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Facilitation Of Language Acquisition Viewed Through An Interpretative Lens: The Role Of Authenticity

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FACILITATION OF LANGUAGE ACQUISITION VIEWED THROUGH AN INTERPRETATIVE LENS: THE ROLE OF AUTHENTICITY

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DEDICATION

This dissertation is dedicated to my family. Without their support, I would never have been able to complete it. First and foremost, I dedicate this paper to my children, Ryan (age 4), Lauryn (age 3), and Matthew (age 1). I started this process when you were all just a twinkle in my eye, and during my final few classes, qualifying exams, and prospectus defense, along came the three of you. Thank you for giving me so many hugs and kisses before I would leave to go "study". It kept me motivated to hurry up and get back home to see you run towards the door and yell "mommy's home!" with open arms. I'm sorry that you had to miss me, but trust me when I say that I missed you more. I hope that you will be proud of this accomplishment when you are old enough to understand, and that you too will strive for your goals, even when it seems too overwhelming. I love you to the moon and back.

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CHAPTER ONE: THE PROBLEM AND CLARIFYING COMPONENTS

<u>**Introduction**</u>

Students with language learning impairments make up a significant portion of the special education population. These students typically receive intervention from speech-language pathologists, who have been specially trained in the understanding of language acquisition and disorder. A speech-language pathologists' training is traditionally grounded in the medical model of impairment, which has greatly impacted how speech-language intervention in delivered in the public school setting. Throughout the last few decades, however, several service delivery models have been studied for their efficacy. The field of speech-language pathology, as well as special education, has been challenged to find more authentic ways to conduct assessments and provide intervention for students with special needs. These studies have been greatly influenced by the paradigm one uses to view language acquisition and disorder. This study will outline the paradigms, their effect on the fields of education and speech-language pathology, and discuss how a shift to a more holistic model may be the most beneficial for students with language learning impairments.

<u>**Inspiration for this Study**</u>

Objectivity, quantification, and accountability are core components of a medically oriented speech-language pathologist. Training in the classic medical model places the person with a disability as having a deficit, and their best hope for functioning lies in a health provider to make them less disabled (Threats, 2007). This model places the person with a disability in a passive role. Since the field of speech-language pathology originated from the medical profession, most speech-language pathologists studying language acquisition are instructed using a bottom-up model. This means that speech (i.e., articulation, voice, fluency) and language (i.e.,

receptive/expressive, pragmatics) are understood by fragmenting communication into its smallest unit, the phoneme, and then building it back up in a hierarchical fashion, eventually resulting in dialogue (Kovarsky, 1997). The clinical training provided to most speech-language pathologists emphasizes the use of standardized assessment of a child's language to determine skills that were absent in the "typical" child's development. Through that static assessment, goals and objectives are developed to teach those specific, isolated skills in a sequence from simple to complex. Students are expected to learn one skill before moving on to the next (Oglan, 2003). For example, if the child omits plurals during a sentence completion task, then a specific goal is written to increase the use of this grammatical structure at first the word, sentence, then discourse level. Traditional, medically based service delivery models separate diagnostic and treatment functions into isolated, individualized assessment and treatment. Frequently, when speech-language intervention is provided, there is insufficient communication between the speech-language pathologist and other instructional staff. This is known as the "pull-out" model of intervention (ASHA, 1996). In standardized assessment and individualized treatment, there is typically no consideration of the context (e.g., environment, communication partners, culture) or influence of personal factors (e.g., motivation, self-esteem, personality) taken into account during the development of goals/objectives. Pull-out intervention is provided in an environment that is unnatural for the child. They may receive therapy in a separate office or clinical setting, away from their home or classroom. Parents, teachers, and peers are frequently excluded from the intervention process. There is typically an expectation by the speech-language pathologist that the isolated skills taught in contrived contexts will transfer to authentic contexts, however typically there is minimal follow-through on whether this is a reality. This account of a traditional, medical model of speech-language intervention is fairly uninspiring and leads one to

question why things are done in this manner. It makes one question whether there is a more effective way to provide intervention for students with language learning impairments. Much of this reality can be explained by understanding the paradigms that have developed the field, as well as the realities of special education in the public schools.

The lens one uses to view reality is called a paradigm. Paradigms are typically ingrained in one's consciousness, making one unaware they are even using a set paradigm until there is an occurrence through education or experience that causes one to see things differently (Lincoln, 1985). Traditionally, speech-language pathologists are educated using a medical model or impairment-based model of decision making. Proponents of the impairment view believe that the communication problem is within the person and can be remediated by teaching the absent skills (Duchan, 2001). This is described by F. Capra (1982) as the empirical or mechanistic model. It consists of breaking up thoughts and problems into pieces and arranging them in logical order. It is the belief that all complex phenomena (e.g., language) can be understood by reducing it into its fundamental parts. Humans were viewed as machines that could be "fixed" when they malfunctioned. This is applied to the field of speech-language pathology in the impairment based model. Through the empirical paradigm, the language acquisition problem is internal to the child. Therefore, it is expected that by breaking down language into its most elementary parts through the use of standardized assessment, and then systematically teaching these components from simplest to most complex, following a developmental sequence, the student will internalize them. This empirical lens causes the speech-language pathologist to view a child's disability as a hierarchy of skills to be taught. This skills based approach has led to use of contrived contexts for teaching skills and minimal consideration of contextual/personal factors. It places the learner in a passive role, with the speech-language pathologist as the expert who is transmitting their

knowledge of language to the child. Although widely used in practice, the empirical model has been challenged in the last few decades because students with language-learning impairments are not making the progress expected in our public schools. Although those challenging the field may still remain in the empirical paradigm, reinforcing the skills based approach, some more progressive educators and interventionists have begun to view reality using a different paradigm.

Typically developing children acquire a set of linguistic resources and discover how to use them in conversation with a variety of people and for a variety of purposes. In order to study language, one must examine the context of interaction (Wells, 1986). For the child with a language learning impairment, the problem may not be within the child, it may be that the contexts that the child interacts within need to be modified. Perhaps the problem lies outside of the child. Perhaps if they were taught a different way, had a different expectation, then they would not have a label of being language learning impaired. By viewing the student through an interpretative lens, one can come to understand the student as a whole person, rather than a set of skills to be taught. F. Capra (1982) describes this paradigm as the interpretative or world view model. Humans are not viewed as machines but as an indivisible, dynamic whole that can only be understood holistically. Language is a "contextualized, interactional phenomenon" (Kovarsky, 1997, p. 220). By fragmenting language into its smallest parts, we do little justice to understanding how utterances create meaning during interactions with others (Kovarsky, 1997). By considering the contextual and personal factors involved in a child's communication success, one can use a more holistic approach in the field of speech-language pathology.

Problems with the traditional model of assessment in speech-language pathology and other medical and behavioral fields led the World Health Organization (WHO) to develop a more holistic approach to assessment as outlined in the 2001 *International Classification of*

Functioning, Disability, and Health (ICF) (Threats, 2007). The ICF has two broad domains: Functioning and Contextual Factors. In its most simplistic form, functioning refers to the biological aspects of the disorder and contextual refers to the environmental factors that compound the disorder. This model has pushed the field of speech-language pathology to use qualitative research methods to study language development and disorder. At the current time, the majority of research in the field has used quantitative designs and statistics. They have been designed to determine differences between disordered and typical populations, identify factors that contribute to various conditions/outcomes, and test the efficacy of intervention techniques. The field has largely overlooked, however, the value of qualitative research methods, which situate the communicative lives of individuals with speech-language impairments in social and cultural contexts (Hammer, 2011). This stripping away of language context in quantitative designs has been problematic for bridging research outcomes to intervention in authentic environments. In fact, there is a general opinion among speech-language pathologists that the link between research and practice needs to be strengthened (Damico, 2003). In order to effectively understand social interaction, numerical data alone is not sufficient. Actual descriptions of behavior (e.g., interactional strategies, conversational devices, grammatical structures, discourse markers, social activities) are also needed. "Social phenomena are typically too complex in nature to employ predetermined categories or numbers by themselves if an understanding is to be achieved" (Damico, 2003, p. 133). This study will employ more flexible research approaches that describe the dynamics of language in authentic settings by using qualitative methods.

Purpose

The purpose of this study is to rethink the role of context in the facilitation of language acquisition by speech-language pathologists in the public schools. From the belief that children learn language best in authentic environments through their experiences, conferences were held with students during their writing workshops. Through use of authentic questioning to generate discussions about student's writing using an interpretive teaching paradigm, opportunities for critical moment teaching and miscue analysis arose naturally. Specific language skills that are outlined in their IEP objectives were taught using scaffolding techniques during these conferences. In this study, several questions will be addressed:

1. How does the empirical paradigm influence the perspective of a speech-language pathologist in comparison to the interpretative paradigm?

2. How do authentic learning contexts and techniques support language development?

3. Can progress on specific language skills be measured through qualitative methods to meet the constraints of the Individualized Education Plan, a document that is designed using the empirical model?

4. Can speech-language pathologists use a holistic or interpretative framework effectively in the reality of a public school setting (e.g., high caseloads, scheduling conflicts, multiple work locations, limited time for training/collaboration)?

Overview of Methodology

Qualitative methods that are emphasized in the naturalistic paradigm will be used for this study. This is because qualitative methods are easier to use when studying human beings doing natural activities, such as looking, listening, speaking, reading, etc. Qualitative research offers a "richer and more detailed description of the phenomenon under investigation than do more

numerically oriented quantitative studies" (Damico, 2003, p. 131). The human instrument tends to use methods such as interviews, observations, reviewing documents, and interpreting inadvertent unobtrusive measures (Lincoln, 1985). This study will consist of participant observation during student writing activities, in which the conversation between the student and speech-language pathologist will be audio-recorded and transcribed. There will also be writing samples collected at several intervals throughout the data collection process to assess progress over time. Interviews of teachers and other speech-language pathologists will be used to validate findings as well as gain new information on the effectiveness of language facilitation in the classroom. The multiple sources of information collected will be used to triangulate the data and build confirmability.

This study is considered to be fieldwork, a hallmark of ethnography. The definition of "the field is the natural, nonlaboratory setting or location where the activities in which a researcher is interested take place" (Schensul, Schensul, et al., 1999, p. 70). The primary reason that this researcher chose the naturalistic paradigm was because the majority of research in speech-language pathology is quantitative in nature and conducted in unnatural, laboratory type settings that are frequently inapplicable to authentic situations in the field. In the case of this study, the field is a familiar setting, the current school that this researcher is employed at. Three students will be selected as participants in this study. These students will be selected based on the following criteria:

- Currently receiving the majority of writing instruction in the general education classroom
- Able to produce some conventional writing (e.g., beyond illustrations)
- In second – third grade

- Diagnosed as having below average receptive or expressive language ability through standardized measures as documented at their most recent special education eligibility determination meeting

- Receiving speech-language intervention as a direct service

- Parents have given permission for their children to participate in the study

Participants selected for this study will participate in approximately three months of language facilitation with the researcher. These interactions will occur in the general education classroom during writing instruction.

The following table outlines the three phases planned in this study:

Table 1: Phases Planned for the Study

Phase	Objective	Timeline
Phase 1: The SLPs role in the classroom	- Logistical considerations (e.g., scheduling) - Outcomes of study communicated with teachers and students - Initial interviews of participants and teachers - Collection and analysis of initial writing samples - Introduction of audio recording materials	1-2 weeks: Early March 2012
Phase 2: Language Facilitation in Authentic Contexts	- Conferencing with students - Data collection: - Transcription - Writing samples	8-10 weeks: Mid March-May 2012
Phase 3: Perceptions and Attitudes	- Follow-up interviews with teachers and students - Collection and analysis of final writing samples - Focus group interview with SLPs	2 weeks: June 2012

A case study reporting mode will be used for this research, with the goal to provide a thick description that is transferable to other contexts (Lincoln, 1985). This thick description

allows the reader to relate their own prior knowledge and experiences to the current study. This is particularly important to the study of communication, since it is a socially mediated phenomenon.

<u>Conclusion</u>

The aim of this study is to view the field of speech-language pathology using a holistic or interpretative framework. It will utilize qualitative research methods to draw conclusions about the effect of learner-centered approaches in authentic environments on the facilitation of normal language acquisition. It will discuss traditional verses progressive service delivery models, required special education practices (e.g., IEPs), and the realities of public school settings (e.g., high caseloads, multiple work locations) for speech-language pathologists and how they are influenced by the paradigms. The study will be designed to challenge the medical model of "pull-out" intervention in speech-language pathology and its ability to meet the needs of students with language-learning impairments in the public schools.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The purpose of this chapter is to develop an understanding of the paradigms that have influenced educational decisions in teaching as well as speech-language pathology. The review will describe the historical roots of the paradigms, their effect on how language acquisition is viewed, and how shifting perspectives in the field of speech-language pathology has guided this study.

Understanding the Contradictory Paradigms that have Influenced Education

A paradigm can be described as a means to view the world, a "fundamental change in our thoughts, perceptions, and values" (Capra, 1982, p. 16). Broadly, it is one's conceptual framework or lens one uses to view reality. Paradigms are deeply ingrained in a person's consciousness and tell one what is important, legitimate, and reasonable (Lincoln, 1985). The paradigm an individual views the world with is not always intentionally chosen, it is usually the result of their education, culture, and family upbringing. Typically, it takes a life-changing experience or discovery through experimentation or education to change the paradigm in which one views the world. A paradigm shift can be described as a revolutionary change in thought. Kuhn (1970) states that paradigm shifts occur once evidence is gathered that belief is faulty, leading to a new statement of belief and theory (as cited in Harste, 1984). There are two main paradigms that have greatly influenced the decisions made for our school children. The empirical (quantitative/analytical/positivist) paradigm and the interpretative (qualitative/naturalistic/postpositivist) paradigm. Historically, the empirical paradigm has been pervasive in the fields of medicine, education, and speech-language pathology. Curriculum, instructional methods, assessment, and intervention techniques are greatly influenced by the

empirical paradigm. Its predecessor, the interpretative paradigm, has slowly shown signs of credibility and a long overdue paradigmatic shift is beginning to occur.

Empirical Paradigm: The Human Machine

The roots of the empirical paradigm date back to the 1500's and have become the basis of how our culture has viewed the world for more than three hundred years (Capra, 1982). Galileo, the father of modern science, combined scientific experiments with mathematics. In order to describe nature mathematically, Galileo believed that scientists should only study what could be measured and quantified. Subjective properties should be excluded from science. This exclusion has had a detrimental effect on our ability to understand emotion and motives and has caused an overemphasis on quantification (Capra, 1982). From the work of Galileo, quantitative research methods were born and remain pervasive to the present day.

Prior to Galileo, wisdom and following the natural order and living in harmony with the earth was valued. The Scientific Revolution emphasized the belief that man could control nature, and this shift changed the organic view of nature with the "metaphor as the world as a machine" (Capra, 1982, p.56). Following in the footsteps of Galileo, Rene Descartes believed that the language of science was mathematics. His method to reach scientific truth was analytical. "It consisted of "breaking up thoughts and problems into pieces and in arranging these in their logical order" (Capra, 1982, p. 59). Descartes compared humans to machines, believing that they could be repaired in the same fashion. This belief that man is a machine, and only a machine, has had a detrimental effect on the medical and social sciences. This analytical view has resulted in the fragmentation of the fields of medicine, education, and speech-language pathology. It has led us to believe that anything can be understood if broken down into its smallest parts, a major contribution to our school curricula and methods of instruction in special

education. It has prevented doctors from curing major illnesses because they could not view the person as a whole. In special education, viewing the student as a machine with parts to be fixed has resulted in a lack of recognition in the role of personal factors, such as motivation, personality, and environmental influences. Reducing each academic subject into its most elemental parts has decelerated the learning rate for students with special needs.

The man who completed the Scientific Revolution was Issac Newton, developing a mathematical formulation of the mechanistic view of nature. He combined the work of Galileo, Descartes, and others in the seventeenth century to invent a new method, known today as differential calculus. In the Newtonian view, God set the earth in motion by creating the material particles that have forces between them, and the laws of motion have continued the universe to run ever since, like a machine. Everything that happened could be explained by identifying the cause and effect relationship and everything could be predicted if one knew all the details involved. A division between spirit and matter evolved, and this division caused one to describe the world objectively, without reference to the human observer. This became the ideal of all science at that time and is fundamental in quantitative research studies (Capra, 1982).

By the end of the nineteenth century, with discoveries by scientists such as Charles Darwin, Newtonian physics had lost its commanding role as the primary theory of natural phenomenon. Darwin's theory of evolution caused scientists to abandon their theory of the world as a machine and it was pictured as an ever changing system (Capra, 1982). The empirical paradigm that was created by Galileo, Descartes, Newton, and many others could not explain the new discoveries being made in science. These groundbreaking discoveries forced scientists to shift their world view.

Interpretative Paradigm: The Holistic Approach

At the beginning of the twentieth century, the roots of the interpretative paradigm were established. Albert Einstein, with his theories of relativity and atomic phenomena, revolutionized scientific thought. Scientists came to see that the empirical lens developed by Newton could not describe atomic phenomenon. Einstein described his experience with this new physics as similar to other scientists, stating that "All my attempts to adapt the theoretical foundation of physics to this [new type of] knowledge failed completely. It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere, upon which one could have built" (Capra, 1982, p. 77).

The new view no longer saw the world as a machine, but as a dynamic whole whose parts are all interrelated and are understood by discovering patterns. Words such as organic and holistic were introduced, and this paradigm was commonly referred to as general systems theory. It does not state that Newtonian mechanics is wrong, but that all scientific thought is approximations of the truth and each has some validity. The shift from objects to relationships had a significant impact on social scientists as well. It showed that we cannot divide concepts into its smallest units because nature is a complicated web of interrelated events (Capra, 1982). When scientists reduce a whole to its fundamental parts and try to explain that phenomena, they lose the ability to understand the coordinated system. Using the analytical lens, scientists, physicians, therapists, and the like could no longer see the patient as a human being and create the ability to heal the whole person.

In response to this problem, the World Health Organization (WHO) has defined health as "a state of complete physical, mental and social well-being" (Capra, 1982, p.124). A recent revision to the WHO framework, titled the *International Classification of Functioning,*

Disability, and Health in 2001 added the role of the environment as well as personal factors to the original document describing body functions, structures, and activity/participation aspects of disability (Threats, 2007; Yaruss, 2004). This document, as well as an overall paradigm shift towards a more holistic approach to medicine, has increased the attention given to emotion and environmental factors in healing disease and disorder. Despite this new emphasis, professionals that treat mental illness are still considered less important that those who treat biological functions. Typically, surgeons are considered to be more skilled than psychiatrists. In the Western culture, rather than changing one's environment or personal health choices, patients would rather walk out of the doctor's office with a prescription in their hand. The ability to move beyond the empirical model will need to occur through different education of physicians as well as in the public in order to have a widespread impact. For example, parents of children with special needs would rather blame their child's "learning disability" on biological factors, rather than a failure by the school or themselves. There will need to be a cultural transformation to fully understand the power of the interpretative paradigm.

Interpretative Paradigm and Education

John Dewey (1944) describes the influence of the empirical and interpretative paradigms on education. He believes that viewing the educational process through the interpretative lens is the only way to have a fully democratic society. He states that the aim of education is for students to understand the outcome of their activities in order to develop problem solving abilities. "To have an aim is to act with meaning, not like an automatic machine" (Dewey, 1944, p. 104). Through the eyes of an empirical paradigm, the function of school is to simplify and order the curriculum and idealize the preferred social customs. Named education as formation, its basic foundation is that the mind is formed by presenting proper educational materials and

that new knowledge must be laid out in a specific order so that it can assimilate with old knowledge. It puts the responsibility of teaching completely on the teacher and ignores the role of the student as a learner. In doing so, we treat students as machines to be filled with knowledge and do not take into account what they bring to the classroom from their experiences. Dewey felt that "we never educate directly, but indirectly by means of the environment" through both chance and design (Dewey, 1944, p. 19). He felt that the most influential moments in a student's education are those that happen from moment to moment without deliberate intention. This theory supports the role of critical moment teaching in authentic experiences through social interaction. Critical moment teaching will be described later in this chapter and will be a major component of this study.

Dewey's view of education as a dynamic process is consistent with the interpretative paradigm. Since he believed that education is a "continuous restructuring of experience" (Dewey, 1944, p. 80), teachers should encourage students to be part of the planning of their education. If a student does not understand the outcome of a given activity, then they will do it in a robotic fashion with no understanding of its purpose in their life. This type of educational experience will not nurture a student's problem solving abilities. Dewey also felt that a good characteristic of an educational aim is founded upon the intrinsic activities and needs of the individual. A child's learning capabilities must be considered when planning curriculum. Therefore, a "one size fits all" approach is useless in a democratic society. Movements to standardize curriculums across districts and states so "everyone learns the same thing on the same day" strongly contradict Dewey's philosophy.

In creating a democratic society that fits the individual needs of all learners, social interaction in the classroom is crucial. Communication with others is a key component in

providing an educational experience to create a society of thinkers. Dewey states that "where children are engaged in doing things and in discussing what arises in the course of their doing, it is found…that children's inquires are spontaneous and numerous and proposals of solution advanced, varied, and ingenious" (Dewey, 1944, p. 156). Communication with others gives students the ability to place value on the information they learn in school. If information is to be meaningful, it must meet the following criteria: 1) Does it grow naturally out of a question that the student is concerned with? 2) Does it fit into his/her direct experience to increase meaning? (Dewey, 1944). If curricular information does not meet this criteria, it is just meaningless words to the student. As a major proponent of the interpretative approach to education, Dewey outlines the importance of the learner in crafting their own experiences with the guidance of a teacher through dynamic social interaction in a meaningful environment.

Traditional vs. Progressive Classrooms

Educational author Alfie Kohn (1999) portrays a modern conceptualization of the effects of the paradigms on education. The traditional, conservative, "Old School" model of schooling is rooted in the analytic paradigm. Based on behaviorist and conservative philosophy, the traditional approach is based on the idea that people do only what they have been reinforced for doing. Learning is just the linear acquisition of specific skills that can be measured overtly. Valued practices in traditional classrooms include: students sitting in rows following the same lesson, clear lines of responsibility, obedience to authority, memorization of facts/definitions, and teachers at the head of the classroom drilling knowledge into their students. Most traditionalists would agree that "schooling amounts to the transmission of a body of knowledge from the teacher (who has it) to the child (who doesn't), a process that relies on getting the child to listen to lectures, read textbooks, and often, to practice skills by completing worksheets"

(Kohn, 1999, p. 3). Learning in the traditional classroom is passive and fragmented, meaning that subjects are separated, skills are discretely taught, learning is separated from doing, and teaching of values and social skills are eliminated.

Nontraditional or progressive education patterns itself after the interpretive paradigm. The major contributors to this model of schooling constructivist theorists J. Dewey and J. Piaget. In progressive education, learning is regarded as an active process where student's questions shape the curriculum. Facts and skills are shaped around broad themes that connect to real issues. The classroom is viewed as a "community of learners – as opposed to a collection of discrete individuals", that engage in discovery, reflection, and problem solving (Kohn, 1999, p.3). The progressive classroom is learner-centered and the teacher is a facilitator, challenging students to think harder. Lessons are typically hands-on, where students invent their own ideas. Mistakes are viewed as an inroad to students' thinking and are probed with further questions. Problem or project based cooperative learning is commonly practiced, with authenticity at the core of progressive education. Teaching practices used by progressive educators use social interaction as the primary medium of learning.

Language, a "contextualized interactional phenomenon"

Language is the primary means of communication with others. It is the way we understand our culture, develop social connections, and is a vehicle of thought. Language appears in several forms: oral language (listening and speaking), reading, and writing; all linked as an integrated language system. Oral language provides the knowledge base for reading and writing, and in learning about language through writing improves reading and oral language (Lerner, 2006). Exploration of how language is acquired has been a focus of study for philosophers, psychologists, and linguists for decades. Many theories of language development

have shaped the fields of medicine, education, and speech-language pathology. The paradigm a researcher uses to study language acquisition affects the way that they view the child's learning. Several theories of language acquisition will be reviewed here and their effect on the field of speech-language pathology.

Language Viewed Through an Empirical Lens

In order to understand processes, language is typically divided into five linguistic categories: semantics, phonology, morphology, syntax, and pragmatics. Influenced by the empirical paradigm, in the formalist view of language acquisition, the aspects of syntax, semantics, morphology, and phonology are separated from pragmatics. In other words, language is separated from context, therefore separating language knowledge from world knowledge (Kovarsky, 1997). The formalist view then proceeds to break down the areas of syntax, semantics, and phonology into its smallest units in order to understand how they are acquired. Even pragmatic language has been treated as a set of isolated communicative functions (e.g., requesting, labeling) that can be remediated independently from one another. The formalist view of language acquisition, especially in the area of syntax, was most strongly influenced by linguist Noam Chomsky.

In the 1950's, Chomsky developed the theory of generative grammar, which revolutionized the field of linguistics. He stated that an individual has an innate linguistic acquisition device that has led to the discovery that humans have a universal grammar. He argues that since the child learns language so rapidly and in a similar manner across the cultures of the world, acquisition must be innate. He claimed that by adults modeling formal grammar, it gives the child the ability to create an infinite number of novel utterances using the underlying rules provided as a model. His work breaks down utterances into their smallest units and creates a

systematic analysis to understand syntax. Although Chomsky views language as a set of structural properties, he does not discount the effect of the environment on language learning. He does not see language only through the empirical lens, as illustrated by the following quote: "Science talks about very simple things, and asks hard questions about them. As soon as things become too complex, science can't deal with them... But it's a complicated matter: Science studies what's at the edge of understanding, and what's at the edge of understanding is usually fairly simple. And it rarely reaches human affairs. Human affairs are way too complicated" (Chomsky, http://en.wikipedia.org/wiki/Noam_Chomsky).

In addition to the formalist or structural model, the other major school of thought generated from the empirical paradigm was behaviorism. Following the work of Newton, behaviorism separated the mind from the body and took a mechanistic approach to psychology. Behaviorists began to view patterns of behavior and relate them to physiological processes regulated by one's biology (Capra, 1982). They believe that thinking can only be understood by considering the behaviors that could be directly measured and observed (Bodrova, 1996). Consciousness of thought was removed from learning. The pattern of "stimulus-response" was introduced by behaviorism and continues to be entrenched in our schools today. In behaviorism, language is learned in a sequence. Students are expected to learn one skill before moving on the next. Phonetic and grammatical structures are emphasized through skill lessons (Oglan, 2003). The student is a passive learner, there to absorb knowledge transmitted by the environment the teacher presents (Harste, 1984). In this model, errors are viewed as a failure to learn the content and are remediated by more drill and repetition (Oglan, 2003).

A widely used therapeutic approach to speech-language intervention, known as Applied Behavior Analysis (ABA) stemmed from behaviorism. Founded by B.F. Skinner, it was felt that

behavior could be separated from the thoughts and feelings of the mind. According to this theory, behavior is anything that can be observed and measured, therefore, since a researcher cannot directly observe one's thoughts through quantitative measures, thoughts and feelings had to be excluded (http://www.abainternational.org/). The role of the environment in behavioral change is the core component of ABA, which is in sharp contrast to the theories of innateness described by Chomsky.

Studies that view language using an empirical paradigm utilize quantitative research methods and are the dominant method today. Quantitative methods are typically concerned with surface events, are established operationally, attempt prediction of outcome through hypotheses, and is deterministic (Lincoln, 1985). Quantitative methods follow a linear sequence as follows: research problem defined→formulate hypotheses→make operational definitions→design research instrument→gather the data→analyze the data→draw conclusions→report the results (Spradley, 1980). This familiar scientific method has dominated the field of speech-language pathology as well as special education. Fragmenting language and academic curriculum down into its most elementary parts to be taught in a hierarchical fashion is at the core of many special education interventions. This phenomenon is the basis of special education assessment, intervention, and goal-setting through Individualized Education Plans (IEPs). It is the belief that if the student did not learn it the first time, simplify the language into its smallest unit, give him more repetition, drill, and opportunities for memorization usually outside his natural environment. However, viewing the individual with a language learning disability as possessing a set of individual structural deficits to be remediated has resulted in a reduced understanding of the communication process as a whole. "Fragmented views of language and language difficulty, which reduce communication to a set of isolated communicative structures, do little practical or

theoretical justice to understanding how utterances are organized and operate to create meaning within ongoing sequences of talk and interaction" (Kovarsky, 1997, p. 219). Use of a primarily quantitative research approach in speech-language pathology has made the applicability of research results in real-life situations fairly weak. In response to this problem, a broader view of language acquisition that accounts for context has been sought recently. This emphasis has opened doors towards using a more relational approach and places value on qualitative research methods (Damico, 2003; Hammer, 2011).

Language Viewed Through an Interpretative Lens

Those who have a child or have interacted with young children can likely agree that children learn language naturally through their interactions with others. When a child learns to talk, they acquire a set of linguistic resources and discover how to use them in conversation with others in a variety of situations (Wells, 1986). Oral language serves a function, both to interact socially as well as obtain needs and wants. Parents do not need to direct teach their child to speak through a set of contrived lessons (Short, 1996). Keeping this process of learning through natural interaction in mind, it is applied it to the fields of education and speech-language pathology. In the traditional model of language intervention, as influenced by the empirical paradigm, linguistic deficits are treated individually through imitation, drill, and practice. This practice frequently does not occur during a natural interaction for the child. Wells (1986) states that although imitation plays a role in language learning, it is not how we learn solely. Humans are naturally inclined to learn language in collaborative activities that are reciprocal rather than imitative. Although special educators and speech-language pathologists understand that language is a natural communicative practice, frequently the empirical view of reductionism causes professionals to devalue how the individuals' language learning deficits result in their ability to

communicate as a whole. Treating language as a "contextualized, interactional phenomenon" is key to making intervention meaningful for children (Kovarsky, 1997, p.220).

In contrast to the theories of Chomsky and other formalists, Michael Halliday focuses on semantics, or semiotics. He states that the "child learns language as a system of meanings in functional contexts" (Halliday, 1977, p. 9). His "social semiotic" proposes that meaning is realized in language, which is shaped by the context of a situation. This social theory is in line with the interpretative paradigm and values qualitative research designs to understand communication.

Russian psychologist Lev Vygotsky was also a proponent of the semiotic model to demonstrate the existence of a dynamic system of meaning. His groundbreaking work in the 1970's and 80's led to a major paradigmatic shift in psychology and related fields. He helped professionals shift their thinking from looking at psychological functions separately to studying the interrelation of all the functions in order to productively study language and thought (Vygotsky, 1986). Vygotsky understood that by analyzing thought and language in units using the reductionist model, one loses the ability to see language as communication, or social intercourse. He introduced the concept of studying complex holistic systems and learning in genuine situations. Through this view, the social-interaction theory of development was established. This theory sees social interaction in natural contexts with others as an essential component to the development of cognitive and linguistic functioning (Schneider, 1996).

There are four basic Vygotskian principles that are the basis of social interactionist theory (Bodrova, 1996). The first principle establishes that children construct their own knowledge. They are active learners through social interaction as well as physical manipulation of objects. This first principle also stresses the importance of identifying what a child understands in order

to build upon that prior knowledge. The second principle states that development cannot be separated from social context. Vygotskians believe that the social context influences learning more than one's attitudes and beliefs. The social context may include the immediate interaction, the structure (e.g., school, home), and the general culture (e.g., language, technology). These structures influence a child's cognition because a child must share a concept with others in order to understand it independently. The third principle of social interactionist theory indicates that there is a complex, nonlinear relationship between learning and development. "Learning and development are interrelated from the child's very first day of life" (Vygotsky, 1978, p. 84). Vygotsky believed that although maturation was important for determining what a child can do, there is not a rigid order of developmental levels. This principle is the basis for Vygotsky's most famous proposal, named the zone of proximal development (ZPD). The ZPD will be described in detail later in this chapter. The fourth basic principle states that language plays a central role in mental development. Vygotsky believed that language is the mechanism for thinking. It makes thinking more abstract, flexible, and independent from the immediate stimuli. Language allows the child to imagine, manipulate, create new ideas, and share those ideas with others. It is what moves us beyond the level of the apes (Vygotsky, 1978). Through language, the child can control himself and his surroundings. Social interactionist theory states that language has two roles: the development of cognition and as part of cognitive processing. Since learning is shared in social contexts, we must engage in dialogue to know each other's meanings.

The following chart compares social interactionist theory to two other widely accepted theories of cognitive development: constructivism and behaviorism. As stated previously, social interactionist theory stems from the interpretative paradigm. Behaviorism stems from the empirical paradigm, and constructivism contains aspects of both paradigms.

Table 2: Social Interaction Theory-Compared

Theory and Psychologist	Paradigm	Similarities	Differences
Constructivist: J. Piaget	Empirical and Interpretative	• Thinking at center of development • Development is center of qualitative changes, not just expanding repertoire of skills/ideas • Child active in acquisition of knowledge • Believe culture important in transmission of knowledge • Elements of mature thought (logic, reflective, abstract)	• Intellectual development is universal; independent of cultural context (e.g., all kids reach formal operations stage at 14) • Emphasizes role of interaction with physical objects rather than people • Language is a by-product of cognition rather than at is roots • Only discoveries child makes independently reflect current intellect • All teaching should be geared to child's current developmental level (existing skills) rather than emerging skills
Behaviorist: Watson & Skinner	Empirical	• Favored objective measures- observation, measurement, experiment • Animals and humans are part of same evolutionary continuum • Focus on learning process	• Thinking can be understood by considering only behaviors that can be measured/observed • Relationship between stimuli and behavior same for all organisms • Believed thinking was just silent speech • Learning and development are same • Learning is cumulative, there are no changes in mental structures • Child is passive, with knowledge a product of associations strengthened through reinforcement • Environment is in control of child's thoughts/actions

Bodrova, 1996

Social interaction is essential for the development of individual functioning (Schneider, 1996). Therefore, social interactionist theory is particularly relevant for the teaching of academic concepts as well as language intervention. Vygotsky felt that concepts cannot be taught by drilling, but only when the child is developmentally ready and it is meaningful to him. He proposes that there are two developmental levels, the actual developmental level and the potential developmental level. The actual developmental level would be the child's "tested" mental age; things the child can do on his own. To determine the child's potential level, adults or peers provide demonstration, initiate solutions and let the child finish it, or offer leading questions. Given assistance, if the capability of the child increases, this variance is called the Zone of Proximal Development (ZPD). The ZPD is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). The ZPD explains why a teacher may have students at the same mental level but their individual capability to learn varies greatly. Wells (1986) explains the ZPD by stating that what a child can do one day with assistance, she can do the next day alone by using an internal dialogue, coined by Vygotsky as "inner speech". Individuals use inner speech to internalize new learning, which translates to development of cognitive processes. Vygotsky proposes that only "good learning" is that which is in advance of a child's actual mental development. Learning creates the ZPD, meaning that "learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers" (Vygotsky, 1978, p.90).

Understanding that individuals use inner speech to internalize new learning, which translates to development of cognitive processes, is a crucial aspect of this study. This study will utilize social-interactionist theory to shape language development through talk in authentic contexts.

Meaningful Language Learning in Authentic Situations

Authentic learning allows children to explore concepts in real-life situations that are meaningful to them. It helps students to understand the purpose of the school curriculum, what it means to their life, and to develop their own educational aims. Authentic learning allows the child to have foresight into the outcome of a given activity, encouraging participation in the learning process, and therefore develop problem solving ability. In authentic learning situations, the educator's role is to develop an environment which stimulates responses and directs the learner's course (Dewey, 1944). The teacher or interventionist is a facilitator, rather than an authoritarian of knowledge. The role of the adult is critical to providing meaningful learning situations. Authentic instruction uses teaching strategies such as: structuring learning around genuine tasks, scaffolding, and engaging students in inquiry and social discourse (Donovan, 1999). Teachers who question and correct, rather than following the child's lead, can repress the child's meaning. The goal for teachers in authentic, meaningful learning environments should be "the guided reinvention of language" (Lock, as cited in Wells, 1986, p. 51). This meaningful dialogue between teacher, student, and their peers, helps children use language to explain their thinking, otherwise known as exploratory talk and resulting in inner speech.

Y. Goodman (2003) describes methods for language study that utilize authenticity as well as exploratory talk. Stemming from the interpretative paradigm, strategy lessons and critical moment teaching are two of the primary methods that support this type of learning. Although

they are widely used in education and speech-language intervention, they are frequently not documented or considered to be part of the central curriculum or intervention plan. The first method described, strategy lessons, are in response to problems or questions that arise from the students reading, writing, speaking, or listening. Frequently in reading/writing workshop formats, these strategy lessons are called "mini-lessons". These lessons raise students intuitive language knowledge to a conscious level through exploratory talk and reflection (Goodman, 2003). The other primary method described, critical moment teaching, helps children learn a new idea or develop a skill in an authentic situation that arises from their own "errors" or departures from the norm. It is based on educators listening intently to their students' questions, concerns, and beliefs. By conferencing with students during reading, critical moment teaching arises from asking questions such as:

1. Are you understanding what you are reading? Why do you think so?

2. Are there words/text you wondered about as you read? Why do you think so?

3. Did the author use language interesting to you? Why do you think so?

Interpretative questions similar to those described by Goodman (2003) have also been called authentic questions. Wood Ray (2006) states that by asking authentic questions such as "what are you thinking?", "what did you notice?", and "why did you do that?" across the curriculum, students can start to think of themselves as people who have the answers. By using authentic questions, the teacher gives up the power and status as being the one who *knows*. The primary goal is to get the student talking so educators can see the inner mechanisms of their learning. D. Graves (1994) suggests probing questions to get students to talk about their experiences:

1. Ask how a student did something.

2. Get the student's version of something you did together. What did they think of it?

3. Ask "how did that go? What's your opinion?"

The underlying message to students during conferencing should be "you know things that I will learn from you" (Graves, 1994, p. 63). The ratio of teacher to student talk should be 20:80 (Graves, 1994). Since written speech excludes tone of voice and knowledge of subject by the listener, many more words are necessary and must be used more exactly. Writing is more elaborate that oral speech (Vygotsky, 1986). In the writing process, the mental draft is inner speech, and conferencing with others helps students turn this inner speech into dialogue. For students with language learning deficits, intervention during writing activities is an ideal situation for using constructivist learning approaches such as critical moment teaching and scaffolding.

Critical Moment Teaching

In the field of speech-language pathology, critical moment teaching, sometimes referred to as teachable moments, plays a critical role in providing intervention in authentic learning environments in inclusive settings. No research studies in the field could be identified, however this strategy is used frequently in inclusive practice. Lack of research in this strategy is likely to due the quantitative paradigm used by most researchers in the field. Critical moment teaching is much more complex to document due to its spontaneity. Spontaneity, or aspects of research that cannot be controlled, are excluded from quantitative research methods. This inability to control all aspects of language in the context of authentic situations can be resolved by using qualitative research methods, as planned in this study. It is understood, though poorly documented, that spontaneous questions and comments about language become learning opportunities. Educators should document such moments through field notes and transcribing of video or audiotapes in

order to support the validity of critical moment teaching (Goodman, 2003). "These moments are the essence of teaching" students in authentic situations (Goodman, 2003. p. 81).

A similar aim to critical moment teaching was first termed by K. Goodman (1967) as "miscues", a term used to describe any departure in the text when reading, writing, or speaking. He used this term because he wanted to illustrate the point that not all departures are errors and to emphasize that miscues give teachers access to understanding the child's way of thinking (Oglan, 2003). By allowing miscues as a teacher, language growth through experience can emerge. The teacher can use "miscue analysis" to develop teachable moments, therefore enhancing potential for language growth and helping the learner make new connections.

Scaffolding

Scaffolding is an approach to intervention in which the adult adapts their assistance to children when participating in activities based on their response (Schneider, 1996). It originated from the work of Vygotsky in his description of the Zone of Proximal Development. The term scaffolding was coined by psychologist Jerome Bruner in the 1950's. He described scaffolding as the "helpful interactions between adult and child that enable the child to do something beyond his or her independent efforts. A scaffold is a temporary framework that is put up for support and access to meaning and taken away as needed when the child secures control of success with a task" (http://en.wikipedia.org/wiki/Instructional_scaffolding). It is a dynamic intervention that cannot have rigid predetermined steps. Scaffolding is a child-centered approach that is particularly useful in authentic contexts. A primary tool of scaffolding is the strategic question. This carefully selected question by the teacher guides students to attend to cues that were previously undetected to make cognitive, linguistic, and social connections (Nelson, 2004). In writing acquisition, scaffolding support is typically through discourse. It may consist of casual

conversation or specific reference to writing conventions. Use of talk helps students get their meaning on paper and is an effective tool for increasing language acquisition. Nelson (2004) gives several general suggestions for educators using scaffolding in the classroom (p. 166-167):

- Intentionally target objectives while recognizing teachable moments
- Support students to see what they know before attempting to bridge to the next higher level
- Take the role of authentic audience to help students see their work from another perspective
- Provide feedback about syntactic and semantic anomalies by "tripping" over errors
- Model self-talk, such as "I wonder…", and "What if…"
- Calibrate scaffolding language to curricular, teachers', and students' language, using those words to support inner dialogues likely to transfer across contexts
- Provide written scaffolds and other environmental supports, and teach students to use them independently

Educators that are skilled at scaffolding techniques are very familiar with their students prior knowledge, language and literacy needs, and personal factors (e.g., motivation, perseverance, self-esteem). They gain insight into a students' learning by providing an environment that encourages talk. During these times, teachers encourage student inquiry, interest in topics, and support risk taking opportunities (Goodman, 2003). This "moment to moment" adaptation is the essence of Vygotskian intervention and challenges teachers and clinicians that attempt to use the same techniques across contexts and varied levels of students

(Schnieder, 1996). The scaffolding of purposeful dialogue leads to meaning, as understood in the social constructivist theory of learning.

Conferencing

An avenue for providing both critical moment teaching and scaffolding during the writing process is conferences. Conferences between teachers and students are an opportunity to provide feedback to students about what they are working on. They also offer the opportunity for instruction on a particular aspect of language. It also provides the opportunity for students to use oral language to sort through a problem in their writing through scaffolding techniques (Oglan, 2003).

Wood Ray (1999) promotes use of an "assessment-first" teaching order during conferencing to keep instruction thoughtful and not steal away students' intentions and purposes. It has three essential components: 1) listen to and look at what the student is trying to do (assessment), 2) think of what you know that could help the child do this well (curriculum), and 3) suggest something for the student to try or help refine what the student is trying (instruction). By teaching in this predictable order, the expectation is that students will internalize this process. She calls this type of instruction "teaching to the zone", as in Vygotsky's Zone of Proximal Development (Wood Ray, 1999, p. 252). Use of scaffolding techniques such as authentic questioning, miscue analysis, and critical moment teaching during conferences are the core components of the methodology for this study.

Shifting Perspectives in Speech-Language Pathology

In order to understand how the empirical paradigm has influenced the field of speech-language pathology, it is important to understand its historical roots and the nature of the profession currently. From that history, one can see how the field has changed in recent years

and how much more important qualitative methods are becoming to the field. The influence of the empirical and interpretative paradigms on the practice of speech-language pathology in the school setting guides this study.

Historical Roots and the Profession

The field of speech-language pathology is rooted in both the medical and educational fields. Some of the first speech-language pathologists were physicians that called themselves "speech doctors". They typically specialized in sound disorders (i.e., articulation), stuttering, and voice problems. In the early 1900's, there were enough individuals in the field to call themselves "speech correctionists". Speech correctionists were former teachers, physicians, and scholars that formed a professional organization, with the goal to give credibility to the occupation. The organizations primary purpose was "the promotion of scientific organized work in the field of speech correction". A scientific or empirical paradigm was used to gather normative data to describe the various types of speech and language disorders and establish uniform methods for assessment. In the early days, it was acceptable for a speech correctionist to claim they could cure a disorder. This claim has led to the current terminology of using evidence based practice in the field (Duchan, 2002). This paradigm is consistent with the empirical belief that the problem is within the individual to be fixed, like a machine, and outcomes of intervention must be measured objectively.

Since the early 1900's, the profession of speech-language pathology has diversified dramatically. The most recent scope of practice indicates that the "overall objective of speech-language pathology services is to optimize individuals' ability to communicate and swallow, thereby improving quality of life" (ASHA, 2007, p.3). This objective differs is its original purpose of providing a scientific basis to the field. It puts the person first, allowing aspects of the

holistic, or interpretative paradigm, to gleam through. The scope of practice continues to stress the importance of evidence based research for decision making in the field. Currently, speech-language pathologists address typical and atypical communication in the following areas: speech sound disorders, resonance/voice, fluency, language, cognition, and swallowing. Under the heading of language (comprehension and expression), the following aspects are addressed by speech-language pathologists (ASHA, 2007):

- Phonology

- Morphology

- Syntax

- Semantics

- pragmatics (language use, social aspects of communication)

- literacy (reading, writing, spelling)

- prelinguistic communication (e.g., joint attention, intentionality, communicative signaling)

- paralinguistic communication

In quantitative studies, the above aspects are typically kept separate for the ease of research. Studies that view communication in natural contexts are sparse (Hammer, 2011).

Understanding Language Disorder in the Schools

In general, "a communication disorder is an impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems" (ASHA, 1993, p.1). For speech-language pathologists who are employed in the public schools, speech sound disorders and language disorders are the most common communication disorders treated (90-93%) (ASHA, 2010). In the public schools, there is specific process delineated for

identifying students with speech-language impairments. This process can vary from state to state, even district to district. The Individuals with Disabilities Education Act (IDEA 2004) outlines the disability criteria for identification of students with language learning disabilities (LD: oral expression, listening comprehension) and speech-language impairments (SLI). These two diagnostic criteria make up the majority of the caseload of the public school speech-language pathologist. Once a disability has been established, the evaluation process is followed by the development of an Individual Education Plan (IEP). This document provides special education services and educational/behavioral modifications that are designed to meet the specific needs of the individual. This document requires that data be provided that is scientifically based and objective. It must contain measurable annual goals and indicate the method of how they will be measured (US Department of Education, 2006). This document is revised annually until that student achieves the goals set forth as determined by data outcomes. Drafting IEPs is a primary role of the speech-language pathologist (SLP). The document has forced SLP's to break down a child's language disorder into its smallest measurable units in order to show progress in intervention. Holistic communication processes, such as dialogue, are typically excluded from documents such as IEPs because they are difficult to measure objectively in order to show significant progress over time. Due to the nature of the IEP document, intervention by SLPs tends to be skills based, with minimal consideration of the authenticity of the context. This skills based orientation has dictated the type of service delivery models typically used in the public schools. In practice, the majority of SLPs use the medical model of pull-out intervention (ASHA, 1996; Brandell, 2011). For those who wish to provide speech-language intervention that is meaningful in authentic contexts, the pull-out model has been criticized. As stated by N.W. Nelson (2004), "pulling students with disabilities out for decontextualized "fixing" exercises

does little to address their isolation from the core learning enterprise" (p. 6). Other approaches to service delivery are described by the American Speech Language Hearing Association (ASHA), the governing association for the profession of speech-language pathology.

Service Delivery Models

Traditionally, SLPs have used a variety of service delivery models to provide services to students with speech and language impairments. The most common service delivery model, SLPs work independently as they pull individual or small groups of children out of their classrooms for intervention sessions. This direct service delivery model (pull-out) is suggested for students with articulation, voice or fluency disorders, or those with severe impairment (ASHA, 1996). Intervention for students with language disorders is not recommended with this model, although it is commonly used in practice due to lack of training in other models as well as logistical issues. Surveys of school SLPs indicated that group intervention outside the classroom was used with 71-91% of students receiving speech-language intervention (ASHA, 2010; Brandell, 2011). High caseload size and lack of training in other models was reported to be the contributing factors for utilization of this model. This data contradicts ASHA's recommendation of using various service delivery models to best meet students' needs in the least restrictive environment.

Recent emphasis on authentic intervention has encouraged the use of a collaborative service delivery model. This model emphasizes that the SLP work as part of an educational team (ASHA, 1991). For students with language impairments, classroom-based or collaborative service delivery models are recommended. Collaborative service delivery is designed to assess and treat communication impairments within natural settings to increase the effectiveness and generalization of services. In this team approach, "it is important not to fragment the student's

skills and abilities" (ASHA, 1991, p. 4). The focus of assessment using a collaborative service delivery model is on evaluation of a student's behavior on genuine communicative tasks rather than a probing of isolated skills. Rather than using artificial tasks in contrived situations (e.g., pull-out model) to determine a child's ability, collaborative assessment encourages data collection in authentic communicative settings. Data from various sources is encouraged for triangulation of assessment to increase validity (ASHA, 1991). In this approach, both quantitative and qualitative methods for data collection are encouraged. Following assessment, the team develops an IEP in which the SLP is not the sole intervention provider. Some of the interventions in a collaborative service delivery model may include naturalistic intervention strategies and scaffolding strategies.

As with all educational models, administrative support is necessary for proper implementation of collaborative service delivery. School administrators must allot SLPs, teachers, and other professionals on the team the necessary time to meet outside their classroom duties to collaborate. Cooperation among team members is necessary and an abandonment of professional "turf" must occur. Most special education services take place within the general education classroom in this model, therefore the way that educators perceive their roles in the public school may change (ASHA, 1991). Even though there are several indicators that the collaborative service delivery model may be the most effective model for student achievement, administrative support is not consistently present. Lack of funding for education has reduced the number of professionals that are available to work with students. Lack of time for collaboration, high caseloads, and lack of training in using an authentic approach has caused many SLPs to fall back on the traditional service delivery model of pull-out intervention.

Language Intervention in Practice

The majority of students enter school with the language basis necessary for them to be successful students. They learn academic curriculum through various learning styles and adapt to the method of instruction used by their teacher grade after grade. For the student with a language learning disability, their adaptability to inadequate teaching methods and artificial learning contexts is poor. Students with language learning disabilities (i.e., LD, SLI) need to be taught in authentic contexts using methods that encourage talk. They need to learn to use language in order to construct knowledge and therefore understand the world around them. Students of all abilities have something valuable to communicate, and through their conversation with educators and peers, they will continue to construct knowledge. Strategies that help students build that knowledge include authentic questioning during conferencing, critical moment teaching through miscue analysis, and scaffolding using a social interactionist framework. Contrived lessons in artificial situations will not allow students with disabilities to transfer knowledge across contexts.

One avenue for speech-language pathologists that wish to provide meaningful, authentic intervention in the classroom setting is writing. All classrooms participate in some aspect of writing instruction, with many moving towards a writer's workshop approach. Writer's workshop make consist of students writing independently for large chunks of time, with peers and teachers periodically communicating how well they are meeting their personal writing goals. Teachers move about the room scaffolding written language production and may provide mini-lessons to small groups or the whole class (Nelson, 2004). In traditional service delivery models (i.e., pull-out), students with language learning impairments may not be given the opportunity to participate in writer's workshop. An alternative to this model would be for the speech-language pathologist to provide classroom based intervention during writer's workshop. In addition to

being authentic, writing allows students with language learning impairments to reflect on their language production, revise or provide rationale for miscues, and commit spoken elements to working memory (Nelson, 2004). This growth can occur through the use of an interpretative teaching framework by the SLP during writing in the classroom. By abandoning the skills based approach, categorizing language goals by syntax, semantics, phonology, etc., and instead thinking about language goals as levels (e..g, discourse level, sentence level, word level) with the ultimate goals of effective communication, SLPs can achieve the goals set through IEPs in authentic contexts for students.

Conclusion

This chapter has reviewed the empirical and interpretative paradigms and their impact on education as well as speech-language pathology. It has reviewed language acquisition theories from the perspectives of the paradigms. It has also reviewed how students learn language in authentic contexts. Lastly, it has explained the shifting perspectives in speech-language pathology.

This review has included the work of Wells, Dewey, Vygotsky, and several others who believe that conversation is a means of learning. These theorists believe that construction of knowledge occurs in authentic social situations. These are the key beliefs that guided the development of this study.

CHAPTER THREE: DESIGN AND METHODOLOGY

Introduction

The purpose of this study will be to develop an understanding of language development for students with language learning impairments, using techniques such as authentic questioning, critical moment teaching, and scaffolding in authentic contexts. It will explore how the empirical and interpretative paradigms influence the decisions made by a speech-language pathologist in regards to intervention techniques, service delivery, and goal setting. In order to move beyond surface events and appearances, a research paradigm that emphasizes understanding is necessary. The best fit for this type of inquiry is the naturalistic paradigm.

This chapter will describe the naturalistic research design utilized to understand how interpretative teaching strategies and authenticity support language development. A discussion of the characteristics of naturalistic inquiry will be detailed, as well as the methodology used for qualitative research design. The details of this study will be described in addition to a discussion of how trustworthiness will be established.

Naturalistic Inquiry

Naturalistic inquiry has been described as the most fitting research paradigm to be used for the study of language (Lincoln, 1985). There are several characteristics that define naturalistic inquiry that are interdependent on one another. The first characteristic states that the researcher carries out research in the natural context of the subject of study. This is crucial because naturalistic inquiry insists that reality must be understood as a whole and cannot be fragmented for separate study of its parts. Also the context is fundamental in deciding whether a finding would be transferrable to other settings. The second primary characteristic of naturalistic inquiry is the human is the primary data collecting instrument. This is important because

although all types of instruments interact with participants, only the human is capable of evaluating the meaning of the change in interaction or bias created. The third characteristic is the utilization of tacit (intuitive) knowledge to understand all the nuances of the multiple realities in social situations. Characteristic four in naturalistic inquiry places value on qualitative over quantitative methods because they are more adaptable, expose the interaction and biases of the researcher and participants, and are more sensitive to the value patterns encountered. The fifth characteristic is purposive sampling because the range of data exposed is increased. Naturalistic inquiry also prefers inductive data analysis because it is more likely to expose multiple realities, make the relationship between the researcher and participants more accountable, and fully describe the setting, therefore making transferability easier. Characteristic seven is grounded theory, which is described as having the theory emerge from the data rather than have a priori theory. Grounded theory allows the researcher to enter the study as neutrally as possible. The characteristic of emergent design is a critical characteristic of naturalistic inquiry. This characteristic allows the research design to unfold rather than be constructed beforehand. The ninth characteristic allows for negotiated outcomes between the researcher and participants to increase confirmability. In addition, the naturalistic inquirer prefers a case study reporting mode because it can be adapted to describe multiple realities and its thick description allows for transferability. The characteristics of idiographic interpretation and tentative application address the hesitation by the naturalistic inquirer in making broad generalizations. Characteristic thirteen is the use of focus-determined boundaries based on the emerging problems. The last characteristic in naturalistic inquiry is a special attention to trustworthiness (credibility, transferability, dependability, and confirmability) that will be described in detail later in this chapter.

Given the characteristics outlined above, it is nearly impossible in naturalistic studies to prepare an explicit design before the study is started (Lincoln, 1985). Given that point, a tentative plan was still put into place and will be described in upcoming paragraphs. It is expected, however, that this plan will change as the study unfolds.

Qualitative Research Methods and Language

Although there are several variations used to define qualitative research, depending on the discipline it is used, Damico (2003) offers an operational definition that suits the needs of those studying language: "Qualitative research refers to a variety of analytical procedures designed to systematically collect and describe authentic, contextualized social phenomena with the goal of interpretative adequacy" (p. 132). Qualitative methods are emphasized in the naturalistic paradigm and will be used in this study. This is because qualitative methods are easier to use when studying human beings doing natural activities, such as looking, listening, speaking, reading, etc. Qualitative research offers a "richer and more detailed description of the phenomenon under investigation than do more numerically oriented quantitative studies" (Damico, 2003). The human instrument tends to use methods such as interviews, observations, reviewing documents, and interpreting inadvertent unobtrusive measures (Lincoln, 1985).

This study will consist of participant observation during student writing activities, in which the conversation between the student and speech-language pathologist will be audio-recorded and transcribed. There will also be writing samples collected at several intervals throughout the data collection process to assess progress over time. Interviews of teachers and other speech-language pathologists will be used to validate findings as well as gain new information on the effectiveness of speech-language facilitation methods. The multiple sources of information collected will triangulate the data and build confirmability.

Ethnography

Ethnography is particularly promising for the field of speech-language pathology, because it is designed to investigate complex social and cultural phenomena. "Ethnography is a scientific approach to discovering and investigating social and cultural patterns and meaning in communities, institutions, and other social settings" (Schensul, 1999, p. 1). In an ethnography, the researcher discovers what people do and why before they assign meaning to their behaviors. This study is an ethnography in the sense that it is investigating the culture of speech-language pathologists facilitating language development in public school settings. Also, ethnographic research is applied, meaning that it is an effective tool for understanding and improving the conditions studied. Ethnographic methods describe the problem in a local population, assist in understanding the causes, provide information that can support change, assist in formulating or modifying intervention program models, and assess the efficacy of an intervention (Schensul, Schensul, et al., 1999). These are all goals of the present study, making applied ethnography an ideal research paradigm.

Schensul, Schensul, and LeCompte (1999) describe the stages in research design used for ethnographic studies. In stage 1: research model, the objective is to use personal and professional experience, prior research, and a review of archival data to develop the research model. It involves identification of domains and construction of hypotheses and is subject to modification throughout the study. The purpose of this chapter is to develop the necessary components of stage 1. In stage 2: domains are discovered through observations and interviews of unique and extreme cases. This stage will coincide with the plan to participate in observations and record the conversations elicited during interactions with students. Stage 3 consists of semi-structured data collection techniques, such as interviews and focus groups. This stage coincides with the

intention in this study to interview teachers and speech-language pathologists as well as conduct focus groups with speech-language pathologists. Stage four consists of the use of structured data collection techniques such as surveys. There is no plan currently to use surveys in this study.

Ethnographic studies also use many data collection techniques. An ethnographic record is used to bridge observations with analysis. It may consist of taking fieldnotes, taking photographs, making maps, and any other means of collecting your observations (Spradley, 1980). Through the ethnographic record, a case study is written. The techniques used in this study to develop the ethnographic record consisted of: field notes, student artifacts, audio taping, and semi-structured interviewing of teachers, students, and speech-language pathologists.

Research Design

Proposed Population and Sample Selection

This study is considered to be fieldwork, a hallmark of ethnography. The definition of "the field is the natural, nonlaboratory setting or location where the activities in which a researcher is interested take place" (Schensul, Schensul, et al., 1999, p. 70). It is important to reiterate that the primary reason that this researcher chose the naturalistic paradigm was because the majority of research is speech-language pathology is conducted in unnatural, clinical type settings that are frequently inapplicable to authentic situations in the field. In the case of this study, the field is a familiar setting, the current school that this researcher is employed at. Research will be conducted at Martell Elementary School in Troy, Michigan, built in 1974. This setting is a public elementary that houses 395 students in kindergarten to fifth grade. Class size is approximately 25 students in lower grades and 29 students in upper grades with one teacher per classroom. The school structure is very traditional, a rectangle shape with three hallways that cut through the middle. There is one meeting room for large group instruction that was added in the

last few years. There is one resource room classroom and one emotionally impaired classroom within the school. There are also individual offices for ancillary staff, such as the school social worker, teacher consultant, psychologist, and speech-language pathologist. All of the ancillary staff members work at Martell Elementary one to two days per week and are in other buildings throughout the district the remainder of the week.

Martell Elementary is located in Troy, Michigan, which is considered to be a middle class community. Most students graduate and go on to higher education. Parent support is average to above average for most students. Student population is fairly diverse, with Asian, Middle Eastern, Indian, African American, Caucasian, and others represented in both general and special education. At Martell Elementary in the 2011-2012 school year, seventeen students received speech-language intervention as determined through eligibility procedures. These procedures include the general education teachers documentation of concerns and strategies used in the classroom, collaboration with the Student Assistance Team (SAT), and resulting in referral for assessment and development of an IEP. These students are then labeled with a particular disability. The students who receive speech-language therapy at Martell Elementary in the current school year are labeled Speech Language Impaired (SLI: 13 students), Specific Learning Disabled (SLD: 1 student), Autism Spectrum Disorder (ASD: 0 students), Otherwise Health Impaired (OHI: 1 student), and Emotionally Impaired (EI: 2 students). Out of the seventeen students on the SLPs caseload, eleven are seen for speech-language therapy only and six also receive resource room or emotional classroom support. This support occurs in the general education classroom, resource/emotionally impaired classroom, and/or in the speech-language pathologist's office.

Three students will be selected as participants in this study. These students will be selected based on the following criteria:

- Currently receiving the majority of writing instruction in the general education classroom

- Able to produce some conventional writing (e.g., beyond illustrations)

- In second or third grade

- Diagnosed as having below average receptive or expressive language ability through standardized measures as documented at their most recent special education eligibility determination meeting

- Receiving speech-language intervention as a direct service

- Parents have given permission for their children to participate in the study

Given the above criteria, five students out of the original seventeen on the SLPs caseload were eligible participants. Out of this pool of students, criterion-based selection was used given the above criteria and ability to get parental permission. Criterion-based selection allows researchers to choose the population they want to study to maximize the chances that they will find the patterns for which they are searching. The three students selected will be comparable cases, meaning that they exemplify as closely as possible the specific characteristics of interest to the researcher (Schensul, Schensul, et al., 1999). An attempt will be made to select the three participants from the same grade if possible, in order to maximize meaningful patterns in the data. Following selection of participants, consent for participation will be obtained through the procedures outlined by the Human Investigation Committee.

Methodology

Participants selected for this study will participate in approximately three months of language facilitation with the researcher. This facilitation will be provided in the general

education classroom during writing instruction. Troy Public School District currently utilizes a writing workshop approach for written language instruction. This will be the avenue used this study. It is important to note that participants in this study will continue to receive both pull-out and classroom based intervention by an SLP that is substituting for the researcher based on the goals determined in their IEP.

The following table outlines the three phases planned in this study and will be described in detail in the subsequent paragraphs.

Table 3: Phases Planned in the Study

Phase	Objective	Timeline
Phase 1: The SLPs role in the classroom	• Logistical considerations (e.g., scheduling) • Outcomes of study communicated with teachers and students • Initial interviews of participants and teachers • Collection and analysis of initial writing samples • Introduction of audio recording materials	1-2 weeks: Early March 2012

Phase 2: Language Facilitation in Authentic Contexts	• Conferencing with students
	• Data collection:
	  o Transcription
	  o Writing samples
		8-10 weeks: Mid March-May 2012

Phase 3: Perceptions and Attitudes	• Follow-up interviews with teachers and students • Collection and analysis of final writing samples • Focus group interview with SLPs	2 weeks: June 2012

Phase one will consist of the establishment of the SLP during writing conferences. It will consist of establishing times for conferences, expected outcomes for these conferences, and initial collection of writing samples. These samples will be scored using the Troy School District's writing rubric (see Appendix A) as well as analyzed for specific errors in language use

based on their IEP goals. This phase will introduce audio-recording materials to decrease intrusiveness. Clip-on microphones will be used to decrease the interference of background noise in the classroom (Schensul, Lecompte, et al., 1999). Phase one will also include semi-structured interviews of both teachers and students perceptions of SLPs using language facilitation techniques in the classroom setting (see Appendix B). In a semi-structured interview, the questions are predetermined, but the answers are open-ended and can be enhanced by probes (Schensul, Schensul, et. al., 1999). This stage is expected to last only one to two weeks, because it is a familiar role for the student, teacher, and SLP.

Phase two will consist of data collection and analysis during writing conferences with selected participants. Conferences will be conducted twice a week with each participant during writer's workshop. These conferences will consist of a conversation about current written pieces, the student's perception of their progress and areas of need, and miscue analysis. Dialogue will be fostered through authentic questioning techniques, such as those described by Goodman (2003), Graves (1994), and Wood Ray (2006) in chapter two. Dialogue about miscues between the student and SLP will be used as a springboard for critical moment teaching and scaffolding. The "assessment-first" teaching order described in chapter two will be used to keep instruction thoughtful and not steal away students' intentions and purposes (Wood Ray, 1999). All conferences will be audiorecorded and later transcribed. Transcription will be critical for accessing data for analysis because progress in oral language development will not always be evident from written samples. Also, the teaching practices used by the SLP will not be documented in the student's writing. Relevant segments to the research questions will be transcribed with the remainder of the tape summarized to describe the context (Schensul,

LeCompte, et al., 1999). In addition, writing samples will be collected throughout phase two. This phase is expected to last approximately 8-10 weeks.

Phase three consists of semi-structured follow-up interviews with students and teachers about their perceptions of SLPs using language facilitation techniques in the classroom (see Appendix C). It will also consist of a focused group interview with district SLPs about the efficacy of various service delivery models (see Appendix D). The group interview provides the advantage of collecting a large quantity of data in a short period of time, record group member's reactions to ideas and each other, and obtain participants' interpretation of results gathered in the current study (Schensul, LeCompte, et. al., 1999). In addition, final writing samples will be collected from students. These samples will be scored using the Troy School District's writing rubric (see Appendix A) as well as analyzed for specific progress in language use based on their IEP goals. This phase will last approximately two weeks.

Data Analysis and Reporting

Data Collection

The techniques used in this study to develop the ethnographic record consisted of: field notes, student artifacts, audio taping, and semi-structured interviewing of teachers, students, and speech-language pathologists. Field notes will consist of condensed accounts, defined as containing "phrases, single words, and unconnected sentences" about the interaction (Spradley, 1980, p. 69). It would be impossible and unnecessary to record everything said in the interaction, because the researcher will be an active participant in the SLP-student conferences. Also, each interaction will be audio recorded and later transcribed. Also, a fieldwork journal will be used to record experiences, ideas, feelings, mistakes, breakthroughs, problems, etc. during fieldwork, similar to a diary (Spradley, 1980). Based on analysis and interpretation of the fieldnotes, in

addition to the transcribed audio samples and interview responses, an analysis of the data will involve domain and taxonomic analysis. This type of analysis involves multiple passes through the data to look for patterns of domains. These domains will be determined once the data is collected.

Case Study

Since this is a naturalistic study, the case study reporting mode will be used. Lincoln and Guba (1985) believe that this mode is most useful in achieving the main purposes of reporting, raising understanding and maintaining continuity, as well as being an advantageous format for the naturalistic inquirer. "The case study report is ideal for providing the "thick transcription" thought to be so essential for enabling transferability judgments" (Lincoln, 1985, p. 214). Also, the interactions between the researcher and participants as well as the context is better described in a case study. In addition, the case study provides a detailed experience of the inquiry setting to the reader so they can feel like they were present at the study themselves. The case study report is to "appear grounded, holistic, and lifelike" (Lincoln, 1985, p. 214). Lastly, the thick description in a case study allows the reader to relate their own prior knowledge and experiences to the study. This is particularly important to the study of communication, since it is a socially mediated phenomenon.

Trustworthiness

Any researcher, despite the research paradigm used, must persuade readers that their research study is valuable to the field. In naturalistic research, four criteria must be addressed in order for it to be considered valuable, or trustworthy (Lincoln, 1985). The four trustworthiness criteria in the naturalistic research paradigm are credibility, transferability, dependability, and confirmability. These terms parallel the empirical/positivist paradigm criteria of internal validity,

external validity, reliability, and objectivity. The definitions of each criterion and techniques used by naturalists to meet the four criteria will be described below.

The first criterion, credibility, is met by an inquirer when he or she can establish that the relationship found between variables is "true". For research to be credible, the inquirer must consider if the instrument or methods used measure what they were designed to measure. There are several activities that are designed to increase the likelihood of credible findings. Prolonged engagement is when an inquirer remains in the environment he or she is studying long enough to observe an entire cycle of an event. It must be long enough to distinguish personal biases and distortions and to build trust with the participants. Persistent observation is used to identify relevant elements (i.e., depth) and to avoid coming to a focus too soon. Observation in all appropriate environments is also necessary to increase credibility. Triangulation is the most important method used in collecting credible data. It proposes that one does not know something unless it can be seen from different angles; therefore, inquirers must have multiple data sources and data methods. Peer debriefing consists of asking colleagues that are familiar with your research or naturalistic methods to review your findings and identify biases, areas in need of clarification, or unexplored areas. Member checks are important techniques used during analysis to increase credibility. During data interpretation, further explanation into the minds of participants to explore reasons for behaviors/responses is vital to increasing exploratory power in the inquirers research findings. Member checks are used to reduce analysis errors and discover the members' intentionality. Negative case analysis is used to revisit the hypothesis with hindsight and refine it until it accounts for all known cases without exception. Lastly, referential adequacy is described as selecting randomized data, typically collected through videotaping, and archiving it. This data can later be used as a benchmark for later analysis and critiques.

The second criterion, transferability, provides evidence that findings are applicable to other contexts or subjects. One must demonstrate that the causal relationship in the findings can be generalized. Transferability can be judged based on "rich description" of the findings. Randomized sampling can also be helpful in meeting this criterion.

The dependability criterion is otherwise described as consistency, predictability, and accuracy in the findings. Inquirers must establish replicability for his or her research to be considered trustworthy. This means that results must be able to be reproduced with similar groups in similar contexts. Dependability can be established by using a systematic approach.

Lastly, confirmability or neutrality can be described as the degree to which findings are without bias, personal motivations, and perspectives of the inquirer. Intersubjective agreement, multiple observers agreeing on the same phenomenon, is used to test confirmability. An audit process is used to find relationships between data, analysis, and written text. A value-free inquiry is considered to have met the criterion of confirmability.

Due to the small scale and independent nature of this study, not all the criterion can be fully established. The following table lists the trustworthiness criterion, the activities used to establish that criterion, and examples from the study to meet it:

Table 4: Trustworthiness Criterion

Criterion	Activity	Example
Credibility	Prolonged engagement	3-4 months of study + 7.5 previous years at site
	Persistent observations	3 months of transcription (2x per week), 2+ different classrooms
	Triangulation	Transcription, field notes, student artifacts, student/teacher interviews, focus group
	Peer debriefing	Consultation with dissertation advisors, consultation with colleagues
	Member checks	Student conferences, interviews
Transferability	Rich description of findings	Case study reporting
	Comparative case sampling	Selection of participants based on similar and typical cases
Dependability	Systematic approach	Use of the ethnographic research cycle
Confirmability	Intersubjective agreement	Teacher interviews, focus group
	Audit trail	Tracking of data obtained through: audio tape logs, field note summaries, interviews, focus groups

<u>Conclusion</u>

   This chapter described naturalistic inquiry and how it is an ideal vehicle for this study of communication. The naturalistic paradigm provides researchers the ability to focus on complex communicative processes and their natural contexts, rather than isolated linguistic elements in contrived contexts. Because qualitative methodologies are designed to richly describe phenomena within authentic contexts, these approaches can provide a missing link between sterile numerical data and the complexity of actual communication. The link between research and practice must be strengthened in order to move the field of speech-language pathology forward. One way to diminish the "division between the laboratory and the clinic is to employ

more open and flexible research approaches that can sustain empirical rigor in more authentic settings" (Damico, 2003, p. 140). Qualitative research has the ability to accomplish these objectives as well as address the research questions planned in this study.

CHAPTER FOUR: RESULTS

Introduction

The purpose of this chapter is to provide a rich description of the data collected during the time span of the study. Several data sources were analyzed using a qualitative research design. The chapter will begin by introducing the research participants, describing the interviews and conferences held, and provide excerpts of oral and written language samples.

Participants

Three students were chosen as participants for the study. Criterion-based selection was used given the criteria listed below:

- Currently receiving the majority of writing instruction in the general education classroom

- Able to produce some conventional writing (e.g., beyond illustrations)

- In second or third grade

- Diagnosed as having below average receptive or expressive language ability through standardized measures as documented at their most recent special education eligibility determination meeting

- Receiving speech-language intervention as a direct service

- Parents have given permission for their children to participate in the study

The three students selected were considered to be comparable cases, meaning that they shared characteristics that exemplify the researcher's purpose. The original three students selected were third grade boys that were previously diagnosed with a receptive-expressive language impairment. One of the three student's parents did not consent in a timely manner, therefore a fourth student was asked to participate. The fourth student was also a third grade boy, however he was previously diagnosed with an articulation impairment. It was felt, however, that

he shared many similar language characteristics as the other students and would still be considered a comparable case.

The three participants were coded in the research as A, B, and C. They were all nine years old at the time of data collection and in the second half of third grade. Student A was in one classroom and Students B and C were in the same classroom. All three students had been receiving speech-language support since kindergarten or earlier. All students had been described as inattentive by current and previous teachers, and Students A and B had a medical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). The level of language and needed support varied with each student and will be described further.

Student A

The researcher's interactions with Student A were the most intense of all the participants. Recorded interactions were typically lengthy and contained abundant opportunities to scaffold language development. Student A displayed his emotions outright and there are several examples of humor, contention, skepticism, joy, and anger throughout the conferences. He may have also shown the most growth.

Student A is an only child that comes from a low-income home. He is raised by both parents, however spends most of his time with his father. His father has admitted to having learning problems himself. Student A has a medical diagnosis of ADHD and takes daily medication. In the classroom, he is frequently inattentive, disorganized, and struggles in the academic areas of mathematics and writing. He also tends to talk excessively with little recognition of nonverbal cues. He has few friends.

Student A was re-evaluated by the school district in December 2010 and re-certified with a Speech-Language Impairment (SLI). The Clinical Evaluation of Language Fundamentals-IV

(2003) was given and his score were as follows: Core standard score= 79 (Average: 85-115); Receptive Language Standard Score= 90; Expressive Language Standard Score= 77. On his most recent Individualized Education Plan (IEP) in January 2012, his present level of academic achievement and functional performance (PLAAFP) is summarized as follows:

Student A continues to present with a speech and language disorder that negatively impacts his ability to successfully communicate with others. He struggles to initiate, maintain, and terminate conversational topics appropriately. He has difficulty with sequencing during retelling and written work, using correct syntax and speed of speech. In addition, he requires prompting to compromise and problem solve with his peers.

Based on this data, the IEP states that he should receive speech-language therapy four to eight times per month. Social work support was also recommended. His annual language goal and short term objectives were as follows:

Table 5: Student A IEP Goals/Objectives

Measurable Annual Goal: Student will use appropriate initiation of topics, sequencing, and termination/conclusion in dialogue, retelling, and written work with 80% accuracy.

Short-Term Objectives (at least two per goal)	Evaluation	Criterion	Schedule for evaluation
Student will reference his topic when initiating conversation with others and remain on topic for several turns.	Teacher Observation	80% Accuracy	Evaluated monthly
Student will use an introduction, sequence of events, and conclusion in writing tasks.	Teacher Observation	80% Accuracy	Evaluated monthly
Student will retell a narrative using correct sentence structure.	Teacher Observation	80% Accuracy	Evaluated monthly
Student will use appropriate speed and volume of speech to make himself intelligible during retelling, reading his written work, and dialogue.	Teacher Observation	80% Accuracy	Evaluated monthly

Previous goals were also monitored, which had been to improve overall intelligibility and improve use of common grammatical structures. He has progressed on some of his goals/objectives and achieved others. Overall progression had been slow. A psychological

assessment in 2010 indicated that Student A has a Full Scale IQ of 74 (average 90-110) and achievement scores that all exceed his IQ. Based on this assessment, he no longer qualified for the resource room support that was offered to him in first grade and the beginning of second grade. He did continue to receive some special testing accommodations, preferential seating, and reduced or modified assignments as deemed necessary. Despite this support, Student A was an average to below average student in all academic areas. His language impairment and ADHD has negatively impacted him in the school and community settings.

Student B

Student B was the last participant to begin conferencing with the researcher. He was added to the study after the initial participant's parents did not respond in a timely manner. The interactions recorded with Student B show significant emotional and behavioral struggles. It is evident that Student B does not feel successful in school and struggles with peer, teacher, and family relationships. There were times that the conference had to be suspended because Student B refused to respond to the researcher. Despite the emotional overlays, growth over time was shown.

Student B is the fourth child of five, coming from a middle class home. He was adopted at age five along with his biological sister. He had been in foster care until age three and lived with his current family since that time. There are several other foster children that flow through his family's home, many with special needs. Previous communication with his adoptive parents have illustrated that the home is militant in its operation and that Student B is the "problem child". His adoptive mother in a meeting a few years ago even indicated that she wished she had never adopted him. In the school setting, Student B frequently lies about his family and has several fantasies. In an interview, Student B stated that his biological sister "said when I was born I

made her life miserable". He reports that his mother doesn't love him. He has frequent minor injuries and is sent home for lice infestation several times a year. Protective services has been involved with the family.

In the classroom setting, Student B seeks attention in positive and negative ways. He frequently seeks affection (e.g., hugs from teachers), however struggles to behave appropriately and is therefore frequently disciplined. He has a medical diagnosis of ADHD and takes medication. There was also a report of bi-polar, however this diagnosis was not officially confirmed. In the classroom, he is frequently inattentive, defiant, disorganized, and struggles in the academic areas of reading and writing. He has few positive peer relationships.

Student B was re-evaluated by the school district in March 2012 and certified Otherwise Health Impaired (OHI). The Goldman Fristoe Test of Articulation-2 (2000) was given and he received a standard score of 81 (Average: 85-115). On his most recent IEP in March 2012, his PLAAFP is summarized as follows:

Past cognitive testing results revealed cognitive strength in nonverbal problem solving skills, with weakness present in his short-term, working memory. Academically, Student B's sight word knowledge and decoding skills are less developed than his same age peers; however, his comprehension skills are adequate for his age. Observations of Student B during the present evaluation process revealed off-task, inattentive behaviors. He obtained below average range writing scores, making grammatical, punctuation and capitalization errors. Results of a behavior rating scale reveal significant differences between good and bad days, with bad days clearly suggesting maladaptive functioning in the classroom. Student B continues to struggle with the correct production and use of the /r/ sound. In addition, although Student B knows and understands different feelings, boundaries and social cues, he often responds inappropriately and is viewed as being "annoying" to his peers (as reported by student).

Based on this data, the IEP states that he should receive speech-language therapy four to eight times per month. Resource room and social work support were also recommended. Articulation goals and objectives were as follows:

Table 6: Student B IEP Goals/Objectives

Measurable Annual Goal: Student will improve articulation skills to 95% intelligibility in conversation with peers and adults.

Short-Term Objectives (at least two per goal)	Evaluation	Criterion	Schedule for evaluation
Student will produce the /r/ sound correctly in words and in sentences	Teacher Observation	100% Accuracy	Evaluated monthly
Student will produce the /r/ sound correctly in reading and in conversation. .	Teacher Observation	95% Accuracy	Evaluated monthly
Student will produce the /th/ sound correctly in reading and in conversation.	Teacher Observation	100% Accuracy	Evaluated monthly

Previous objectives had been to produce /r/ and /th/ in reading and conversation. He has progressed on some of his goals/objectives and achieved others. Overall progression had been slow. A psychological assessment in 2012 indicated that Student B has an average overall IQ and achievement scores that are below average in basic reading and writing. Based on this assessment, he received resource room support in these areas. He also received some special testing accommodations, preferential seating, and reduced or modified assignments as deemed necessary. Despite this support, Student B was an average to below average student in all academic areas. His articulation impairment and ADHD has negatively impacted him in the school and community settings.

Student C

Interactions with Student C were typically rich and engaging. He began the process having the mildest language impairment of the three case studies. Conferences with student C contained several opportunities to both scaffold and apply prior knowledge. Overall growth seemed to fluctuate the most with Student C.

Student C comes from a middle class home. He is the youngest of two children, living with both parents. The mother is the primary caregiver and stays at home with the children and his father works long hours. He comes from a bilingual home, however Student C only speaks English. Interactions with parents have indicated that Student C has little responsibilities in the home setting and is "babied". Parents have been getting Student C outside tutoring in reading and math for the past year. Teachers have recommended that the parents explore testing for ADHD, however parents have refused.

In the classroom setting, Student C is an average to below average student. He struggles to stay focused on tasks and is very social with his peers. He requires frequent redirection by his teacher to complete an assignment. His effort and perseverance with academic tasks have been questionable. He has been extremely inconsistent in his academic growth. He has never received special education testing or support besides speech-language intervention. He does receive English as a Second Language Support a few times per week.

Student C was re-evaluated by the school district in November 2011 and re-certified Speech-Language Impaired (SLI). The Clinical Evaluation of Language Fundamentals-IV (2003) was given and his score were as follows: Core standard score= 88 (Average: 85-115); Receptive Language Standard Score= 84; Expressive Language Standard Score= 87. The Test of Narrative Language (2004) was also given and he received a standard score of 76 (Average: 85-115) on the Narrative Language Ability Index. On his most recent IEP in November 2011, his PLAAFP is summarized as follows:

Student C continues to present with an expressive language impairment. He struggles to understand and explain word relationships. He also struggles to narrate stories orally, using appropriate story elements, organization, and sentence structures.

Based on this data, the IEP states that he should receive speech-language therapy four to eight times per month. Language goals and objectives were as follows:

Table 7: Student C IEP Goals/Objectives

Measurable Annual Goal: Student will compare and contrast curricular vocabulary to build his ability to expressive language skills in 75% of trials.

Short-Term Objectives (at least two per goal)	Evaluation	Criterion	Schedule for evaluation
Student will compare two curricular vocabulary words.	Teacher Observation	75% Accuracy	Evaluated monthly

Short-Term Objectives (at least two per goal)	Evaluation	Criterion	Schedule for evaluation
Student will contrast two curricular vocabulary words.	Teacher Observation	75% Accuracy	Evaluated monthly

Measurable Annual Goal: Student will generate or retell a narrative in oral and written responses containing appropriate story elements and temporal/causal relationships between events that is appropriate for grade-level.

Short-Term Objectives (at least two per goal)	Evaluation	Criterion	Schedule for evaluation
Student will convey the setting, characters, and problem/solution in narrative retelling or written story generation.	Teacher Observation	3 out of 4 elements independently	Evaluated monthly

	Evaluation	Criterion	Schedule for evaluation
Student will tell a sequence of events orally or in writing using appropriate causal and temporal relationships (e.g., after that, and, then, because, so that, since).	Teacher Observation	3+ occurrences per oral retell or written narrative	Evaluated monthly

Previous goals had been to use strategies such as visualization, rehearsal and self-talk to remember and follow directions and listen to longer chunks of auditory information in small and large group settings. He has progressed on some of his goals/objectives and achieved others. Overall progression had been slow. He also received some special testing accommodations, preferential seating, and reduced or modified assignments as deemed necessary. Despite this support, Student C was an average to below average student in all academic areas. His language impairment, inattentiveness, and personality factors have negatively impacted him in the school and community settings.

Analysis of Findings

There were three phases in this study that will be described and analyzed in detail in the subsequent paragraphs. Field notes, student artifacts, audiotaping, and semi-structured interviews were the techniques used to develop the ethnographic record. An analysis of the data involved domain and taxonomic analysis, as well as the description of some ratios and inverse relationships. The multiple sources of data will result in a case study report.

Phase 1: The SLPs role in the classroom

The first phrase of this study consisted of the speech-language pathologist (SLP) establishing rapport in the classroom, introduction of the audio equipment, logistical considerations (e.g., scheduling), and communication with teachers, participants, parents, and administrators about the purpose of the study.

Blending into the Classroom

Prolonged engagement at the site was the biggest factor in the researcher's ease of becoming a natural part of the classroom. Since the researcher had been involved with the students and a colleague of the teachers for several years, she was able to easily blend into the classroom with minimal disruptions. In the initial few weeks, the researcher began conferencing during the teacher's regularly scheduled writing times. The researcher did encounter some questions from students about her purpose in the classroom and they sought an explanation of the audio equipment. For example, in conference 1 with Student A, a student asked what we were doing. The response was "Student A's helping me with a research project. So I'm going to come in and work on writing with him". The student appeared satisfied with this response and questions were very minimal throughout the rest of the study. The participants also appeared minimally affected by the audio equipment. Comments such as "is this thing copying my voice?"

and "can you get this thing off (referring to microphone) so I can go find my word wall thing" were documented occasionally and primarily towards the beginning of the study. Teachers appeared comfortable with the researcher's entry into the classroom and did not seem to change their teaching style or plan for students. There were a few occasions that the previous lesson ran longer than expected and the teacher would end that assignment upon my arrival. Both positive and negative comments related to sticking to a schedule were documented in the interviews.

Initial Interviews: Teachers

The two third grade teachers and the three participants involved were interviewed using a semi-structured format (see Appendix B). Although the questions were predetermined, the answers were open-ended and the interviewer could probe for more information (Schensul, Schensul, et. al., 1999). The following domains emerged from the teacher interviews: role of the SLP, service delivery models, positive impact on teachers and students of the SLP facilitating language inside of the classroom, and negative impact on teachers and students of the SLP facilitating language inside of the classroom.

The role of the SLP as described by the teachers was consistent with the empirical paradigm. Their responses indicate that the problem is within the individual to be fixed. For instance one teacher, felt that the SLPs role is to address a specific skill set that is established during the student's IEP. Her statements did not show that there was collaboration about those goals in her statement "they (SLPs) usually have goals set for the students and they relay those goals to us as teachers". Another teacher felt that the SLP is there is help the struggling student, and not to facilitate change in the environment. However this teacher describes the SLP as a "support person", leaning more to an interpretative paradigm.

The many ways that SLP's deliver services to students were also described in the teacher's interviews. They state that SLP's come into the classroom to help both target and other students, pull students out into small groups or one-to-one, and develop home study programs. The service delivery models listed by teachers are consistent with ASHA's recommendation of using various service delivery models to best meet students' needs in the least restrictive environment. It is noted, however, that the word "collaboration" is not mentioned by either teacher in the interviews.

Both positive and negative impacts of the SLP facilitating language inside of the classroom were listed by the teachers. The teachers felt that having the SLP in the classroom was helpful to students because they don't miss assignments and instruction. They indicated that most students are welcoming to additional support and attention. One teacher described the SLP as "an extra set of hands". One teacher also stated that the SLP can gain perspective on the expectations of the average third grade student as well as monitor their students progress in the academic setting. Disadvantages of the SLP in the classroom were consistent with embarrassment for the student, some student's need for a smaller setting, and scheduling. One teacher indicated that when an SLP is scheduled to come into the classroom at a specific time, she no longer has flexibility in her schedule. She felt, however, that if the student is pulled out of the classroom, "there's always something they're going to have to miss". She described this dilemma as a "double-edged sword".

Initial Interviews: Students

Initial student interviews were short and contained minimal information. It was felt that the students were not used to being asked questions in an open-ended format. Four domains emerged from the initial student interviews: positive impact of therapy, negative impact of

therapy, positive and negative aspects of the push-in service delivery model, and the student's awareness of the purpose of intervention.

All three students indicated that speech and language therapy was a positive experience for them. Statements such as "I like it" and "really fun" were observed. None of the students stated a negative opinion of the therapy experience. Two out of the three students, however, felt that push-in type therapy had a negative impact on them. Interestingly, they were the two students that are diagnosed with ADHD. These two students indicate that working within the classroom is "noisy" and being in the SLP's office helps them to concentrate. Student C indicated a positive to push-in instruction, stating that he gets "to be closer to two teachers". The students were varied in their awareness of the purpose of intervention. Student B specifically stated his IEP goals as the reason that speech and language is helpful to him. Student C stated that it helps him learn to read, which would be a secondary impact of the language instruction. Student A, however, stated that it helps him "learn some new languages like sign language". Second language instruction has never been a focus with this student, illustrating that the purpose of intervention is very unclear to him. The student interviews did serve as a great springboard to the recorded conferences to follow.

Phase 2: Language Facilitation in Authentic Contexts

Phase two involved conferencing with individual students during writing workshop and recording the interactions. All samples were conducted within the general education classroom with all other students and the teacher present. This setting was the natural environment that the researcher was seeking in the study. Conferences lasted from April to June 2012, approximately twice per week. This resulted in 14-18 conferences per student that lasted anywhere from 10-30

minutes each over the course of the study. Each conference was then transcribed in full by the researcher. Several domains emerged and will be described in detail in the following paragraphs.

Conferencing

The researcher and each individual participant conversed about various written pieces over the course of the study. Each conference was unique in its findings, however they generally followed the same structure. The majority of conferences began with an open-ended question that encouraged the student to explain their progress and the directions for the writing assignment. Examples of commonly used opening questions were: *Could you explain to me what the directions were?; What are you working on today?*; and *What are you thinking?* Dialogue was then fostered through authentic questioning techniques and fresh ideas/miscues were scaffolded throughout the conversation.

Genres

Students participated in four written genres during the study: persuasive letters, poetry, a focused personal narrative, and a research report. Although the researcher did not expect the writing genre to change so frequently when planning the study, it did lead to a large variety of topics to be discussed during teachable moments. Writing samples were also collected from the participants periodically. Unfortunately, since the time spent during the study involved four large scale written assignments that were continued for weeks, there was not an abundance of samples to collect. In addition, there were less re-visits of certain language structures, making growth over time of specific areas more difficult to track. During the course of the study, each genre brought its own set of challenges for the student struggling to learn language, although there were many common domains that will be described.

Data Analysis

Domain and taxonomic analysis were conducted to describe the patterns that emerged from the data. Domains that were relevant to the research questions, as well as some unexpected domains were identified by the researcher upon multiple passes through the data. Random transcriptions were selected and member checks by six different SLP colleagues were conducted to build confirmability in the data. The member checks revealed that domains were identified with 85% consistency with the researcher. It was felt that if the SLP's had been provided with more detailed instructions and examples of each domain, that reliability may have been higher. For example, there was some inconsistency among the SLPs performing the member checks on the domain entitled *model/expansion of correct syntax/semantics* because the researcher had only coded this domain if it followed a student's miscue. Some of the SLPs coded this domain if there was any language model provided in the conference. Other domains were fairly consistent.

In the analysis, several domains emerged for all three students, however there were some domains that were student specific. The domains will be described in detail in the subsequent chapters.

General Findings Across Participants

The three research questions in this study that were explored through student conferencing involved comparing the empirical and interpretative paradigm, use of authentic learning contexts and techniques to support language development, and progress in language skills based on IEP goals/objectives. Given this lens during analysis, open-ended questions/statements to encourage students to explain their thought processes were compared with closed ended questions/directives. These semantic relationships stemmed from the question of how the paradigms influence the perspective of a speech-language pathologist. Although both

types of questions/statements were found in every sample, it was evident that open-ended questions typically resulted in richer samples over time. Upon further analysis, these open-ended questions were used to elicit five general responses from students: an explanation, a plan, clarification, emotional response, and perspective taking/reflection. Examples of authentic questioning are shown in the chart below:

Table 8: Summary of Domain: Open-Ended Questions/Statements to Encourage Students to Explain their Thought Processes

Purpose	Examples
Elicit explanation	• Why do you like… • How do you know that? • Can you tell me why… • Explain to me why you're writing… • What do you think? • How come? • What are you noticing? • What made you think of that?
Elicit planning	• What do you wish for? • What are you thinking next? • Let's think about it.
Elicit emotion	• How would you feel? • Why do you feel that? • How are you feeling about your writing?
Elicit clarification	• Tell me more about that • What do you mean… • Why did you write… • Help me understand that.
Elicit perspective taking/reflection	• What do you like about it? • Why would that be important? • What were you thinking when… • Why would they do that?

The above examples were used in samples with all three participants. Although interpretative questions emerged spontaneously in reaction to the student's responses, the researcher's underlying framework stemmed from the work of Goodman (2003), Graves (1994)

and Wood Ray (2006) in their work on authentic questions. A goal of the researcher during the conferences was to get the student talking more than the researcher through the use of an interpretative teaching style. As Graves (1994) states, the ratio of teacher to student talk should be 20:80. Although this ideal goal was not obtained during any of the samples, the ratio did increase for most samples as the study progressed. For example, in Student A Conference 2, the response to the researchers question "what do you think?" elicited the response "I don't know". However in Student A Conference 16, the researcher's question "what did you think when you read this?" elicited the response "well I think we should say…" and the student continued to explain his thinking in four more utterances. Examples such as this are evident throughout the data. To illustrate this relationship of "I don't know" responses to "thinking" responses, the data was analyzed for Student A to discover if there was an inverse relationship found in the transcriptions over time. Although an inverse relationship was not evident, the student's use of "don't know" and "think/wonder" words came in line with one another in later samples. The data is described in the following line graph:

Figure 1: Relationship of Unknown Responses to Thoughtful Responses
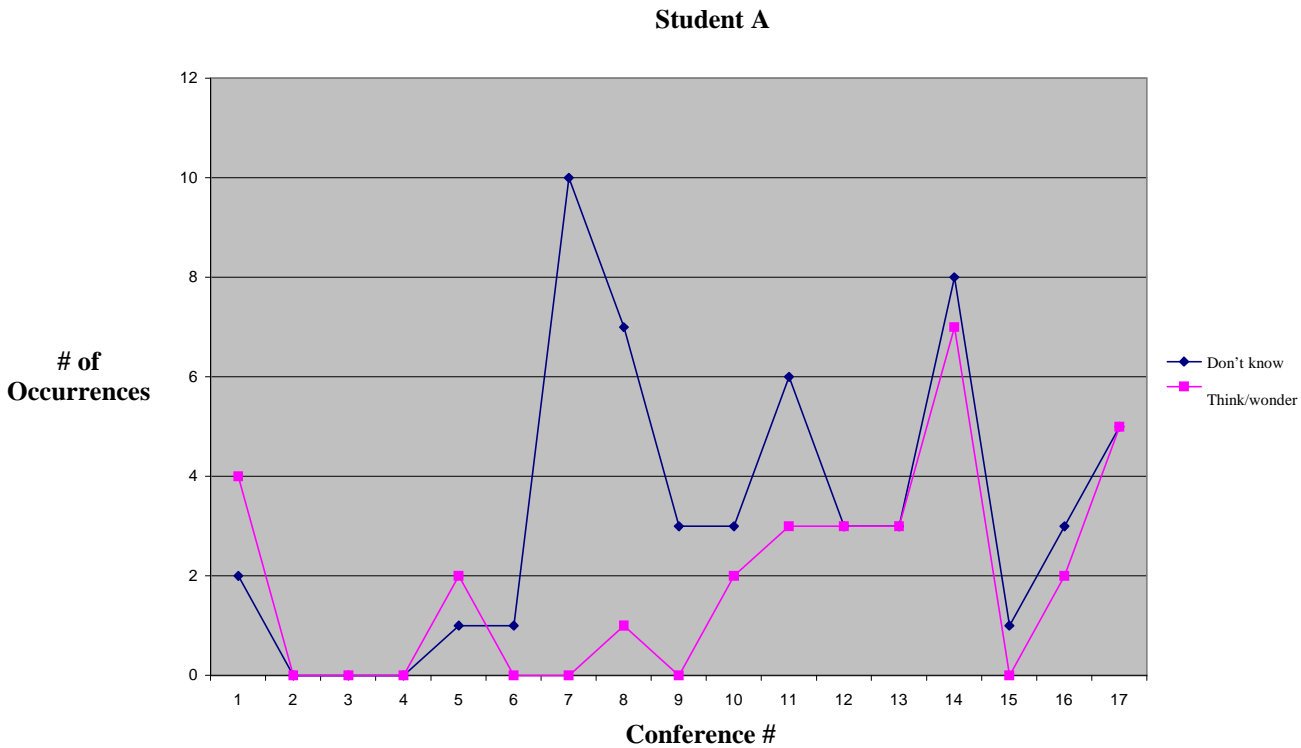
Student A

Use of open-ended questions/statements elicited more language in the samples than closed-ended questions/statements and were more facilitative for certain students than others. It was felt that this was related to the students experience with metacognition, or talking about their thinking, and will be discussed further in chapter five.

Use of the interpretative teaching style was a focus of the study, however closed-ended questions/directives were still evident frequently throughout the conferences. This type of teaching is typically viewed as empirical in nature, where the teacher is imparting their expertise to the student, however upon further analysis in the taxonomy, it was discovered that imparting knowledge was not the primary reason for this type of question/statement. The chart illustrates examples of closed-ended questions/directives and their purpose during the conferences.

Table 9: Summary of Domain: Closed-Ended Questions/Directives

Purpose	Examples
Elicit clarification or to repeat the directions	• Tell me what the directions were • What was the next direction? • Its important that you do that • Highlight it • Now skip a line and go here • Write history on this post-it note
To gauge comprehension	• Does that make sense? • Do you agree? • Did you figure it out?
Correct or prevent errors	• Erase this one • Put this little arrow here • Start where I wrote that x • As long as its neat • Go over there and check it • Are you gonna leave spaces in between your words? • You have to write… • Let's add that right here so we don't forget it
Quicken/slow student's pace	• Let's stop there. Don't write anything and let's talk first. • Read it again • Ok keep working
Provide reminders of previously learned information/IEP goals	• Let's try to leave some spaces between your words • Can you say *cherries* nice and loud for me? • Does poetry sound like a song? • Let's add this adjective

Although both open and closed ended questions are used in all samples, facilitating the student's thinking and language growth are at the center of the researcher's approach. As Dewey (1944) states, "to have an aim is to act with meaning" (p. 104). This is evident from the meaningful purpose, or "aim" that could be attached to most of the examples of the researcher's questions.

Throughout the conferences, the researcher's intention was to be a facilitator of language learning. Based on the work of Vygotsky, scaffolding techniques were used in every conference with students. Given this lens during analysis, the domain entitled self-talk word/phrase to

scaffold students thinking emerged from the data. The researcher used self-talk to model thinking behavior. Examples of self-talk phrases that were evident throughout the samples were "I'm wondering", "I noticed that…", and "I'm thinking…". This type of self-talk encouraged the student to use phrases such as "I wonder how…" and "wait I gotta think first". Although several scaffolding sequences were found in every conference, they are difficult to capture in data analysis. The "moment to moment" adaption of this technique is probably best illustrated by providing snapshots of how scaffolding facilitated new language growth. In the following example from Student C Conference 7, a vocabulary miscue is evident in his description of things that are red. Instead of correcting the student outright, the researcher uses questioning techniques to probe the desired response:

> C: and there's apples, roses, fire <u>car</u>, mad
> R: fire car?
> C: yeah fire car.
> R: what's a fire car?
> C: its something when there's a fire and a truck comes by and it has like water in a hose. They spray it at the place that's on fire.
> R: oh
> C: so the whole so no one gets hurt.
> R: do we call those fire cars?
> C: fire trucks.
> R: Fire trucks there you go. Now I can picture what you're talking about.

In the next example, from Student C Conference 9, a grammar miscue, omission of possessive -s, is evident in his poetry. The researcher facilitates self-discovery of the miscue and probes the student towards the desired response:

> R: Can I read it? And you tell me if what I said is what you want to say. I'm gonna read exactly what you wrote. Ready? Some <u>mom</u> drink fancy wine, fancy water, fancy pop. Some <u>mom</u> drink…
> C: Some mom's drink.
> R: oh you're saying it differently than me. What are you saying differently?
> C: Um some mom's drink.
> R: So what's missing?
> C: The S

> R: There you go.

The next example from Student A Conference 4 shows the student using simple, non-descriptive language in his account of what he hears outside. The researcher leads him towards using richer language in his poetry by using modeling, expansion techniques, and strategic questions. Two models of appropriate grammatical structures are also evident in this sample. :

> A: Well all I hear is kids.
> R: kids. That's what I heard too. Kids doing what?
> A: ahh kids playing
> R: kids what?
> A: kids *are* playing.
> R: you can hear them playing? What are they saying?
> A: don't know. But I know one reason now uh…
> R: Are they shouting? Are they talking? Or are they screaming? Are they laughing?
> A: kids playing
> R: what is the noise they're making though?
> A: don't know. Oh I know.
> R: I hear their clomp clomp clomping on the floor when they run by
> A: yeah that's true but I just like kids playing.
> R: can you think of a describing word for kids playing?
> A: oh fine (starts to erase)
> R: you can leave kids playing. I like it. What sound do you hear when kids are playing?
> A: screaming.
> R: screaming.
> A: of joy.
> R: oh that's so descriptive! Screaming *with* joy. Don't you like that?
> A: yeah
> R: let's write it before you forget it.
> A: ok
> R: you said screaming with joy. I wonder if this will make an excellent poem, screaming with joy.

Abundant examples of scaffolding of language development are found in the examples. Due to the nature of spontaneous conversation, there are times that the researcher missed opportunities to scaffold new language as well. Missed opportunities were not evident to the researcher until the conversations were transcribed and analyzed. It was felt that extraneous factors, such as student distractibility and time constraints, as well as the researcher falling back upon empirical

methods at times were the primary reasons for these missed opportunities. For example, in Student A Conference 13, the student wanted to discuss the land bridge from Alaska to Russia. Due to time constraints, the researcher ignores the student's attempts to engage her in a conversation. Student A even uses self-talk words such as "I wonder". Upon analysis, the researcher wished she had engaged the student in this meaningful conversation in the following example:

> A: I wonder how old that bridge now. Wait wouldn't...
> R: which is now underwater.
> A: is now now under water (writing). I wonder how old's that bridge.
> R: alright A, I want you to come up with one more fact...

Authentic teaching methods naturally lead to critical teaching moments, otherwise known as teachable moments. In the domain analysis, there were many language topics discovered in a teachable moment. It was decided to organize these language topics into form, content, use, and integrated language learning in the taxonomy. It was unexpected that there would be such a large variety of teachable moments in the samples. The following excerpt from the taxonomic analysis is included to show this wide variety of topics:

Table 10: Excerpt of Taxonomy: Topic/Language Discussed in a Teachable Moment

I. Semantic Relationship/Cover Term: topic/language discussed in a teachable moment
   a. Form
      i. Form letter
      ii. Use of line breaks
      iii. Capital letters
      iv. Punctuation (periods, commas)
      v. Future tense
      vi. Rough drafts vs. final copy
      vii. Plural S
      viii. Phonics
      ix. Past tense –ed
      x. Simple vs. complex sentences
      xi. Varied sentence structure
      xii. Irregular spelling
      xiii. Syllables
      xiv. Using spaces between words
      xv. Commas
      xvi. Directionality of written form
      xvii. Sentence structure/syntax
      xviii. Referencing pronouns
   b. Content
      i. Opinions
      ii. Opposites
      iii. Synonyms
      iv. Adjectives
      v. Conjunctions
      vi. Onomatopoeia
      vii. Repeating lines-poetry
      viii. Visualization and imagery
      ix. Categorization
      x. Similes
      xi. Metaphors
      xii. Rhyming
      xiii. Using descriptive language
      xiv. Stating definitions
      xv. Unfamiliar curricular vocabulary (e.g., nutmeg, geography, economy)
      xvi. Compare/contrast
      xvii. Numerical order
      xviii. Sequencing
      xix. Homonyms

Table 10: Excerpt of Taxonomy: Topic/Language Discussed in a Teachable Moment

    c. Use
- i. Emphasizing key words
- ii. Metacognition
- iii. Re-reading
- iv. Table of contents
- v. Captions
- vi. Reading graphs
- vii. Using a thesaurus
- viii. Intonation and fluency when reading aloud
- ix. Making a presentation
- x. Time management
- xi. Articulation

    d. Integrated
- i. Surveys
- ii. Using your senses
- iii. Visualization
- iv. Poetry
- v. Finding evidence/proof of facts
- vi. Fact/opinion
- vii. Identifying patterns
- viii. Brainstorming box
- ix. Informational reports
- x. Paraphrasing
- xi. Taking notes
- xii. Writing introductions and conclusions
- xiii. Topic/thesis sentences
- xiv. Accessing prior knowledge

The above list of topics covered in the taxonomy is extensive, far beyond the amount of topics that are typically covered in a three-month time span of traditional speech-language intervention. In traditional intervention, 1-2 topics/skills may be targeted in a week's time with a given student and repeated until they are mastered. In most situations where pull-out type intervention is provided, the student may have 3-5 objectives that are covered in a year's time span. It is very evident from this data that facilitating language growth through authentic experiences resulted in a much broader range of teachable moments. Some of these teachable moments may just have provided the student with exposure to new language learning and will

need to be repeated for the student to fully understand and use the language structure in the future. However, in addition to the wide variety of topics discussed, several of them were repeated multiple times throughout the course of the study. There is evidence in the data that language learned during a teachable moment in an earlier conference is applied in later conferences. For example, for Student A, Conference 1, adjectives were the topic of a teachable moment. Later, in Conference 6, Student A states "oh now I know what adjective is. It is a describing word". In Conference 7, student A and the researcher discuss the use of plural –S. Later in the same conference, Student A adds a plural –s independently to his written work. When asked by the researcher "what did you do?", the student replies "Just add a S". In Conference 16, Student C states "I'm gonna put *a* with a little caret", which had been previously discussed as a writing strategy. These are just a few examples of student's ability to apply language learned during teachable moments in authentic learning contexts. Application of language learned in relation to the student's IEP goals/objective will be further discussed in relationship to each individual case in the following sections.

Individual Case Analysis

During analysis, domains emerged for each individual student in relation to their goals/objectives, as well as personality factors. Several conferences gave rise to opportunities to scaffold miscues related to the student's IEP goals. Both current and previous IEP goals/objectives were facilitated by the researcher. The domain analysis also provides excellent information for determining the student's future language needs.

Student A

Overall speech intelligibility, language form, content, and use were all focus areas during conferences with Student A. Taxonomic analysis illustrated that pronouncing multi-syllabic

words, rate of speech, topic maintenance, syntax, and conjunctions were areas of growth. This growth was shown through specific examples of scaffolding the language structure or function and the student's comprehension through use of that structure orally or in his writing. For example, in relation to rate of speech, student A was able to state that when you read too slow, "it sounds like you're a robot". This explanation by the student had stemmed from a previous discussion with the researcher and he was able to apply it in authentic situations. In a discussion about topic maintenance, the researcher compliments the student in the following interaction and he responds in a way that illustrates he has internalized the information:

> R: I like how you stayed very focused on the topic today.
> A: the more focused you are, uh the smarter and better you get

Syntax was also a major focus area for Student A. In the taxonomy, there are miscues evident in the following structures: articles, auxiliaries, copulas, plurals, participles, past tense markers, pronouns, word order/omissions. The researcher used modeling to facilitate use of the expected syntactical structure in most cases. Student A inconsistently corrected his miscues given modeling, however there are instances of language growth in syntax throughout the conversations. The following chart shows the conferences in which the target language structure was originally addressed, when the same structure was revisited through modeling, and when the student was able to self-correct his miscues and use the structure spontaneously. Out of the three syntactical structures sampled for analysis, Student A showed initial retention of all three structures in the conferences following his self-correction. This data shows that authentic learning contexts, such as writing conferences, can support language growth in specific syntactical skills.

Table 11: Evidence of Language Growth in Syntax through Conferencing: Student A

Language Structure	Original Conference	Revisited in conference(s)	Self-corrected in conference	First spontaneous use in conference
Substitution of got for *have/has*	1	5, 6, 7, 9, 10	11	12
Omission of pronoun *it*	2	4, 5, 7, 9	14	15
Omission of auxiliaries *is/are*	4	5, 6, 7, 10	13	14

Oral language growth is exhibited over time through authentic language experiences for Student A. Written language growth is also shown. The following written sample is included to show how Student A was able to apply his knowledge of syntax by including plurals, pronouns in his descriptive writing. It is also evident from the different handwriting how the researcher and student worked together to complete the writing piece.

Figure 2: Written Language Sample: Student A
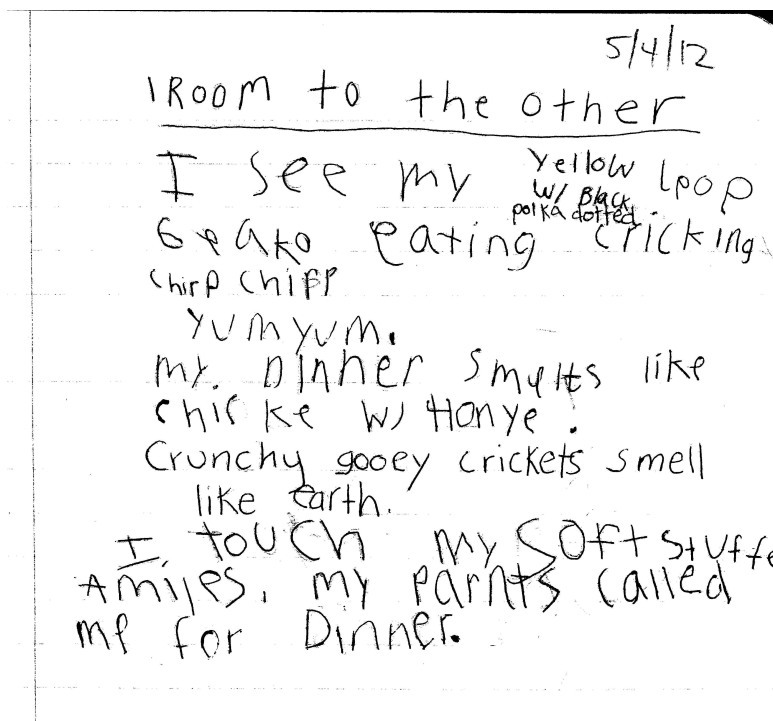
Using the Troy School District Writing Rubric, this piece was scored as a 30 by the classroom teacher and researcher (see Appendix A). This is considered an average score. His teacher commented in her post-interview that the language facilitation during writing conferences "helped Student A tremendously. His writing improved. Prior to that he never would have written that much information…from where he started at the beginning of the year, his writing, if you could get him to write three sentences it would've been a lot". Overall, Student A showed significant growth in his language during the study.

Student B

Overall speech intelligibility to address his speech objectives was the primary area of focus during writing conferences with Student B. However since Student B has weak sentences structure and conventions in written expression (per goals/objectives written by the resource room teacher) as well as significant distractibility and defiant behaviors, there are several examples of growth in these areas throughout the analysis. Domain analysis revealed examples of modeling, self-monitoring, and reinforcement/encouragement for the /r/, /th/, and /sh/ sounds. Throughout the course of the study, the student substituted the /w/ sound for /r/ in all conversations. He did respond well to modeling in most instances through authentic tasks. His ability to self-monitor his articulation was highly influenced by his mood, effort, and attention span on a given day. There were times that the conference could not continue because Student B refused to speak with the researcher. Multiple strategies were tried on those occasions that were inconsistently successful. Encouragement, goal setting, rewards, punishments, humor, time constraints, breaks, and an alternative location were all tried by the researcher and classroom teacher to facilitate participation in the writing process. A note from the researcher's fieldnotes on May 1, 2012 shows a reason why Student B may have refused to work on a given day. The

notes state that Student B got embarrassed during the conference because two boys at his table were listening to the researcher attempt to guide him towards correct sounds production. During that conference, "shut down and refused to work". Despite emotional and behavioral roadblocks, Student B did show growth over time. Examples of growth are evident in the following excerpts:

> R: How do you feel about your R when you said roses?
> B: proud (shows autonomy)
> R: I'm proud of you too.
>
> B: of wain a year. Rain (self-corrected).
>
> B: that means weader.
> R: Can you tell me that word again? What does climate mean?
> B: weather (corrects without a model)
>
> B: and grow has a R sound (noticed target sound independently)
> R: wow I'm glad you noticed that. Now every time you read your poem, you can say grow with a good R sound.

Below is the resulting poem with the R sound spelled correctly in "grow". This illustrates the carryover of his IEP goal into his writing:

Figure 3: Written Language Sample: Student B
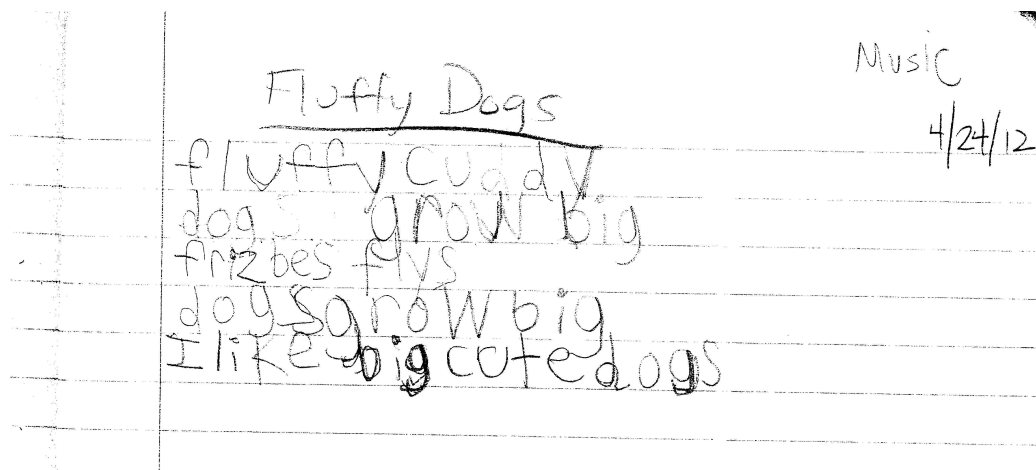
The above excerpts show Student B using intelligible speech and self-correcting miscues during authentic learning tasks. There is also transfer from oral to written communication. This

illustrates how classroom based intervention is useful for students with articulation impairments, contradicting the views of traditional speech therapy.

Student C

Oral and written retelling, sequencing with causal/temporal relationship words (e.g., after that, and, then, because, so that, since), and comparing and contrasting of vocabulary were all focus areas during the domain analysis for Student C. Using visualization, rehearsal, and self-talk to follow multi-step directions were also common topics in the conversations. These areas were related to his current and previous IEP goals/objectives. Examples of growth in the above areas were evident in the following examples:

Student C explains directions and uses the temporal clause "and then":

R: Tell me what the directions were
C: the directions were she's going to give us a sticky note and then we're going to…

Student C responds with causal/temporal relationship words in the following responses, illustrating he has internalized the target language structure in authentic situations:

R: why would you…   C: because they…
R: why do you…   C: so we can
R: why do you think… C: because they…since its…

C: People catch food such as grouper…
R: I like that such as. That's a transition word. That's an advanced writing word.

In the following example, the researcher facilitates Student C to categorize vocabulary from the text and uses it in his written work:

C: Fruit is oranges and other fruits.
R: Fruit is called the category and oranges is what?
C: Oranges is a citrus fruit.
R: Love the word.

The next example illustrates how use of an introduction sentence is elicited:

R: We need an introduction sentence. Do you know what that means?

C: No
R: An introduction sentence is what the whole paragraph is going to be about. So what is all of this all about?
C: Its all about tourist attractions…an introduction sentence. Um most tourist attractions are really fun.
R: Florida's tourist attractions are really fun.
C: yes

Student C's ability to use an introduction sentence, sequenced details, and a concluding sentence during explanations orally are transferred to his writing in the following sample. This writing piece was scored by the researcher and classroom teacher as a 29 on the Troy School District writing rubric (see Appendix A). This was considered to be an average score.

Figure 4: Written Language Sample: Student C

For Student C, there were less natural occurrences of his IEP goals/objectives in the writing conferences than the other students. It was felt that his goals were geared more towards personal narrative writing, which was not a genre covered by the teacher's in the timespan of the study. Therefore, the previous IEP goals related to following directions re-occurred more frequently in the data.

In addition to focus on Student C's goals, use of richer language was scaffolded through the probing questions suggested by Graves (1994) and the assessment first teaching order promoted by Wood Ray (1999). For example, in Conference 2, Student C is making a final copy of his persuasive writing piece (rough draft shown above). The researcher uses the Graves model to scaffolds his thinking in the following example:

> R: I'm noticing that you wrote Mrs. B over here and then you erased it.
> C: yeah but
> R: Why? (**ask how/why a student did something**)
> C: because it wasn't supposed to be down there.
> R: Why not?
> C: Because we're supposed to leave some you're supposed to put it up here. Not down here. (**get the student's version of something**)
> R: Well what's wrong with this spot? (**get the student' version of something**)
> C: Well like it's too low and then if we have like a long long one then you would have to put my name over here um
> R: Oh so you're saying if you started here you might run out of room (**model explanation**)
> R: Is this easy or hard for you or medium for you? (**ask how did that go?**)
> C: kinda hard medium…its medium
> R: what's medium about it? Like what makes it hard?
> C: I have to look here and then I lose where I was where I was trying to put in then I find it and then I keep on going back and forth, back and forth, back and forth.
> R: And you lose your spot. Yeah I understand. (**model explanation**)

The above example shows how the teacher can give up the power and status of being the one who knows and get the student talking to see the inner mechanisms of their learning.

The next example from Conference 3 shows how the assessment first teaching order was successful in scaffolding Student C's language for writing poetry:

*C: It's going to be like a rhyming poem. (**assessment**)*
R: ok
C: or it might be
R: You can choose to make a rhyming poem if you like.
C: It could be like music or something or emotions or something.
R: So how do you want to begin it?
C: I'm going to say I see the playground. The playground is really is going to be hard, so nobody will fall. Well that doesn't really sound like a poem so.
*R: (Laughs) Why doesn't that sound like a poem? (**assessment**)*
C: because like It sounds like somebody's talking.
*R: Okay, I see the playground. I think that's a good way to start. I think if you want to make a rhyming we'll have to think of a word that rhymes with ground. (**curriculum**)*
C: I see I see the playground.
*R: What rhymes with ground? (**instruction**)*
C: uh sound.
*R: Okay, so we need to think of a way to say sound (**instruction**)*
C: sound
R: where sound is going to be at the end of your sentence.
C: yeah so it's going to be there is a sound talking. There is kids talking as loud as an elephant.
R: So how can you say all that but make sound the last word?
*C: Kids are talking as loud as elephant sounds. (**success!**)*
R: Kids are talking as loud as an elephant sounds. I see the playground kids are talking as loud as an elephant sounds. What you think?
C: uh hmm.

The above example illustrates how using an "assessment first" teaching order during conferencing keeps instruction thoughtful and does not steal away students' intentions and purposes. This type of methodology was evident in several examples throughout the study. Frequently they were mixed with one another or used partially, however authentic questioning, miscue analysis, and critical moment teaching during conferences were still at the core of the methodology for the study.

Summary

Transcribed language samples, student writing samples, fieldnotes, and pre-interviews were sources for the data analysis described. Many domains were described in detail in the above paragraphs, however it is important to note that since the student's all had difficulty with

attention and distractibility, the semantic relationship: is a way to refocus the student emerged in the data. Upon further study, patterns in this domain emerge in the following taxonomy:

Table 11: Summary of Domain: Refocusing Students

Purpose	Examples
Related to distractions/inattention/staying on task	• Hey concentrate • Can we finish our work please? • Focus focus • Let's keep going so we don't run out of time
Related to avoidance/effort	• You wasted time • get started • come on • you need to respond
Related to difficulty following directions	• let's focus on what I just asked you • start over • whoa this is not about this
Related to rushing	• so hold on • wait a minute • Its not about just getting it done

This domain illustrates how having the SLP facilitate language learning in the classroom can have a secondary effect of helping the student stay on task and finish assignments in a timely manner in the classroom. This advantage will be discussed in relation to pull-out type therapy in Chapter 5. In addition to refocusing, patterns in the data emerged related to time restrictions. Almost every conference gave way to examples of how time was a factor in completion of the assignments. Frequently, time restrictions were the reason that the SLP moved towards empirical teaching methods. Taxonomic analysis showed that time restrictions had three main purposes:

Table 13: Summary of Domain: Time Restrictions

Purpose	Examples
Time used by student to avoid responding thoughtfully during conferences	• I really gotta hurry up • I like being late for some things • Can we speed it up a little?
Time used as warning by researcher/teacher to work faster	• We have 1 minute • We have to go faster because you're going to run out of time • We only have a few minutes left so let's get that line down really fast • Write quick quick
Time inhibits interpretative teaching	• No we can't. we have to go in (smell the trees) • That's a good idea to look it up in the dictionary but we only have 9 minutes. • We don't have time.

Time restrictions also impact service delivery decisions. This will be further discussed during the description of the focus group interview. Lastly, the researcher did not operate in a bubble in the classroom. Interactions with other students that were not participants in the study were identified in the data. There were several benefits that could be identified through the researcher's interactions with other students. These benefits are further described in the pre and post teacher interviews. They included: redirecting students to the task, modeling language targets for students, facilitating new language learning, providing further explanation or repetition of assignment directions, and overall supervision in the classroom when the teacher was absent for brief periods of time. Some of the benefits of the collaborative service delivery model used during this study are illustrated in this domain.

Phase 3: Perceptions and Attitudes

The final stages of the study involved follow-up interviews with teachers and students and a focus group interview with speech-language pathologists. This phase was designed to address question 4) Can speech-language pathologists use a holistic or interpretative framework

effectively in the reality of a public school setting (e.g., high caseloads, scheduling conflicts, multiple work locations, limited time for training/collaboration)?

Follow-Up Interviews

Semi-structured follow-up interviews with students and teachers about their perceptions of SLPs using language facilitation techniques in the classroom (see Appendix C) were conducted. Patterns emerged in the interviews of the following domains: references to empirical, references to interpretative, service delivery (benefits/disadvantages to push-in), emotion/perceptions of conferences, progress of students, and what was learned/purpose of conferences.

Overall, it was clear from the data that the teachers preferred the interpretative framework and a push-in service delivery model over the students. Students A and B stated that they preferred pull-out type intervention and Student C stated that he liked both. They cited distractibility in the classroom as the reason they preferred the pull-out model. The students stated that the SLP's office is "more peaceful than the classroom", and in the classroom "students get loud" and "I can't concentrate". A summary of the students perceptions of the conferences showed that they enjoyed the writing conferences overall and did feel that there was growth in their learning. The following comments by the students were made to describe what they learned over the course of the study:

- *Helped me writing like find facts, find information, finding lots of other stuff in writing*
- *We talk about stuff*
- *You help me with my writing*
- *I learn how to tell good stories*
- *Taught me how to write kind of*
- *Write neatly*
- *Helped me a little and I listened to her very much so I understand everything*
- *You helped me pick stuff for the best part of me*
- *You helped me write poems*
- *I learn how to say TH, CH, and SH, and my R's correctly*

Although overall feedback from students was positive about their authentic writing experience, two students did state that at times they felt like the researcher interrupted their work and one stated that "it bothered me". Lastly, Student C made references to the researcher using both an empirical and interpretative teaching style. His comments such as "I get something wrong and you help me with that" and "you're correcting me" show that the researcher was unable to make a complete shift of Student C's thinking to the help him gain ownership of his own writing. In contrast, however, Student C stated that the researcher asked him several "how come" questions, showing that he did begin to recognize the interpretative teaching style that he was unaccustomed to. Student B described the writing conferences as a time to get together and "talk". This comment seemed to show that the student viewed the interactions between himself and the researcher as a shared experience, rather than a time where he was just a receiver of information. Student A did not make any comments that are characteristic of one paradigm over another, just stating that he learned how to write.

As stated, there was a definite contrast between the teachers and students regarding the service delivery model. While students preferred to be pulled out, the teachers involved in the study favored the classroom based, push-in type intervention. They described the authentic language experience observed as a "great benefit" and one teacher stated that "I am definitely all for that" (having the SLP in the classroom). The following excerpt from the taxonomic analysis of the domain entitled *is a kind of service delivery model* shows the benefits and disadvantages of push-in type intervention as described by the teachers:

Table 12: Excerpt of Taxonomy: Service Delivery Models

    II.   Semantic Relationship/Cover Term: service delivery model
        a. Benefits of push-in
            i. Feel like they're part of the class still they're not being pulled out
           ii. They're in the classroom not begin pulled out and still feel like they're a part
          iii. Push-in was a huge advantage for that (keeping students focused)
          iv. (push-in is better than) Being pulled out to work on just speech things
           v. Helps their self-esteem
          vi. Instead of being lost
         vii. Benefit to them and the teacher to have someone helping those kids
        viii. Allowed me (teacher) to work with some of my other students
          ix. Don't think it was a distraction
           x. Made me stay on top of things
          xi. Helped me stay on track…
          xii. I can't give them that much one-to-one intervention like you did
        xiii. Kept me on my toes so that is good
        xiv. Students totally thrive on one-on-one help
         xv. Getting all that extra help
        xvi. Makes them feel better
       xvii. Keeps them more focused
      xviii. Help keep them on track
        b. Disadvantages of push-in
            i. Other students seeing R helping them…want to pull her away from targeted students…
           ii. Locked into a schedule

The data above clearly shows that the teachers prefer that the SLP come into the students authentic environment (i.e., classroom) and facilitate language development over having the student removed to a separate office. Interestingly, one teacher even states that push-in has the advantage of keeping the student focused, whereas the students stated that being pulled out of the room helped them to concentrate. The teachers also stated that having the SLP in the classroom not only greatly benefitted the student, it was an advantage to the teacher because she was able to work more closely with other students. She also stated that the researcher did spend some time helping other students that were not involved in the study, which she felt was a benefit to her. The main disadvantage of the push-in type service delivery model was scheduling. The teachers

felt that they couldn't continue with a prior lesson because the SLP was coming in at a particular time to work on writing. They felt that having a set time decreased their flexibility in the day. In the same regard, however, the teachers both felt that when a student is removed from the classroom, they miss important instruction and when they return to the classroom they feel "lost". One teacher described this problem as a "double edged sword".

The teachers also commented on the students progress over the course of the study. All included terms in the domain showed that the teachers felt students made progress with the exception of one comment. The teacher of Students B and C stated that it was "hard to measure their actual progress" because of the different genres in the writing units. She did follow up with comments that the students "did better with guided instruction", the conferences helped them be "more…manageable in their work" and that they "did help them overall". Student A's teacher felt strongly that the conferences were very beneficial. She stated that they "helped Student A tremendously", his "writing improved", and "prior to that he never would have written that much information".

Lastly, all of the teacher's responses showed that they viewed the conferences as using an interpretative teaching style. The teachers stated that the researcher helped the student in "gathering their thoughts" and used "guided instruction". She stated that the researcher facilitated the student's writing by asking questions to help them in "planning it out" and by "guiding them in the right direction". They stated that in this authentic learning situation, the student remains "part of the class". There were no included terms in the domain analysis that illustrated use of the empirical teaching paradigm. Overall, data collected in the follow-up interviews of the teachers and students supported language facilitation in the classroom. The description given of student's progress as well as the benefits of the push-in service delivery

model show that SLPs can use a holistic or interpretative framework effectively in the reality of a public school setting. More in-depth insights into the realities of SLPs in the schools are discovered in the focus group interview.

Focus Group Interview with SLPs

Phase three included a focus group interview with six school district SLPs to explore the efficacy of various service delivery models. This group interview format was used to collect a large quantity of data in a brief period of time regarding the researcher's purpose for the study. The volunteers for the study were recruited through email and gathered at an agreed upon date and time. A semi-structured protocol was used (see Appendix D). The conversation was audio recorded and later transcribed. All participants played an active role in the conversation and participants were respectful of each others opinions. Out of the six participants, two had been employed as an SLP 5-10 years, one had been an SLP for 10-20 years, and three had been an SLP for 20+ years. Length of time as an SLP did impact the depth that individuals were able to respond to questions. Domain and taxonomic analysis revealed patterns related to changes/wishes in the profession of speech-language pathology, statements regarding caseloads, extraneous duties outside of actual SLP-student interactions, opinions about data collection, student progress, service delivery models, and statements related to the paradigms. These domains were further analyzed for patterns within the categories. An abundant amount of relevant data was collected, therefore, the following chart highlights the overarching patterns discovered in the taxonomy:

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Domain	Subcategory	Examples
Is a kind of change in the profession	Data/goals	• More data driven you are, the less actual intervention, personal time (face to face time) • Push has come along where goals have to be more measurable
	Evidence/research	• More research • Evidence based practices
	Increase in paperwork	• Sad because…we got into this to help children and in the end we spend less time with children trying to get paperwork done
	Curriculum based/classroom	• More teacher driven • Swing towards more curriculum based interventions…instead of workbooks and using products • We are working with kids more in the classroom
	Population	• Kids with autism started coming along…thoroughly changed what we do • Kids typically sent to center based programs…coming back to district • Major factor (caseload size)…significantly changed over the years • First started it was mostly articulation, language, some fluency…we didn't do much voice in the schools but we didn't have any kids with autism

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of statement related to caseload size/type	Increase in autism/social communication	• More social communication aspect on our caseload • Working with a lot of ASD kids and Asperger's
	Caseload type	• multiply impaired were coming back to our districts • Articulation, fluency • AAC kids • Processing kids • LD boys • Language impaired child
	Caseload size	• Forced to see a lot of students • 60 students max…it's a problem for everybody…to try to see them they way you are supposed to • Our Michigan law should change it to 30 max, especially now with the severity
	Obstacles to push-in/authentic intervention	• Ideal way from our perspective to have all the kids grouped together (same G.E. classroom) • Child's not certified LD, they (teachers) don't get it when they have a language impairment because they sound just fine to me • Easy to do (authentic intervention) for severely impaired, autistic and then the low ones but those middle of the road ones… I think that's hard • Doesn't count in your numbers (consult) • If I get 30 minutes, I get more face time in my room • One building would be wonderful

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of statement regarding data	Positive impact of data collection	• Is the data not good for helping other speech paths with what…did work? • Data made me reconsider…realistic for this child to achieve in the amount of time I have with him
	Negative impact of data collection	• Data was kind of taking away from…clinical intervention • So robotic…just so you have data down • Lose that chance for the teachable moment, focusing on taking data on this specific skill • Harder to take data (in classroom)
	Types of data	• Data is more qualitative when I'm in the classroom • But it is narrative (push-in) compared to I think he got at 80% (pull out) • Make a data worksheet…so yes and no…easier to keep data in classroom • Numbers of opportunities • Visual chart of graph of progress
	Rationale for data collection	• They (some parents) wanted the numbers • Do the right interventions but the data doesn't always reflect that

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of service delivery model	Support push-in	• Younger students its great when you push-in • Build in the language…everyday routines within the classrooms • Observing to see whether that (goal) is going to happen • (authentic intervention) as simple as play • Push in the LD classroom w/ resource room teacher • Tried to teach…in a pull out kind of thing and he'll never get it • General classroom is more meaningful to them then the success they get when I pulled them out in my room • Even artic…better to be in the classroom and doing it with sounds through their spelling tests, through their language lessons…than to pull them out and drill them
	Support pull-out	• Hard in the classroom (scheduling) • Pull out important for the artic kids, processing kids • Pullout is essential. then you push-in with them…carryover what you've done • I get more face time with them…in my room
	Consultation/ Collaboration with team	• Helping the teacher understand the student • How they (parents) can incorporate language into daily lessons and everyday life at home • Teaching other people to do things with them… • Consultant with the teacher • Worked with social worker

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of obstacle to student progress/time with students	Teachers/ Principals/ parents	• Getting teacher that would welcome it (curriculum based intervention) in the classroom • Principal on board • Better off teaching parents • Its noisy (in classroom)/less distraction (in office)
	Time	• Obviously we can't be there all the time • A lot of communication between you and the teacher to plan • All the roles we have to play
	scheduling	• Hard in the classroom…going in thinking a certain time is writing, reading and then the schedule has changed…happens all the time in elementary • Can you ideally go into all three classes and still see the other…57 kids
	Taking data/ Paperwork	• Called into court any day to prove how much I did • Data is good but not as often as we're doing it • Want to consult…doesn't count in your numbers
	meetings	• Amendment meetings • IEPs and evaluations that gets in the way • I miss so many kids during the week
	Curriculum/goals mismatch	• Doing something completely different (goals) than what's going on in the classroom • Just need to check off my goal

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a type of progress of students	In classroom/push-in	• Harder to make quick progress (in classroom) • See them (SLI kids) functioning okay but they're missing the small things, they don't get the whole concept • Get more help to the child (training teachers) • Succeeding on a task that everyone is doing…meaningful • I can see them applying it/ carryover • Little things…will work for all the kids • 9 years ago and the kid still remembers that (authentic experience)
	Pull-out	• Worked on vocabulary (in class)… then in an individual session later you could review • Tried to teach before and after for 5 straight years in a pullout kind of thing and he'll never get it • They don't need to have a conversation with me…with their peers • Doesn't really care he got this question right (pull)
	Data/proof of progress	• 4th or 5th grade when these little changes are so small its harder to decide what they're taking in • Can't tell a parent oh they're getting it • (charts) muddy the water

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of phrase related to the empirical paradigm	Quantitative data and measurement	• Specific/ have data down • Its so robotic • Prove how much I did • Cues…that's so subjective • See the visuals
	Skill/drill	• Can't address it (teachable moment) because you are supposed to be looking at skill A • Drill and practice • Teach some isolated skills
	SLP as the expert	• Prove how much I did • I'm an expert… • This is what I want them to do • This is what I did, here're how I asked it • I even let them (parents) watch me
	Problem lies within the child	• Specific skills that they may be lacking • Hard for teacher to have special needs kids in there • They're not using enough words
Is a kind of phrase related to the interpretative paradigm	Contextual/authentic	• Everyday routines • Real life situations • Authentic intervention / context • Functional language experiences • Pushing into their world rather than taking them out of their environment • Learn better from their experiences
	Interpretative teaching style	• Modeling • Prompts • Facilitating • Incidental learning • Teachable moment
	SLP as a facilitator	• Child need to be engaged • Look at it (SLPs role) a little bit differently • Get in their world
	Qualitative data	• I put sad faces (data) • Gut feeling that this child is getting it

Table 15: Summary of Domain Analysis: Focus Group Interview with SLPs

Is a kind of wish/change desired in the profession	Decreased caseload	• Cut my caseload in half • Michigan law should change it to 30 max
	Decrease travel to multiple locations	• Being at one building with half the amount of kids or full time would be ideal • To know you are accessible
	Increased teacher/ Parent support	• Minimize data • Teachers…have a better understanding of what I'm really doing and why • Parents come in more

The data analysis above provides generally supports use of an interpretative framework by speech-language pathologists in the public schools. However, there are several obstacles to the authentic intervention also described. The positive and negative aspects of the use of an interpretative framework will be discussed in chapter five.

<u>Conclusion</u>

This chapter provided a detailed analysis of the data collected during the course of the study. It addresses all four research questions through the use of qualitative research methods. In general, the data supports the use of authentic contexts in the facilitation of language acquisition by speech-language pathologists in the public schools. A detailed discussion of the research questions in relation to the data analysis will follow in the upcoming chapter.

CHAPTER FIVE: DISCUSSION

Introduction

The purpose of this study was to employ flexible research approaches stemming from qualitative statistics to describe the complex phenomenon of language in context. The belief that children learn language best in authentic environments through their experiences, stemming from the interpretative paradigm, led to the use of an interpretative teaching framework. The aim of the study was to view the field of speech-language pathology using this paradigm. The data collected through interviews, student artifacts, transcriptions of conferences, and observations supports the research questions in several ways. The data was described in detail in the previous chapter and further discussion of the data in relation to the research questions will follow.

Research Questions

There were several topics addressed in the research questions. They explored the use of qualitative research methods to draw conclusions about learner-centered approaches to facilitate language in authentic environments. Traditional verses progressive service delivery models, required special education practices, and the realities of public school settings for speech-language pathologists as influenced by the paradigms was also addressed in the research questions. The original questions are listed below:

1. How does the empirical paradigm influence the perspective of a speech-language pathologist in comparison to the interpretative paradigm?

2. How do authentic learning contexts and techniques support language development?

3. Can progress on specific language skills be measured through qualitative methods to meet the constraints of the Individualized Education Plan, a document that is designed using the empirical model?

4. Can speech-language pathologists use a holistic or interpretative framework effectively in the reality of a public school setting (e.g., high caseloads, scheduling conflicts, multiple work locations, limited time for training/collaboration)?

The methodology and data analysis used in this study provided an abundant amount of information to address the four questions. Each question will be discussed in detail, as well as the implications for future research and lingering questions and thoughts.

Influence of the Paradigms on the Speech-Language Pathologist

Traditionally, speech-language pathologists (SLP) are educated using a medical model or impairment-based model of decision making. Proponents of the impairment view believe that the communication problem is within the person and can be remediated by teaching the absent skills (Duchan, 2001). This is described by Capra (1982) as the empirical model. The empirical lens causes the SLP to view a child's disability as a hierarchy of skills to be taught. This skills based approach has led to use of contrived contexts for teaching skills and minimal consideration of contextual/personal factors. The learner is placed in the passive role, with the SLP as the expert who is transmitting their knowledge of language to the child. Although widely used in practice, the empirical model has been challenged for its efficacy. In order to accurately study language, one must examine the context of interaction (Wells, 1986). For the child with a language learning impairment, the problem may not be within the child, it may be that the context needs to be modified. Viewing the student's language as a whole, rather than a set of skills to be taught, comes from the interpretative paradigm (Capra, 1986). The holistic model has challenged the field of speech-language pathology to seek alternative methods to understand language acquisition and disorder. The premise of this study was that qualitative research methods, that situate an individual's communication in authentic contexts, are the best approach to bridge the

gap between research and practice. The data collected in this study described the influence of the paradigms on the perspective of the SLP.

The Empirical Lens

Evidence of the empirical paradigm was shown in various data sources during the study. In the initial teacher interviews, it was apparent from one teacher's statements that she viewed the SLP as an individual who is grounded in the empirical model. For example, when she described the role of the SLP, she stated that "its someone who's part of their IEP. They usually have goals set for the student and they relay those goals to us as teachers". The teacher then goes on to state that "sometimes students are pulled out if it's a specific skill they need to work on". These statements were evidence that the teacher viewed language and the SLP's role as one to "fix" the child's internal language impairment. In contradiction to the empirical model, however, she described how the SLP came into her classroom and worked with students, which was supportive of the interpretative model. It is felt that the teacher's viewpoint may be different than those in other settings where a strictly traditional model of pull out intervention is used. In the teacher's experiences at the research site, the SLP had been utilizing a mix of traditional and progressive service delivery models for several years.

In the conferences held with students, there was evidence that that I struggled to stay within the interpretative paradigm throughout the study. Although I had been making a shift away from the empirical paradigm in practice over the last several years, there were many extraneous factors that continued to cause me to fall back on empirical methods. The requirement by administrators and state law to provide quantitative measurement of goals/objectives was one reason. Another reason was time restrictions in the classroom. Often times the participants needed several probes in order to scaffold their written language towards

the accepted format in the classroom. The writing conference time allotted was usually not long enough for this to occur, and I would resort to directing the student on what to do to get the product done. Unfortunately in those times, product would take precedence over process. In these instances, guiding the child to construct their own knowledge of language was abandoned.

The empirical model of speech-language pathology was further exemplified in the focus group interview. This panel of SLPs used statements that were classic of the medical model. For example, one SLP described herself as an "expert" and there were several statements related to getting the child to do what "I want them to do". They faulted the language impairment as a dysfunction of the child in statements such as there are "specific skills that they may be lacking". This is evidence that the SLP's that were interviewed believed that the problem lies within the child and their role is to change the child's interactions. Although there are several statements regarding use of interpretative teaching techniques, there was minimal evidence that the SLPs viewed the language learning impairment as a function of the context or other factors. In the discussion of service delivery models, consultation was listed. This model placed the SLP in a collaborative role to help teachers and parents understand the child, therefore leaning towards facilitating change of the context. However it still placed the SLP in the expert role, supportive of the empirical model. Lastly, the SLP's interviewed frequently described the work they do with students as teaching skills. This was also supportive of the empirical paradigm, in which language is broken down into its most elementary parts and taught in an isolated fashion. Looking at language holistically through discourse was discussed, however the conversation kept returning to the discussion of data collection and measuring language skills objectively. There appeared to be a desire to move away from teaching isolated skills in contrived contexts, however the framework on how to initiate that paradigmatic shift was not part of their repertoire.

The Interpretative Lens

The interviews and teaching methods used in conferencing all provided evidence of the interpretative paradigm. In the teacher interviews, the researcher was described as a "support person" and a resource to all students in the classroom. The teachers stated that the researcher provided guided instruction and helped the student remain "part of the class". This was evidence that authentic contexts and teaching methods were recognized as beneficial for the students involved in the study. The students also recognized the interpretative paradigm used, which they state that the researcher attempted to facilitate their thinking through questions.

In the conferences, patterns emerged on question types used. In every conference, there was evidence of authentic questioning techniques. This illustrates that the interpretative framework was used to facilitate language acquisition. Interestingly, the open-ended questions used elicited language for several purposes (e.g., explanations, planning, emotional response, clarification, and reflection). The researcher was unaware of these purposes at the time of the conference, as conversation flowed naturally and was not pre-planned. However, analysis of the purpose of authentic questions showed that using authentic inquiry further developed higher order thinking skills, or cognitive processes, as understood by social interactionist theory (Bodrova, 1996).

The interpretative view is also emphasized the analysis of student's miscues, rather than errors. In most instances, the researcher used scaffolding techniques to prompt the preferred language structure, rather than correcting. At times the scaffolding sequence was abandoned due to student distractibility or time restrictions, however the language structure was frequently revisited in later conferences. This was evident in Table 11. In this chart, Student A was able to

show that he can self-correct and use language structures spontaneously throughout the course of the study.

References to the interpretative paradigm were apparent in the focus group interview. Although most statements were grounded in the empirical model, the SLP's interviewed described themselves as facilitators of language acquisition in statements such as "just get in their world" and "expose them to language and experiences". They also have had exposure to authentic teaching methods, using terms such as modeling and incidental learning. There was an understanding of the importance of context in language acquisition, as the SLP's state that the use of "real-life situations" and "authentic intervention" were valued. Although facilitating language through authentic contexts was valued, several barriers to this type of teaching were listed. It was felt that some of these barriers could be overcome by viewing the SLP's role with a different lens.

Shifting Perspectives

As a speech-language pathologist that is able to view language from both the empirical and interpretative paradigms, I felt that the SLP's struggled to shift to the interpretative lens for several reasons. Most prominently, they are continuously held accountable by state and federal laws to prove that the work they do with students is effective through numerical ways. They must prove this on evaluation reports, IEP paperwork, for Medicaid billing, and for parents that want specific graphable data. This was supported through statements during the focus group interview such as "I may get called into court any day to prove how much I did". In general, qualitative research methods were poorly understood. They expressed several statements that led me to believe that the SLP's interviewed equated qualitative data with subjectivity, which was considered unreliable. Qualitative data was not given the same value as quantitative data.

Possibly the type of research that SLP's are exposed to greatly influences this difficulty in shifting paradigms. At the current time, the majority of research in the field has used quantitative designs and statistics (Hammer, 2011). The stripping away of language context in quantitative designs has been problematic for bridging research outcomes to practice. In addition, fragmenting language into its most elementary parts is the basis for writing measurable goals/objectives for IEPs. Since evaluating students and writing IEPs is integrated into the SLPs role on a daily basis, which stems from an empirically based model, it is very difficult, even for myself, to shift towards the interpretative framework. Systematic change through education on different data collection methods is needed. I feel that by asking SLP's to abandon their expert role and participate on a team with teachers and parents, they could view the child holistically. If SLP's had a different lens to view their position in the public schools, they could see themselves as a facilitator of language in the child's environment rather than an expert who is there to transmit their knowledge to the child. This study shows that measurable language growth can occur using the interpretative framework.

Summary

This study looked to explore the depth of the empirical verses interpretative paradigm that were ingrained into the SLP's philosophy. The benefits and obstacles to authentic teaching methods and qualitative data collection will be further described in the following paragraphs.

Authentic Learning Contexts/Techniques to Support Language Development

In authentic learning contexts, the teacher's role is to create an environment conducive to learning and to facilitate the learner's course (Dewey, 1944). The teacher or SLP uses strategies such as scaffolding, inquiry, and discourse to direct their learning, all which stem from the interpretative paradigm. In addition, this study used critical moment teaching to help children

learn a new idea in an authentic situation that arises from their own miscues. Interpretative questions described by Goodman (2003), Wood Ray (2006) and Graves (1994) were integrated into every student conference.

Inquiry

Most conferences began with an interpretative/authentic question and then several more were intertwined throughout the conference. These questions were designed to get the students to explain their own thinking, otherwise known as metacognition. Goodman (2003) describes metacognition as the "activity of humans thinking about their own language or thought processes" (p. xviii). Interpretative, or open-ended questions, had several purposes upon further analysis (see Table 8). They were used to elicit an explanation, to help the student plan, for clarification, to elicit an emotional response to the writing/dialogue, or to help the student take another's perspective. For the students in the study, responding to open-ended, "thinking" type questions was unfamiliar to them. Frequently, students were not able to explain their thinking and would respond with "I don't know". Over the course of the study, there was evidence that students were beginning to become more comfortable with interpretative questions. The amount of "I don't know" responses began to come in line with the amount of times that the student stated "I think" type language for Student A (see Figure 1). Although I was unable to achieve the ideal ratio described by Graves (1994) that teacher to student talk should be 20:80, by the end of the study for most conferences, an approximate 50:50 ratio was achieved. This was considered to be an improvement upon the data cited by Eodice (1998) that most teachers speak 70% more often than students in a typical teacher-student interaction.

Although interpretative questioning was used as often as possible, the conferences contained many instances of closed-ended questions and directives. When analyzing the data in a

given transcript, I felt that I failed as a language facilitator when there were several instances of closed ended questions. However, upon further analysis, I realized that I had not been only correcting the student, but the questions/directives had served the purpose of eliciting clarification of the teacher's directions, to check comprehension, to quicken/slow the student's pace, and to provide reminders of previously learned information/IEP goals. Since all three of these students had attention difficulties in addition to the language impairment, a significant amount of refocusing through questioning and directives was needed to guide the child towards the preferred response. I realized that both open and closed ended questions were necessary to keep the conference productive and completed in a timely manner.

Teachable Moments

A surprising finding in the study was the depth and variety of teachable moments. This was unexpected because I did not realize when planning the study that there would be four different writing genres covered. I had expected more personal narrative type writing to occur. Although this genre switching made comparing writing samples much more challenging, it provided an extensive list of topics covered in a teachable moment (See Table 10). Topics included and then extended far beyond the typical "skill" type language learning (e.g., past tense verbs, definitions). There were topics that facilitated deeper language learning that would typically move the student beyond traditional speech-language intervention (e.g., visualization, paraphrasing). In addition, since the conferences occurred in authentic situations, all the topics were meaningful to the student and were not contrived because of a pre-determined IEP goal. Even though the topics were not pre-determined, the list of teachable moments covered all of the student's IEP goals/objectives repetitively. This authentic learning led to growth in language acquisition that could be measured qualitatively.

Student Growth

All participants showed some level of growth in their oral and written language development during the course of the study. Growth on specific IEP goals/objectives as well as in other areas covered in teachable moments was triangulated through the multiple data sources employed. Growth in relation to each specific student is described below.

Student A

Receptive-expressive language, pragmatics, and speech intelligibility were the areas that Student A showed delays on formal evaluations. Goals and objectives that addressed these areas of need were written in his IEP. Taxonomic analysis of the conference transcriptions showed that pronouncing multi-syllabic words, rate of speech, topic maintenance, syntax, and conjunctions were all areas of growth. This growth is shown through discourse examples, self-corrections and spontaneous use of the language structure (see Table 11), and the average scores received on the written language rubric. His teacher also supported the finding that Student A showed significant growth in his language skills, stating that the support "helped Student A tremendously". This data substantiated the question that authentic learning contexts and techniques support language development.

In addition to the qualitative data collected that support language growth, Student A made several comments during conferences and interviews that helped me come to understand how he views himself as a thinker. He showed low self-esteem when making comments such as "I'm not actually that smart". He would frequently apologize if he made what he viewed as an error in his responses. I would reiterate to him that there is no right or wrong answers and to just tell me what he was thinking. I would use self-talk phrases (e.g., "I'm wondering") to help him develop metalinguistics, or "talking about language" (Goodman, 2003, p. xviii). Student A was simply

unaccustomed to this interpretative type of instruction and he struggled significantly with explaining his thoughts for the first half of the study. He also made comments that showed that he did not connect thinking and learning. For example, when asked during one conference what he was thinking about, he stated "oh it's not thinking, it's just finding". Frequently, Student A would try to rush the conference to complete the assignment and would not desire to explain his thought process. He would get frustrated and state "I don't know" or use an angry tone of voice. He would ask me "can we speed it up a little?" when he did not want to discuss his plan for writing. Throughout the length of the study, Student A began to view himself as a thinker. He made a comment in a later conference that illustrated this; when asked an interpretative question, he said "wait I gotta think first. Brain thinking machine going on". There was also an increase in the use of words such as "think" and "wonder" (see Figure 1). For example, at the end of a conference that we had attempted to write research facts and had run out of time, Student A said "I think I should have a solution tomorrow". This comment, along with his recognition that the conferences improved his writing during his post-interview, show that Student A made emotional and metacognitive growth during the course of the study. This is vital when looking at the child holistically.

Student A also provided important insights to consider on how he views the SLP in relation to his classroom teacher. It is clear through his comments during conferences that he did not view the SLP's instruction as an equal to his classroom teacher instruction. This is illustrated through the following conversations:

A: I gotta show Ms. D this.
R: No you don't. You are showing me and I'm a teacher too.
A: Well you can tell Ms. D.

R: People are coming to Alaska to explore. It is called the last frontier. Does that make sense?

A: Well I don't know but if I get yelled at.
R: you're not going to get yelled at A
A: maybe…

A: (after I have given him the directions) I'll just wait for the directions about this ending ok?

The above conversations made me consider what I could be doing differently to help students view my role in their learning as meaningful. I believe that since there were times that I had missed instruction not being in the classroom all day, I lost some credibility in the eyes of the students. Most SLPs are unable to spend large chunks of time in the classroom to see through entire assignments, nor would that even be necessary. Possibly more pre-planning with the classroom teacher to understand the aims of the written assignment would elevate my ability to gain the confidence needed from students. Also, more opportunities to co-teach the lessons in the classroom would show students that I can be a trusted resource in the classroom also. Team based service delivery models will further this discussion on how to gain student confidence and therefore facilitate global change in the learning process, rather than just working on language skills in isolation.

Student B

Student B showed inconsistent growth in written language, articulation, and behavior during the course of the study. Many emotional struggles impacted his ability to learn, stemming from his home as well as his difficulty learning and maintaining peer relationships. He struggled significantly to maintain focus and work cooperatively with teachers and peers. His poor intelligibility when speaking with others further impacted his social relationships. All of these factors negatively affected his speech and language growth. Despite these obstacles, there was evidence of progress on his IEP goals. He frequently self-corrected his sound substitutions and began to show evidence of carryover orally and in writing. Overall, his attention to his own

speech intelligibility increased with the conferences. In addition, the context used to practice his sounds was authentic. Traditionally, students with articulation impairments are "drilled" using random words containing target sounds. In the interpretative format used, Student B learned to articulate sounds with words he was using regularly in the classroom.

Although there are numerous benefits to the use of authentic contexts for language development, students with articulation impairments may have an additional factor to consider. The presence of sound misarticulations and the modeling used to facilitate the accepted sound are more obvious to surrounding peers than language modeling. There were times that Student B appeared embarrassed of my prompts to repeat himself or when a target sound was modeled. This embarrassment caused him to refuse to participate. I feel that in some instances for students with articulation impairments, especially older students, it may be better for the SLP to provide articulation prompts in a private location. The materials used in the therapy, however, should still stem from the curriculum. Once the student has shown the ability to use the sounds independently, the SLP could help the student self-monitor their intelligibility in the classroom through presentations and read alouds. SLPs in the schools should use a variety of service delivery models to best meet the needs and personality factors of their individual students. By viewing the child's learning holistically, considering both emotion and learning styles, SLP's can facilitate meaningful speech and language growth.

Student C

Student C was most responsive to the interpretative framework used in this study. He was more comfortable with the inquiry style used in the conferences. This is shown by the length and depth of his responses in comparison to Students' A and B. His language skills had previously been evaluated through formal measures to be the least impaired. He had also never been

removed from the general education curriculum to the resource room during his schooling. I felt that this made a significant difference in his ability to converse openly about his thoughts. This talking about thinking further developed his metacognitive skills. In addition, through the conferences, he was able to stay on task and follow directions. He was completed assignments in a timely manner. His teacher stated that the interpretative framework used helped "keep him more focused" and "on track". This also resulted in average writing rubric scores on the written pieces developed during the course of the study (see Appendix A).

Scaffolding sequences were described in Chapter Four that illustrated language growth for Student C. The growth was difficult to capture without a rich description. This rich description, often times lengthy, would not be suitable data for IEP requirements. Ways to describe qualitative data that meets the objective nature of the IEP is an area that SLPs struggle with. Some thoughts regarding the use of qualitative data while continuing to meet IEP requirements will follow in subsequent paragraphs.

Push-in vs. Pull-Out

This study used a "push-in" or collaborative service delivery model. Collaborative service delivery is designed to facilitate language acquisition within natural settings to make learning more meaningful and effective for students. It contrasts with the "pull-out" model of intervention, where frequently artificial tasks are used in contrived situations. This study supports authentic contexts for students with language learning impairments. Through this model, all participants showed growth in their IEP goals/objectives, as well as overall metacognitive growth.

The model was supported by the classroom teachers in the interviews in the following statements:

- *The speech path's I've worked with are pretty good about moving about the room and just spending the most time with their students but making it seem like they are a helper to all the students in general.*

- *The speech path when she pushes in she can see what the teachers are doing*

- *I like when the speech pathologist comes into the classroom. It's an extra set of hands. I think its helpful for the student and the rest of the class.*

- *I think it definitely helps them and keeps them more focused.*

- *I think that students feel like to helps their self esteem (push-in)*

- *The kids that you see are the needy kids so that (push-in) allowed me to work with some of my other students who don't necessarily get speech and language services. So I think it was a huge benefit.*

- *I can't give them that much one-to-one intervention like you did. So that was very beneficial*

- *They feel like they're part of the class still when they're not being pulled out*

- *The benefit of that (push-in) is that they're really getting all that extra help and I think that makes them feel better.*

The teachers that participated in this study were positive about the collaborative service delivery model used. They found it beneficial for all their students, not just those that receive special education support. They reported that having two teachers in the classroom helped the students with language impairments be more focused and gave the classroom teacher more time with less "needy" students. They also spoke of the emotional benefit to a collaborative service delivery model, stating that it helps students self-esteem by keeping them included with other typically developing children. The primary disadvantage to the push-in model was scheduling. The teachers stated that having the SLP come into the classroom forced them to stick to a schedule. In my opinion, there is no way to avoid this issue. SLP's have high caseloads and therefore there

is not always a significant amount of flexibility in scheduling. When the teacher and SLP are working as a team to help students learn, there will always be some level of compromise to best meet the needs of the students.

In contrast to the teacher's positive opinion of the push-in model, the students identified in their post interviews that they preferred the pull-out model of intervention. They stated that the classroom is "always noisy" and "ruins my concentration". They stated that the SLP's office is "more peaceful than the classroom". Two of the three students also felt that the researcher's presence in the classroom was sometimes an interruption rather than a support. I believe that there were several reasons that the student's felt this way. All three students have attention and distractibility issues, two of them diagnosed with ADHD. Students with ADHD historically struggle with written expression. Therefore, a less distracting environment than the classroom may be a benefit for them in some instances. In addition, typically work on IEP goals was hidden within the context of a game when the student's worked in the SLP's office. Since the student's are young, they may perceive playing a game as more enjoyable than working on writing in their classroom. Pull-out services may be an escape from "doing the work". This was shown in the student's statements that in your office we "get to play games" and "we don't really do that in our classroom". Lastly, since the student's are young, they are not always able to reflect on their own language ability and how the interpretative model was successful for them. Possibly if the study was repeated with older students, the preference for push-in verses pull-out intervention may be different. Older, or more reflective students, may be able to see that being removed from the classroom may cause them to miss important instruction and hinder their academic success.

The focus group interview with SLP's brought a different perspective about authentic language contexts to the service delivery model discussion. In this interview, three primary

service delivery models were discussed: push-in, pull-out, and consultation. Generally, the SLP's supported push-in intervention, stating that it is meaningful and functional to the student, provides an opportunity to observe carryover of goals, and supports the general education curriculum. The SLP's felt that this type of approach was best with students with severe disabilities and young children. They felt that there were many obstacles to push-in intervention with older students and those who receive most of their instruction in general education (e.g., high caseloads, scheduling). These obstacles will be described in detail in subsequent paragraphs.

There was variation among the group of SLP's on when a pull-out model should be used. Some of the SLP's interviewed felt it was appropriate for students with articulation, fluency, and processing impairments. Others felt that pulling students out gave them the ability to work more specifically on a target skill and that pushing-in did not always give students enough opportunities to address the IEP goals. It was stated that there was frequently a mismatch between a student's IEP goals/objectives and what is happening in the classroom. In my opinion, if the goals do not match the curriculum and expectations of given grade, there is problem with the goals, not the authentic service delivery model. When SLPs, teachers, and parents work together to write goals and objectives, there should not be a mismatch with what is happening in the classroom. This was an excellent example of SLP's using an empirical lens, focusing on a set of skills to be taught rather than what is happening with the child's communication as a whole. Goals should not stem from the results on a standardized test alone. That information must be combined with artifacts from the classroom, observations of the student in their authentic environment, an understanding of the student's personality and learning style, and a knowledge of the curriculum. Goals/objectives should not be pre-determined by the SLP alone and he/she

should not be the sole service provider. In this team approach, there should not be a fragmentation of a student's skills and abilities (ASHA, 1991).

Lastly, consultation with teachers and parents was supported to make systematic change to the environment and instructional approach. Consultation, however, gives one a negative impression. It makes the SLP sound like an expert, present to tell the teacher or parent what to do differently. Identifying yourself as a member of a team to facilitate language growth would make the teacher and parent feel that they are on equal ground. Each member in a collaborative service delivery model must feel that their input is valued to benefit the student. Cooperation among team members is necessary and an abandonment of professional "turf" must occur.

Summary

Students with language learning impairments need to be taught in authentic contexts using methods that encourage talk. They need to learn to use language to construct their own knowledge of the curriculum. Strategies such as authentic questioning, critical moment teaching through miscue analysis, and scaffolding using a interpretative framework were used in this study. The report of student growth described through qualitative research methods supports the use of authentic contexts in this study.

Qualitative Methods and the IEP

Data collection of student progress is not only important, it is required by special education law. This fact is ingrained into the daily work of SLP's as well as other professionals who work with students with special needs. Data collection makes one accountable for what they are doing with a student. It is used to justify treatment decisions, prove effectiveness, and convince others of progress through intervention (Olswang, 1994). Keeping the importance of data in mind, good clinical decisions can only be made if the data collected meaningfully

describes the interaction that occurred. For the complex phenomenon of language, quantitative data alone does not suffice. Qualitative research offers a "richer and more detailed description of the phenomenon under investigation than do more numerically oriented quantitative studies" (Damico, 2003). Even though it is recognized that qualitative data is crucial to accurately describe language, the subjective nature of this type of data contradicts the requirements of the IEP. Since all students with identified special needs must have progress on goals and objectives monitored through the IEP process, this poses a problem for SLP's that value authentic data collection. This study was designed to address the question: can progress on specific language skills be measured through qualitative methods to meet the constraints of the Individualized Education Plan, a document that is designed using the empirical model?

Writing Goals

Results of this study did provide some suggestions on use of qualitative data that could be documented on an IEP. First of all, the transcriptions of the language conversations provided a wealth of information on frequency of miscues. This information could inform the SLP when making decisions on appropriate goals/objectives in the future. The authentic context provides the SLP with an understanding of the curriculum and what kinds of goals would be meaningful and authentic. For example, if an SLP wanted to work on sentence structure with a student, they may write an authentic goal in an IEP such as "the student will self-correct deviations in verb use given modeling in oral and written language" rather than a skills based goal, such as "the student will use past-tense verbs in sentences". The authentic goal could still be measured quantitatively to meet the requirements of the IEP, by counting the amount of times the student self-corrects. Authentic goals such as the above example could be facilitated through reading, writing, science, and social studies curriculums. When the SLP writes thoughtful goals that lend themselves to the

curriculum, an authentic service delivery model is more desirable. For the participants in this study, Student C had a mismatch of goals and service delivery. His goals were skills based and were to be measured using percentage correct. For example, it was identified that Student C needed to improve his expressive vocabulary. So the goal was written that he would "compare and contrast curricular vocabulary in 75% of trials". Although the goal was written so that the SLP would use authentic vocabulary words drawn from the curriculum, the frequency that this type of activity naturally emerged in the writing conferences was minimal. Therefore, it was difficult to measure language growth on the goal. By understanding the nature of the context, a better way to write a goal to target vocabulary may have been that "the student will explain their thinking in response to why/how questions by using 1-2 vocabulary words from the curricular topic being discussed". This goal could be measured quantitatively for IEP purposes and could be addressed in any curricular area. Goals must lend themselves to naturalistic data collection. In summary, by understanding the curriculum and the context, SLP's can write authentic goals that can be measured in the classroom using a push-in service delivery model.

"Quantifying" Qualitative Data

The field of speech-language pathology is beginning to value qualitative research methods, which situate the communicative lives of individuals with language learning impairments in social and cultural contexts (Hammer, 2011). In order to understand social interaction, actual descriptions of behavior (e.g., interactional strategies, conversational devices, grammatical structures, discourse markers, social activities) are needed in addition to numerical data. A qualitative research design was used in this study to show growth in language development through authentic contexts. However there was an attempt to quantify the qualitative observations to make them reportable on an IEP. It is impractical for SLP's to record

and transcribe interactions with students on a regular basis. Transcription is very time consuming and usually reserved for evaluation purposes. However by designing authentic goals described in the last section, the SLP can listen for specific words or structures within the context of discourse. Facilitation of the language structures can be prompted from student miscues or through teachable moments. These specific words or structures can than be quantified for IEP purposes. An example of this type of data collection is shown in Table 11. I was able to track growth of specific syntactical structures by counting revisits of the structure, self-corrections, and spontaneous use. This data could be reported to show progress on an IEP document. Another form of putting qualitative observations into a quantifiable report is through the use of rubrics. Written language, narrative telling/retelling, and discourse rubrics have been developed in the field to describe a student's language in narrative form while still quantifying growth (McCabe, 2008; Newman, 2006). Despite their value, rubrics have been limited in the field of speech-language pathology. A written language rubric was used in this study to show written language growth over time (see Appendix A). I believe that use of rubrics could be increased in the field of speech-language pathology. They could easily be reported to show progress on IEP goals, with criterion such as "the student will increase two points on a retelling rubric after six weeks of intervention". In time, I hope to discover more ways that qualitative data can be used to track student progress in ways that are transferrable to the legal requirements of IEP's. Unless the individuals that write special education law change their paradigm, qualitative researchers will need to continue to find ways to "quantify" qualitative data.

The Data Debate

An unintended but significant portion of the focus group interview with the SLP's was about data collection. Legal and procedural requirements to collect objective data frequently

about student progress was an area of contention among most of the SLP's that participated. Taxonomic analysis of the statements regarding data domain revealed the positive and negative impact of data, types of data collected, and the rationale for data collection. In this analysis, the negative impact far outweighed the positive. The primary reason that the SLP's reported negative impressions of objective data collection was that they felt it interfered with their ability to interact naturally with the student. This was shown in the following statements:

- *The more data driven you are, the less actual intervention, personal time, face to face time you can spend with the kids.*

- *We spend half our session taking data and not doing clinical intervention*

- *Its so robotic…just so you have data down*

- *You lose that chance for the teachable moment…focusing on taking data on this specific skill*

- *It's harder to take data (in the classroom)*

The SLP's also comment that the requirement to collect frequent data inhibited their ability to see students in their natural environment. They stated that its "tough to take data" in the classroom and its easier to take "good data" in pull-out sessions. This ability to take "good data" is supported because the SLP's felt they could elicit more opportunities of a specific skill and therefore report progress in percentage form. This is another example of the empirical paradigm, where language skills are fragmented in an attempt improve language through decontextualized exercises, with little consideration of how the targeted skill is carried over into the classroom. Some of the SLP's expressed this internal struggle, stating that they understand how facilitating language in the child's natural environment is more meaningful, however there may only be one or two opportunities to target a specific skill, so "if I get thirty minutes…I get more face time…in my room". Overall, data collection appeared to be a barrier to using naturalistic

environments. The SLP's involved in the study did not appear to have a strong knowledge base on how to collect qualitative data in a systematic way. They described qualitative data as narrative and subjective, which is accurate, however they felt that this type of data was not as valued as quantitative data. One SLP commented that "data is more qualitative when I'm in the classroom so I might write a narrative about…they were pretty good today. They seemed to get the task. They needed extra prompting…those kind of data facts…but its narrative compared to I think he got an 80%". In part, this preference for quantitative data stemmed from IEP requirements. However, since SLP's are schooled in the empirical model, they have not had the experience and training on systematically collecting qualitative data. In my experience in speech-language pathology at two Michigan universities, only quantitative statistics classes were required as part of the degree. In order to make qualitative research and data collection methods a part of the SLP repertoire and help them to shift from the empirical to interpretative paradigm, a different lens must be encouraged from the beginning of schooling and continue through professional development opportunities throughout one's career.

Summary

There are many ways that one can come to understand a student's language holistically. The use of quantitative data alone is not sufficient. Qualitative research methods are an integral part of understanding and reporting a student's progress in language acquisition. The legal requirement to be objective in data reporting inhibits use of the qualitative paradigm. This study has shown ways to write meaningful goals to be facilitated in authentic environments and still "quantify" the progress collected both through qualitative and quantitative research methods. Although further exploration is needed in this area, this study supports the original question that

progress on specific language skills can be measured through qualitative methods to meet the constraints of the Individualized Education Plan.

An Interpretative Framework for Speech-Language Pathologists

The primary aim of this study was to view the field of speech language pathology using a holistic or interpretative framework. It explored traditional verses progressive service delivery models, required special education practices, and the realities of public school settings for speech-language pathologists and how they are influenced by the paradigms. The study was designed to challenge the medical model of "pull-out" intervention and its ability to meet the needs of students with language learning impairments in the public schools. This aim led to the research question: Can speech-language pathologists use a holistic or interpretative framework effectively in the reality of a public school setting (e.g., high caseloads, scheduling conflicts, multiple work locations, limited time for training/collaboration)? Several data sources were used to respond to this question, including the teacher interviews, fieldnotes about conferences, and the focus group interview.

From the belief that language should be treated as a "contextualized interactional phenomenon" to be meaningful to children, I chose the natural environment (e.g., general education classroom) as the setting for this study (Kovarsky, 1997). Writing conferences were chosen as the curricular avenue because there were significant opportunities for interpretative teaching methods, such as scaffolding and critical moment teaching. In addition to being authentic, writing allows students with language learning impairments to reflect on their language production, revise or provide rationale for miscues, and provide opportunities for self-monitoring and carryover of specific language structures outlined in their IEP goals (Nelson, 2004). It is possible that other curricular areas could have been chosen as an avenue for authentic

instruction for SLP's, such as oral and written responses to literature, science, or social studies; even math reasoning gives students the opportunity to explain their thinking. Besides the abundant scaffolding opportunities that occurred during the writing conferences, the other primary benefit to choosing writing was that students were working independently. Frequently SLP's struggle to gain opportunities to interact with their students in the classroom when the teacher is instructing the group as a whole. This leads to difficulty in showing progress in data collection, therefore SLP's will pull students out of the natural environment to get more "face time". Therefore it is important to collaborate with teachers on the best times to "push-in" to the classroom so that you do not become a quiet observer. Seeking times that the students are working in groups or individually are typically the best opportunities. Although teachers in the post-interview stated that having a set schedule that the SLP comes into the classroom was a disadvantage because they must give up the flexibility in their day, the benefits of a collaborative service delivery model still outweighed the disadvantages. It is important to note that I conducted two conferences per week with each student for approximately 15-30 minutes each. This time was also divided among two students in one classroom. This frequency was chosen purposely, because it matches the time that most SLP's are able to service students. It was important to me when designing this study that the times I saw students was realistic for the average school based SLP. Therefore, results could be transferred to real-life situations. At times, this time constraint was frustrating, because a meaningful interaction had to be abandoned because writing time was over. This was just an aspect of reality of the public schools, however, and was out of my control. Despite this somewhat limited timeframe with students, it is evident through multiple sources that the participants were still able to grow in their language ability.

An Account of Reality

The focus group interview with six district SLP's provided valuable information about the realities of the public schools. Patterns in the analysis of this interview that address question four emerged, such as historical changes in the profession, caseload size/type, service delivery models, and future wishes for the profession. Each domain will be discussed in its relationship to the interpretative framework.

Historical Changes

The field of speech pathology was rooted in the medical and educational fields. When the profession originated, SLPs typically specialized in sound disorders, stuttering, and voice problems. Language learning impairments were added to the scope of practice much later. Currently, speech sound disorders and language disorders are the most common communication disorders treated in the schools (ASHA, 2010). The participants in the focus group interview had been employed as SLPs for 5-30 years. Length of time they had been an SLP did affect their perspective on the changes that have occurred in the profession, however the primary areas that were identified were an increase in evidence based practice and accountability, increase in paperwork, more emphasis on curriculum based instruction, and changes in the population of students seen. According to the data collected in this interview, the "job is being more data driven". When the SLP's spoke of data, they were referring to quantitative data. They stated that a "push has come along where goals have to be more measurable". These statements align with the claim that evidence based practice must be used in the field (Duchan, 2002). Unfortunately, the increase in accountability described by the SLPs and supported in current research has caused the paradigmatic pendulum to swing farther to the empirical side in the field of speech-language pathology. Conflicting with this empirical swing, however, was the push described to use more

curriculum based practices and deliver services in naturalistic environments. Therefore, most SLPs do not have the experience and training to mix the two entities, by providing authentic intervention while still collecting objective data, so they feel they must choose. Unfortunately for students, many SLP's chose accountability of data due to legal and administrative pressure. Comments by SLPs such as we "spend less time with children trying to get our paperwork done" are discouraging.

The other major historical change in the profession that was described by the SLPs was the population of students. They felt that the students on their caseload were more severe now than they had been in previous years. They stated that "kids typically sent to center based programs were coming back to the district". They also felt that the rise in autism had thoroughly changed the profession. One SLP stated that when I "first started it was mostly articulation, language, some fluency…we didn't do much voice in the schools but we didn't have any kids with autism". Despite the increased severity reported of students, there continued to be a rise in the size of the average SLP's caseload. The general consensus was that they were expected to provide more intervention with less time. This frustration was shown in the statements "what do they think we can do with 60 kids" and "what kind of intervention do they really think we can make". This perspective, although not invalid, was empirically based, viewing the student as having more severe deficits than they did in the past and not considering the changes that have occurred in their environment. There was no discussion about how the classroom is structured and what kinds of academic requirements were expected of students. There was also a sense that all the responsibility to facilitate language growth with students was on the SLP's shoulders alone. A paradigmatic shift to an interpretative, collaborative model of intervention would help SLP's resolve some of this frustration. It would allow SLP's to view language learning

impairments as a function of the context a child participates in, therefore facilitating change of the environment would have a more pervasive effect. Also, by working within a team, SLPs could alleviate some of the pressure they feel to be the sole provider and data collector on language growth. As one SLP stated, "you can't (and shouldn't) follow them".

Service Delivery Models

The literature review revealed that most SLPs use a variety of service delivery models to provide services to students with speech and language impairments. The most common service delivery model used currently is pull-out (ASHA, 2010; Brandell, 2011). This research matched the data collected during the focus group interview. For students with language learning impairments, it is recommended that a collaborative service delivery model, or push-in services are utilized (ASHA, 1991). A discussion of the different service delivery models and the rationale for their use ensued in the focus group. All of the SLP's in the study recognized that push-in services was most meaningful for students, however they cited several reasons why they do not use the model regularly. The primary reason was caseload size. Michigan law states that the maximum caseload size recommended for school based SLPs is sixty students. It does not account for the student's age, severity of disability, or multiple work locations of the SLP. Administrative and monetary support are the obvious avenues to decrease caseload size, which are not typically viable options in today's economy. Therefore, SLP's must find creative ways to effectively provide services to large numbers of students. Another obstacle to push-in services described by the group was scheduling. All of the SLPs work in multiple buildings and have students in several different classes within each building. In order to provide services to all students with IEPs, the SLPs chose to pull similar grade students out of class and group them together. One SLP stated that she may have "fifth graders in three different classes…can you

ideally go into all three classes and still see the other…57 kids". It was stated that some administrators that support push-in services may group students with special needs together in the same classroom, however this made it harder for the classroom teacher. In addition to the limited amount of time SLP's with high caseloads can spend inside classrooms, it was also cited that its "hard in the classroom because…going in thinking a certain time is writing, reading and then the schedule has changed…happens all the time in elementary". These statements support the teacher's description of the disadvantage of SLP's pushing into the classroom, stating that it "locks me into a schedule". In my experience, if the instruction provided in the classroom is valuable to the teacher and there is good communication, he/she will make the time within their day to accommodate push-in services. Establishing teacher and administrative support for push-in services is a primary role of an SLP that wants to use authentic intervention practices. The group of SLPs stated that another obstacle to collaborative service model is "getting a teacher that would welcome it in the classroom", getting a "teacher to really buy in", and getting the "principal on board". Stepping out of the role of the language expert and moving towards an interpretative paradigm is key to releasing ones individual role and becoming a team to facilitate language with students.

Consultation was another service delivery model described during the focus group interview. Consulting with teachers places the SLP in the expert role, however the underlying rationale of consultation supports the interpretative framework. Consultation was described as "helping the teacher understand the student" and "teaching other people to do things with them". One SLP stated that "one of our roles for teachers and parents is to teach them and give them ideas on how they can incorporate everyday activities". These statements view consultation from an empirical lens, however the underlying message was to facilitate systematic change in the

child's context. Through consultation, better known as collaboration, SLPs can reach large numbers of students more successfully. Although time and follow-through were cited as the reason why the collaboration does not occur more frequently, when SLPs view their role as facilitating school wide systematic change in the teaching of language acquisition, it will result in less students needing special education support. This holistic view of an SLPs role in the school setting would require a paradigmatic shift to the interpretative paradigm.

Just One Wish

The final question posed in the group interview asked the SLPs to express what they wish they could change about their profession as it stands today. Three patterns emerged in the taxonomy: decreased caseload size, remaining in one school rather than traveling, and increased teacher/administrator/parent support. The SLPs felt that the caseload size of approximately sixty students was just too large to be effective in their role. They wished to have half the amount of students in order to make their role in the school valuable to the student, teachers, administrators, and families. They also felt that if they could be in one building then they could integrate themselves into the school and be more "accessible" to teachers and students. Lastly, the SLPs expressed their opinion that some parents, teachers, and administrators do not truly understand language learning impairments and the role of an SLP. Out of the three wishes listed, the last one, understanding the SLPs role, would be under the control of the SLP to change. SLPs, through in-services, co-teaching, modeling, and advocacy could facilitate an understanding of language learning disorders. Using primarily a collaborative service delivery model would also facilitate this change. Through this change, the role of the SLP in the educational process would increase in value, with the hope that administrative and monetary support to decrease caseloads would follow.

Summary

Speech-language pathologists can effectively use an interpretative service delivery model in the public schools. In order to do so, they must view children with a holistic lens, rather than a set of skills to be taught. They must view their function in the schools as someone who can facilitate systematic change in the understanding of language and language disorders. They can do so through a collaborative service delivery model. This means that they would work closely with teachers and parents to help facilitate change in the child's context so they can communicate successfully. They would not get bogged down in the IEP requirements to see a student 1-2 times per week for 20-30 minutes. They would need to build flexibility into the IEP, by using "consultation" and "direct" service delivery models that would allow them to vary the amount of time they spend with students in a monthly basis. In addition, SLPs would need to learn to write meaningful goals that can be measured both quantitatively and qualitatively in authentic environments.

This study provides a model of authentic service delivery (i.e., writing conferences), provides examples of meaningful goals, ways to objectify qualitative data to meet the constraints of the IEP, and suggestions to avoid obstacles to the interpretative model (e.g., high caseloads, scheduling).

Lingering Questions

Throughout the length of this study, I have come to understand language acquisition through an interpretative lens. I still struggle daily, however, to actually function within that paradigm in the public schools. There are many obstacles that cause me to slide back into the empirical paradigm. It is easy to get caught up in the paperwork, meetings, and data collection requirements. High caseloads and students spread out in several classrooms within multiple

schools make the job of an SLP overwhelming at times. I still struggle to realistically meet the needs of large amount of students using an interpretative paradigm and still meet the requirements that special education services are delivered x amount of time per month as stated in the IEP. Although I have outlined some suggestions to help objectify qualitative data, I also wonder if there are ways that qualitative data could be reported on an IEP that would be accepted legally. Lastly, I wonder if at some point, there will be a paradigmatic shift globally in education and speech-language pathology to the interpretative paradigm. I hope that research such as this study will help to facilitate this shift.

Implications for Future Research

The results of this study provide implications for future research. Future research would build trustworthiness in the data. Expanding the length of the data collection period would provide more information on student progress and build credibility. In addition, the methodology used in this study should be applied to other subjects, grades and school populations. It would be interesting to compare the findings of a study that used conferences about literature as the vehicle for data collection. This would assist in transferability in the data. Lastly, research that puts the meaningful goals suggested as well the objective data collection using qualitative research methods into practice should be conducted. This research would greatly inform SLP's practice. By giving SLPs a framework to provide authentic intervention in naturalistic contexts and still meet accountability requirements, the shift to interpretative methods could begin to occur. As a result, the bridge between research and practice could be strengthened.

<u>Conclusion</u>

The aim of this study was to outline the paradigms, their effect on the fields of education and speech-language pathology, and discuss how a shift to a more holistic model may be most beneficial for students with language learning impairments. Qualitative research methodology was used to describe the complex phenomenon of communication. This included techniques such as authentic questioning, critical moment teaching, and scaffolding. It consisted of participant observation during student writing conferences, collection of writing artifacts, interviews of teachers, students, and SLPs, and fieldnotes. The multiple sources of information collected triangulated the data results, suggesting that language growth can occur through use of an interpretative teaching paradigm. The study suggests that despite many obstacles, speech-language pathologists can and should use an interpretative framework in the schools. Use of authentic contexts in the facilitation of language acquisition, and value in qualitative research methods, should be supported in the field of speech-language pathology. By shifting to a holistic lens, speech-language pathologists can erode systematic change in the educational environment and their field.

APPENDIX A

<u>Troy School District Writing Rubric</u>

Grade 3-5 Writing Trait Assessment
Revised August, 2009

Name:_____
Date:_____
Spring or Fall (circle)

Area Assessed	6	5	4	3	2	1
Interest/ Clarity of Writing	Writing is exceptionally interesting, clear and focused.	Writing is interesting, clear and focused.	Writing is generally interesting, clear and focused.	Writing is somewhat clear and focused.	Writing is only occasionally clear and focused.	Writing is unclear and unfocused.
Ideas	Writing is extensively developed and the ideas are supported by concepts, details, and examples.	Ideas and content are well developed and the ideas are supported by concepts, details, and examples.	Ideas and content are developed and supported by some details and examples.	Ideas and content are evident but only supported by limited details and examples.	Ideas and content are not well-developed.	Ideas and content are not developed.
Organization	Writing is well organized with interesting leads, smooth transitions, and a thoughtful conclusion.	Writing is well organized with a lead, effective transitions, and a conclusion.	The writing is well organized with a lead, some transitions, and a conclusion.	Writing shows evidence of basic organization.	There is little evidence of organization.	Writing lacks structure.
Voice	Writing uses authentic and compelling voice and tone.	Writing uses authentic voice and tone.	Writer's voice and tone support meaning	Voice and tone are inconsistent or minimal.	Writer's voice and tone may be inconsistent or inappropriate.	Voice is not present.
Word Choice	Interesting, specific and accurate word choice creates a highly effective paper.	Interesting word choice creates an effective paper.	Writing shows evidence of basic word choice with a few attempts of colorful language.	Word choice is adequate and correct in a general sense.	Word choice is often repetitive and inaccurately used.	Word choice is limited or used incorrectly.
Sentence Fluency	Sentences are skillfully written and create a highly effective paper.	Sentences flow smoothly, using a variety of patterns to create an effective paper.	Most sentences flow smoothly, are constructed correctly, and vary in length.	Writing shows evidence of basic sentence fluency, many sentences begin the same way.	Sentence fluency is not achieved due to excessive run-on sentences or fragments.	Sentence fluency is disjointed, confusing or rambling.
Conventions	Mastery of writing conventions is exceptional.	Writing contains only minor mistakes in writing conventions.	Errors in writing conventions are not distracting.	Writing conventions may interfere with meaning.	There is little evidence of writing conventions.	There is no evidence of writing conventions.

APPENDIX B

Phase 1: Semi-structured Teacher/Student Interviews

Teacher:

1. From your perspective, tell me what you know about the job function of a speech-language pathologist in the schools.

2. How do you feel about speech-language pathologists facilitating language acquisition with students in your classroom? What are the benefits and disadvantages?

3. How do you feel when students are pulled out of your classroom for intervention? What are the benefits and disadvantages?

Student:

1. Do you like coming to speech and language? What do you like/dislike?

2. Where do you like to work together, in my office, in the classroom, or both? Why?

3. Do you feel that speech and language is helpful to you? What do you learn?

APPENDIX C

<u>**Phase 3: Semi-structured Teacher/Student Interviews**</u>

Teacher:

1. What was your perception of the conferences held between myself and students about the writing? What did you see as the benefits and disadvantages to this type of language facilitation?

2. Have you noticed any oral or written language progress in the last 8 weeks in the participants? Please describe your observations.

3. How do you feel about speech-language pathologists facilitating language acquisition with students in your classroom? What are the benefits and disadvantages?

Student:

1. Did you like the conferences we had together about your writing? What did you like/dislike?

2. Where do you like to work together, in my office, in the classroom, or both? Why?

3. Do you feel that speech and language is helpful to you? What do you learn?

APPENDIX D

<u>**Focused Group Interview Protocol and Questions**</u>

Thank you for volunteering to participate in this focused group interview. As part of my dissertation research, I would like to conduct an interview with a group of colleagues that share in the same interests. I will be asking some open ended as well as focused questions to the group for discussion. I will be audio taping the conversation we have today and transcribing your responses. All information will be kept confidential and will not be used for any purpose other than a requirement for my class. Please remember as we proceed that everyone should try and participate, all ideas are equal and valid, there are no right or wrong answers, and each person's viewpoint should be heard and respected. Please plan to stay until the end of the interview, which should last 30-45 minutes. Let's begin by introducing ourselves and indicating the number of years you have been a speech pathologist. This will serve as a sound check, and then we will begin.

Questions:

1. Tell me about why you decided to become a speech-language pathologist. How has your job function changed since the beginning of your career until now?

2. How do you feel children learn language best? What methods do you use most frequently to teach children?

3. How would you describe authentic intervention? What are the barriers to this type of language facilitation for you?

4. What are all the different models that you have used to provide speech-language intervention to your students from the beginning of your career until now?

   a. Can you describe each model?

b. Which of these models seems to work well for you and why?

c. Looking at this list, which of these models would you chose to be the most effective for you? Why did you choose that model?

d. Are there any other service delivery models that we haven't talked about that you are aware of?

5. What are all the ways that you feel like you are an effective speech-language pathologist? If you ran the world, what would you change to improve your effectiveness?

Thank you. Again, your responses will be kept confidential.

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ABSTRACT

**FACILITATION OF LANGUAGE ACQUISITION VIEWED THROUGH AN
INTERPRETATIVE LENS: THE ROLE OF AUTHENTICITY**

by

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A paradigm is the conceptual framework or lens one uses to view reality. The field of speech-language pathology is traditionally rooted in the empirical paradigm, which believes that language can be fragmented into isolated skills and taught in a hierarchal fashion. This belief has resulted in service delivery models that remove students from naturalistic contexts for decontextualized exercises. Progress in language acquisition is measured objectively. The empirical belief is exemplified by the accountability requirements in special education law (e.g., IEP). It is compounded by the realities of public school speech-language pathologists (SLPs), such as high caseload numbers, multiple buildings, and paperwork/meetings required. These realities, viewed through the empirical paradigm, frequently cause SLP's to feel ineffective with students.

The interpretative paradigm views language acquisition holistically. It takes into account contextual/personal factors involved in a child's communication success. This belief encourages SLPs to facilitate language acquisition in authentic environments (e.g., classroom), using a collaborative service delivery model. In this paradigm, qualitative research methods are valued.

This methodology views language as a dynamic phenomenon that cannot be separated from the context and culture of an individual.

The purpose of this study was to rethink the role of context in the facilitation of language acquisition by SLPs. Writing conferences were held with three third grade students diagnosed with language learning impairments. Authentic inquiry, critical moment teaching, and scaffolding were used to facilitate language growth and measured qualitatively. The growth was described in relation to the student's IEP goals/objectives. A rich description of the findings showed that authentic contexts and techniques do support language growth for students with language learning impairments. Fieldnotes, teacher/student/SLP interviews, and student artifacts were used to triangulate the data from transcribed conferences. A discussion on realistic ways that SLPs can use authentic contexts, goals, and techniques with students to best understand language ensues. Suggestions on ways to transfer qualitative data to the objective requirements of IEPs are given. The study encourages school-based SLP's the view their position through an interpretative lens to facilitate systematic change in the child's communicative context.

AUTOBIOGRAPHICAL STATEMENT

Melanie Lynam Harper received her B.S. in Speech-Language Pathology and Audiology from Western Michigan University in 1999. She then received her M.A. in Speech-Language Pathology from Western Michigan University in 2001. She also holds an Elementary Education teaching certificate. At Wayne State University, she has majored in Special Education with a concentration in Learning Disabilities and cognate in Speech-Language Pathology.

Mrs. Harper has been the Pediatric Coordinator at Henry Ford Hospital in Detroit Michigan. Currently, she is a Speech-Language Pathologist for Troy Public Schools. In this position, she uses curriculum based instruction, primarily in the classroom setting, to facilitate language acquisition for her students. She also has been a mentor for new hires and supervises speech-language pathology interns. She serves on the advisory panel for Oakland County Speech-Language Pathologists and the literacy committee for Troy School District.

Mrs. Harper has presented at the American Speech-Language-Hearing Association National Conference, Michigan Speech-Language-Hearing Association Annual Conference, and other local and regional conferences. She has also co-taught a seminar on the paradigms and education at Wayne State University.