (1979) concurs there is a variety of instructional strategies, and also suggests all of them have one common goal of quality learning for all students. Even though there is no single predominant instructional practice theory used today in the elementary school setting, Marzano (2003, 2007) claims one of the most important characteristics of efficient teaching is the use of effective instructional strategies. Furthermore, research supports the value of active engaged learning in connection with effective instructional strategies for the purpose of increasing student achievement (Marzano et al., 2001; McCombs, 2003; Slavin, 1996). The awareness of the need for effective instructional strategies involving active engaged learning indicates a need for better understanding of the use of the IPI

process within the classroom setting. Since the IPI process is a fairly new instrument, originally developed in 1995-1996 (Valentine, 2005, 2007a), research has not adequately addressed teachers' perceptions about using the IPI process in relationship to instructional strategies used in the elementary classrooms. Through quantitative studies, researchers have determined the IPI process has had an impact on Missouri Assessment Program (MAP) scores (Gauen, 2009; Valentine & Collins, 2009); however, there are few or no qualitative studies on the IPI process.

Qualitative studies would add needed information in the use of effective instructional strategies within elementary classrooms. Marzano (2003) indicates effective schools can make a difference in the achievement of students. He continues in stating, "Among elements such as a well-articulated curriculum and a safe and orderly environment, the one factor that surfaced as the single most influential component of an effective school is the individual teachers within that school" (2007, p. 1). Teachers today have an abundance of instructional practices available to help them do a better job (Marzano, Pickering, and Brandt, 1990). Marzano adds "Keeping students engaged is one of the most important considerations for the classroom teacher. Although it is probably not the job of classroom teacher to entertain students, it is the job of every classroom teacher to engage students" (2007, p. 98). Research by Peterson and Fennema (1985) supports the notion that student engagement and non-engagement in the classroom are related to achievement. Furthermore, engagement in learning activities means students are attending to classroom instructional activities. Reeves, (2006, as cited in Marzano, 2007) states the following:

Engagement includes on-task behavior, but it further highlights the central role of students' emotion, cognition, and voice . . .When engagement is characterized by the full range of on-task behavior, positive emotions, invested cognition, and personal voice, it functions as the engine for learning and development. (p. 99)

Marzano adds, "The dynamics of what causes or encourages students to engage in classroom behavior are most probably very complex" (2007, p. 99).

One of those dynamics involved in student engagement within the classroom would be the energy level of the teacher. Marzano (2007) states one of the most important factors affecting student's attitudes toward engagement in the classroom is teacher enthusiasm and intensity. He continues with the following:

One simple technique for engaging students and enhancing their level of energy is to create situations that allow them to talk about their interests. A straightforward way to facilitate this discussion is to ask students to relate academic content to their interests. (p. 114)

Many teachers are not comfortable allowing students the freedom to talk in the classrooms, but the talking and discussion are part of the IPI process. McCombs (2003) agrees a positive learning environment within the classroom can increase the likelihood of student success and an enthusiastic teacher will result in a positive learning environment.

The use of the IPI process within the classroom setting has been an identifiable attribute contributing to increased student achievement (Gauen, 2009; Valentine & Collins, 2009) based on quantitative data. Whereas this study, based on elementary teachers' perceptions, identified if the use of the IPI process had an impact on



instructional strategies used within the classroom, thus providing students with more active engaged learning. Findings from this study provided future guidance to school districts supporting the use of educational instructional strategies focused on active student engagement, thus leading to an increase in student achievement. Marzano (2007) advises research can determine instructional strategies with a high probability of working with most students, but research cannot identify instructional strategies that work for every student. Individual classroom teachers have to decide which instructional strategies work best in their classrooms with their students at the appropriate time.

#### Statement of the Problem

The IPI instrument was first developed in 1995-1996 (Valentine, 2005, 2007a; College of Education: University of Missouri, 2008) as a means to provide “observable, objective quantifiable measures of student engagement;” however since the development of the IPI, “the utility of the instrument has grown . . .” (Valentine, 2007b, p. 2). Kachur et al. state, “The IPI is a practical system for codifying student engagement during instruction. The observer moves from classroom to classroom systematically collecting ‘snapshots’ of student engagement using observation protocols designed to maintain observer accuracy and consistency” (2010, p. 36).

Gathering the observable data is just one part of the IPI process. The documented data then serves as the basis for analyzing student learning behavior based on a school – wide profile of student engagement gathered through the lens of six categories. This analysis serves as a vital component in the process of increasing student engagement and enhancing instruction throughout the school environment. Through collaborative discussions and problem solving of the data profiles, faculty members become involved

in the “refinement of instructional practices and related increases in quality student engagement . . .” (Kachur et al., 2010, p. 36). The IPI process, when used properly, provides valid, reliable data for profiling student engaged learning and provides the basis for the collaborative problem-solving faculty conversations necessary for improvement in school-wide learning and related instructional practices (Valentine, 2005).

A few years after the development of the IPI process, it was recommended in the 2004 and 2006 publications of the National Association of Secondary School Principals (Valentine, 2007b) as a way to analyze student learning behavior. “State departments of education in four Midwestern states recommend the process for their schools in jeopardy of not meeting academic yearly progress and in their non-jeopardy school improvement initiatives” (Valentine, 2007b, p. 15). The AYP is just part of the requirements of the NCLB Act of 2001 in hopes to raise academic achievement in all schools (U.S. Department of Education, 2004). Through NCLB, schools are forced to become more focused on student achievement.

This focus on improving student achievement is guiding schools to implement programs that will assist them in the process of increasing MAP scores. With this emphasis on accountability and increased student achievement, teachers have to make decisions about how they want their students to think (Thomas & Thorne, n.d.). The IPI is a “data collection profile system designed to establish processes for accurately measuring the nature of student-engaged learning from various instruction practices across an entire school . . . to improve student achievement, and . . . to direct classroom instruction” (SuccessLink, n.d., p. 1). Even though quantitative data exists on the IPI process and student achievement (Gauen, 2009; Valentine & Collins, 2009), there has

been little or no research on teachers' perceptions on the IPI process and the correlation to classroom instructional strategies.

For overall student improvement purposes, this researcher thought the perceptions of teachers on the IPI process would bring personal value to the use of the IPI process and to the use of this study. There was a need to provide information from data gathered and analyzed through observations, interviews, and documents (Creswell, 2003) based upon the perceptions of the impact of the IPI process from classroom teachers in Northwest Missouri on instructional practices. This data helped the researcher gain an "in-depth understanding of the situation and meaning for those involved" in the IPI program because qualitative studies are "intensive descriptions and analysis" (Merriam, 1998, p. 19) of a single program. It is anticipated these findings will lead to actions within the schools contributing to further use and commitment to the IPI process.

#### Specific Evaluative Question

An inquiry process consisting of individual interviews was used to explore the perceptions teachers have in connection to the IPI process and how the IPI process has impacted their teaching practices. This process consisted of interviews with various elementary teachers and elementary principals employed in Northwest Missouri public school districts. Since this study was designed to gain understanding of teachers' perceptions on the IPI process, interviewing was the main means of inquiry, as suggested by Seidman, (1998). Seidman claims, "At the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience" (p.3), and continues in suggesting people must reflect on their experiences to give the researcher insight to details of those experiences. Interviewing is ". . . a powerful

way to gain insight into educational issues through understanding the experience of the individuals whose lives constitute education” (Seidman, p. 7).

Therefore, the broad question guiding this study was: To what extent does the IPI process impact the instructional practices or strategies as perceived by elementary classroom teachers? This overarching research question guided the set of questions for the individual teacher interviews (Appendix A) and the individual principal interviews (Appendix B). The set of questions are based on the theoretical framework of the study and the theoretical framework defines the research problem. Due to the nature of a qualitative study, the researcher wanted to understand the meaning other people make of their experience with the IPI process (Seidman, 1998). The interview questions were only used as a guide for the researcher, but as Seidman notes, the answers to the questions could lead to more in-depth questions.

#### Definitions of Key Terms

*Adequate Yearly Progress (AYP)*. Adequate Yearly Progress is required by NCLB and is an indication if the school: receives federal Title I funding; achieved AYP in the previous year; and if the school has been identified as “in school improvement” or other special status (Department of Elementary and Secondary Education [DESE], n.d.). Basically AYP is one of the mandates of NCLB and requires all states to set targets to show improvement in achievement.

Missouri’s AYP targets were established by the Department of Elementary and Secondary Education (DESE) based on a formula from the NCLB Act and an analysis of Missouri Assessment Program (MAP) data, attendance rate data and graduation rate data from prior years. When all targets are met, the requirements of AYP are met. (Department of Elementary and Secondary Education, 2009, p. 1)

*Classroom walkthrough.* Kachur et al. (2010) describe the classroom walkthrough as:

. . . short, informal observations of classroom teachers and students by school administrators, coaches, mentors, peers, and others, followed by feedback, conversation, and/or action. Classroom walkthroughs provide snapshots of instructional decisions and student learning that, over time, create an album of a building's strengths, patterns of practice, and needs. (p. 1)

*Department of Elementary and Secondary Education (DESE).* Missouri's local state agency for educational needs.

*Higher order thinking skills.* Thinking beyond memorizing facts, rote memory, or retelling the same thing back the way it was told to you (Thomas & Thorne, n.d.).

“Higher-order thinking occurs when a person takes new information and information stored in memory and interrelates and/or rearranges and extends this information to achieve a purpose or find possible answers to perplexing situations” (Lewis, 1978, as cited in Collins, 2009, p. 21).

*Instructional practices.* Instructional practices are specific teaching methods that guide interaction in the classroom (Primary Source Learning, 2008). Teachers today have an abundance of available instructional practices (Marzano et al., 1990).

*Instructional Practices Inventory (IPI).* The Instructional Practices Inventory is an instrument to gather data used to produce a school-wide detailed profile of student engaged learning for a specified period of time providing observable, objective, quantifiable measures of student engagement (Valentine, 2005, 2007b, 2009). The data are recorded by a trained observer using a one through six rubric scale matching the IPI

coding categories including (1) complete disengagement, (2) student work with teacher not engaged, (3) student work with teacher engaged, (4) teacher-led instruction, (5) student learning conversations, and (6) student active engaged learning (Valentine, 2005).

*Instructional Practices Inventory (IPI) process.* The IPI process is a systematic school improvement process developed to provide a school-wide picture of student learning practices that serve as the basis for faculty reflection and instructional improvement (Valentine, 2005). “The IPI process, when used properly, provides valid, reliable data for profiling student engaged learning . . .” (College of Education: University of Missouri, 2008, para.5) which can be used as the basis of “analysis, reflection, and problem solving” by all faculty members facilitated by teacher-leaders (Valentine, p. 7) allowing teachers to frequently monitor and fine-tune instructional practices used within their classrooms.

*Missouri Assessment Program (MAP).* As stated in the Practical Parenting Partnerships: A Parent’s Guide to the MAP Grade Level Assessment (Grades 3-8), The Missouri Assessment Program, or MAP, was created in response to Missouri’s Outstanding School Act of 1993. When the No Child Left Behind Act of 2001 (NCLB) was passed into law, Missouri’s Department of Elementary and Secondary Education (DESE) began revisions of the MAP to comply. These two legislations are similar in that they were both designed to help raise student performance. No Child Left Behind requires that states use federal funds to improve education. The MAP Grade-Level assessments are a series of tests that

measure whether students in Missouri are meeting Grade Level Expectations developed using the Show-Me Standards. It's a way of finding out if kids are learning what they need to learn. (Dickneite, 2009, p. 3)

Summaries and detailed results from MAP are provided for each school and district along with disaggregated results for various subgroups of students as required by federal law (DESE, n.d.).

*Student achievement.* Student achievement begins with a student: one who is enrolled in or attends classes at a school, added with achievement: the act of accomplishing, achieving, performing, or finishing; therefore, one definition of student achievement is someone enrolled in school accomplishing, achieving, performing, or finishing a task. Marzano, Marzano, and Pickering elaborate in stating, "We live in an era when research tells us that the teacher is probably the single most important factor affecting student achievement – at least the single most important factor that we can do much about" (2003, p. 1).

*Student engagement.* Student engagement is referred to as participation, according to Bloom (1976). The opportunities students have to learn material depends on the instructional time and the time actually engaged in learning activities (Brophy, 1979) Brophy suggests the amount of engaged time depends on the classroom teacher's goals and classroom management skills. In addition, Marzano states students need opportunities "to practice new skills and deepen their understanding of new information. Without this type of extended processing, knowledge that students initially understand might fade and be lost over time" (2007, p. 58).

### Delimitations of the Study

Delimitations for this study include:

1. Limiting the study to elementary teachers employed in Northwest Missouri public school districts who are currently using the IPI process; therefore, the findings were not generalizable.
2. The setting for each interview was conducted at respective elementary school buildings.
3. Interviews were utilized to collect data to assure manageability of this qualitative study.
4. Information for this study was based on the perceptions of elementary classroom teachers in connection with the use of the IPI process within their classrooms.

### Limitations of the Study

Limitations for this study include:

1. The purposive sampling procedure of this qualitative study decreased the generalizability of the findings. The study included participants from rural Northwest Missouri School Districts.
2. Interviews, even with open-ended questions, limited responses and information provided for this study.
3. This study is a qualitative study; therefore the findings could be subject to various interpretations.



4. The researcher has the IPI program implemented in her school district; thus prior knowledge of the IPI process exists which includes the researcher's biases.

### Assumptions

During the interviews it was assumed the teachers were accurate in describing their perception of the use of the IPI process within their classrooms. Furthermore, it was assumed the recording of the interviews did not alter the participants' information. It was also assumed the use of observational field notes were accurate according to the researcher's observations.

### Summary

Instructional practices have been used in elementary classrooms for several years. Legislation demanding increased student achievement elevates the necessity for teachers to focus on research-based instructional strategies to use in their classrooms. There is an ever increasing focus to improve student achievement and this focus is guiding schools to implement programs that will assist them in the process of increasing MAP scores. Valentine and Painter developed the IPI in hopes teachers would better understand the impact of instructional strategies used within classrooms (Valentine, 2005, 2007a). The IPI data collection process by using numerical findings has shown a correlation between instructional practices and student achievement (Gauen, 2009; Valentine & Collins, 2009); however, this study focused on elementary classroom teachers' perceptions about the impact of the IPI process on classroom practices as discovered through teacher conversations.

This study consists of five chapters. Chapter One introduced the background and conceptual underpinnings for the study. The statement of the problem and specific evaluative questions were also presented. Definitions for key terminology used within the study and

limitations to the study were also listed in Chapter One. Chapter Two provided related literature for the study through key concepts and research. Chapter Three presented the methodology used for the study. This chapter gave detailed information on the research design by describing the participants and setting along with the qualitative data collection and analysis methods used within the study. Chapter Four provided a summary of the analysis of data including demographics of the participants. Finally, Chapter Five offered a summarization of the study with findings and recommendations.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### Introduction

Education has always been focused on the students. The goal in education is to provide a quality education for all students (Valentine, 1992). Rock, Gregg, Ellis, and Gable (2008) add while teachers are held accountable for meeting the diverse needs of all students they are also responsible for ensuring improved educational outcomes. These factors often force educators to seek ways to strengthen traditional classroom practices. Years ago, educators effectively used Socratic inquiry as an instructional strategy for learning, but during the 1970s, “researchers began to look at the effects of instruction on student learning” (Marzano et al., 2001, p. 1), thus guiding teachers to consider various methods of instructional practices.

Instructional practices as defined in Chapter One are specific teaching methods guiding interaction in the classroom (Primary Source Learning, 2008). While instructional practices are a major focus within elementary classrooms, Burns suggests teachers use a wide variety of these instructional practices throughout the educational day (1979). The variety of instructional practices range from large group instruction to small group instruction and from individual practice to cooperative learning. Several studies indicate there is a relationship between instructional practices used within the classroom and higher levels of student achievement (Marzano, 2003, 2007; Marzano et al., 1990; Waters, Marzano & McNulty, 2003, 2004). “The Instructional Practices Inventory (IPI) evolved in 1995–1996 during the development of a school-based, comprehensive, systematic school improvement initiative” (College of Education: University of Missouri, 2008, p. 1). The IPI instrument, designed by Painter and Valentine with revisions by

Valentine (Valentine, 2005, 2007a), and the IPI process involving faculty reflection and instructional improvement have transformed the way people look at instructional practices.

Educators use a variety of instructional practices on a daily basis within their classrooms (Burns, 1979). Effective instructional practices benefit students, not only in the level of student engagement in the classrooms, but also in overall student achievement. The IPI is a new program focusing on student engaged learning discovered through data received by observing student behavior and teachers' instructional practices within the classroom. Through a review of literature this chapter addresses the topics of instructional practices and the IPI process. A historical review of instructional practices presented findings from studies concerning the variety of instructional practices used in classrooms as well as the impact the instructional strategies have on students. A detailed description of the IPI process also included background information on the IPI process. Finally, this chapter briefly reviewed the use of classroom walkthroughs as they are a major part of the IPI process.

### History of Instructional Practices

Instructional practices or strategies have been used in classrooms since the first school was established. As schools changed throughout the years, so did the instructional practices. "Over the years there have been many discussions regarding the need for students to process new information in ways that make personal sense" (Marzano, 2007, p. 30). Pressley et al. (1996) support this statement and emphasize there are many conventional methods of instructional practices used in the classrooms in relationship to students processing information. Two distinct types of "mastery learning" instructional strategies: Bloom's Learning for Mastery and Keller's Personalized System of Instruction

influenced the practice of instructional strategies within the classroom during the 1970s (Burns, 1979). Even though these two instructional strategies evolved from different scientific traditions and they affect classroom practices in different ways, Burns suggests they both commonly assume quality learning is possible for virtually all students.

Teachers use instructional strategies or practices on a daily basis. There are many conventional methods of instructional practices to enhance student thinking (Marzano, 1993; Pressley et al., 1996), and teachers use a variety of instructional strategies and practices within their classrooms. "Teacher talk is devoted to various forms of information giving: presenting information, explaining, giving directions, demonstrating, asking questions, responding to students questions or comments, reformulating student responses, providing feedback, managing activities, and facilitating routine tasks" (Chilcoat, 1989, p. 289). Furthermore, there is a basic generalization learners must be actively engaged in information processing and there has to be interaction among the teacher, the students, and the content in the teaching/learning process (Marzano, 2007). Cobb, Yackel, and Wood suggest learning is viewed as an active process when students try to resolve arising problems as they participate in the practices within the classroom (1992). They continue in stating the importance of the learning-teaching process as being interactive, involving implicit and explicit discussions, and finally leading to new learning.

Instructional practices are always being used within the classroom whenever the learning-teaching process is occurring. According to Bloom, "The instructional variable of greatest importance is believed to be the *Quality of Instruction* – the extent to which the cues, practice, and reinforcement of the learning are appropriate to the needs of the

learner” (1976, p. 11). Taking this a step further, Marzano et al. (2001) suggest there are nine research-based “instructional strategies that have a high probability of enhancing student achievement for all students in all subject areas at all grade levels” (p. 7). These strategies include (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing effort and providing recognition, (d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.).

### *Identifying Similarities and Differences*

When the teacher presents similarities and differences to students it helps them understand this basic concept; however, the ability for the students to identify similarities and differences enhances their “understanding of and ability to use knowledge” (Marzano et al., 2001, p. 15). These two notions appear to contradict each other, but the teacher directed activity and the student directed activity each have their own place in the classroom setting based upon the teacher’s desired outcome. Similarities and differences can be identified through classification, comparing, generating metaphors, or producing analogies. These ideas may be displayed using a variety of graphic organizers.

### *Summarizing and Note Taking*

According to Kintsch (1979), summarization involves deleting information, keeping information, and substituting information. This summarization involves the student analyzing the overall meaning of a given passage and knowing the structure of the needed information. Brown, Campione, and Day (1981, as cited in Marzano et al., 2001) suggest the rule-based strategy for summarization which includes (a) deleting

insignificant information, (b) deleting repeated information, (c) substituting all encompassing terms for individual items, and (d) developing a topic sentence. Note taking is similar to summarization as it also involves retrieving only the important information. Note taking can be incorporated with graphic organizers. Summarization and note taking “provide students with tools for identifying and understanding the most important aspects of what they are learning” (Marzano et al., p. 48).

#### *Reinforcing Effort and Providing Recognition*

Marzano et al. (2001) state the strategy of reinforcing effort and providing recognition addresses the attitudes and beliefs of students. Teachers should stress the importance of each student believing in themselves and knowing they are capable of changing their beliefs about effort. Recognition should not be confused with praises or rewards. “Abstract symbolic recognition is more effective than tangible rewards” (Marzano et al., p. 57). They also note for recognition to be effective, it needs to be personalized and prompt. In conclusion, Marzano et al. state,

Reinforcing effort can help teach students one of the most valuable lessons they can learn – the harder you try, the more successful you are. In addition, providing recognition for attainment of specific goals not only enhances achievement, but it stimulates motivation. (p. 59)

#### *Homework and Practice*

Most teachers are familiar with homework and practice. For most students homework is part of their daily routine. According to Marzano et al. (2001), students should be given an amount of homework representative of their grade level. This means a third grade student would spend less time on homework than a freshman in high school.

Marzano et al. also state (a) “parent involvement in homework should be kept to a minimum,” (b) “the purpose of homework should be identified and articulated,” and (c) “if homework is assigned, it should be commented on” (p. 63-64).

### *Nonlinguistic Representations*

Knowledge is usually stored in two forms. The first way knowledge is stored is through actual words and statements representing the linguistic form. The other form, nonlinguistic, is represented through imagery, often using pictures or kinesthetic associations. According to Marzano et al. (2001), the strategy involving nonlinguistic representations includes graphic organizers, physical models, pictures (drawn and mental), and kinesthetic activities. Marzano et al. suggest nonlinguistic representations assist students in understanding concepts in a variety of ways.

### *Cooperative Learning*

Cooperative learning is one of the most flexible teaching strategies used by teachers. Johnson and Johnson (1999) suggest cooperative learning has a focus on five elements: (a) positive interdependence, (b) face to face interaction, (c) individual and group accountability, (d) interpersonal and small group skills, and (d) group processing. Marzano et al. (2001) add cooperative groups should be based on ability grouping and the groups should be small in number without being over used within the classroom. Kagan (1994) supports cooperative learning in stating, “Cooperative learning promotes higher achievement than competitive and individualistic learning structures across all age levels, subject areas, and almost all tasks” (p. 3:1).



### *Setting Objectives and Providing Feedback*

Goal setting is a strategy of establishing direction for learning based on short-term and long-term goals. The goals narrow students' focus and should not be too specific. Marzano et al. (2001) suggest students be encouraged to personalize goals set within the school setting and this could be accomplished through developing contracts with the teachers.

### *Generating and Testing Hypotheses*

Applying information gained is discovered through generating and testing hypotheses. With this strategy students are able to predict and explain their hypothesis and conclusions through the use of problem solving, investigations, invention, experiments, and decision making (Marzano et al., 2001).

### *Questions, Cues, and Advance Organizers*

Questions, cues, and advance organizers help students retrieve information from prior knowledge. Questions and cues provide students with hints of what information is needed and these are an integral part of the learning process relating to instructional practices. Questions and cues focusing on what is important should be asked as higher level questions. Marzano et al. (2001) suggest teachers wait briefly before asking for a response allowing all students to process the question. Advance organizers are commonly used with unorganized information and similar to questions and cues, they need to focus on what is important and consist of higher level thinking.

Some of these research-based strategies might also be considered as best instructional practices. Best instructional practices are specific teaching methods or strategies guiding interaction in the classroom moving students forward in their learning

of the objectives (Primary Source Learning, 2008). These methods or approaches can be direct, indirect, interactive, experiential, or independent (Online Learning Centre, n.d.), and are based on the interaction between teacher and students or students and students.

### Background of Instructional Practices Inventory Process

When students are actively engaged in classroom activities, student engagement is in process. “Arguably, keeping students engaged is one of the most important considerations for the classroom teacher” (Marzano, 2007, p. 98). Marzano continues by stating classroom teachers do not have to entertain students, but they do need to keep each student engaged in the learning process. Bloom (1976) uses the word participation instead of engagement. But no matter what researchers call it, Marzano says student engagement means “students attending to the instructional activities occurring in class” (p. 99). Marzano also suggests teachers need to be aware of the dynamics of what causes or encourages students to engage in classroom activities.

With such variations in classroom strategies and practices, it would be difficult to determine which ones are best to use in classrooms. It was “believed an outcome measure that represented observational data about student engaged learning was essential” (College of Education: University of Missouri, 2008, p. 1). This belief along with four critical questions led to the creation of the IPI process (Valentine, 2007b). The four questions were:

1. How do you collect data that will be accepted by faculty as a fair and accurate representation of student learning throughout the school?
2. How do you depict those data in a simple, meaningful format for analysis?

3. How do you engage all faculty members in study and reflection about the data that will lead to improved instructional practices throughout the school?
4. How do you use the data to document enhanced learning experiences for all students? (Valentine, p. 1)

The IPI process also supports contentions found in *On Common Ground: The Power of Professional Learning Communities* stating:

. . . leading experts on school improvement and change “supports the premise that students would be better served if educators embraced learning rather than teaching as the mission of their school, if they worked collaboratively to help all students learn, and if they used formative assessments and a focus on results to guide their practice and foster continuous improvement.” (DuFour, Eaker, & DuFour, 2005, p. 5, as cited in Valentine, 2005, p. 1)

The IPI process was designed as part of a school-based, comprehensive, systematic school improvement initiative called Project ASSIST (College of Education: University of Missouri, 2008). It was developed by Bryan Painter and Jerry Valentine with the most recent revision in 2007 by Valentine (Valentine, 2005, 2007a).

The purpose of the IPI process was “to develop a school-wide picture of student learning practices that could serve as the basis for faculty reflection and instructional improvement” (Valentine, 2005, p. 2). The IPI process is a “practical system for understanding learning” in an entire school providing “one form of data” relevant to all school faculty (Valentine, p. 5). Valentine continues in stating:

The IPI “fits” . . . in the following ways: (a) educators must focus on student learning rather than teaching – the IPI process collects data about student learning

for the school's IPI profiles, (b) teachers must study and think together collaboratively – the IPI profiles are created to be the basis for collaborative faculty study and reflection, and (c) formative data are essential to monitor and adjust practices – the IPI profiles provide formative data about student engaged learning collected as frequently as faculty appropriate to maintain faculty focus on continuous change in school-wide learning and related instruction. (p. 1)

This school-wide data collection system serves as a “snapshot of instruction” encompassing the whole school for a certain amount of time (Valentine, p. 2).

These snapshots of instruction are gathered as a result of classroom walkthroughs. There are several models for classroom walkthroughs and in this case the model was the IPI process. The walkthroughs are short, informal observations of classrooms. Classroom walkthroughs provide leaders to see curriculum and instruction in action with students and teachers (Kachur et al., 2010). Kachur et al. also contend the walkthroughs “create a collaborative environment where teachers, students, and the principal have opportunities for reflective conversations” (p. 10).

The data collection system for the IPI process, through the use of classroom walkthroughs, establishes a process for accurately measuring characteristics of student engaged learning from various instructional practices within an entire school. This information, when gathered according to the IPI protocols for data collection, provides a picture of learning and instruction within a school. Researchers can also use the IPI data collection process to analyze the relationships between learning experiences and instructional practices with other school variables (Valentine, 2007b).

### *IPI Categories*

Valentine, (2005) states, the development of the IPI process began by reviewing instructional practices research and literature. Valentine adds, “The review findings were replete with insight about best instructional practices but lacking in instruments and processes for collecting and analyzing those practices . . .” (p. 3). Based upon this knowledge, Valentine and Painter identified three broad categories describing student learning. The three categories are (a) Student-Engaged Instruction, (b) Teacher-Directed Instruction, and (c) Student Disengagement (Valentine).

These three broad categories were easy to understand. However, Valentine (2005) felt these three categories did not identify the types of data needed to promote teacher reflection or assist with school improvement. “More detailed categories were needed that would provide specific data about student engagement and learning experiences with attention given primarily to what students were doing and secondarily to what teachers were doing” (Valentine, p. 3-4). A commitment was made during the development of the IPI process to ensure “that the instrument addressed engaged learning and delineated between higher-order and non-higher-order learning” (Valentine, p. 4). To accommodate the commitment each broad category was further divided into two coding categories, thus making a total of six coding categories (Appendix C) for the IPI instrument. These six categories were developed from a comprehensive study of current knowledge about effective teaching and learning practices (Valentine, 2005, 2007a).

The broad category of Student-Engaged Instruction was divided into two coding categories which address higher-order thinking skills: Student Active Engaged Learning and Student Learning Conversations (Valentine, 2005). Valentine also narrowed the

category for Teacher-Directed Instruction to two categories: Teacher-Led Instruction and Student Work with Teacher Engaged. The final category of Student Disengagement was also divided into two categories: Student Work with Teacher not Engaged and Student Disengagement (Valentine).

### *Student-Engaged Instruction*

Students need to be actively engaged in the learning process and this is the reason student-engaged instruction is at the top of the IPI coding rubric. The two categories involving student-engaged instruction represent students who are engaged in higher order thinking skills (Valentine, 2005, 2007a). The two categories vary, but the active student engagement and the higher order thinking skills are prevalent in both.

*Student active engaged learning.* On the IPI instrument the student active engaged learning category is a category six and is the top score on the IPI observation rubric. This category involves higher order thinking skills. Higher order thinking skills engage students thinking beyond memorizing facts, rote memory, or regurgitating the same information (Thomas & Thorne, n.d.). The category of student active engaged learning “includes research, hands-on and authentic instruction, problem-based learning, cooperative learning, and other types of engaged learning when the instruction engages students in higher-order thinking” (Valentine, 2005, p. 4). A few examples of a category six would include “authentic project work, cooperative learning, hand-on learning, problem-based learning, demonstrations, and research” (Valentine, 2007a, p. 5).

*Student learning conversations.* Higher order thinking also occurs in category five and is evident in student learning conversations. This category basically involves student to student conversations as the students build their knowledge while conversing with one

another (Valentine, 2007a). In this category students “are engaged in higher-order learning conversations. They are constructing knowledge or deeper understanding as a result of the conversations” (Valentine, 2007b, p. 5). Examples of student to student conversations include cooperative learning, discussion groups, work teams, or even whole class discussion (Valentine, 2007b).

### *Teacher-Directed Instruction*

In any school situations it would be difficult for students to always be at a level five or six. At some point teachers need to lead in the instruction of material. Elmore (1995) attests student learning requires the development of both basic and higher order knowledge. Bellack, Kliebard, Hyman, and Smith (1966, as cited in Chilcoat, 1989) suggest teachers take up about two-thirds of classroom time by talking while presenting information, explaining directions, asking questions, responding to student questions, and providing feedback to students. To account for students receiving this basic knowledge, two coding categories were also identified for teacher-directed instruction because Valentine (2005) realizes learning does occur when teachers work directly with students. These two coding categories are category four, teacher-led instruction, and category three, student work with teacher engaged (Valentine).

*Teacher-led instruction.* Students learn new information as teachers delve into teacher-led instruction. “Teacher-led instruction forms the broadest, most common grouping of learning experiences, including most forms of teacher talk, lecture, and direction-giving” (Valentine, 2005, p. 4). This category also includes media presentation or instruction with teacher involvement. Examples of teacher-led instruction would include classroom lectures, questions and answers, reading aloud as a group and some of

these examples might involve discussions with the students, but higher order thinking is not evident (Valentine, 2007b). Scoring a category four on the IPI rubric is still in the upper half of the rubric and as stated earlier is a necessary category for teachers presenting new information.

*Student work with teacher engaged.* In the classroom there is a time when students are individually completing work which does not involve higher order thinking. Therefore, under the teacher-directed instruction, there is also category three: student work with the teacher engaged. This category includes learning experiences such as worksheets or other written activities which engages the students and involves the teachers' attentiveness, support, or assistance, but the activities do not involve higher-order thought from the students (Valentine, 2005, 2007b). Worksheets, spelling tests, multiple choice tests, and math assignments would be examples of student work with the teacher engaged.

#### *Student Disengagement*

All too familiar to the educational system are the teachers who are not instructing or who are not engaged with the students. Disengagement does happen. For this reason, Valentine established "two coding categories affiliated with the concept of disengagement: 'Student Work with Teacher not Engaged,' and 'Student Disengagement'" (2005, p. 4).

*Student work with teacher not engaged.* Category two, student work with the teacher not engaged, is the opposite of student work with the teacher engaged. In this category the teacher is not engaged while the students are doing seatwork, working on worksheets, book work, or taking tests without any assistance or support from the teacher



(Valentine, 2007b). The teacher is present in the classroom but is insensitive to the students at this time. An example of student work with the teacher not engaged would be when the students are doing a math worksheet or reading a book and the teacher is working at the computer.

*Student disengagement.* Finally category one is complete disengagement.

Commonly observed in this category are students who “are not engaged in learning directly related to the curriculum” (Valentine, 2007b, p. 5). Students might be watching a movie as a reward or there may be a variety of activities present not related to the curriculum. Students might even be engaged in discussion with the teacher, but again, the discussion is not curriculum related.

#### *IPI Observational Protocols*

There are several protocols (Appendix D) to follow to ensure proper collection of IPI data. The IPI data collection is a valid, reliable, and fair process used as a basis for reflection and change within a school (Valentine, 2005). The information must be accurate time after time according to the coding categories (Appendix C) for the school to have effective reflections, goals, and professional development. Valentine stresses, “The protocols (Appendix D) established a feasible, systematic process for collecting observation data. They were designed to collect fair and accurate data and create the optimum profile of instruction during the observation period” (p. 5). In the IPI Workshop Manual, Valentine states the observer must complete an observer reliability full-day workshop session “designed to develop skills to accurately document student engaged learning using the IPI observer coding categories and data collection protocols” (2007a, p. 3). This formal training during the workshop helps to “ensure accurate, consistent

coding from observation to observation and profile to profile” (Valentine, 2005, p. 5). To assist in the data collection, collectors are given a rubric (Appendix C) listing the three broad IPI categories, the six coding categories, and common instructional practices to look for associated with each category (Valentine, 2005). This basic IPI rubric forms the foundation for developing coder reliability during the day long data collecting process (Valentine, 2005).

Selecting an appropriate observation date for the IPI collection is important. “The observation day should be a ‘typical’ school day” (Valentine, 2007a, p. 6), with no known disruptions or circumstances occurring on that date to influence the normalcy of the data collection. Fridays are typical days to be avoided because some teachers give tests on Friday or there may be interruptions during the school day due to the anticipation of special events or extra-curricular activities (Valentine, 2005, 2007a). Selecting the appropriate typical observation date adds to the credibility of the collected data, thus allowing teachers to value the data and to be open when addressing issues identified in their analysis of the data (Valentine, 2007a).

Valentine (2007a) suggests prior to the collection of data, the faculty members should be informed a colleague will be at the school conducting observations within every classroom. Teachers are requested to conduct classes as normal as possible, ignoring the colleague. Data collectors use a map as a guide to systematically move from classroom to classroom within the school building (Valentine, 2005, 2007a) and each collector of data should be given a copy of a master schedule of classes including a list of substitute teachers for that given day (Valentine, 2007a). Valentine also emphasizes it is the responsibility of the data collector to “design a plan for systematically moving

throughout the school so all instructional settings are observed and all are observed in proportion to all other instructional settings” (2007a, p. 6).

During the observation day, every classroom is observed several times. Each classroom is observed for a short period of time, typically one to three minutes (Valentine, 2005). Enough time is needed in each classroom “necessary to obtain an accurate picture of the learning experience” (Valentine, 2007a, p. 6). “The observer should continuously collect data throughout the school day” (Valentine, 2005, p. 6) observing each classroom numerous times resulting in a total of 125-150 observations, with a minimum of 100 observations expected (Valentine, 2007a). Valentine (2007a) emphasizes:

The observer is particularly interested in the nature of the students’ learning experience and degree of student engagement during the first moments of the observation. Those first few moments are the data that should be coded.

Additional time may be spent in the setting as a matter of courtesy or to confirm that the initial assessment was accurate. Changes in instructional practice during the observation time may occur, but those changes should not alter the observer’s initial coding because that code was based upon the first few moments of the observation. Coding the first few moments reduces the tendency to remain in the setting until a more positive (or negative) learning experience occurs. Consistency to the concept of coding the initial moments will provide representative, accurate, objective data as large numbers of observations are “averaged” together over the course of the day. (p. 6-7)

Valentine (2007a) claims the pace of observations generally increase as the day progresses and he also adds, “Observations are not recorded during the first five minutes of a class or the last five minutes of a class” (p. 7) because these times are typically called transition times.

During the data collection, it is important for each observation to be coded anonymously. The data collector needs to “mark the appropriate observation category and write a brief anecdotal description of the learning experience” (Valentine, 2007a, p. 7). The data collector also needs to “record the appropriate Core/Non-Core category. Core courses are defined for the purposes of the IPI as learning in the content areas of math, science, social science, and language arts” (Valentine, p. 7). Valentine stresses the anonymity of coding each observation because the data collected for the IPI school profile should not reflect upon individual teachers’ evaluations and “if used in that manner you will negate the greater value of establishing a higher level of expectations for teaching performance necessary for true school-wide improvement of teaching practices” (Valentine, p. 7).

There are other important protocols (Appendix D) to guide the data collectors throughout the IPI process. Those protocols include (a) when a learning experience is borderline between two or more categories, the data collector records the category most favorable to the teacher, (b) special education classes are coded as core or non-core depending on the content at the time of the observation, (c) substitute teachers are not included in the IPI coding process, (d) classes with student teachers are coded just like regular classroom teachers, and (e) the number of observations should be reviewed half

way through the day to be sure there is a balance across grade levels and course content (Valentine, 2005, 2007a).

### *IPI Profiles*

Instructional Practices Inventory profiles are constructed based on the data collector's information. The profiles show percentages comparing the six IPI coding categories (Appendix E). Valentine (2007a) suggests learning is more effective for students when they are engaged in activities in the two higher coding categories of student engaged learning and student learning conversations realizing all levels can be appropriate given the circumstances. As the IPI profile is developed for a school, the data can be used for school improvement purposes (Valentine, 2007a). At this point, teachers should have the opportunity to study the data and have a time of reflection. This can be accomplished through conversations in small groups or as a whole group during a faculty in-service (Valentine, 2007b). According to Kachur et al., "The IPI provides formative data to guide collaborative faculty study and reflection. Decisions can then be made about how to effectively adjust instruction to increase student-engaged learning" (2010, p. 84). The first IPI profile within a school serves as baseline data whereas "future observations provide longitudinal perspectives of engage learning for the school" (Valentine, 2007a, p. 8).

### Classroom Walkthroughs

Classroom walkthroughs are a vital component of the IPI process because this is how the snapshot of instruction data is collected. Literature provides several definitions for classroom walkthroughs (David, 2007/2008; Downey, Steffy, English, Frase, & Poston, 2004; Pitler & Goodwin, 2008); however, Kachur et al. (2010) suggest the

following common elements found in all the definitions provide the basic meaning of classroom walkthroughs:

- informal and brief;
- involving the principal and /or other administrators, other instructional leaders, and teachers;
- quick, snapshots of classroom activities (particularly instructional and curricular practices);
- NOT intended for formal teacher evaluation purposes;
- focused on “look-fors’ that emphasize improvement in teaching and learning;
- an opportunity to give feedback to teachers for reflection on their practice;
- having the improvement of student achievement as its ultimate goal. (p. 3)

Walkthroughs became well-known after a business book was published discussing the importance of managers leaving their offices to walk around and engage in conversations with employees to see what they were doing (Kachur et al., 2010). Kachur comments, this walking around method was referred to as “Management by Wandering Around” ([MBWA], p. 3). Even Freedman and Weinberg (1990) suggest the walkthrough is the “step-by-step simulation of a procedure” (p. 231) to passively review materials and participants. Even though it is still classified as a walkthrough, the “classroom walkthrough is a by-product of MBWA,” and over the years has proven to be a successful professional development strategy for principals and teachers (Kachur et al., p. 4).

Along with professional development, classroom walkthroughs are beneficial in other areas. Kachur et al. (2010) state one of the benefits of classroom walkthroughs is the increasing reflection within schools on best practices for improvement of student

achievement. The reflection can occur because the classroom walkthroughs allow for administrators and teachers to learn more about daily instruction (David, 2007/2008), and Pitler and Goodwin (2008) state this reflection is only possible when the observer knows what to look for when conducting a walkthrough.

Another benefit of classroom walkthroughs is the observer becomes cognizant of various levels of student engagement in the classroom. As noted by Downey et al., walkthroughs are a way to gather data about the “instructional decisions being made and notice their impact on student behavior” (2004, p. 3). Ginsberg and Murphy (2002) sum it up by asking, “Is the movement, sound, or silence productive” (p. 36), and at what level is the student engagement? Finally, according to Freedman and Weinberg walkthroughs do not make many demands on the participants for advanced preparation (1990), thus making classroom walkthroughs convenient for the teachers.

Pitler and Goodwin (2008) along with Marzano et al. (2001) concur in suggesting instructional strategies are at the top of the list of things to look for when conducting classroom walkthroughs. As observers, principals need to focus on the strategies teachers are using at the time of the walkthrough and furthermore, the teachers should be able to “articulate why they used a particular strategy” (Pitler & Goodwin, p. 9). On the other hand, during the IPI process the observer is a trained IPI data collector, and during the IPI process, the data collector is looking for and recording instructional strategies during the classroom walkthroughs.

### Summary

This chapter reviewed the literature related to instructional practices and the relationship between the IPI process and the actual teaching strategies used by teachers to

involve students in a higher level of active engagement. With concentration on instructional practices, this chapter reviewed literature on two main topics: instructional practices used within the classroom, and the IPI process developed by Painter and Valentine (Valentine, 2005, 2007a). The topic of classroom walkthroughs was also reviewed as it is a major component of the IPI process.

The IPI is a process to enhance how people view instructional practices within classrooms. The history of the IPI process was presented with a focus on background information on the development of the IPI process including IPI categories, IPI observational protocols, and IPI profiles. There were three initial categories for IPI, and these were broken down further into six categories based on various types of data needed to help promote teacher reflection or assist with school improvement (Valentine, 2005). The IPI observational protocols were established to create a feasible, systematic process for collecting observation data. The data needs to be fair and accurate creating a useful profile of instruction during the observation period (Valentine). Finally the IPI profiles are built upon the data collector's information showing percentages comparing the six IPI coding categories (Valentine, 2007a).

The rationale for this study was based on the numerous methods of instructional practices used by elementary teachers in public school classrooms and the need for quality learning by all students. The use of effective instructional strategies assists in increasing student performance, but the strategies are more efficient when combined with active engaged learning. This awareness of the need for effective instructional strategies involving active engaged learning indicates a need for better understanding of the use of the IPI process within the classroom setting.



With the review of literature in Chapter Two, the researcher used Chapter Three as the means to provide more in depth information regarding the research design and methodology used in this qualitative study. Chapter Three delved into the instruments used to gather the data needed for this study and prefaced the setting and participants involved. In Chapter Four a summary of the analysis of data including demographics of the participants was provided with the summarization of the study discussed in Chapter Five.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

Instructional strategies have been used in elementary classrooms dating back as far as Socrates. “Educators have effectively used Socratic inquiry as an explicit instructional strategy for two and one half millennia” (Marzano et al., 2001, p. 1). Furthermore, Marzano claims it was around 1970 when researchers actually began looking at student learning as an effect of instructional strategies. The use of the Instructional Practices Inventory (IPI) process was introduced to the educational setting in the mid 1990s (Valentine, 2005, 2007a) as a means “to develop a school-wide picture of student learning that can serve as the basis for . . . school improvement” (Valentine, 2005, p. 1).

Since the development of the IPI process, there has been little or no research on the impact of the use of the IPI process as perceived by classroom teachers in relationship to any change in teacher instructional practices or strategies. Most of the studies have been quantitative in nature. The quantitative studies completed on the IPI process have determined the use of the IPI process does have an impact on student achievement based on the Missouri Assessment Program (MAP) scores (Gauen, 2009; Valentine & Collins, 2009). This study, however, was qualitative in nature based on teachers’ perceptions about using the IPI process in the elementary classrooms to determine if the IPI process impacts their instructional practices or strategies. Figure 2 depicts the nature of the research design, providing a conceptual view of this research.

A QUALITATIVE ANALYSIS OF ELEMENTARY TEACHERS' PERCEPTIONS ABOUT THE  
IMPACT OF THE IPI PROCESS ON CLASSROOM PRACTICES

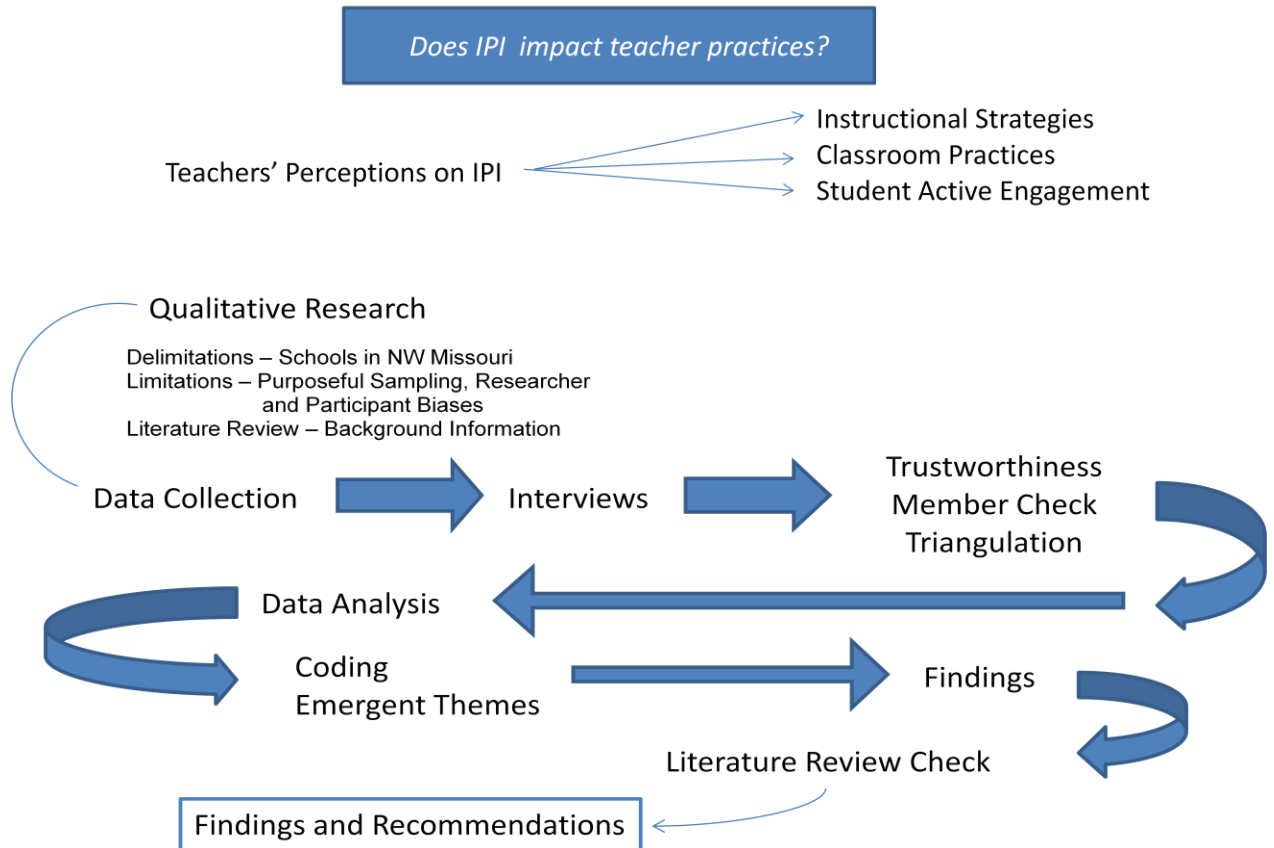


Figure 2. The conceptual framework illustrates the research design related to teachers' perceptions on Instructional Practices Inventory (IPI).

### Problem and Purpose of the Study

The IPI instrument was first developed in the 1990s (Valentine, 2005, 2007a); however, the IPI process was later brought to national recognition in the 2004 and 2006 publications of the National Association of Secondary School Principals (Valentine, 2007b). In these publications the IPI process was recommended for in a few states for schools in jeopardy of not meeting their Adequate Yearly Progress (AYP) and to be included in their regular school improvement plans (Valentine, 2007b). As previously

stated, the AYP is just part of the requirements of the No Child Left Behind Act (NCLB) of 2001 in hopes to raise academic achievement in all schools (US Department of Education, 2004). With NCLB and the AYP, schools must become more focused on student achievement which is directly related to effective teaching practices (Marzano, 2003, 2007; Marzano et al., 1990; Waters et al., 2003, 2004).

The IPI process was introduced at one of the Northwest Missouri Elementary Principal meetings in the fall of 2005. Even though the speaker presented the IPI process as a means to improve student achievement, especially regarding the MAP scores; the focal point of the presentation was on the use of effective classroom instructional practices. As a result of this presentation, several Northwest Missouri schools began to implement the IPI process as a “data collection profile system designed to establish processes for accurately measuring the nature of student-engaged learning from various instruction practices across an entire school . . . to improve student achievement, and . . . to direct classroom instruction” (SuccessLink, n.d., p. 1).

Personal interviews provided the richest, thickest information for this qualitative study. The researcher analyzed data gleaned from common themes and threads discovered through observations and interviews (Creswell, 2003) based on Northwest Missouri elementary teachers’ perceptions about the IPI process on their classroom practices. This data guided the researcher in gaining an “in-depth understanding of the situation and meaning for those involved” in the IPI program because qualitative studies are “intensive descriptions and analysis” of a program (Merriam, 1998, p. 19).

Little research can be found about the perception of classroom teachers on the IPI process. The IPI process is fairly new and more emphasis has been placed on the

quantitative findings and the impact on student achievement based on MAP scores. Nevertheless, the lack of knowledge exists concerning the impact of the IPI process on classroom practices based on elementary teachers' perceptions. Emergent themes evolved through data received from conversations with teachers when they discussed their experiences and how they make sense of their world (Merriam, 1998) based off of the use of the IPI process in how it relates to their instructional practices. Qualitative research is inductive, and the teachers were able to discuss individual events and information leading to generalizations about IPI based on various themes or categories (Merriam). Therefore, the purpose of this study was to explore teachers' perceptions through conversations using personal open-ended, semi-structured interviews in order to gain information on the IPI process and its impact on instructional practices used in the classroom. It is anticipated these findings will lead to actions within the schools which may contribute to further use and buy in of the IPI process.

#### Overarching Research Question and Interview Questions

For this qualitative study, the researcher used a two part interviewing process. First, participants were interviewed following the reading of an interview protocol statement. Next, each participant answered descriptive survey questions based on a scale of 1 to 9. The interview questions and the descriptive survey questions focused on one broad overarching research question: To what extent does the Instructional Practices Inventory process impact the instructional practices or strategies used by elementary classroom teachers?

Semi-structured interviews were conducted with elementary classroom teachers and their principals to address the purpose of this qualitative study and to lead to the

answer of the broad overarching question. The researcher followed Trochim's (2001) recommendation of using similar standardized, open-ended interview questions with all interviewees to facilitate faster interviews which can be analyzed and compared more easily.

Prior to the each interview, the researcher read a protocol statement (Appendix F) to assure anonymity and inform each interviewee he or she may withdraw at any time.

The following teacher interview questions guided the study (Appendix A):

1. Tell me something about yourself in regard to education.
2. How many total years have you taught and how many years at this school?
3. How many years have you been using the IPI process?
4. Who collects the IPI data in your school?
5. Have your seen an IPI profile chart?
6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you use in your classroom?
8. What causes you to change or modify your instructional practices or strategies used in the classroom?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?

12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?

13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

For the principal interviews, the following similar questions (Appendix B) were used as a guide to the study:

1. Tell me something about yourself in regard to education.
2. How many total years have you been an administrator and how many years at this school?
3. How did you become familiar with the IPI process?
4. Who collects the IPI data in your school?
5. Have you seen an IPI profile chart?
6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you see being used in the classrooms?
8. What causes your teachers to change or modify their instructional practices or strategies used in the classrooms?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?

12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?

13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

As a follow up to each interview, scaled descriptive questions were also asked of each teacher with similar questions being asked of the principals. Interviewees could rate the questions on a scale from 1 to 9 with 1 being the lowest and 9 being the highest. The following questions were used with the teachers' interviews:

1. How much of an impact has the IPI process had on your classroom instructional strategies?
2. How much of an impact has the IPI process had on other colleagues' instructional strategies?
3. How much of an impact has the IPI process had on your entire school?
4. How much of an impact has the IPI process had on collaborative discussions within your school?
5. How much of an impact has the IPI process had on your professional development?
6. How much of an impact has the IPI process had on the improvement of your school?

Similarly, the following questions were used with the principals' interviews:

1. How much of an impact has the IPI process had on classroom instructional strategies?

1      2      3      4      5      6      7      8      9



2. How much of an impact has the IPI process had on your entire school?

1      2      3      4      5      6      7      8      9

3. How much of an impact has the IPI process had on collaborative discussions within your school?

1      2      3      4      5      6      7      8      9

4. How much of an impact has the IPI process had on your professional development?

1      2      3      4      5      6      7      8      9

5. How much of an impact has the IPI process had on the improvement of your school?

1      2      3      4      5      6      7      8      9

The various types of questions assisted in the triangulation of data. As recommended by Creswell, triangulation occurred as the information received from the descriptive questions helped build a “coherent justification” for themes because evidence from the descriptive data either supported or did not support the data received from the interview transcripts (2003, p. 196). To strengthen triangulation interviews were conducted with teachers and principals and then compared with observational notes.

#### Research Design

Seidman (1998) suggests choosing a research method determined by what one is trying to learn. Since the focus of this study was on teachers’ perceptions, the researcher employed a qualitative study to describe the impact of the IPI process on classroom practices based on the teachers’ perceptions. As noted by Merriam (1998), “Qualitative research is an umbrella concept covering several forms of inquiry that help us understand

and explain the meaning of social phenomena with as little disruption of the natural setting as possible” (p. 5). Merriam continues in suggesting some key characteristics of qualitative research supporting the phenomenon of this study relating to teachers’ perceptions on the impact of the IPI process on classroom practices. According to Merriam, it is important to understand the phenomenon of interest from the participants’ perspectives. Next, is the understanding that the researcher is the primary instrument for data collection and analysis usually involving field work. Finally, Merriam adds qualitative research is the building of concepts, theories, and meanings producing a vivid, descriptive study. Knowing these characteristics of qualitative research and based on the theoretical framework of the study, the researcher used the basic interviewing principles of Creswell, (2003), Merriam, Seidman, and Weiss (1994) as the foundation for this qualitative study.

According to Seidman, “Interviewing is a basic mode of inquiry” (1998, p. 2) and in order to give details of experiences, people must reflect on their experiences. In concurrence, Patton adds, “The purpose of interviewing is to find out what is in and on someone else’s mind” (1990, p. 278), and it is the responsibility of the interviewer to retrieve that specific information from the interviewee. This study reflected on teachers’ perceptions, hence, Merriam’s (1998) recommendation of using interviews as the mode of inquiry was suitable for this study. Behavior, feelings, or peoples’ thoughts and interpretations cannot be observed and interviewing gave insight to past events which are impossible to replicate. Therefore, for this study the researcher used personal open-ended, semi-structured interviews in order to gain information on the IPI process and its impact on instructional practices used in the classroom.

## Study Participants

Participants of a qualitative study need to be knowledgeable insiders who are willing to share their perceptions and feelings (Weiss, 1994). Seidman (1998) and Patton (1990) concur with Creswell, “The idea behind qualitative research is to purposefully select participants or sites (document or visual material) that will best help the researcher understand the problem and the research questions” (2003, p. 185). Merriam adds the “most appropriate sampling strategy is nonprobabilistic” similar to purposeful sampling which is “based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam, 1998, p. 61).

The focus of this study was on elementary classroom teachers’ perceptions of the impact of the IPI process on instructional practices used in the classroom. The Northwest Missouri Regional Professional Development Center (NWRPDC) was a major part in the implementation of the IPI process in Northwest Missouri. Based upon recommendations from a NWRPDC consultant, J. Baker (personal communication, March 18, 2010), the participants comprised of teachers and principals represented elementary schools from Northwest Missouri. J. Baker has been an IPI data collector for Northwest Missouri schools and was familiar with their schools. J. Baker was instrumental in assisting the researcher with gaining access to the Northwest Missouri schools. Even though the IPI process was implemented in the researcher’s own school allowing for easy access, Seidman recommends “it is wise to avoid interviewing participants whom you supervise” (1998, p. 15). Therefore, the researcher did not include co-workers in the interviewing process.

J. Baker (personal communication, March 18, 2010) and other NWRPDC representatives suggested twelve schools as candidates for the study. Out of the twelve suggested schools, six were chosen as the focus for this study because of their common exposures and common support systems with the IPI process based on a conversation with J. Baker (personal communication, March 18, 2010). J. Baker also commented the six schools represented various levels of actual use and understanding of the IPI process. Of the recommended schools, it was suggested two schools were at the highest levels of integrity and vigor with implementation of the IPI process. Two schools were at the opposite end of the continuum, implementing the IPI process in name only while the other two were in the middle with somewhat of an understanding of the IPI process, but lacking in internalization of the process.

Purposeful sampling (Merriam, 1998) was utilized for this study by choosing elementary teachers and elementary principals employed in Northwest Missouri public school districts to comprise the study sample. The teachers and principals were the resident experts having the knowledge providing data for this study. The teachers have lived with the IPI process and have used it within their classrooms; therefore purposeful sampling was utilized because the researcher wanted to “discover, understand, and gain insight” from those “the most can be learned” (Merriam, p. 61).

With the six schools chosen for the study, the researcher needed to gain access to the teachers within those schools. Approximately one month prior to the intended interviews, contact was made with the principal of each school through an introductory email asking permission to contact their teachers. Then each principal sent a signed letter giving the researcher access to the teachers within their school (Appendix G). Once

permission was granted to interview the teachers, an email was sent to each teacher within the elementary school building requesting their possible assistance for this study.

After receiving confirmation from several of the email invitations to participate in the study, the researcher randomly choose two teachers from each of the six Northwest Missouri schools as the participants, thus having a study sample of twelve teachers and six principals. Random sampling occurred by using the first two affirmative respondents from each school. The researcher made initial introductory contact with each teacher through a phone conversation. The phone conversations were immediately followed by an email with more details to the study including a request for possible dates and times for interviews. An appreciation email was also sent to those responding teachers who were not chosen as participants.

With the assistance of each building principal, the researcher was able to schedule the three interviews within one school on the same date. The three interviews comprised of two elementary teachers and one principal from the same school with the interviews taking place within the respective schools. As recommended by Merriam, “The researcher must physically go to the people, setting, site . . . in order to observe behavior in its natural setting” (1998, p. 7). Creswell (2003) concurs in stating qualitative research must take place in the natural setting which might encompass the researcher going to the home or office of the participants to conduct interviews. On the other hand, telephone interviews could have been conducted. Telephone interviews would have allowed more flexibility to the teachers and it would have saved time for the researcher, but according to Merriam, the person to person interviewing is the most common form of data collection in qualitative studies, thus the researcher chose face to face interviews.

## Demographics of Participants

Additional data to the researcher's study consisted of demographics of the participating teachers and the student population of their respective schools. In the interviews, teachers self-reported information regarding the total number of years they have taught and the number of years they have taught in their current school. The student body demographic data were collected from the Missouri Department of Elementary and Secondary Education's (DESE) website. This information was not disaggregated to specific grade levels. This data only provided additional information to the study for the researcher and was represented in a table (Table 1) in Chapter Four.

## Ethical Considerations

Prior to the study, the researcher obtained approval from the University of Missouri Institutional Review Board (IRB). The researcher followed all rules and regulations of the IRB while conducting the study. Participants were volunteers. They were not rewarded for their participation in the study nor were any anticipated risks identified for them. The researcher assured all participants the information they provided would be unidentifiable as all the names of the participants were presented as pseudonyms in the data analysis. All participants were advised of their ability to withdraw from the study at any time.

Two copies of the informed consent (Appendix H) were taken to each interview, as recommended by Weiss (1994). The interviewee signed one copy for the researcher and was able to keep the second copy for future reference if needed. The researcher also read a protocol statement (Appendix F) at the beginning of each interview. Prior to each interview participants were reminded (a) their identity would remain anonymous, (b) the

information they provided would not be used for any other purpose, (c) they could withdraw from the study at any time, and (d) the interview would be audio taped. During the transcribing of interviews, all data were only accessible by the researcher. Dates and names of participants were not used to further assure anonymity.

#### Data Collection Methods

“The adequacy of a research method depends on the purpose of the research and the questions being asked” according to Locke (1989, as cited in Seidman, 1998, p. 5). The value of any study is not found in the questions asked, but is found in the relevance of the findings (Patton, 1997). With the findings being of utmost importance in this qualitative analysis of elementary teachers’ perceptions about the impact of the IPI process on classroom practices, interviews and observations were conducted. As acknowledged by Merriam (1998), data were mediated through the researcher establishing the researcher as the primary instrument for data collection. Being the primary instrument for data collection, the researcher then used secondary instruments of personal interviews and observations to actually conduct the field work.

Qualitative studies are prevalent throughout the field of education and “educational processes, problems, and programs can be examined to bring about understanding that in turn can affect and perhaps even improve practice” (Merriam, 1998, p. 41). Qualitative research involves understanding the phenomenon of interest from the insider’s perspective, and Merriam suggests it is also “understanding the meaning people have constructed” (p. 6). Many teachers already have their constructed meanings related to the IPI process. Their constructed meanings added to the study because qualitative

research is devoted to understanding specifics of a particular situation (Heppner & Heppner, 2004) with a focus on developing detailed descriptions (Weiss, 1994).

Creswell (2003) states the qualitative approach focuses on a constructivist perspective. The researcher concentrated on gathering open-ended data using individual experiences, narratives, and phenomenon. The data then guided the researcher to develop theories or themes as recommended by Creswell. Data received through personal interviews and observations allowed the researcher to bring personal value to the study through emergent themes as teachers discussed their experiences and how they make sense of their world and their experiences with the IPI process (Merriam, 1998). Since qualitative research is inductive, using events and information to make generalizations through developing themes, or categories added credibility to the findings as the researcher focused on putting all of the pieces together to form the whole (Merriam).

The data for this study were obtained through interviews, observations, and from the DESE website. Information retrieved from the DESE website provided the researcher with additional details about student demographics within each school district. As seen in Table 1 in Chapter Four information was not given to a specific grade level or classroom. More detailed information about the interviews and observations were described in further detail below.

#### *Interviews and Observations*

The interview is one of the most commonly used approaches for data collection in qualitative research. “I interview because I am interested in other people’s stories” (Seidman, 1998, p. 1). The researcher chose to interview teachers and principals who could also be referred to as stakeholders because they have a vested interest in the IPI



process (Patton, 1997). Interviewing teachers allowed the researcher the opportunity to ask open ended questions which led to other questions, which gave the researcher more detailed information. The researcher interviewed participants as a means to gain in depth information and detailed descriptions of teachers' perceptions of the IPI process on instructional practices and strategies used in their classrooms. The interviews along with observations allowed the researcher to see what was going on behind the scenes with the IPI process in the classrooms. The researcher was able to discuss with teachers how, when and why they used the IPI process in their classrooms. Information from the interviews combined with observational notes led the researcher to common themes and ideas. Qualitative research does not usually follow direct guidelines as this type of research is emergent because of connecting threads and patterns from information received (Seidman, 1998). Booth, Colomb, and Williams (2003) concur in stating, "You don't need to script an interview around a set of list questions – in fact, that's a bad idea because it tends to freeze the interview" (p. 87). Conversely, for this study the researcher used the same set of interview questions (Appendix A) as a guide for each one of the classroom teachers and a similar set of questions was used with each principal (Appendix B).

Interviews are an integral part of qualitative research. Seidman (1998) states, "At the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience" (p. 3). Creswell (2003) suggests interviews can be face-to-face, by telephone, or in a group for qualitative research; however, for this study, the researcher chose to conduct face to face interviews. During the interview, interviewers must listen to what is said, listen to the inner voice, and

constantly be aware of the surroundings (Seidman). Merriam (1998) concurs the qualitative researcher should look and listen everywhere. Interviews reveal unknown knowledge including “experiences, opinions, feelings, and knowledge” of the participants (Merriam, p. 69).

Interviews constituted a major part of data collection in this research. The interviews conducted in this study were designed using open-ended, semi-structured questions. In the semi-structured interview, the interviewer asked predefined questions but also tried to leave more freedom for the interviewee to talk. The lived experience and insights of the interviewees released through the interviews allowed the researcher to gain access to that specific information. In this case, the participants had varied experiences and attitudes toward using the IPI process, and the researcher wanted those detailed depictions of their experiences. Due to the nature of this study, a semi-structured interview, rather than a structured interview, was considered best for this research.

Interview questions were constructed from a general to specific format (Appendix A). This question layout allowed the participants to become more familiar with the topic at the beginning of the interview while ending with questions to gather more specific and valuable information. Prior to each interview, a protocol statement (Appendix F) was read to each participant. During the interview, the interviewer made every attempt not to pressure or create anxiety for those being interviewed as recommended by Krueger & Casey (2000). Each interview lasted between fifteen and forty minutes. These one on one, semi-structured interviews were conducted at the respective schools of the participants.

A total of twelve elementary classroom teachers and six elementary principals were invited to participate in the interviews. Participants were asked to sign and date an

informed consent document (Appendix H) as recommended by Weiss (1994). The informed consent document explained the study and the responsibilities of the voluntary participation of the participant. It also included a statement allowing the use of an audio tape to later be used to transcribe the interview. The use of the audio taped allowed the researcher the freedom to jot down descriptive observational notes and be the facilitator of the interview. Following the interview reflective notes were jotted down as recommended by Creswell (2003). These observational notes added detail to the verbatim transcripts produced through the use of the audio tapes. The transcripts provided the researcher with detailed information and insight on how the IPI process is perceived by the participants.

Following each interview the information was transcribed. The recordings allowed the researcher to revisit the interviews listening for unspoken information in the specific tone of each interview while also listening for any pauses during the conversations. With the transcriptions, the researcher found “connecting threads and patterns among the excerpts” (Seidman, 1998, p. 105) as well as connections which led to themes gathered from the teacher’s perceptions of the IPI process. Again, anonymity was assured and a protocol statement (Appendix F) was provided for each participant before the interview. As recommended by Merriam (1998), member check was completed. After each interview was transcribed, a copy of the transcription was emailed to the participant for validation of the information transcribed.

Along with interviews, qualitative studies also involve observations (Creswell, 2003). Observations were recorded in the form of written notes and organized into field notes (Emerson, Fretz, & Shaw, 1995). “Observational data represent a firsthand encounter with the phenomenon of interest rather than a secondhand account of the world obtained in an interview” (Merriam, 1998, p. 94). Observations allowed the researcher to

notice routine things and for this study, observations and interviews gave the researcher rich information to use in the findings (Merriam). Reinard (1998) adds in qualitative research settings, the researcher often becomes an active participant, immersing himself or herself in the surroundings. This immersion gave added detail to the observational data recorded.

As the researcher conducted each interview, observations were made of the participant's body language, including eye movement. The researcher also noted any pauses or breaks in the conversation. This data gleaned from observations along with data from all interviews (Creswell, 2003) helped the researcher gain an "in-depth understanding of the situation and meaning for those involved" (Merriam, 1998, p. 19) in the IPI process. The interviews and descriptive questions, along with the supplemental observational data, provided saturation of information because the researcher began to hear the same information with no new information received (Merriam; Seidman, 1998). Therefore, based on Merriam's recommendation, the researcher did not need any more information and the data collection process was discontinued.

### Analysis

"Data analysis is one of the few facets . . . of doing qualitative research in which there is a right way and wrong way" (Merriam, 1998, p. 162). The right way is to do it simultaneously with the collection of data. "Data that have been analyzed while being collected are both parsimonious and illuminating" (Merriam, p. 162). Miles and Huberman (as cited in Weiss, 1994) concur in stating analysis needs to "begin as soon as there is data collection" (p. 151). It is recommended qualitative researchers narrow the study and plan new data collection sessions based on previous observations (Merriam).

Merriam also recommends writing comments and observer's notes during the research as data collection and analysis is an ongoing process.

Supplemental data for the analysis of this study included information on student demographics for each elementary school and the number of years the teachers have taught. This information provided additional information about the professional background of the participants and an overview of the students enrolled in their buildings. The primary data used for this qualitative analysis were the transcribed interviews and the researcher's observational notes. To analyze the qualitative data, the researcher followed the recommendations of Creswell (2003), Merriam (1998), Seidman (1998), and Weiss (1994).

#### *Transcripts and Observational Notes*

The recorded interviews were transcribed verbatim by the researcher and the manuscripts were kept secure on the computer and in a file cabinet in the researcher's home. All manuscripts were reviewed for accuracy by the researcher and by the participants through member check. Member check occurred as the researcher emailed a copy of the transcript to the respective participant so verification of information was recorded as intended. No corrections to the transcripts were noted by the participants. The interview transcripts allowed the researcher to review, study, and code the collected data.

In addition, the researcher's observational notes provided details from the interviews. These notes ensured research bias was limited and enhanced the trustworthiness of the study. Observational notes were recorded carefully and accurately as to not miss any additional information.

### *Coding Process*

With the transcribed interviews and recorded observational notes, the coding process could begin. As interviews were transcribed and observational notes were recorded, the researcher used identifying notations, as recommended by Merriam (1998). For example the first teacher, at a school thought to be using IPI in name only, identification was noted with CA1 and the second teacher with the notation of CA2. Each notation was included before the interview question so the researcher would not forget which data belonged to which interview. The researcher then cut apart each interview transcript per question. The observational notes were also cut apart. The cut pieces were sorted out and grouped together on the floor of the researcher's home based on similar thoughts or ideas. Following the suggestion of Seidman (1998), the researcher was then able to look for connecting threads and patterns leading to the open coding and axial coding processes.

*Open coding.* Creswell suggests using a “coding process to generate a description of . . . categories and themes” (2003, p. 193). Weiss concurs and adds, the use of a coding technique allows the researcher “to link what the respondent says in his or her interview to the concepts or categories that will appear in the report” (1994, p. 154). Merriam (1998) recommends the development of categories to “reflect the purpose of the research” (p. 183). The open coding categories, according to Merriam, are the answers to the research questions.

In reviewing the cut transcripts, notes were jotted along the right side of the paper regarding general topics mentioned in that section. This open coding identified the major topics from the transcripts and observational notes thus being the initial step of

developing themes and categories in analysis of data. The researcher then placed the open coding notes from each interview onto a computerized spreadsheet grid as seen in Table 2 in Chapter Four. After all of the notes were categorized, certain applicable themes were developed through axial coding.

*Axial coding.* After open coding the interview transcripts and observational notes, axial coding was the next step. Using the data within the computerized spreadsheet, the researcher was able to put the information back together in different and explicit ways, making new connections to the original categories and subcategories as recommended by Creswell, (2003). With this axial coding, connections were made between categories and involved understanding the relationships between the categories in order to understand the teachers' perceptions. Information from the principals' interviews (Table 3) supported the themes brought about through open and axial coding.

Following the coding and categorical analysis, it was the responsibility of the researcher to interpret and make meaning of the data. The developing themes were compared to the study's underpinnings. The conceptual underpinnings of Marzano's studies on effective teaching strategies guided and supported this research (2003, 2007; Marzano et al., 2001; Waters et al., 2004). Those strategies include (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing effort and providing recognition, (d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.). Even though the researcher began the study with a focus on all nice strategies, the strategy of cooperative learning soon developed into the dominant strategy discussed during this

study. The data collected from the participants were viewed and analyzed through the conceptual underpinnings by comparing information received to the literature reviewed. A more detailed discussion of the findings of the analysis occurred in Chapter Four.

*Validity.* Validity was of primary importance for this research (Merriam, 1998), and “is seen as a strength of qualitative research” (Creswell, 2003, p. 195). The internal validity was attended to throughout this study as the research findings stayed congruent with reality and reflected what they were intended to evaluate (Merriam). Merriam argues “one of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing; it is not a single, fixed, objective phenomenon waiting to be discovered, observed, and measured as in quantitative research” (p. 202). Triangulation of data through the use of two sets of interview questions (Appendix A & Appendix B) along with the descriptive questions with teachers and principals, combined with observational notes enhanced the internal validity of this study.

Validation of the data in this qualitative research was conducted in a variety of ways. Triangulation of data gave validity to the data (Creswell, 2003; Merriam, 1998). The researcher followed Creswell’s recommendation of triangulating as the researcher used different data sources of information and examined evidence from the sources and used it to build a logical justification for themes. In this study, the researcher reviewed the teachers’ interviews with the principals’ interviews, aligned the data with the descriptive questions and the observations, and then compared the information with the literature as well as information received from J. Baker (personal communication, March 18, 2010). Member check was also conducted as suggested by Merriam. The researcher used Glesne’s (1999) suggestion for member checking and provided the data and the



tentative interpretation back to each informant through email to ensure the data collected were objective and represented them and their ideas accurately.

The quality of the interviews also added to the validity of the study. “Ultimately, our best guarantee of the validity of interview material is careful, concrete level, interviewing within the context of a good interviewing partnership” (Weiss, 1994, p. 150). By using rich, thick descriptions as recommended by Glesne (1999) and Creswell (2003) when writing the findings in the report, the researcher was able to provide the reader details to show the findings made sense (Firestone, 1987 as cited in Merriam, 1998, p. 199). Weiss concurs, “Despite all the ways in which interview material can be problematic, richly detailed accounts of vividly remembered events are likely to be trustworthy” (p. 150). Ultimately the researcher is responsible to protect the research integrity by using descriptive words and interpreting information objectively to the readers to overcome any bias.

According to Merriam (1998), external validity is another component to consider with any qualitative study. External validity “is concerned with the extent to which the findings of one study can be applied to other situations” (Merriam, p. 207). For this study the researcher used two strategies to enhance the possibility of generalization with this study.

First, following Merriam’s (1998) advice, the researcher used rich, thick descriptions in describing the findings. When presenting the analysis of this qualitative study, the researcher attempted to provide richly descriptive data where the “words and the pictures are used to convey what the researcher has learned about a phenomenon” (Merriam, p. 8). The researcher also described the details vividly enough so readers

would be able to determine if their situations match information found in this study on the IPI process, making the study transferable. In concurrence with Firestone (1987), the researcher provided “the reader with a depiction in enough detail to show that the author’s conclusion ‘makes sense’” (p. 19).

Using multi sites for the study provided the researcher with the second strategy to further external validity. Purposeful sampling supplied the researcher with six different schools to be used for this study. Using a variety of sites allowed the results to be applied by readers to a wide range of situations. Even though the study was limited to elementary schools in Northwest Missouri, the various sites provided variety in the implementation of the IPI process. With random sampling the two teachers from each school represented a mixture of grade levels. Various sized schools were also represented. Some of the teachers were veteran teachers, while others were fairly new to the teaching profession. Finally, upon Lincoln and Guba’s (1985) suggestion for trustworthiness of research findings the researcher (a) used varied data sources of observations and interviews including member check, (b) described the findings using rich, thick descriptions, and (c) maintained detailed research records.

### Summary

Being the primary instrument of this study, the researcher had to work in an unstructured environment adapting to unforeseen events and changes. The researcher remained sensitive to the context and the variables (setting, people, agendas, information received) surrounding the study. Finally, and possibly most important, the researcher displayed good communication skills having empathy with the respondents, establishing rapport, asking good and leading questions, and listening. The researcher followed

Seidman's (1998) recommendation of listening on three levels: (a) listen to what the participant is saying, (b) listen for the inner voice, and (c) listen while remaining conscious of surroundings including time.

This qualitative analysis explored the perceptions of teachers through conversations in order to gain information on instructional practices used in their classrooms based off of the IPI process. This study was based on conducting semi-structured interviews with twelve elementary school teachers and six principals employed in Northwest Missouri school districts who have used the IPI process. The researcher collected additional data through observations and during the interviews. Demographic documentation was also retrieved from the DESE website.

The interviews were transcribed verbatim by the researcher when member check was conducted no corrections were noted. Data was then analyzed through open and axial coding processes. Internal and external validation of data occurred through triangulation of data, member check, and the use of rich, thick descriptive words.

Data collected and analyzed from the interviews and observations produced the findings reported in Chapter Four. Subsequently, Chapter Five provided recommendations derived from the findings and presented the summation of this study.

## CHAPTER FOUR

### RESEARCH FINDINGS

With the push toward schools having greater accountability in test scores (Kachur et al., 2010), schools are looking at resourceful ways to raise student achievement. The Instructional Practices Inventory (IPI) process of measuring student engagement is a fairly new practice used by over one thousand schools (J. Valentine, personal communication, January 22, 2010). Research by Collins (2009) shows a correlation between the IPI process and an increase in student achievement; however, his study did not address teachers' perceptions on the IPI process in relationship with classroom instructional strategies. The purpose of this qualitative study was to analyze elementary classroom teachers' perceptions about the impact of the IPI process on classroom instructional practices.

#### Study Overview

This qualitative analysis portrayed the perceptions of elementary teachers employed in Northwest Missouri public school districts about the impact of the IPI process on classroom instructional practices. The IPI instrument, first developed in 1995-1996 by Bryan Painter and Jerry Valentine and later revised by Valentine (Valentine, 2005, 2007a), has been recommended for a few schools in jeopardy of not meeting their AYP. The AYP is a part of the NCLB Act of 2001 as a means to measure student achievement (U.S. Department of Education, 2004). Student achievement is directly related to effective teaching practices as suggested by Marzano (2003, 2007), Marzano et al. (1990), and Waters et al. (2003, 2004).

The IPI process is a data collection profiling system to measure the “nature of student-engaged learning from various instruction practices . . .” (SuccessLink, n.d., p. 1). With the focus on instructional strategies, the researcher conducted a qualitative analysis of elementary teachers’ perceptions employed by Northwest Missouri school districts about the impact of the IPI process on classroom practices. Through personal, semi-structured interviews information was received which guided the researcher in gaining in-depth understanding of the teachers’ thoughts and opinions (Merriam, 1998).

#### *Overarching Research Question*

For this qualitative study, the researcher had one broad overarching research question: To what extent does the Instructional Practices Inventory process impact the instructional practices or strategies used by elementary classroom teachers?

#### *Interview Questions*

Semi-structured interviews consisting of interview questions and descriptive survey questions were conducted with elementary classroom teachers and their principals to answer the overarching question. Prior to each interview the researcher read a protocol statement (Appendix F) to assure anonymity and to inform each interviewee he or she may withdraw at any time. The following questions (Appendix A) were asked during the teacher interviews:

1. Tell me something about yourself in regard to education.
2. How many total years have you taught and how many years at this school?
3. How many years have you been using the IPI process?
4. Who collects the IPI data in your school?
5. Have your seen an IPI profile chart?

6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you use in your classroom?
8. What causes you to change or modify your instructional practices or strategies used in the classroom?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?
12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?
13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

The following similar questions (Appendix B) were asked of the principal participants:

1. Tell me something about yourself in regard to education.
2. How many total years have you been an administrator and how many years at this school?
3. How did you become familiar with the IPI process?
4. Who collects the IPI data in your school?
5. Have you seen an IPI profile chart?

6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you see being used in the classrooms?
8. What causes your teachers to change or modify their instructional practices or strategies used in the classrooms?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?
12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?
13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

As a follow up to each interview, scaled descriptive questions (Appendix A) to be rated between 1 and 9 (with 1 being the lowest) were also asked of each teacher with similar questions being asked of the principals. Those descriptive questions for the teachers were:

1. How much of an impact has the IPI process had on your classroom instructional strategies?

2. How much of an impact has the IPI process had on other colleagues' instructional strategies?
3. How much of an impact has the IPI process had on your entire school?
4. How much of an impact has the IPI process had on collaborative discussions within your school?
5. How much of an impact has the IPI process had on your professional development?
6. How much of an impact has the IPI process had on the improvement of your school?

The descriptive questions (Appendix B) for the principals were:

1. How much of an impact has the IPI process had on the classroom instructional strategies?
2. How much of an impact has the IPI process had on your entire school?
3. How much of an impact has the IPI process had on collaborative discussions within your school?
4. How much of an impact has the IPI process had on your professional development?
5. How much of an impact has the IPI process had on the improvement of your school?

#### *Participant Selection Process*

The focus of this study was on elementary classroom teachers' perceptions of the impact of the IPI process on instructional practices used in classrooms; therefore, elementary classroom teachers and their principals were the participants of this study. Through conversations with J. Baker (personal communication, March 18, 2010), of the



Northwest Regional Professional Development Center (NWRPDC) assistance was given to the researcher in finding participants for the study. J. Baker has worked with various Northwest Missouri elementary schools with the IPI process and she suggested twelve schools as candidates for the study. Out of the twelve suggested schools, six were chosen as the focus for this study based on their common exposures and common support systems with the IPI process. J. Baker (personal communication, March 18, 2010) commented the six schools represented various levels of actual use of and understanding of the IPI process.

Purposeful sampling (Merriam, 1998) was used for this study by choosing elementary classroom teachers and elementary principals employed in Northwest Missouri public school districts because of their expert knowledge. Approximately one month before the interviews, the six school principals were contacted asking for permission to invite their teachers to be study participants (Appendix G). Once permission was given, an email was sent to each teacher within the school asking for their volunteer assistance. After receiving confirmation from several teachers the researcher randomly chose the first two affirmative respondents from each of the six Northwest Missouri elementary schools as the participants. The researcher then made initial contact with each teacher through phone conversations. Then a detailed follow up email, including information on setting up times and dates for interviews, was sent to each participant. The three interviews with two teachers and one principal from each school occurred on the same day within the respective school buildings.

### *Research Methods*

The researcher concentrated on gathering open-ended data using semi-structured interviews which guided the researcher to the development of themes as recommended by Creswell (2003). Data for this study were also obtained through observations and from the Department of Elementary and Secondary Education (DESE) website. The researcher chose to interview teachers and principals which allowed the researcher the opportunity to gain detailed information relating to the teachers' perceptions. Interview questions were constructed from a general to specific format (Appendix A and B) and prior to each interview an interview protocol statement was read (Appendix F). Each interview lasted less than one hour and was conducted at the respective schools of the participants.

Twelve elementary classroom teachers and six principals were the participants for the study. Each participant signed and dated an informed consent document (Appendix H). Interviews were audio taped allowing the researcher time to jot down observations. Observations were organized into field notes as recommended by Emerson et al. (1995). The interviews were transcribed and member check (Merriam, 1998) with each participant was conducted through the use of email. Observational notes added detail to the final transcripts. With the final transcriptions, the researcher found common threads and patterns (Seidman, 1998) using a sorting, coding process discussed in more detail later in this chapter. Then, the information was analyzed through open coding and axial coding, thus leading to emergent themes also discussed later in this chapter.

### *Conceptual Underpinnings*

The conceptual underpinnings guiding this study were based on Marzano's researched based instructional strategies (2003, 2007; Marzano et al., 2001; Waters et al.,

2004) of (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing effort and providing recognition, (d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.). The studies on these effective teaching strategies undergirded this research. The data collected from the participants were viewed and analyzed through the lens based on these conceptual underpinnings by comparing information received to the literature reviewed. Even though Marzano specifically mentions nine researched based instructional strategies, one strategy, cooperative learning, evolved as being more applicable to this study. Additional information on the conceptual underpinnings was included in Chapter One. In this chapter the emergent themes were discussed with correspondence to the specific teaching strategies of Marzano (2003, 2007).

#### Presentation of Data

The researcher presented demographic information about the teachers participating in the study discovered through the individual interviews. Data about their school demographics were also presented. This demographic information provided the researcher with insight to the teachers and the individual schools they represent.

Following discussion on the demographic data, the researcher discussed the conceptual underpinnings with the supporting emergent themes. Quotes from teachers were used to validate and support the themes while also making the presentation of data vivid enough to come to life for the readers. The information received from the participants not only answered questions, but gave meaning to the information. As Seidman (1998) explains, “At the root of in-depth interviewing is an interest in

understanding the experience of other people and the meaning they make of that experience” (p. 3).

### *Demographic Information*

Demographics of the participating teachers and their school’s student population were collected. The teacher interviews provided the information about how many years each teacher has taught within the current district and how many total years they have been in public education. The researcher opted not to include the number of years of experience for each principal since this study was focused on teachers’ perceptions. Data on student body population were retrieved from the DESE website and were not disaggregated based on teacher or grade level.

The data in Table 1 demonstrated a variety of years of experience for the teachers interviewed in the study. Two out of the 12 teachers have taught less than ten years; whereas, five of the 12 have taught more than 20 years. The data also showed one-third of the teachers have taught their entire career in one district, but the data did not show how often those teachers switched grade levels, which was discovered through interviews as being numerous.

Ten out the 12 teachers interviewed represented school districts with a population range of 200 to 400 students; whereas, two teachers were from a school with a student population between 700 and 800. Interestingly, for the six schools represented in the study, the mean number of students per classroom teacher was 13 with a range of only two but the state average ratio is 17 students to one teacher. However, the average number of students per administrator ranges from 75 to 162 compared with the state average of 187 students per administrator.

The demographics showed a range in free and reduced lunches of only 18.2% with 31.4% representing the lowest and 49.6% being the highest. The student body racial breakdown shows diversity ranging from almost zero to just over five percent minority with one of the smallest schools having the highest minority student population. These data described above provided the researcher with additional information adding to the elementary classroom teachers' perceptions, as seen in the following table (Table 1).

Table 1

*2009 Demographics of Teacher Participants and Their Student Population*

Descriptor	Teacher 1	Teacher 2	Teacher 3	Teacher 4
Years teaching at Current District	5	23	16	2
Total Years of Teaching Experience	17	23	16	9
Students per Classroom Teacher	12	12	13	13
Students per Administrator	121	121	109	109
Building Student Enrollment	*300-400	*300-400	*300-400	*300-400
Asian	0.9%	0.9%	3.1%	3.1%
Black	0.0%	0.0%	0.9%	0.9%
Hispanic	0.0%	0.0%	0.6%	0.6%
Indian	0.6%	0.6%	0.6%	0.6%
White	98.6%	98.6%	94.8%	94.8%
Free/Reduced Lunch	31.4%	31.4%	42.7%	42.7%

Descriptor	Teacher 5	Teacher 6	Teacher 7	Teacher 8
Years teaching at Current District	11	4	13	10
Total Years of Teaching Experience	11	4	30	12
Students per Classroom Teacher	12	12	14	14
Students per Administrator	88	88	94	94
Building Student Enrollment	*200-300	*200-300	*300-400	*300-400
Asian	0.0%	0.0%	0.0%	0.0%
Black	1.9%	1.9%	0.0%	0.0%
Hispanic	3.8%	3.8%	0.3%	0.3%
Indian	0.8%	0.8%	0.0%	0.0%
White	93.6%	93.6%	99.7%	99.7%
Free/Reduced Lunch	49.6%	49.6%	46.0%	46.0%

Descriptor	Teacher 9	Teacher 10	Teacher 11	Teacher 12
Years teaching at Current District	9	18	17	15
Total Years of Teaching Experience	19	22	29	28
Students per Classroom Teacher	13	13	14	14
Students per Administrator	75	75	162	162
Building Student Enrollment	*200-300	*200-300	*700-800	*700-800
Asian	0.9%	0.9%	0.3%	0.3%
Black	1.3%	1.3%	1.6%	1.6%
Hispanic	1.3%	1.3%	1.1%	1.1%
Indian	0.0%	0.0%	0.5%	0.5%
White	96.5%	96.5%	96.4%	96.4%
Free/Reduced Lunch	44.5%	44.5%	42.0%	42.0%

*Note.* Enrollment range is denoted by an \*.

### *Theme Development*

The conceptual underpinnings of Marzano's researched based instructional strategies (2003, 2007; Marzano et al., 2001; Waters et al., 2004) guided this study. Those strategies include (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing effort and providing recognition, (d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.). Even though Marzano specifically mentions nine researched based instructional strategies, one strategy, cooperative learning, evolved as being more applicable to this study.

Data were reviewed and filtered through current and relevant literature. Common themes emerged through open coding and axial coding (Creswell, 2003). The coding process began with the researcher using identifying notations (Merriam, 1998) on the transcriptions of interviews and observational notes so the data would not be forgotten. Then the researcher cut apart each interview transcript per question. The observational notes were also cut apart. Next, the cut pieces were sorted out and grouped together on the floor of the researcher's home based on similar thoughts or ideas. Finally, the researcher was able to look for connecting threads and patterns leading to the open coding and axial coding processes based on Seidman's (1998) recommendations.

*Open coding.* In reviewing the cut transcripts, notes were jotted along the right side of the paper regarding general topics mentioned in that section. This open coding identified the major topics from the transcripts and observational notes thus being the initial step of developing themes and categories in analysis of data as recommended by

Creswell (2003) and Weiss (1994). During the open coding process, the researcher was also filtering information through her brain received from J. Baker (personal communication, March 18, 2010) in regard to the schools and their status in the IPI process and how this information relates to the various categories. The open coding categories, according to Merriam (1998) are the answers to the research questions. The researcher then placed the open coding notes from each interview onto a computerized spreadsheet grid which is displayed in Table 2. After all of the notes were categorized, certain applicable themes were developed through axial coding.

*Axial coding.* Axial coding was the next step following the open coding process in data analysis. Using the data within the computerized spreadsheet, the researcher was able to put the information back together in different and explicit ways, making new connections to the original categories and subcategories as suggested by Creswell, (2003). With this axial coding, connections were made between categories requiring the understanding of the relationships between the categories and the teachers' perceptions.

Using the conceptual underpinnings as a guide, the researcher grouped the concepts into five major themes shown in the following table (Table 2). Information from the principals' interviews, as seen in Table 3, supported the major themes. Information from personal communication with J. Baker (March 18, 2010) was not dispersed into a table as it was not used in development of themes, even though it was used to support the emergent themes. Following the presentation of the emergent theme tables, the researcher discussed each theme and the relationship with the conceptual underpinnings.



Table 2

*Emergent Themes from Interviews with Teachers*

Themes Identified				
Support of IPI through PD	Benefits for Students	Instructional Strategies	Personal Benefits for Teachers	Benefits of IPI Process
Twice a week by teacher leader	Learning vs teaching	Cooperative or small groups	Awareness	Student success/school success
At faculty meetings twice a week, led by teacher/principal	Awesome learning is fun for kids	Cooperative groups at tables	It is natural to me now	Teamwork
It is now a part of us, we don't need to discuss it as much	Reaches all students – all students are learners	Kagan Structures		IPI and student achievement go hand in hand
It is through informal conversations	The kids doing most of the talking are doing most of the learning	Kagan cooperative learning strategies	Doing it consistently has made us aware of it	
Yes – not as much as we use to	Higher student engagement, kids are talking with each other	Cooperative learning	Causes me to reflect	Students being involved = better student achievement
Monthly	You want students owning their own learning	Cooperative learning/hands on	You just plan on using the higher order questions	
At faculty meetings	Children take control of the process	Game type things, small groups, cooperative groups	The whole process just flows	
At faculty meetings, administration leads, teachers discuss	Kids are doing more thinking	Hands up/pair up, Kagan Structures	It is wonderful, I am a firm believer in it	Kids become responsible
Principal, at faculty meetings	Causes them to be actively involved	Cooperative learning		Overall improvement
Sometimes – Principal		Cooperative learning	It is okay for some things	
Yes, quite a bit	Anything to get the kids to think	Cooperative learning/higher order thinking strategies	Makes me try to bump things up to a higher level	
Yes, once or twice a month	Forces students outside of the box	We use the strategy cards we were given	I have become a better teacher	Allows me to have a variety of classroom activities

Table 3

*Emergent Themes from Interviews with Principals*

Themes Identified				
Support of IPI through PD	Benefits for Students	Instructional Strategies	Personal Benefits for Teachers	Benefits of IPI Process
After the collection		Kagan/ Marzano	Gives teacher focus, staff buy in	Accredited
		Student led, projects, higher order thinking		Higher levels of student engagement = higher student achievement
Not so much now it is embedded in us		Kagan Structures, active learning, reading levels	Creates awareness	Monthly check system
Faculty meetings, teachers and administration	Kids are actively involved	Cooperative learning/ Kagan Structures, Marzano strategies	Awareness of teachers	Goes hand in hand
At faculty meetings, I do	Puts responsibility on the kids	Cooperative learning strategies		Makes kids responsible
Faculty meetings		Cooperative learning, explicit instructions	Teachers know what effective instruction should look like	High student engagement is high student achievement

*Emergent Themes*

The 18 interviews were transcribed and the data analyzed as described prior to the presentation of the tables. Five major themes emerged from the data analysis based on the perceptions of elementary classroom teachers. In addition to the information gathered from the teachers' interviews, information from the teachers' observations and principals' interviews supported the five themes. Four of the five themes corresponded to the conceptual underpinnings, but one theme focused on professional development support. The five emergent themes were (a) professional development support of the IPI process,

(b) benefits for students from using the IPI process, (c) instructional strategies used based on the IPI process, (d) personal benefits for teachers from using the IPI process, and (e) overall benefits of using the IPI process.

*Professional development support of the IPI process.* All of the teachers and principals interviewed stated they had received some professional development in the form of analyzing or discussing results based on the IPI process. When talking with J. Baker (personal communication, March 18, 2010), she suggested two schools were at the highest levels of vigor with the implementation of the IPI process. When interviewing teachers from these schools, they supported her intuition because the researcher discovered the IPI process was embedded within these teachers. One teacher commented, “We do discuss the IPI at our faculty meetings. Not so much now because we did it and now it is a part of us but in the beginning we discussed it monthly.” This was also supported by another teacher stating, “We don’t discuss it like we use to. We talk about it in informal conversations. It is just embedded so much in us now.”

Professional development was still a main part of the schools where the IPI process was not yet self sustained. Teachers commented most of the professional development was conducted by various NWRPDC representatives or by their principals with teachers doing most of the discussion. Most teachers said they would meet at least once a month to discuss the IPI process. One teacher stated, “We go through the process every other month at in-services with the lady from the Regional Professional Development Center (RPDC) leading the discussions, and then we talk about it in smaller groups.” Another teacher added, “Yes, we discuss the IPI data. If we have four collections, we discuss it four times. The administration leads the discussions, but then

we do a lot of the talking between ourselves.” According to the teachers from the schools where the IPI process was implemented mainly in name only, the IPI data was constantly placed in their hands and one teacher commented, they talk “quite a bit about the results of the data.” Even though professional development is not one of Marzano’s recommended instructional strategies, it is relative to effective instructional strategies. In support Marzano et al. (2001) state, “Schools and school districts must provide high-quality staff development relative to effective practices identified by the research” (p. 156) and Valentine (2005, 2007a, 2007b) supports professional development in suggesting all faculty members be actively engaged in the analysis of and reflection of the IPI data.

With the professional development emergent theme, Nonaka’s (1991, 1994) concept of the spiral of organizational knowledge creation is evident. “Any organization that dynamically deals with a changing environment ought not only to process information efficiently but also create information and knowledge” where “existing knowledge can be ‘converted’ into new knowledge” (Nonaka, 1994, p. 14). The teachers from the schools with high level of integrity and vigor with the IPI process have established this knowledge conversion regarding the IPI process. They have taken their explicit knowledge and converted it into tacit knowledge. “Tacit knowledge is highly personal” and tacit knowledge “consists of mental models, beliefs, and perspectives so ingrained we take them for granted . . .” (Nonaka, 1991, p. 98). This was evident as two teachers said, “. . . and the IPI process is a part of us . . .” and one teacher added, “it is embedded so much in us now.” On the other hand, the teachers from the schools who are

implementing the IPI in name only have not committed to the conversion of knowledge because they are still learning.

*Benefits for students from using the IPI process.* In coding the data, it was obvious this theme was common among all of the teachers interviewed because they felt the students were the main ones benefitting from the IPI process. In the studies of Marzano et al. (2001) and Marzano et al. (2003), the focus is on the students and the instructional strategies used within the classrooms to positively impact student achievement. Of the teachers interviewed, each one had a comment on how the IPI process had a positive effect on the students. The comments were similar and did not vary according to the ranking of the six schools based on their familiarity with the IPI process. Teachers' comments ranged from "it is fun for the students" to "students are the ones responsible for their learning."

When asked about how the IPI process related to active student engagement one teacher responded,

It is just awesome. The day goes much smoother because the kids are so much more focused and into their learning that it is just – I can't even describe it. It has made learning so much more fun for the kids and it has helped us as teachers because it has taken the pressure off of us because we let the kids do a lot more than what we use to. We have better teamwork. I feel like the kids enjoy learning and I can't think of ever going back to the way things use to be.

Another teacher stated, "The student engagement piece is so important because if you are doing it correctly you won't have those kids in the back row goofing off and not engaged

with what you are doing.” She added, “It is accountability for all kids and I also think it makes learning more fun with the strategies they have been taught.”

As stated before, the importance of the IPI process in relationship to the students did not differ among the twelve teachers. A teacher representing a school doing the IPI process in name only stated, “. . . it gets the kids to thinking more. It gets those kids engaged, doing something, talking about it and doing it. Getting them engaged.” This was similar to a teacher’s response representing a school with somewhat of an understanding of the IPI process, but lacking in internalization of the process. This teacher elaborated and said she was a firm believer in the IPI process because of the changes she has seen within her school system. She continued in stating

I have gone from morning work consisting of worksheets to working on children interacting together, working together, hands on, peer teaching. I have done away with lots of worksheets and it has impacted the kids because they are doing lots better in regard to their thinking and it helps them with their listening skills.

One of the principals interviewed concurred with the teachers in stating, “The IPI data collection process has made teachers aware of the correlation of higher order thinking skills and active student engagement. The students who are engaged are learning . . .” Another principal said, “The students seem to be having fun now with learning. They are learning the same thing; it is only presented differently, in a way to get the kids to thinking about what they are learning.”

When interviewing the teachers about the importance of the IPI process for the students, the researcher observed most of teachers smiled and nodded their heads when they responded to the questions. They appeared to be very happy for the students

involved with the IPI process. The smiles and nodding continued throughout the interview process when discussing the IPI process in relationship to the students.

*Instructional strategies used based on the IPI process.* Researched based instructional strategies were used as the conceptual underpinnings guiding this study (Marzano, 2003, 2007; Marzano et al., 2001; Waters et al., 2004). When interviewing the teachers and the principals, observational notes indicated the topic of instructional strategies seemed easy for everyone to discuss. Instructional strategies have always been used in the classroom; however, teachers using the IPI process are seeing instructional practices through a new lens, the IPI lens.

One of the common responses when asked about instructional practices used in the classroom was cooperative grouping. One teacher said, “Oh man, we do a lot of group work, a lot of small group.” This was supported by another teacher who said she used “a lot of cooperative learning.” Later she added, “The tables for the kids helps with cooperative learning and student led conversations. That is what we mainly do . . .” A teacher from one of the schools who is implementing the IPI process, but not at the highest implementation level said,

I like groups, to get them into cooperative learning groups, to collaborate, so they can cooperate with one another and be a lead peer and help maybe the lower functioning kids in the group and to get discussion going. It is a great learning environment for students.

Another teacher who is from one of the schools implementing the IPI process in name only when asked about instructional strategies commented, “I use a lot of cooperative learning and higher level thinking strategies. Anything that gets kids to think.”

Cooperative learning was also supported through the principals' interviews. One principal said, "I see cooperative learning in almost every classroom being used on a daily basis. Sometimes I wonder if they are using it too much." Two principals commented they liked seeing the cooperative learning strategies because it is causing students to work together more.

Cooperative learning was just one strategy specifically mentioned by the teachers and principals. Another commonality with instructional strategies mentioned by nine out of the twelve teachers when interviewing them was Kagan Structures (Kagan, 2003). Kagan Structures were not mentioned in the literature review section of Chapter Two, but seem to be commonly used with the IPI process. Kagan Structures began as instructional strategies, but according to Kagan,

The strategies I was developing were like rules of a game. They feel natural to students in part because students are familiar with board games with their various rules. For students, structures are the games, easy to learn and easy to play . . . . I realized I was developing a fresh approach to teaching. We needed a name for these powerful new strategies. I had been teaching teachers these simple interaction sequences for several years before I came up with the word, 'structures.' (p. 2)

The interviews showed a progression of the knowledge and terminology associated with the Kagan Structures (Kagan, 2003) based on the level of where the schools were at relating to the implementation of the IPI process. A teacher representing a school implementing the IPI process in name only, did not use the actual term Kagan Structures, but was able to discuss a variety of the structures associated with Kagan. She



stated, “Well, based from the IPI, I have started using those cards they gave us like Jigsaw, Hand up – Pair up, Rally Coach, All Right Round Robin.” Similarly, another teacher said, “I think more about turn to your partner and share something instead of just me leading the discussion. Talk with the person across from you or your shoulder partner.” These instructional strategies are all included in the Kagan Structures.

On the other hand, the teachers from the schools where the IPI process was part of their daily routine actually used the term Kagan Structures (Kagan, 2003). Teachers discussed Kagan Structures and gave a few examples. One teacher simply stated, “We have all kinds of Kagan Structures in place and all kinds of active learning practices in place.” While another teacher said, “I use a lot of Kagan Structures so the students are up and actively involved.” Observations revealed some teachers were very excited to talk about what they were doing in the classroom. They used their hands and they talked faster than normal. These teachers went into great detail to explain what they do in the classroom. One teacher said,

I use a ton of Kagan cooperative learning strategies. Oh – I use – just on a daily basis, I use five or six and I try to use a variety and the kids – we even have a deal where we record them up on the board and they will keep track making sure we are not using the same ones over and over again. They like variety. They let me know when we don’t have many up there . . . the kids learn the structures so much better and they will tell me, ‘Shouldn’t that be Rally Robin and not Rally Table?’ Before I used them and the kids did not know them, but now I say let’s do the Rally Robin and the kids know exactly what I am talking about.

Another teacher elaborated with,

I do a lot of pairing up. Hands Up – Pair Up. All Right Robin was used at the end of the year, often times for numbers. I can write 20 and everyone wrote 20 on their boards. This incorporates listening skills as well as peer teaching. That is one of my favorite ones. I have used it with the active boards. Four Corners – which does not belong and how things are grouped together. Every time the strategies were brought up during the in-services, I would go back immediately and utilize at least one or two of them at a time.

Principals supported these statements. One principal said, “We use Kagan Structures (Kagan, 2003) and Marzano Strategies (Marzano, 2003, 2007),” while another principal commented about her teachers using cooperative learning, Kagan Structures, and Marzano’s Strategies.

*Personal benefits for teachers from using the IPI process.* Instructional strategies play an imperative role in the daily lives of classroom teachers. Information from the interviews gave the researcher an idea just how important the IPI process was for teachers especially in relationship to choosing appropriate instructional strategies to use in their classrooms. When interviewing the teachers, observations led the researcher to notice most teachers were excited about using the IPI process not only because of the benefits for the students but because of the benefits for the teachers. Specifically, several of the teachers interviewed commented on the IPI process and how it made them aware of what was taking place in the classroom.

One teacher said, “I think it has made me more aware of what I do in the classroom. It really does. You work a little bit harder to make the activities more child

friendly.” Another teacher commented about the IPI process, “I would have to say that by having someone come around and gathering the data that it has made me a better teacher because it makes me aware of what I should be doing and challenging the students.” The teacher added, “It has made me think outside the box and be a better teacher.” Finally, regarding awareness, a teacher commented,

I feel like it is one of the best things we have done in education . . . and it is something that just comes natural. You start doing these things and it becomes a practice and teachers are more aware of that and I feel like the kids are more engaged now and the thing that has changed the most is I feel that we used to do so much of the instruction and now we are letting the kids converse and problem solve and do those types of things that have really helped the kids achievement.

Interviews also brought about a sense of reflection for the teachers. As one teacher stated, “I think it has caused me to reflect some and not just have the teacher leading.” This reflection caused teachers to think about what they are teaching as one teacher said she thought all the time about how to “bump everything up to a higher level and get the kids to thinking more,” and another teacher commented, “I think about the IPI on a daily basis and it makes me accountable as a teacher and it makes me vary my instruction.”

In addition, the IPI process adds variety to the classroom as one teacher stated, “I think IPI causes us to try to reach all students with a variety of learning needs.” She added, “It also keeps us on our toes as educators to not be stuck in a rut and using the same old techniques all the time. The IPI has definitely changed my way of teaching.” As stated earlier, most teachers did use a variety of instructional strategies; however, they

did claim the variety was due to the IPI process, and one teacher said, “The whole process just flows.”

One comment from a teacher on how she observed the importance of the IPI process for herself was very personal. She said,

Being a teacher of 30 years, the best thing that happened to me was the IPI. It made me a better classroom teacher. It took a lot of stress off of me as a teacher being the lead and letting the children take control of the process and then coming back and making sure the concept has been captured during the lesson.

Yet another teacher simply stated, “I think it is great. I am a firm believer in it. It is wonderful.”

The principals also sensed the significance of the IPI process for the teachers. A few principals reflected on individual teachers suggesting the importance of understanding the IPI process, as one principal from one of the schools implementing the IPI process in name only stated, “Teachers need to be educated on IPI to fully understand the impact it can have.” Another principal said, “It gives our teachers focus,” and “I know they are pushed because they want to be an effective teacher like their peers in the building.”

*Overall benefits of using the IPI process.* Data collected from teachers’ interviews concerning outcomes of using the IPI process varied from interview to interview. With the main focus on student achievement, some of the teachers discussed accreditation in relationship to AYP. Other teachers mentioned basic student achievement while some even discussed the outcomes the IPI process had on the learning environment.

A positive and effective learning environment aids in the educational process. According to one teacher, the IPI process puts accountability on the teachers and “thinks it makes for a better learning environment for the students.” She added, “I will tell you there is pressure on the teacher to do a better job . . . but we all need that and I think the IPI has been very helpful at helping us evaluate where we are and where we need to be.” Another teacher commented the learning environment was more positive because she said the IPI was the reason the students are so actively involved with their learning.

The IPI process encourages students to talk and interact with each other while learning. With the focal point on talking, one teacher emphasized,

In the classroom the kids doing most of the talking are the ones doing most of the learning. So, if you are at a level four and the teacher is doing most of the talking, then the teacher is learning, but if you get the kids to talking, participating, and engaged, I think it makes a huge difference.

Another teacher focused on the interaction of students and discussed,

I think it is a great thing to use in the classroom. It is getting kids to be more responsible for what they are learning and they don't just have to sit down and regurgitate what a teacher is saying or thinking and that is good especially for those achieving above and beyond their grade level. It encourages them to grow and for those not above and beyond and even those lower level students it does help them because just for the simple fact they see other kids doing it and they can start interacting because there is no right or wrong and that is something we have talked about all the way through with any of the structures we use.

Even though the focus of this study was not on student achievement, it was discussed by a few teachers as being one of the outcomes of using the IPI process. One teacher commented, “Well, I think since it is forcing them to think outside the box, then they are going to be better thinkers and better problem solvers, and I think they will be better achievers.” Another teacher explained anything done to “get students to be more actively involved, engaged, will help with their achievement as well.” Finally, one teacher reiterated the thought and said, “It really helps with student achievement. It goes hand in hand.” She then elaborated and added,

I think that all students are learners. You are not just throwing out a question and one student is answering it, you are throwing out a question and 20 students are answering it working together to get that answer, so every student is a learner instead of just one that you were typically talking to while the others were drifting off.

Also, in regard to student achievement, one cognizant teacher commented with a smile on her face, “We have made accreditation with distinction for the last two years, so I think it has shown it is very successful.”

Other general comments teachers made about the outcomes of using the IPI process in their classroom included their opinions about the IPI process. One teacher said, “I think it has been a good step. I am more reflective on what I am doing and when I am writing the lesson plans and I try not to be on the same level at the same time.” Another teacher made this summary statement,

I have been in education now long enough to know there have been trends and I cannot imagine this changing. I feel like we are on the right track with IPI and I can buy into it and so can other teachers. We are on the right track.

The principals were also aware of the importance of the IPI process on overall student achievement. Of the principals interviewed, one said, “It gives our teachers focus,” while another principal commented, “IPI and student achievement goes hand in hand.” Finally, one of the principals summed it up with, “Teachers teaching at higher levels will develop students who apply knowledge at different rates. The increase in student productivity will result in higher student achievement.”

#### *Findings Relevant to Overarching Research Question*

The researcher had one overarching research question guiding this study. The question was: To what extent does the Instructional Practices inventory process impact the instructional practices or strategies used by elementary classroom teachers? The researcher used interview questions to answer the main overarching question and used descriptive questions as a means to triangulate the data. Twelve Northwest Missouri elementary classroom teachers, two from six different school districts, and their six principals were interviewed. Based on the data from the interviews the following findings were relevant to the overarching research question.

Out of the twelve teacher interviews, it was apparent the IPI process favorably impacted all twelve teachers on their choice of instructional practices used in their classrooms. In the researcher’s dialogue with the teachers, discussions ranged from comments from one teacher about using “those cards they gave us” to another teacher saying, “The IPI process has definitely changed my way of teaching.” The strategy of

cooperative learning was a common thread among the teachers, while a variety of Kagan Structures (Kagan, 2003) were also mentioned.

Interviews with the principals fully supported the recommendations of J. Baker (personal communication, March 18, 2010) regarding the status of the implementation of the IPI process within the six schools. The principal from one of the schools where the IPI process was a natural part of their culture commented, “It is an excellent tool for our school,” and added “This IPI process cannot be a touch on it now and then process to be embedded, it needs to be implemented on a daily basis.”

#### Triangulation of Data

The researcher acquired data from three different sources for the process of triangulation. The three points of data included (a) teacher interviews, descriptive survey questions, and observations; (b) principal interviews, descriptive survey questions, and observations; and (c) conversations with J. Baker (personal communication, March 18, 2010). As emergent themes were developed through the coding processes, the researcher unveiled the supporting of themes by the different data sources.

The findings of the teachers’ descriptive questions (Appendix A) and principals’ descriptive questions (Appendix B) supported the importance of the IPI process as it related to the instructional strategies used by classroom teachers. The descriptive questions were formulated on a 1 through 9 scale with 1 being the least and 9 being the highest. Ten out of the 12 teachers marked 7 or higher as the level of impact the IPI process had on their classroom instructional strategies. However, all six principals ranked the same question with a 7 or higher.



Furthermore, the descriptive questions also supported interview comments about the need for professional development. Eleven teachers marked 7 or higher as their response to the impact the IPI process had on their professional development and ten teachers rated the impact of the IPI process on collaboration with a 7 or higher. Principals ranked professional development and collaboration similarly with five principals marking collaboration a 7 or higher and all six marking the impact on professional development a 7 or higher.

### Summary

Teachers have an abundance of instructional practices available for them to use (Marzano et al., 1990), but according to Marzano (2007) keeping students actively engaged at a high level is of utmost importance because active involvement increases learning. Through the IPI process, teachers are encouraged to keep students actively engaged in learning based on the data collection rubric (Valentine, 2007a, 2007b). Teachers have ample opportunity to keep students actively involved with the variety of instructional practices available to them (Burns, 1979; Pressley et al., 1996).

In this chapter, exploration of the five themes and observational data partnered with the conceptual underpinnings provided a picture of elementary classroom teachers' perceptions about the impact of the IPI process on classroom practices. According to the data based on teachers' interviews and descriptive questions the IPI process had a positive impact on instructional practices used within the classroom and is perceived to have a positive impact on active student engagement. The exploration of the information used to form themes reflected teachers' perceptions regarding instructional practices as they were related to the IPI process.

The findings of this qualitative study demonstrated the use of the IPI process by elementary classroom teachers favorably impacted instructional strategies used within the classroom. The twelve teachers represented six different schools, and even though the six schools were at different stages in the implementation of the IPI process, the data demonstrated each teacher valued the importance of the IPI process as it related to instructional strategies; however, the value was not at the same level for each teacher. The teachers working in schools with the IPI process embedded as part of their school culture internalize the IPI process as part of their teaching routine. Similar to the suggestion from Bolman and Deal (2003) of how business is conducted within an organization, the culture now has embedded values and practices associated with the IPI process. Conversely, the teachers who did not implement the IPI process on a daily basis minimally valued the IPI process. Not only did the data support the use of the IPI process in regard to instructional strategies, teachers adamantly claimed the IPI process was responsible for increasing active student engagement. Further implications along with recommendations for future studies were addressed in Chapter Five.

## CHAPTER FIVE

### DISCUSSION WITH RECOMMENDATIONS AND SUMMARY

This qualitative study analyzed the perceptions of elementary teachers employed in Northwest Missouri public school districts about the impact of the Instructional Practices Inventory (IPI) process on classroom practices. The IPI process is a way to measure student engagement (Valentine, 2005, 2007b, 2009). Research has been conducted on the relationship between the IPI process and the increase in student achievement (Collins, 2009), but the focus of this study relied on the perceptions of classroom teachers on the IPI process specifically relating to classroom instructional strategies.

Twelve Northwest Missouri elementary classroom teachers, two from six different schools, and their six principals voluntarily participated in this study. The teachers and principals were asked interview questions and descriptive questions (Appendix A and B) relating to the IPI process. All interviews were recorded and the recordings were transcribed verbatim. The researcher also jotted down observational notes during the interview and those notes along with the transcriptions provided the data for this study. The information collected was analyzed using appropriate open coding and axial coding methods recommended by Creswell (2003). Emergent themes developed during the coding processes. These steps were discussed in detail in Chapter Three.

Marzano's researched based instructional strategies were the conceptual underpinnings used to guide this study (2003, 2007; Marzano et al., 2001; Waters et al., 2004). Marzano's strategies include (a) identifying similarities and differences, (b) summarizing and note taking, (c) reinforcing effort and providing recognition,

(d) homework and practice, (e) nonlinguistic representations, (f) cooperative learning, (g) setting objectives and providing feedback, (h) generating and testing hypotheses, and (i) questions, cues, and advance organizers (Marzano et al.). However, Marzano specifically mentions nine researched based instructional strategies, one strategy, cooperative learning, evolved as being more applicable to this study. Analysis and interpretation of the data revealed five emergent themes. Those themes were (a) professional development support of the IPI process, (b) benefits for students from using the IPI process, (c) instructional strategies used based on the IPI process, (d) personal benefits for teachers from using the IPI process, and (e) overall benefits of using the IPI process.

Four of the five themes supported the conceptual underpinnings of Marzano's recommended instructional strategies (2003, 2007; Marzano et al., 2001; Waters et al., 2004). However, one theme, the professional development support of the IPI process, is not an instructional strategy, but the teachers felt it was a vital part of effective instructional classroom strategies. Marzano et al. also see the importance of professional development in stating high-quality staff development is relative to the effective instructional practices identified by research. Valentine (2005, 2007a, 2007b) also supports professional development in suggesting all faculty members be actively engaged in the analysis of and reflection of the IPI data. The emergent themes were presented and discussed in detail in Chapter Four.

### Summary of Findings

The development of emergent themes and a secondary literature review revealed two unexpected key findings relevant to the teachers' perceptions of the impact of the IPI process on their classroom practices. One of the primary findings emerging in the

development of common themes was the use of Kagan Structures (Kagan, 2003) or structures similar to the Kagan Structures. Another finding was the importance of professional development. These two findings are worth discussion.

### *Kagan Structures*

As mentioned in Chapter Four, Kagan Structures are similar to instructional strategies, but Kagan (2003) states his strategies have rules and with rules come structure; thus resulting in what is known as Kagan Structures. As seen in Table 2 in Chapter Four, three out of the twelve teachers actually mentioned Kagan Structures when asked about instructional strategies. Eight teachers mentioned cooperative groups and/or small groups when discussing instructional strategies and one actually said, “We use the strategy cards we were given, like the Round Robin and Jigsaw.” The strategy cards and cooperative learning are part of the Kagan Structures (Kagan). Based on this data gleaned from interviews, Kagan Structures or structures similar to the Kagan Structures appeared to be significant to the IPI process.

### *Professional Development*

Almost all of the teachers and principals stressed the magnitude of professional development as it related to the IPI process. According to Table 2 in Chapter Four, several teachers commented the IPI process was discussed at faculty meetings. These discussions ranged from monthly to twice a week. As seen in Table 3 in Chapter Four, principals also recognized the importance of professional development with one principal stating she led the IPI discussion at the regular faculty meetings. In support, Valentine (2005, 2007a, 2007b) suggests “engaging all teachers in purposeful, structured study, reflection, and problem-solving” discussions (p. 8) while Marzano et al. (2001) contend

staff development is an important part of effective instructional practices. Professional development is a key component of IPI process and cannot be overlooked.

Another form of professional development was principal support. Data from this study disclosed five of the twelve teachers specifically mentioned the principal when discussing professional development. Furthermore three out of six administrators confirmed their involvement with the professional development was of the utmost importance. The principal is the leader of the school and without the leader's support, the IPI process is just another program being tested and tried as stated in Chapter One.

#### *Findings Related to Conceptual Underpinnings*

The findings of this qualitative study demonstrated the use of the IPI process by elementary classroom teachers as having a positive impact on the instructional strategies used within the classroom. The twelve teachers represented six different schools, and even though the six schools were at different stages in the implementation of the IPI process, the data demonstrated each teacher had an understanding of the importance of the IPI process as it relates to instructional strategies. In addition, the emergent themes supported the conceptual underpinnings of the cooperative learning instructional strategy as suggested by Marzano (2003, 2007; Marzano et al., 2001; Waters et al., 2004).

Furthermore, not only did the data support the use of the IPI process in regard to instructional strategies, teachers adamantly claimed the IPI process was responsible for increasing active student engagement, which the teachers felt led to increased student achievement.

## The Keys to Meaning

Teachers are like pianists playing the ivory keys. Some teachers stay at the beginning level, never advancing past the given textbooks similar to pianists who stay at their beginning level practice books. Then there are those in the middle. These are the pianists and teachers who sometimes have to be reminded to practice. They want to become better, but they lack initiative. Finally, there are some pianists and teachers who do progress. They are past the beginning level. They are inspired, they are motivated, and they go way beyond the textbooks relating well with concert pianists.

### *Tickling the Ivory*

Teachers who teach by following their textbooks are implementing the IPI process in name only. These teachers are familiar with the IPI process. They have been introduced to instructional strategies which encourage active student engagement, yet they feel no commitment to use the strategies on a regular basis within their classrooms. Their focus was not on the IPI process; therefore it was not embedded within them. This was evident when discussing how the IPI process relates to student achievement as one teacher stated, “It is okay for some things.” The teachers at this level would be similar to the pianists who only play from their beginning practice books without advancing further

Some teachers are a bit more in tune with the IPI process. They use their textbooks and they include instructional strategies to support active student engagement. These teachers understand the importance of the IPI process, but have not yet fully internalized the significance of the IPI process being included in their daily routine. Teachers at this level occasionally incorporate the IPI process, use Kagan Structures (Kagan, 2003), and integrate higher order thinking skills in their lessons, but they fail to

see the need to use it on a daily basis. Teachers at this level relate well with the pianists who might be playing at the local church on Sunday mornings; a bit more advanced than the beginner, but not at the highest possible level.

Finally, there are the teachers who practice the IPI process on daily basis. They follow the regular curriculum but they use their skill and talent to vary instructional strategies so students remain actively involved most of the day. These teachers include the students in discussions and make them the focal point of simple lessons. Teachers at this level represent the schools at high levels of integrity and vigor in the implementation of the IPI process. They know it and they have a passion for it. They teach outside of the box. These teachers are similar to the virtuoso pianists.

#### *Becoming the Virtuoso Pianist*

The virtuoso pianist is unlike any other pianists. This pianist demonstrates a high level of skill and displays outstanding ability in playing the piano. The virtuoso pianist exhibits feats of skill above the average performer. To become a virtuoso pianist, the pianist had to practice many hours. The pianist had to visualize the ability to play a piano in such a different way. Basically the pianist had to cross some cultural boundaries. According to Brainy Quote (n.d.), Schnabel once said, “I don't think I handle the notes much differently from other pianists. But the pauses between the notes - ah, there is where the artistry lies!”

In education, teachers don't have pauses, but they do have the creative ability to make changes in their instructional practices. They can unearth new and different techniques or rituals to make the IPI process a part of their daily routine. Confirming Morgan's (2006) acknowledgement of rituals being a form of cultural manifestation, the



IPI process becomes the ritual and supporting Martin's (2002) suggestions, common rituals exist within schools. With the common ritual of the IPI process, the schools can encompass the whole IPI process experience.

Rituals become part of the shared organizational culture, according to Martin (2002). In a school implementing the IPI process, Schein (1996) stresses the importance of crossing cultural boundaries in order to gain the shared culture for organizations to be successful. This crossing of cultural boundaries is part of becoming a virtuoso teacher of the IPI process.

To become a virtuoso teacher, the IPI process has to be embedded in the teachers. It has to be part of their culture as well as the school culture. For the IPI process to be part of the school culture, teachers have to cross the cultural boundaries to find the shared culture relating to the IPI process. With the grasping of the IPI process within the school culture, the IPI process will harmonize with the regular educational setting.

### Implications

The findings from this study revealed some Northwest Missouri schools have tackled the initial challenge of implementing the IPI process. Implementing the IPI process is the easy part. But implementation is not enough. Embedding the IPI process into the school culture is the more difficult part because of the involvement of intense professional development.

Even though the twelve teachers represented in this study have implemented the IPI process, there is more to the IPI process than just implementation. As seen in the data in Table 2 of Chapter Four, professional development was a vital part of the execution of the IPI process. Professional development can be time consuming, but without adequate

and effective professional development the IPI process could remain a process in name only. Through sufficient professional development, the barriers keeping the IPI process from being ingrained in the school culture could possibly be crossed.

Every teacher in this study used the IPI process; however, the extent to which they used instructional strategies based on the IPI process varied. Some teachers used instructional strategies geared for active student engagement on a daily basis in almost every lesson, while others used them spontaneously. The teachers who used the strategies on a daily basis were more enthusiastic when talking about the IPI process. When one teacher stated, “It has made me a better teacher,” the researcher could tell this teacher had a passion for the IPI process and it was ingrained within this teacher.

#### Adding to the Depth of Knowledge

Beyond the findings and the implications of this study was unforeseen learning. This new learning adds to the already existing knowledge base of the IPI process. Additionally, the following knowledge can be used by educators at any stage of the implementation of the IPI process.

- The researcher discovered self-sustaining teachers had the IPI process ingrained into their school’s culture.
- For teachers to be self-sustaining, the IPI process has to be part of the everyday routine of the teacher.
- Professional development with a focus on active student engagement strategies needs to occur at least once a month, if not more, for successful implementation of the IPI process.

- Professional development must encompass the Kagan Structures (Kagan, 2003) and the Marzano Strategies (Marzano, 2003, 2007).
- Finally, and most importantly, the IPI process has to be more than just data collection and results. The IPI process must be embedded within the school culture with a focus on active student engagement.

#### Discussion and Application of New Knowledge

The researcher discovered the teachers who were self sustaining with the IPI process had the process ingrained in their school's culture. The IPI process was not only self sustaining with the interviewees, but the process was self sustained in the school. For the IPI process to be a part of the school culture, a few necessary components need to be in place.

- First the IPI process has to be introduced and implemented.
- Then professional development with collaborative discussions is a necessity.
- Plus, professional development encompassing the Kagan Structures (Kagan, 2003) and Marzano Strategies (Marzano, 2003, 2007) must be provided to the teachers.
- Finally, the teachers need to implement the IPI process as part of their daily routine.

Professional development is imperative to the successful implementation of the IPI process. The professional development begins during the collaborative discussions following the first IPI data collection within a school and continues on a regular basis. Teachers committed to the IPI process met at least once a month to discuss the IPI process. Problem solving and reflective discussions should occur after every data

collection as suggested by Valentine (2005, 2007a, 2007b), but self sustaining teachers proudly announced they discussed the IPI process regularly with informal conversations. These conversations involved other teachers and the principal. The teachers who received the ongoing professional development were the ones who spoke adamantly about the IPI process. They knew the process inside and out and were able to talk about their professional development with excitement.

The goal of the IPI process is for teachers to have students at the student engaged instruction level; hence, the knowledge base of teachers has to be comprised of a variety of strategies to achieve active student engagement. During this study, the researcher exposed the use of Kagan Structures (Kagan, 2003). Kagan Structures vary the way teachers use Marzano's Strategies (Marzano, 2003, 2007). Teachers spoke highly of Kagan Structures when discussing the instructional strategies used in their classrooms. With this in mind, professional development encompassing the Kagan Structures and the Marzano Strategies must be provided to teachers. This professional development does not happen overnight; it is accomplished through ongoing professional development and can be entwined with the previously mentioned collaborative discussions.

Every teacher has a routine. The IPI process has to be part of the teacher's daily routine to be ingrained in the culture. The researcher discovered the principals used the actual terminology of Kagan Structures (Kagan, 2003) and Marzano Strategies (Marzano, 2003, 2007) when discussing instructional strategies. On the other hand, teachers who were self sustaining with the IPI process used specific examples of the Kagan Structures and the Marzano Strategies when discussing active student engagement. This information gave the researcher insight to the study exposing the expertise knowledge the teachers

and principals have in relation to the instructional structures and strategies which best support the IPI process. The principals were knowledgeable of the structures and strategies, sharing the importance of Kagan Structures and Marzano Strategies with the teachers. But it was the teachers using specific structures and strategies within their classrooms on a daily basis, thus creating a routine and culture encompassing the IPI process. The researcher discovered the teachers having the IPI process as a self sustaining part of their classroom are the ones who have a passion for it. They were the ones excited to talk about their experiences with the IPI process and excitement was heard in their voices and seen in their body language. They wanted to share examples and one teacher commented she could not imagine going back to the old ways.

On the other hand, this research revealed there are teachers who know about the IPI process but it was not part of the daily routine. These teachers have yet to differentiate between knowing the IPI process and living it. In other words, they have read about it, they practice it occasionally in their classrooms, but they have not integrated it into their daily routine. Thus the IPI process was not embedded in the school culture.

Finally, a word of caution. Teachers cannot see the IPI process as only data collection and results. When a school decides to implement the IPI process, the initial introduction occurs. Data collectors go to the school and obtain the data by following the data collection protocols. Then they disclose the results. Some teachers see this process as being the IPI process. However, as seen in this study, the IPI process is far more than just data collection and results. The IPI process must be embedded within the school culture and the focus must be on active student engagement.

Based on the findings of this research, the researcher became more aware of the IPI process and developed a new appreciation for the successful implementation of the IPI process. When the IPI process is first introduced to schools, a focus must be placed on professional development. Professional development is important for collaborative discussions to problem solve and reflect on data collection; but just as important as professional development is for teachers to incorporate Kagan Structures (2003) and Marzano's Strategies (2003, 2007) into their daily routines.

#### Recommendations for Future Research

Future qualitative studies should be conducted to include a broader range of teachers representing a wider variety of demographics. Other recommendations include using surveys and focus groups as additional data collection methods. Since Kagan Structures (Kagan, 2003) seem to be one of the main platforms for a successful implementation of the IPI process, information on Kagan Structures should be included in the Literature Review. Student active engagement should also be reviewed since it is the main outcome of the IPI process.

Even though this study discovered a positive impact on instructional strategies used by elementary teachers, the researcher felt a need for further research. This study focused on elementary teachers employed in Northwest Missouri public school districts. Expanding the study to include teachers outside of the Northwest Missouri geographic region would provide more generalizable findings. These findings would be more valuable for teachers in other demographic areas. This study was also limited to elementary teachers. Including middle school and high school teachers in future studies would give more variety to the perceptions relating to the IPI process.

Data collected for this qualitative study were gathered through interviews and observations. Surveys and focus groups would be additional components strengthening the study data. With interviews, observations, focus groups, and surveys, the qualitative data could be compared with the quantitative data, thus evolving into a mixed methods study.

Data from this study supported the use of Kagan Structures (Kagan, 2003) as a vital part of the implementation of the IPI process in most classrooms. Future research should focus on reviewing literature about Kagan Structures as well as discussing professional development relating to the Kagan Structures. Prior to this study, the researcher did not realize the Kagan Structures were such a huge component of the IPI process; therefore, the literature review in Chapter Two does not mention Kagan Structures.

Student active engagement would also be a topic worthy of discussion in the literature review section in a future study. Student active engagement was found to be a fundamental component of the IPI process. In the IPI observation rubric, student active engagement is at the top of the chart and it is the focus of the IPI process. Reviewing literature on the topic of student active engagement would add credibility to a future study.

### Summary

With the continuous increase of No Child Left Behind (NCLB) mandates in education, schools are focusing on implementing programs to assist them in the process of meeting Adequate Yearly Progress (AYP) requirements. With this increase in accountability, the need for a research knowledge base on how to increase active student

engagement increases. The IPI process is an instrument to measure student active engagement. This qualitative study had one broad overarching research question: To what extent does the Instructional Practices Inventory process impact the instructional practices or strategies used by elementary classroom teachers? Through open ended, semi-structured interviews, the researcher discovered the IPI process had a positive impact on the instructional strategies used by the classroom teachers interviewed. With this finding, the key to a successful implementation of the IPI process is for teachers to change. With the IPI process being the change agent, schools would experience a cultural shift. This cultural shift will embed the IPI process within the school culture; therefore, the teachers will become virtuoso pianists who are skilled, talented, and triumphant.



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## Appendix A

### IPI Teacher Interview Questions

1. Tell me something about yourself in regard to education.
2. How many total years have you taught and how many years at this school?
3. How many years have you been using the IPI process?
4. Who collects the IPI data in your school?
5. Have you seen an IPI profile chart?
6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you use in your classroom?
8. What causes you to change or modify your instructional practices or strategies used in the classroom?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?
12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?
13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

*Before I end the interview, I have a few more questions I would like to ask. I will give you a copy of these questions so you can read them with me. I will mark your answers. On a scale of 1 – 9 with one being the lowest and nine being the highest, please answer the following questions.*

#### Descriptive Questions for Teachers using IPI Process

1. How much of an impact has the IPI process had on your classroom instructional strategies?

1      2      3      4      5      6      7      8      9

2. How much of an impact has the IPI process had on other colleagues' instructional strategies?

1      2      3      4      5      6      7      8      9

3. How much of an impact has the IPI process had on your entire school?

1      2      3      4      5      6      7      8      9

4. How much of an impact has the IPI process had on collaborative discussions within your school?

1      2      3      4      5      6      7      8      9

5. How much of an impact has the IPI process had on your professional development?

1      2      3      4      5      6      7      8      9

6. How much of an impact has the IPI process had on the improvement of your school?

1      2      3      4      5      6      7      8      9

## Appendix B

### IPI Principal Interview Questions

1. Tell me something about yourself in regard to education.
2. How many total years have you been an administrator and how many years at this school?
3. How did you become familiar with the IPI process?
4. Who collects the IPI data in your school?
5. Have you seen an IPI profile chart?
6. Is the IPI data discussed/analyzed by the faculty?
  - A. If yes – how frequently?
  - B. If yes – who leads the discussion?
7. What instructional practices or strategies do you see being used in the classrooms?
8. What causes your teachers to change or modify their instructional practices or strategies used in the classrooms?
9. What are your thoughts about the IPI process as it relates to the instructional practices?
10. What are your thoughts about the IPI process as it relates to active student engagement?
11. What are your thoughts about the IPI process as it relates to student achievement?
12. Is there anything else we have not talked about concerning the IPI process that you would like to discuss at this time?
13. Is there anything else we have not talked about concerning instructional practices or strategies that you would like to discuss at this time?

*Before I end the interview, I have a few more questions I would like to ask. I will give you a copy of these questions so you can read them with me. I will mark your answers. On a scale of 1 – 9 with one being the lowest and nine being the highest, please answer the following questions.*

### Descriptive Questions for Principals using IPI Process

1. How much of an impact has the IPI process had on classroom instructional strategies?

1      2      3      4      5      6      7      8      9

2. How much of an impact has the IPI process had on your entire school?

1      2      3      4      5      6      7      8      9

3. How much of an impact has the IPI process had on collaborative discussions within your school?

1      2      3      4      5      6      7      8      9

4. How much of an impact has the IPI process had on your professional development?

1      2      3      4      5      6      7      8      9

5. How much of an impact has the IPI process had on the improvement of your school?

1      2      3      4      5      6      7      8      9

Appendix C

Six Coding Categories and Look-Fors Rubric

**Instructional Practices Inventory  
Category Descriptions and Common Observer Look-Fors**

<b>Broad Categories</b>	<b>Coding Categories</b>	<b>Common Observer “Look-Fors”</b>
<b>Student-Engaged Instruction</b>	<b>Student Active Engaged Learning (6)</b>	Students are engaged in higher-order learning. Common examples include authentic project work, cooperative learning projects, hands-on learning, problem-based learning, demonstrations, and research.
	<b>Student Learning Conversations (5)</b>	Students are engaged in higher-order learning conversations. They are constructing knowledge or deeper understanding as a result of the conversations. Common examples are cooperative learning, work teams, discussion groups, and whole-class discussions. Conversations may be teacher stimulated but are not teacher dominated.
<b>Teacher-Directed Instruction</b>	<b>Teacher-Led Instruction (4)</b>	Students are attentive to teacher-led learning experiences such as lecture, question and answer, teacher giving directions, and media instruction with teacher interaction. Discussion may occur, but instruction and ideas come primarily from the teacher. Higher order learning is not evident.
	<b>Student Work with Teacher Engaged (3)</b>	Students are doing seatwork, working on worksheets, book work, tests, video with teacher viewing the video with the students, etc. Teacher assistance, support, or attentiveness to the students is evident. Higher-order learning is not evident.
<b>Disengagement</b>	<b>Student Work with Teacher not Engaged (2)</b>	Students are doing seatwork, working on worksheets, book work, tests, video without teacher support, etc. Teacher assistance, support, or attentiveness to the students is not evident. Higher-order learning is not evident.
	<b>Complete Disengagement (1)</b>	Students are not engaged in learning directly related to the curriculum.

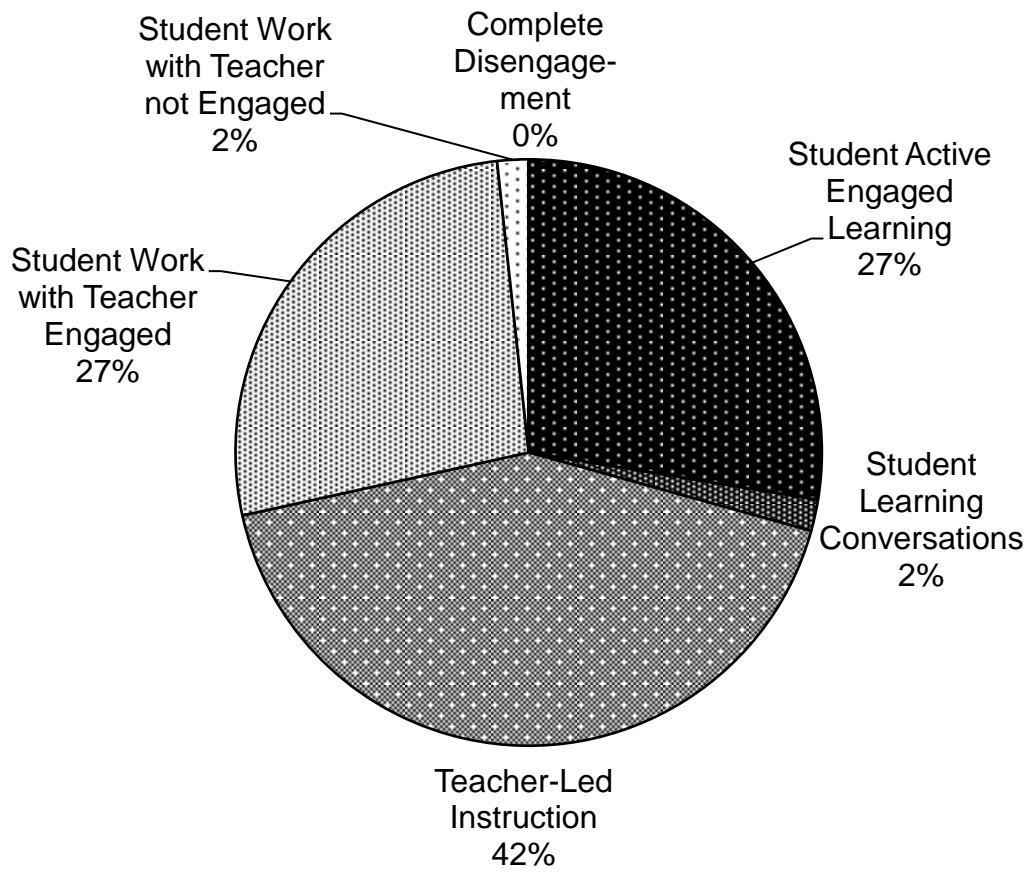
The IPI process was developed by Bryan Painter and Jerry Valentine in 1996 and revised by Valentine in 2002, 2005, and 2007. This sheet of Categories and Common Look-Fors was developed by Valentine in 2007 to compliment the IPI Rubric. The IPI was designed to profile school-wide student engagement with learning and was not designed for personnel evaluation. Jerry Valentine Middle Level Leadership Center ([www.MLLC.org](http://www.MLLC.org)) Reprint only by written permission. 6-07

## Instructional Practices Inventory Protocols

- Observe a typical school day: no unusual circumstances occurring on that day that would disrupt normalcy of the day.
  - \*\*Fridays are avoided when possible
- Observers use a map to systematically move throughout the school and observe every class in proportion to all classes.
- Each classroom is observed for a short period of time, typically one to three minutes.
- Observers focus on the students' learning experiences during the first few moments of the observation. Transitions may occur while the observer is in the classroom, but the first learning experience observed is coded.
- Each observation is coded anonymously; IPI observations are should never be used for purposes of teacher evaluation.
- When a learning experience is borderline between two categories, the observer records the category that represents the more favorable learning experience—the profile being created is an “optimum” profile of student learning.
- Classes are not observed (coded) during the first five minutes or the last five minutes of a class at the middle or secondary level or during content transitions at the elementary level.
- One hundred observations per day should be considered a minimum (125-150 is preferred and more typical).
- Special education classes are coded as core or non-core based on the content that is occurring at the time of the observation.
- Classes of substitute teachers are observed and coded but not entered into the profile unless higher-order thinking is evident.
- Classes of student teachers are coded like a regular teacher.

Appedix E

Sample Instructional Practices Inventory Profile





## Appendix F

### Interview Protocol Statement

Interviewee –

Date and Time -

I would like to thank you for taking the time for me to interview you about Instructional Practices Inventory (IPI). My name is Beverly Deis and I am the elementary principal at Polo R-VII School District. I am currently working on my dissertation titled, “A Qualitative Analysis of Elementary Teachers’ Perceptions about the Impact of the IPI Process on Classroom Practices” for my doctoral degree at the University of Missouri. This interview will offer information for my study.

You were chosen to be interviewed because you are familiar with IPI and this interview is designed to help me gather information about your perceptions on the IPI process. With the questions today, there will be no right or wrong answers. I want you to feel comfortable enough to share your point of view. I will be tape recording the session because I do not want to miss any of your comments as I will be using your information as data for coding and analysis. Your name will not be included in any reports or papers. To help relieve any anxiety about confidentiality, I will use a pseudonym instead of your name to keep your comments confidential. Your school will also not be included in any reports or papers. If at any time you would like me to turn off the tape recorder(s), I will do so. You may also withdraw from the interview and/or study at anytime and all information provided by you will be excluded from the study.

For this interview there will be two sets of questions. The first set is open-ended questions. When you give your answer to the open-ended questions, please feel free to elaborate on them and I may ask follow up questions for clarity. The second set of questions will be answered with a 1-9 likert scale.

Do you have any questions before I begin?

Ending – Today, you have helped me with my study. I want to thank you for taking the time to meet with me today. Please be assured your responses will be kept completely confidential and the data will only be used for my dissertation. I hope you have a great day and a wonderful rest of the year.

## Appendix G

### Signed Permission Letter

IPI Practicing Elementary  
School  
123 IPI Grand  
Any City, MO 00000  
March 9, 2010

Campus Institutional Review Board  
483 McReynolds  
University of Missouri  
Columbia, MO 65211

Please note that Mrs. Beverly Deis, MU-NWMSU Doctoral Student, has the permission to recruit teachers at IPI Practicing Elementary School for her study, "A Qualitative Analysis of Elementary Teachers' Perceptions about the Impact of the IPI Process on Classroom Practices."

Mrs. Deis will contact teachers to *recruit* them by phone call or email. Her plan is to have teachers recruited for individual interviews by March 31, 2010. It is the intention of Mrs. Deis to have all interviews finished by May 15, 2010.

Mrs. Deis has agreed not to interfere with the daily educational setting at our school and will conduct the interviews after regular school hours. Teachers will not be allowed time from their work duties to participate in the interviews. Mrs. Deis has also agreed to provide a copy of the approved University of Missouri IRB document if requested.

If there are any questions, please contact my office.

Signed,

IPI Practicing Elementary School  
Elementary Principal

## Appendix H

### Explanatory Letter & Informed Consent

April 20, 2010

As a requirement for completion of my doctoral degree at MU, I am working on a dissertation entitled, "A Qualitative Analysis of Elementary Teachers' Perceptions about the Impact of the IPI Process on Classroom Practices." This qualitative analysis will require information and data from you to derive your perceptions on the Instructional Practices Inventory process you are currently using within your classroom. I am asking you to participate in this interview as a means to gather this information. The interview will be audio-taped and transcribed keeping all participants anonymous.

Through your participation in this study, there will be a better knowledge base about the perceptions of classroom teachers using the IPI process to determine if and how it impacts the instructional practices and levels of student engagement in their classrooms on a regular basis. It is not anticipated that you will personally experience either risks or benefits from this research.

The interview should take less than thirty minutes. All answers will be kept confidential and will be used only for this study. No institution or person will be named in this study.

Your participation in this research study is voluntary. Should you decide to participate, you are free to withdraw your consent and discontinue your participation at any time. The findings of this research may be subject to possible publication in the future.

Please feel free to ask questions at any time during the study. You may contact me at any of these numbers: 816.586.2691 (H), 816.465.0099 (C), 660.354.2200 (W), or by email at [deisb@polo.k12.mo.us](mailto:deisb@polo.k12.mo.us). You may also contact my advisor, Dr. Joyce Piveral at (660) 562-1064. If you have any question about your rights, please contact the University of Missouri Institutional Review Board at (572) 882-9585.

Thank you for your participation in this interview.

Your signature indicates that you have read the information above and you have decided to participate.

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Participant Signature/Date

## Vita

Beverly Deis was born in Kingston, Missouri where she still resides today with her husband John. Beverly received her BSEd in elementary education in the spring of 1987 from Missouri Western State University. Later she received her MEd and EdSp from Northwest Missouri State University. Her EdD in Educational Leadership and Policy analysis from the University of Missouri-Columbia marks the end of a long educational journey for Beverly. Beverly is currently the PreK-6 administrator for the Polo R-VII School District and has been with the district for 24 years, teaching sixth grade for 11 years prior to being the principal. Beverly has two children, Mac and Missy, who make her proud to be their mom. Both are graduates of Northwest Missouri State University. Mac currently owns his own production company, Mackason's Productions, and specializes in hunting and fishing expeditions. Missy is currently teaching English in Barcelona, Spain and traveling the European countries.

