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A Mixed Method Study On The Role Of The Imagination In The Reading Comprehension Of Low-progress Adolescents

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A MIXED METHOD STUDY ON THE ROLE OF THE IMAGINATION IN THE READING COMPREHENSION OF LOW-PROGRESS ADOLESCENTS

by

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ABSTRACT

Founded on the importance of the imagination according to Greene (1995) and set by the Executive Summary of the 911 Commission Report, the mixed methods grounded theory study looks at a correlation between a set of instruction practices recognized by Egan (2008) for nourishing and developing the imagination and low-progress adolescent students' comprehension. Descriptive data are provided on the school, students, teachers, and district where the study was conducted to illustrate the limitation and delimitations of the study. The study is limited to low-progress adolescent students as identified by the Florida Comprehensive Assessment Test and uses pre and post Florida Assessments for Instruction in Reading (FAIR) mandated and administered by Orange County to establish comprehension and determine statistical significance. Participant and non-participant observations are used to triangulate and co-triangulate data to determine the correlation between the frequency of select instructional practices and students' comprehending as evidence by their FAIR reading and Maze scores.

Observation of student performance suggests that attention to the implementation of the instruction practices of using poetry, text sets, and sensory stimulation has potential in nurturing low progress adolescent students' imagination and strengthening their cognitive feed-forward mechanism. The data adds to the existing body of work on the interactive nature of reading (Rumelhart, 1994) by elaborating on low progress adolescent students' ability to predict and anticipate; concluding that convergent and divergent thinking, making inter-textual connections, and creating mental models are necessary sub-factors to nourish the imagination and need to be taken into account in instruction to assist low-progress adolescent students in comprehending and developing a defensible interpretation.

In memoriam, this dissertation is dedicated with love, respect, admiration, and affection to my aunt Lydia Gort Bobes, a teacher!

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CHAPTER ONE: INTRODUCTION

In this grounded theory study, the setting is three intensive reading urban high school classrooms in Central Florida. The subjects are the students, teachers, and researcher. Founded on the importance of the imagination according to Greene (1995) and set by the Executive Summary of the 911 Commission Report, the grounded theory study looks at the correlation between a set of instructional practices recognized by Egan (2008) for nourishing and developing the imagination and the Florida Assessments for Instruction in Reading to arrive at a conclusion on the influence of the instructional practices on low-progress adolescent students' comprehension.

Readers employ the imagination in the process of predicting and anticipating, while constructing meaning during the act of reading (Allington, 2001; Clay, 2001; Johnston, 1997; Pressley, 2002; Rosenblatt, 1994; Smith, 2007). Yet the role and use of the imagination during the act of reading by adolescent students is relatively undervalued and uncharted in intensive reading and developmental language arts classes (Guthrie & Davis, 2003; Langer, 1992; Richmond, 1993; Trotman, 2008). Currently, instruction in these classes focus on the surface knowledge of decoding rather than on the deep knowledge derived from background experience and higher order critical thinking skills necessary for comprehending (Coles, 2000; Gallagher, 2009; Ravitch, 2010; Smith, 2003) and the 21st century job market.

Considering the imagination and its role in the act of reading and comprehending is imperative in a course intended to amplify instruction and accelerate learning for low-progress adolescent readers. Without imagination predicting and anticipating is virtually impossible (Greene, 1995), making comprehending narrative and non-narrative text an impossible act to

accomplish. The concept that this hybrid study addresses is the instruction provided by teachers in intensive reading classes to nourish and develop the use of the imagination since imagination is central to any real educational enterprise (Egan & Nadnaer, 1988). Inspired and prompted primarily by the conceptual and theoretical work of Maxine Greene (1995) and supported by the work of Kieran Egan (1992, 2005,2006 ,2008), the study begins by defining what is meant by nourishment and development of the imagination from a hebegogic perspective rather than a pedagogic perspective.

Derived from the Greek goddess of youth Hebe, hebegogy is the art, craft, and science of learning and instruction with adolescents. A hebegogic perspective assumes adolescents learn from a solution-seeking orientation since "adolescence is less a period of completion than crisis and transition" (Vygotsky, 1992. p. 141). Within a solution-seeking orientation, adolescent students have to adapt in order to tackle the adaptive challenges (Heifetz & Linsky, 2002) presented intentionally and unintentionally in most narrative and non-narrative texts culminating in comprehension and a defensible interpretation (Rosenblatt, 1994, 1995, 2005).

The terms "create" or "creativity" are not used extensively since creativity usually manifests itself as products of the imagination (Csíkszentmihályi, 1996); although current literature uses the terms imagination and creativity interchangeably. The goal of this study is to investigate whether or not a correlation exists among specific instructional practices proposed by Egan (2005) that will nourish and develop the imagination to improve comprehending without focusing on the products of imagination. Within this study, interests and concerns will relate solely to instructional practices that promote the imagination of adolescent students involved in literate enterprises. One limitation is that at times it may be difficult to separate the process from the product. Those instructional practices are: storytelling, using metaphorical language,

thinking in binary opposites (comparing and contrasting), using poetry, employing humor, and generating hobbies or themes (making intertextual connections). In this study, intertextuality is defined as making connections between texts (visual, cognitive, and global). Visual texts are texts that we can actually see on-line or off-line. Cognitive texts are the lexicon and stories contained in our heads and memories that are necessary to enable us to imagine (Egan, 1997). Global texts are the stories that enrich our lives beyond the proximity of friends and family; and allow us to experience vicariously events that extend our existence further than our everyday lives.

Statement of the Problem

The *Executive Summary* of the 911 Commission Report clearly states that "the most important failure was one of imagination" (p.9). Before the event of 911, no one imagined that a group of people could ever dream such a nefarious plan involving a large aircraft as a bomb to attack a financial center of a country, thus instilling worldwide fear and impacting the global economy. The White House, the Pentagon, and U.S. Government were shocked and horrified; confirming that the imagination can be used for good or evil (Greene, 1993). Adding to the *Executive Summary* of the 911 Commission Report, the July 19, 2010 issue of *Newsweek* featured that research shows that American creativity is declining and highlights the importance of being imaginative and creative in order for the U.S. to compete in a global economy. Although the *911 Commission Report* and the *Newsweek* article are nearly a decade apart, both documents stress the importance of imagination and the fear of its decline in the United States (Gunn, 2003; Reese, 2000). Compounding this fear is the 2009 *National Assessment of Educational Progress* report stressing the increasing number of U.S. students reading below

grade level, in particular adolescent students. An overarching question arises: what are we doing in our intensive reading and developmental language arts classrooms to nourish and promote the development and use of the imagination to enable our adolescent students to comprehend and compete in a global economy where survival of the fittest means being imaginative and creative?

As core standards are promoted in the U.S., less and less attention is given to promoting the use of the imagination and its byproduct, creativity; leaving U.S. students at a disadvantage to compete in a global economy (Newsweek, 2010). Consequently, in an age of accountability to support a standards-based curriculum, a conceptual panopticon (Foucault, 1978) has been created to hold all stakeholders (parents, students, teachers, administrators, and universities) accountable as evidenced by the Federal authorization of the No Child Left Behind Bill (2000) and its offspring Reading First (Allington, 2002; Coles, 2000; Gallagher, 2009; Paley et al, 2005; Ravitch, 2010; Smith, 2003). Although NCLB was intended to diminish the instructional gap among socio-economic groups, as a congressional investigation by the U.S. Department of Education found, NCLB's Reading First became a vehicle for promoting one particular program of study over another to the benefit of certain political groups and educational organizations under the guise of scientifically-based reading research (SBRR) (Allington, 2002; Gallagher, 2009; Ravitch, 2010; Smith, 2003). In other words, NCLB, SBRR, and Reading First became what Foucault (1978)has coined as technologies of domination that did not honor reading instruction that promoted the imagination and did promote a lockstep convergent method of severe phonemic awareness and phonics instruction over divergent thinking. Furthermore, NCLB, SBRR, and Reading First promoted systematic and explicit instruction over intentional and relevant instruction (Allington, 2002; Coles, 2000; Gallagher, 2009; Paley et al, 2005; Ravitch, 2010; Smith, 2003). Instruction promoted by NCLB focused on teaching students to

rely primarily on their cognitive graphophonic, syntactic, and lexical operating systems to the neglect of their cognitive pragmatic, semantic, and schematic operating working systems. Instruction stressed convergent surface thinking rather than integrating convergent and divergent thinking to promote critical deep imaginative comprehending (Allington, 2002; Coles, 2000; Gallagher, 2009; Paley et al, 2005; Ravitch, 2010; Smith, 2003).

The *Executive Summary* of the 911 Commission Report, the *National Assessment of Educational Progress* report (2009), and a report in the July 19, 2010 issue of *Newsweek* clearly provides grounds for a growing concern to improve literacy instruction and imaginative divergent thinking, particularly with low progress adolescent students identified by standardized testing. Not only do these academic and popular culture documents highlight the need to study and improve instruction for low progress adolescent students, they shed light on the value of teaching students to think both critically and imaginatively. The problem, from a hebegogical perspective, crystallizes into what instructional practices nourish and develop the imagination to improve convergent and divergent thinking to improve comprehending.

Purpose for the Study

The purpose of this hybrid ethnographic study is to develop a grounded theory and extend our current understandings of how adolescents actively process print and comprehend. Founded on the understanding that reading is an interactive process (Clay, 2001; Goodman, 1994; Rumelhart, 1994; Santiago, 1997; Singer, 1994), an investigation was conducted. The researcher investigated whether or not a correlation existed among six instructional practices during intensive reading instruction: storytelling, teaching for thinking in binary opposites (comparing

and contrasting), using metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) in nourishing and developing the imagination of low-progress adolescent students to improve comprehending.

Research Questions

The following research questions guided the study. A better understanding of which instructional practices promote and nourish the imagination of low progress adolescent students was ascertained from answering these questions to ground and develop a theory of how low-progress adolescent students actively process print and comprehend. The chart illustrates the questions with the supportive data (artifacts) collected. The supportive data or artifacts listed on the right column of the chart indicate the data that were used to determine students' eligibility into intensive reading classrooms and monitor their progress during the observation period.

Table 1: Research Questions

Questions	Supportive data (artifacts)
1. What is the influence of storytelling, poetry, text sets (intertextuality), comparing and contrasting, humor, and metaphorical language when employed as an instructional practice in nourishing the imagination of low-progress adolescent students identified by the Florida Comprehensive Assessment Test (FCAT) reading scores?	Field notes, Non-participant Classroom Teacher Behavior Matrix, FCAT reading scores, Intensive Reading Teacher Focus Group transcript, FAIR (Reading and Maze)

2. What influence does storytelling, poetry, text sets (intertextuality), teaching for comparing and contrasting, humor, and metaphorical language have as an instructional practice on low-progress adolescent students' reading comprehension according to the Florida Assessment for Instruction in Reading (FAIR)?	Non-participant Classroom Teacher Behavior Matrix, FAIR (Reading and Maze)
3. To what extent do low-progress adolescent students believe their imagination impacts their comprehension and prepares them for deep understanding?	Student short response essay, Field notes, Intensive Reading Teacher Focus Group transcript

Limitations and Delimitations

The limitations of the study are the parameters of: time, student selection, observation classrooms, school, and school district. In this case, the study is limited to one nine-week grading period. Student selection was based on the Florida Comprehensive Assessment Test (FCAT) and limited to students identified as scoring below a mean scale score of 300 on a 100 to 500 scale in reading. An explanation of the FCAT is provided in chapter 3 to illustrate the limitation and delimitations within the data collection process since students in the study are identified by the Florida Comprehensive Assessment Test and the data analysis will be based on the students' pre and post district administered Florida Assessments for Instruction in Reading (FAIR). Additionally, teachers in the study were randomly selected by the school administrative team consisting of the principal and two literacy coaches. Three of the seven intensive reading teachers' classrooms were selected for direct non-participant observations although all seven intensive reading teachers participated in the focus group conversation.

Definition of Terms

Since a grounded theory study is idiosyncratic due to the on-going constant comparison of practice to theory nature of the data collection, definitions of terms are necessary for clarity of the study. Furthermore, definitions of terms need to be provided since redefinition is required to accommodate the hybridity of qualitative research and the phenomena observed (Corbin & Strauss, 1990). The following list of terms and definitions are adopted and adapted from Puig & Froelich's (2011) glossary of terms. The terms are presented in this introduction to the study since familiar terms are being used in a novel context grounded in the literature review. The terms are intended to define and provide a framework for thinking about the study. Terms are included to ensure an accurate interpretation of the study.

Adaptive challenge: improvement issues that serve as a learning experience with the potential for transformation and forward shifts.

Adolescent: generally considered students between grades 4 to 12 or approximately ages 10 to 19 as defined by the United Nations.

Assessment for learning: documented data used in the classroom that show how students are learning. These are generally dynamic types of measurements showing how students are processing information.

Assessment of learning: documented data that shows what students have learned. These are generally static outcome measurements.

Cognitive targets: specific instructional practices to promote teaching for strategic activity.

Cognitive text: in-the-head language that can be accessed by the learner.

Comprehending: generating a defensible interpretation founded on a sound criteria.

Comprehension: a defensible interpretation founded on sound criteria.

Confluency: integration of cognitive operating systems.

Cotriangulation: crosschecking of triangulated data.

Feedback mechanism: in-the-head strategic activities of monitoring, searching, and self-correcting that makes processing information effective when reading and writing.

Feedforward mechanism: in-the-head strategic activities of predicting and anticipating; inference making that makes processing information efficient when reading and writing.

Global text: knowledge and experiences that extend our existence beyond our everyday lives.

Graphophonic operating system: in-the-head knowledge of letters and sounds.

Hebegogy: the art, craft, and science of learning and instruction with adolescents.

Instructional practices: teacher initiated moves to support learning.

Intertextual connections: noticing common themes across a variety of cognitive, global, and /or visual text.

Lexical operating system: in-the-head knowledge of receptive and productive vocabulary.

Literacy: the interrelated acts of reading, writing, speaking, listening, viewing, and thinking.

Low-progress student: learner identified by formative and/or summative assessment as making inadequate progress for a particular grade level or age group taking into account the culture and society they live in.

Maze: an assessment of basic efficiency and fluency in reading.

Pedagogy: the art, craft, and science of learning and instruction with children.

Pragmatic operating system: in-the-head knowledge of an author's intent.

Reading: "message-getting, problem-solving activity that increases in power and flexibility the more it is practised" (Clay, 2001).

Schematic operating system: in-the-head memories, knowledge, and wisdom used to enhance new learning.

Storytelling: articulating a temporal account involving the intermingling of character(s), plot(s), and setting(s).

Strategic activities: a call to action initiated by the learner.

Syntactic operating system: in-the-head knowledge of how language is organized grammatically.

Text sets: off-line and on-line materials with a common theme.

Transitional readers: learners have gained enough control of reading so that self-correction is automatic.

Visual text: on-line and off-line language that can be accessed externally by a learner.

Summary

In this introduction the researcher briefly described the history that led to the acknowledgment questioning of the importance of the role of the imagination in reading. Founded on the importance of the imagination set by the Executive Summary of the 911 Commission Report, the study looked at the correlation between a set of instruction practices recognized for nourishing and developing the imagination (Egan, 2006) and the Florida Assessments for Instruction in Reading to arrive at a conclusion on the impact of the instructional practices to low-progress adolescent students' comprehension.

Descriptive data are provided on the school, students, teachers, and district where the study was conducted to illustrate the limitation and delimitations of the study. The study is

limited to low-progress adolescent students as identified by the Florida Comprehensive Assessment Test. It is further limited by the pre and post Florida Assessments for Instruction in Reading (FAIR) mandated and administered by Orange County. Participant and non-participant observations will be used to triangulate and co-triangulate data to determine the correlation between the frequency of select instructional practices and low-progress adolescent students' comprehending as evidence by their FAIR reading and Maze scores.

Idiosyncratic data and information from field notes, teacher behavior frequency matrix, and focus group transcript analysis will be shared adding to and enhancing the ethnographic nature of the study. The field notes and focus group transcript analysis along with the teacher behavior frequency matrix in this research dissertation are intended to provide the extra information needed to crosscheck in a constant comparison model (Corbin & Strauss, 1990) the necessary quantitative and qualitative data utilized to investigate the role of the imagination in reading with low-progress adolescent students.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The role of a literature review is to ensure that the work and study proposed builds on and contributes to the existing body of work in order to advance the quality and efficacy of future emerging research (Boote & Beile, 2005). This review is simultaneously intended to arouse curiosity and attention by demonstrating an evolving yet transparent understanding of the conceptual foundations of the literatures reviewed. Throughout the review, findings and interpretations will support the investigative nature of the work and study at hand. The primary focus of the review is to scaffold and buttress the study with previous scholarly work about nourishing and developing the imagination in reading and reading instruction for low-progress adolescent students to improve comprehending.

A comprehensive and erudite literature review is the groundwork and stimulus for significant and practical research (Boote & Beile, 2005). In order to conduct a comprehensive literature review on the role of the imagination in reading and reading instruction, a broad sampling of documents and studies from 1898 to the present were reviewed. All documents were considered for scholarliness, currency, and appropriateness (Beile, Boote, & Killingsworth, 2004). For scholarliness, a combination of peer-reviewed journal articles and sources from scholarly presses were reviewed along with contemporary sources to enhance currency. Peer reviewed journal articles comprised 32% of the literature review from such journals as *Reading Research Quarterly* and the *Journal of Russian and Eastern Psychology*. While 27% were sources from such scholarly presses as Teachers College Press and University of Chicago Press,

the remaining 41% were from practitioner books and magazines such as *The Reading Teacher* and the *Journal of Adolescent& Adult Literacy*. All literature reviewed was appropriate to establish a theoretical understanding. Even though some documents were written over a century apart, the overarching theme of the importance of the imagination remained the same. Where replication studies were conducted, only the original study was reviewed unless a different conclusion was attained. Keywords used to locate many of the documents and books were: reading, imagination, literacy, adolescent reading, adolescent literacy, low-progress adolescents. The majority of the literature found was of a theoretical and conceptual nature with few empirical studies. Most of the studies in the literature were qualitative in nature with a few mixed methods. Due to the transactional multifaceted nature of studying the role of the imagination in reading, an experimental or quasi-experimental model of investigation will not produce conclusive evidence (Egan, 2008; Eisner, 1998; Greene, 1995). Consequently, literature on conclusive empirical and quantitative studies on the role of the imagination in reading and reading instruction were not found. While some empirical studies found on the role of the imagination were actually conducted in the theological and nursing domain, only documents and studies pertaining to reading, reading instruction, and education are included in this literature review.

A careful review of the literature on the role of the imagination in reading revealed that it was necessary to augment the search and elaborate on specific subtopics to support a grounded theory while constantly comparing collected data with existing publications. The subtopics are included in this chapter as subheadings with each followed by an explanation focusing on the role of the imagination in reading and reading instruction. The subheadings are: defining the imagination; understanding reading as a process; developmental stages of reading; transactional

nature of reading; multiple or disciplinary literacies; understanding adolescent learners; understanding low-progress readers; language acquisition and the imagination; conditions for learning; instructional practices that nourish the imagination; and ethnography as assessment.

Defining Imagination

Defining imagination is a nebulous enterprise since the definition is generally a combination of various cultural historical traits (Egan, Stout, & Takaya, 2007; Takaya, 2009). The literature defines imagination as a tremendously complex and active process of making meaning; a multifaceted phenomenon that gradually develops through childhood into adolescence and into adulthood dependent on experience that assists and organizes learning(Cobb, 1959; Gajdamaschiko, 2005; Knowles, 1980; Trotman, 2008; Vygotsky, 2004).

Imagination is fundamental to all human discourses (Dart, 2001; Greene, 1995; Sadoski, 1992; Thomas, 1997, 1999). It is believed to be a valuable tool for adolescent development and needs to be given attention as a tool for educational interventions with lower socioeconomic status adolescents (Wonder & Rollins, 1996, 1998). Additionally, the imagination plays a vital role in learning (Caviness, 2006; Egan, 1989; Harold, 2003; Harris, 1990). The ability to imagine is a learned skill boosted by the environment students are immersed (Freyberg, 1973; Gottlieb, 1973; Shaeffer, Gold, & Henderson, 1986; Singer & Singer, 1990). There are certain, essential environmental elements that must be present to nurture this use of imagination (Shaeffer, Gold, & Henderson, 1986; Singer & Singer 1981; Taylor, Phan, Rivkin, & Armor, 1998). Students need a certain amount of privacy, an empathic mentor, curbed television watching, and storytelling (Egan, 1992; Freyberg, 1973; King, 2007; Gottlieb, 1973; Shaeffer, Gold, & Henderson, 1986; Singer & Singer, 1990). An empathetic and supportive mentor is necessary to

nurture and develop the imagination of students (Darling-Hammond, 2000; Frey, 1973; Gottlieb, 1973; Shaeffer, Gold, & Henderson, 1986; Singer & Singer, 1981). The capacity to imagine enriches cognitive skills, such as divergent thinking and solution seeking with innovative solutions (Coreil, 2007; Gottlieb, 1973; Pickard, 1990; Russ & Grossman-McKee, 1990; Singer & Rummo, 1973). Coupled with ethics, imaginative wonderings can be just as educational as objective facts and conclusions (Oppenheimer, 1999). Our imagination is intimately tied to our ability to memorize and it requires constant interaction between what has been learned and automatic and what is being learned and sporadic (Stevick, 1993). In order to nurture the imagination in students, events for its employment, time, and a meaningful response to its products need to be provided (Greene, 1995; Stevick, 1993; Zacharias, 2004).

Furthermore, stories can help adolescent students use metaphors for solution seeking and for developing a sense of empowerment and identity (Egan, 1989; Erlich, 1993). Along with solution seeking, empowerment, and a sense of identity, the imagination appears to be a critical component of faith where if we cannot visualize what is invisible, we will have a more challenging time in sustaining our beliefs. On the other hand, although television, movies, and computers have the potential to stimulate the imagination they also possess the potential to kill the imagination (Reese, 2000).Yet, reading provides a time for reflection and the exercise of reading provides an invitation and an opportunity to think and imagine (Craig, 1956). Moreover, reading fiction can nourish the imagination and exercise it to improve it (Craig, 1956). Employing the imagination allows students to organize the misunderstandings of a phenomenon into the facts of science and to rearrange thought into language (Osberg, 2003) providing students the cognitive tools for higher order psychological functioning (Egan, 1997; Vygotsky,

1978). Consequently, instruction should play a major role in the development of the imagination (Gajdamaschko, 2006; Greene, 1985; Vygotsky, 2004; Warmock, 1978).

Understanding Reading as a Process

Reading involves reflection and the act of reading provides the opportunity to think and imagine (Craig, 1956).Subsequently, one of the most essential influences to scholastic achievement is learning to read (Santiago, 1997). Engaged readers actively process print by predicting and anticipating, monitoring the accuracy of those predictions and feelings of anticipation, searching further at difficulty or when meaning is lost, and self-correcting to reconstruct and maintain meaning (Clay, 2001; Goodman, 1994; Rumelhart, 1994, 1980; Singer, 1994; Smith, 1991). Within each procedural move, effective and efficient readers assemble and disassemble select cognitive operational systems to construct meaning (Clay, 2001; Fountas & Pinnell, 2006; Froelich & Puig, 2010; Goodman, 1965, 1976, 1994; Keene, 2008; Puig & Froelich, 2011; Rumelhart, 1977, 1980: Singer, 1994). While there are many cognitive operational systems, contemporary literature addresses six general categories of cognitive operational systems. Those six cognitive operational systems are: the graphophonic operating system, the schematic operating system, the semantic operating system, the pragmatic operating system, the lexical operating system, and the syntactic operating system(Clay, 2001; Keene, 2008; Puig & Froelich, 2011; Rumelhart, 1994; Singer, 1994).One cognitive operating system functioning alone will not suffice to construct correct decoding, pronunciation and ultimately meaning. Readers are constantly assembling and disassembling cognitive operating systems to construct meaning. The role of the imagination in these operating systems is critical and their potential in supporting students' in comprehending should not be undervalued (Santiago, 1997).

In the next few paragraphs, an explanation of each cognitive operating system is described since an understanding of how students' process print is necessary to understand the role of the imagination when students actively process print to comprehend.

The Graphophonic Cognitive Operating System

The graphophonic cognitive operating system is the in-the-head knowledge of sounds and the symbols representing them. The graphophonic cognitive operating system assists readers in decoding printed words at multiple levels or strata simultaneously (Holmes, 1965). All readers rely on the graphophonic cognitive operating system at different degrees when constructing meaning from print in conjunction with other language operating systems. When readers rely solely on the graphophonic cognitive operating system they become handicapped or disabled in developing a defensible interpretation of what they are reading (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). For example, if a reader relies solely on the graphophonic cognitive operating system, it will not help a reader when identically looking words have different pronunciations or definitions, potentially misleading readers into constructing a misinterpretation.

The Schematic Cognitive Operating System

The schematic cognitive operating system consists of all the background knowledge and prior experiences readers bring to all literate enterprises. It is the schematic working system that enables readers to anticipate and predict how a story might end and why (Clay, 2001; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). It is the schematic cognitive operating system that enables them to comprehend a concept by adding to their understanding of a scheme (Anderson,

1977, 1978, 1984; Anderson & Pearson, 1984). The schematic cognitive operating system is what keeps readers on the edge of their metaphorical seats in theaters or craving for more after finishing a great book. It is this cognitive operating system that aids in reading into and beyond a text (Anderson, 1977, 1978, 1984; Anderson & Pearson, 1984; Fountas & Pinnell, 2006). Critical thinking cannot take place without relying on the schematic working system.

The Semantic Cognitive Operating System

The semantic cognitive operating system is a conglomerate of information that helps readers decide what makes sense (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). It isn't isolated incidents of identifying the main idea, sequencing, or cause and effect for example, but rather the combination of all those and many other in-the-head strategic activities that aid in formulating a whole (Clay, 2001; Fountas & Pinnell, 2006; Puig & Froelich, 2011). The semantic cognitive operating system is the system that enables a reader to remember what a story, movie, or event is about minus superfluous details.

The Pragmatic Cognitive Operating System

The pragmatic cognitive operating system is the ability to understand the author's intent (Keene, 2008; Puig & Froelich, 2011). It is the ability to pick up a computer magazine or an encyclopedia with the understanding that the authors of these documents wrote them with the purpose of informing us. Underlying the function of the pragmatic operating system is the transactional theory of reading (Rosenblatt, 1994) where ultimately it is the reading determines the purpose for reading at text. It is the pragmatic cognitive operating system that allows readers

to determine not only the author's purpose but their own purposes for reading a particular type of text (Keene, 2008; Puig & Froelich, 2011); although, depending on the reader, informational texts can also be read for entertainment; or, as Louise Rosenblatt (1994, 1995, 2005) has stated, for "efferent" or "aesthetic" reasons.

The Lexical Cognitive Operating System

The lexical cognitive operating system is the reader's knowledge of words (Clay, 2001; Keene, 2008; Puig & Froelich, 2011). It includes the ability to use prefixes, suffixes, Greek origins, Latin origins, and words from foreign languages. It is the lexical cognitive operating system that instantly kicks in to break the word apart into recognizable sections and reassemble it in order for the reader to understand it. The lexical cognitive operating system can be defined as the sum of your in-the-head knowledge of impressive (listening, viewing, reading) and expressive (speaking, writing) language.

The Syntactic Cognitive Operating System

While reading, readers assemble and disassemble the syntactic cognitive operating system. The syntactic working system is a reader's understanding of the structure of language (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). It is knowing that language is rule-governed and phrased in a certain predictable pattern in order to communicate and understand. The reader's understanding of noun-verb agreement is an example of the syntactic cognitive operating system or that "an" precedes words that begin with vowel sounds and "a" precedes words that begin with a consonant. With young students, the

syntactic working system develops early on because of its strong relation to oral language (Clay, 2001).

Readers assemble and disassemble six cognitive operating systems to construct meaning from print (Keene, 2008; Puig & Froelich, 2011). Reading as a process is the recursive process that starts with predicting and anticipating (a feed-forward mechanism) (Clay, 2001; Johnston, 1997), followed by monitoring those predications and anticipations when reading, searching further at difficulty, and attempting to self-correct by rereading at different levels (word level, phrase level, sentence level, and text level) and for different purposes when meaning is lost. Utilizing this process with a variety of strategic activities, such as crosschecking, rereading and self-correcting, assists readers in processing print to sustain the reading and expand meaning or understanding (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). It is in the confluency of all cognitive operating systems where readers experience what Csíkszentmihályi (1996) calls "flow". To experience "flow" means that the reader is highly skilled yet predictions and anticipations are being challenged.

The assembling of cognitive operating systems to sustain the reading propels the reader to assemble operating systems that in turn expand meaning in a recursive pattern (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011). Concurrently, assembling operating systems to expand meaning, aids readers in assembling operating systems to sustain their reading. The concept of reading as a process and the theoretical cognitive operating systems that readers assemble and disassemble to sustain their reading and to expand meaning from print were reviewed. This understanding is critical in order to determine the role of the imagination with low-progress adolescent readers (Clay, 2001; Fountas & Pinnell, 2006; Lyons & Pinnell, 2001; Froelich & Puig, 2010; Puig & Froelich, 2011).In addition to

understanding reading as a process to employ instructional practices that nourish the imagination, educators need to take into account the developmental stages of reading. Understanding the developmental stages of reading will impact the instructional practices that a teacher will ultimately employ from a hebegogical perspective when working with low-progress adolescent students (Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004).

Developmental Stages of Reading

Students' evolve through developmental stages as they become more effective and efficient readers (Chall, 1983; Clay, 2001, Fountas & Pinnell, 2006; Lyons & Pinnell, 2001; Puig & Froelich, 2011). These developmental periods are not governed by grade level but by students' lived experiences, understandings, dispositions and their expectations for reading and writing. While these classifications are generally age related there is an inordinate amount of overlap with considerable recursive activity. According to Chall (1983) the developmental stages are: developing readers (referred by many educators as emergent readers); early readers; transitional readers; self-extending readers; and advance readers.

Developing Readers

Developing readers are acquiring rudimentary book handling skills and are just learning that illustrations and books tell a story. Simultaneously, phonological awareness skills are developing. These include: the notion of spoken language; word rhyme detection and production; syllable merging, segmentation and omission; and phoneme isolation, merging, segmentation and removal. Developing readers may also know letters, sounds and high frequency words. They

utilize illustrations and are dependent on their knowledge of oral language. At this stage students generally memorize text as part of the developmental process. This stage transpires for the majority of students between the ages of 5 and 7.

This stage of development is more popularly known as emergent. In 2001, Dr. Marie M. Clay, known for coining the phrase "emergent readers", wrote that do to so many misinterpretations of the phrase that she had discarded the term. According to Clay (2001), developing readers defines this stage more accurately since developing denotes increasing or evolving rather than emergent which implies arising or happening unexpectedly.

Early Readers

At this stage of development, conventional reading is commencing. Students are developing strategic activities for reading and self-correcting. At this point of development, students are integrating a variety of sources of information, searching further at difficulty, rereading for a variety of reasons, and are beginning to read silently with intermittent lapses of reading aloud. Cognitive operating systems for the reader are background experiences, vocabulary, knowledge of sounds and letters, print itself, and illustrations. As readers mature, other cognitive operating systems are cultivated. This stage transpires for the majority of students between the ages of 6 and 8.

Transitional Readers

Transitional readers have acquired sufficient control of reading so that self-correction is automatic and routine. They have acquired a sizeable body of known words that are acknowledged automatically and have flexible ways of solution-seeking to construct and sustain

meaning while simultaneously expanding meaning by inferring, analyzing and synthesizing.. Reading is generally confluent at appropriate levels. Confluency in reading implies that cognitive operating systems are employed, effectively, flexibly and efficiently (Clay, 2001; Fountas & Pinnell, 2006; Puig & Froelich, 2011). They use pictures to supplement meaning and interpret the meaning in non-narrative text (Chall, 1983; Clay, 2001, Fountas & Pinnell, 2006; Puig & Froelich, 2011). They understand how to read narrative and non-narrative text. Silent reading progressively develops as a behavior. The majority of students at this stage are between the ages of 7 and 9.

Self-extending Readers

Readers at this stage have cognitive operating systems in place for becoming metacognitive and they build skills by encountering different genres with a variety of new vocabulary (Clay, 2001; Pressley, 2002; Fountas & Pinnell, 2006). They are in an ongoing process of reinforcing a schematic cognitive operating system and understand that they need to bring their experiences to their reading. They make personal, intertextual, and global connections regularly and become absorbed in books. They sustain reading texts with many pages that may require many days or weeks to read. They assemble and disassemble cognitive operating systems flexibly. They read mostly silently and confluently. This stage transpires for the majority of students between the ages of 8 and 10.

Advanced Readers

Advanced readers consistently go beyond the text to construct their own interpretations and apply their understandings into other content areas (Pressley, 2002; Fountas & Pinnell,

2006). They obtain novel vocabulary through reading and use reading on-line and off-line for learning in content areas. They actively work to connect texts for deeper understanding and finer interpretation. Readers at this level know how to focus their attention depending on the narrative or non-narrative text at hand. They maintain interest and understanding on extensive texts and read silently more consistently. At this stage, advance readers start to notice writing styles consistently and develop favorite topics and authors. Most students at this stage are about the age of 10 and higher.

Although the stages of development are listed in a very linear manner, readers do not necessarily learn in a linear manner (Clay, 2001; Fountas & Pinnell, 2006; Goodman, 1994; Kane, 2007; Keene, 2008; Puig & Froelich, 2011). There may be cases where students may pass over (or temporarily omit) a stage and move forward or backwards depending on the text and context. Although understanding the developmental stages of reading is an important consideration when investigating instructional practices that nourish the imagination, two in particular stand out in the literature. First, since the role of reading in nourishing the imagination is well documented (Craig, 1956;Gajdamaschko, 2006; Greene, 1985; Warmock, 1978), understanding the stages of reading development becomes critical in order to employ appropriate instructional practices that have the potential to nourish the imagination of low-progress adolescent students (Baines, 2008; Clay, 2001; Vygotsky, 1992, 2004) in order to provide students with appropriate texts (Clay, 2001; Fountas & Pinnell, 2006). Secondly, since the imagination increases with maturity (Gajdamaschko, 2006; Vygotsky, 2004), it is necessary to take into account the cognitive shifts that students make over time in order to employ appropriate instructional practices.

Transactional Nature of Reading

Comprehending or developing a defensible interpretation occurs in the transaction between the reader, the text, and the context (Rosenblatt, 1994, 1995, 2005). The transactional nature of reading takes into account a relationship between the reader and the text. Rosenblatt (1994)uses the term transaction over interaction since, according to her, the term interaction invokes a mental picture of separate objects confronting one another but staying fundamentally unaffected, and therefore is an insufficient and misrepresenting term for the conjointly influential development of a relationship between reader and text. The transactional nature of reading takes into account that the text consists of words on a page until a reader uses them to imagine or create mental models drawing on past experiences (Probst, 1988; Rosenblatt, 1994). In other words, the text in the absence of an imaginative reader is just words on a page until the reader transforms them. The transactional nature of reading acknowledges the importance of the role of the reader and the reader's imagination to construct mental models. Consequently, since a defensible interpretation relies not on the text but on the reader's encoding of the text, consideration must be given to the reader's imagination and the construction of mental models. Every act of reading is a re-creation grounded on a variety of contextual factors (Probst, 1988; Rosenblatt, 1994). The reader's schematic cognitive operating system during the act of reading is relevant and foundational in comprehending. The transactional nature of reading prompts the reader to become metacognitive about their contributions to the text (Probst, 1988).

Readers approach a text from either an efferent or aesthetic stance (Rosenblatt, 1995). When reading, readers have to decide what stance to take and the decision is critical to constructing meaning. Rosenblatt (1995) defines an efferent stance as one where the reader has

made the decision that their primary goal is to draw information. They are not as concerned with the romance and elegance of the language as they are with the precision and straightforward manner of the language. On the other hand, readers taking an aesthetic stance approach a particular text for a fulfilling intellectual and sensuous experience. Where the reader stands on a continuum between an aesthetic stance and an efferent stance will influence the interpretation. Regardless of the author's intent, a reader has the prerogative of approaching a text from either stance. It is the reader, after choosing a stance, who will ultimately decide what details in the text to pay attention to and which ones to ignore. The transactional nature of reading highlights the fact that comprehending is dependent on the encoding ability of the reader rather than in the text. In other words, comprehending is dependent on the background knowledge that a reader brings to a text. Consequently, any text is open to be read from a variety of perspectives even among the same reader reading the same text at a different time (Probst, 1988; Rosenblatt, 1994).

Although the ability to read effectively and efficiently is important, the transactional nature of reading asserts that comprehending is dependent on the transaction of a reader with a text in a given context. The underlying belief at the foundation of the transactional nature of reading acknowledges the fundamental responsibility for comprehending on the reader. Comprehension, developing a defensible interpretation, cannot be taught; although conditions may be put in place for a defensible interpretation to develop (Cambourne, 1988; Rosenblatt, 1994; Rushton, Eitelgeorge & Zickafoose, 2003).Eventually, it is to be constructed by the reader engaged with texts and engaging in conversations with other readers (Rosenblatt, 1994; Vygotsky, 1978).

Multiple Literacies

Literacy acquisition and instruction continues to change and evolve(Karchmer, 2001; Labbo & Reinking,1999; Leu, 200; Reinking, McKenna, Labbo, & Kieffer, 1998). With the advent of technology the very nature of literacy acquisition is changing causing a chain reaction in literacy instruction. It simply is not just reading and writing enterprises. Multiple literacies take into account disciplinary literacy in tandem with technology. The concept of multiple literacies is having an impact on how students become literate and literacy instruction that prepares students to develop 21st century skills that include employing the imagination to create and innovate (Egan, 2008; Leu & Kinzer, 1999; Luke, 2000; Reinking et al, 1998).

Global economic revolutions have spawned innovative information technologies that produce novel Literacies (Mikulecky & Kirkley, 1998). Consequently, literacy instruction for students is focusing on the facility to recognize significant problems, amass and judiciously evaluate pertinent information, employ this information to seek solutions, andprovide a succinct interpretation to others(Leu, 2000; Luke, 2000: Warschauer, 2000).

Although many themes surface under the heading of multiple literacies, the current literature highlights three essential themes on literacy acquisition and instruction. First, literacy is deictic; new literacies develop from innovative technologies, changing the concept of literacy acquisition as just reading and writing (Leu, 2000). Second, literacy acquisition becomes progressively social as multiple literacies arise from swiftly revolutionizing technologies (Leu & Kinzer, 1999). No one can be expected to acquire all the possible literacies grounded in technology. However, it is essential that students learn how to investigate and acquire novel literacies from more knowledgeable others when needed. Finally, students have to become

metacognitive, flexible and independent learners; learning to learn is pivotal and essential in becoming confluent in multiple literacies. The imagination and creativity are essential for students to sustain and expand their learning with emerging technology.

According to Leu (2002), some of the essential strategic activity students need to employ in disciplinary literacies with emerging technology are: effective use of features on a new search engine; taking a critical look at the developers of Web pages; determining the currency of a Web page; locating on-line experts; locating more information; using the URL to investigate author and purpose; and communicate with others at a global level. These strategic activities demonstrate new literacies critical for current literacy acquisition.

The multiple modes of input and output of information that are currently available to students are taken into account when thinking of multiple literacies. The New London Group (1996) offers a theoretical overview that tell us that when considering multiple literacies for the 21st century, we need to think about creating access to evolving language and fostering critical engagement. The concept of multiple literacies brings to the forefront that disciplinary literacies for the 21st century have the potential to serve as a springboard for intertextuality, a navigational tool for acquiring new information, and a transformational tool for challenging and reshaping our thinking (Moje et al, 2004). Intertextuality, navigation, and transformation are hybrid experiences grounded in a variety of literate enterprises or multiple literacies. Each hybrid experience assists students in creating a conceptual third space of existence between the personal space of home, community and peers and the formal spaces of school, work, and church (Bhabha, 1994). Intertextuality assists students in comparing and contrasting between known and unknown, and deepening critical engagement. As a navigational tool, multiple literacies highlight the fact that there are multiple paths to acquire new knowledge and makes students

aware of how to access evolving language and technologies. As a transformational tool for learning, multiple literacies have the potential to merge students' evolving language with critical engagement enabling them to imagine and create (Leu, 2002).

Understanding Adolescent Learners

Adolescents entering the third millennium will read and write above and beyond previous generations in history (Moore, Bean, Birdysha &Rycik, 1999).It will be essential that they have high levels of literacy to function in their jobs, manage a home, respond to social issues, and carry on with everyday living ((Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004). Multiple literacies will be the norm to deal with a plethora of information (Luke, 2000). They will need literacy to nourish their imaginations in order to construct a productive future (Moore, Bean, Birdysha &Rycik, 1999). In a multifaceted society, their ability to read will be vital.

Success in the early grades certainly has its benefits throughout school, but early success is not sufficient for the challenges that adolescents face on a daily basis. There are on-going developmental stages of literacy acquisition (Chall, 1983; Clay, 2001, Fountas & Pinnell, 2006; Puig & Froelich, 2011).Adolescent students build on cognitive operating systems developed over time to construct new knowledge from abstract, complex disciplines significantly disconnected from their personal lives (Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004). It is necessary for instruction to lead development (Vygostky, 1992) so that literacy acquisition improves in conjunction with adolescents' ever expanding oral language, thinking, and intertextuality (Alvermann & Moore, 1991). Even with high quality instruction in the early grades, differences amplify as students proceed academically through school.

Adolescents enter school speaking several languages and from diverse backgrounds, cultures, and experiences (Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004). Some adolescent students require additional instruction to actively process print. Still, others require extensive instructional opportunities with considerate materials to become confluent with increasing cognitive operating systems (Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004). Regardless of the developmental stage of the student, nearly all adolescent students will continue to benefit from on-going scaffolded instruction in vocabulary development and management of novel reading materials and writing (Alvermann& Phelps, 1998). Additionally, to succeed academically, adolescents have to possess a robust repertoire of strategic activities to facilitate learning such as: questioning; synthesizing; using significant vocabulary; understanding and using text structures; organizing information; interpreting diverse symbol in science and mathematics; searching for information on-line and off-line; critiquing with a sound criteria; and evaluating perspectives (Alvermann, 2001; Alvermann & Moore, 1991; Moje et al, 2000; Moje et al, 2004).

Low-progress adolescent readers develop over time under a variety of factors (Moore, Bean, Birdysha & Rycik, 1999). For adolescents, literacy acquisition means continually augmenting a menu of cognitive operating systems and strategic activities. Because of this, on-going scaffolded instruction in necessary (Alvermann & Moore, 1991).

Low-progress Readers

Based on static and dynamic assessments (Dixon-Krauss, 1996; Vygotsky, 1992), low-progress readers are described as non-strategic readers having limited decoding skills along with

a narrow repertoire of expressive vocabulary and strategic activities (Clay, 2001; Fernald, 1988; Lyons, 2003). Although low-progress readers may have some strategic activities that they employ at difficulty when reading, such as sounding out or rereading, sounding out and rereading alone will not sustain their construction of meaning on continuous text(Clay, 2001; Lyons, 2003, Fountas & Pinnell, 2006; Puig & Froelich, 2011). To sustain their reading, low-progress readers need to be able to assemble and disassemble a variety of cognitive operating systems prompted by efficient processing of information that is initiated by predicting and anticipating (Clay, 2001; Goodman, 1994; Keene, 2008; Puig & Froelich, 2011).Furthermore, the ability to predict and anticipate is dependent on the readers imagination grounded in memories and experiences (Greene, 1995; Egan, 1989, 1997; Gajdamaschko, 2005, 2006; Vygotsky, 2004).). Young low-progress readers predict primarily at the meaning level using mainly pictures and personal experiences (Clay, 2001; Lyons, 2003) while adolescent low-progress readers rely on the graphophonic cognitive operating system when encountering difficulty in constructing meaning from a text. This is especially true of low-progress adolescent readers when reading text in content area classrooms (Alvermann & Phelps, 1998; Kane, 2007).

In the context of reading as a process, low-progress adolescent readers generally focus on employing strategic activities to construct and sustain meaning such as rereading and decoding and seldom employ strategic activities to expand the meaning ((Alvermann, 2001; Alvermann & Moore, 1991; Fountas & Pinnell, 2006; Puig & Froelich, 2011; Moje et al, 2000; Moje et al, 2004)). Strategic activities to expand reading are inferring, synthesizing, and analyzing (Fountas & Pinnell, 2006). Furthermore, low-progress readers employ the surface cognitive operating systems of graphophonic, lexical, and syntactic rather than integrating them with the deep

operating systems of semantic, pragmatic, and schematic (Kane, 2007, Puig & Froelich, 2011) to expand meaning (Fountas & Pinnell, 2006).

Language Acquisition and the Imagination

The acquisition of language is a gateway into learning (Lewis, 1994; Vygotsky, 1992).It is through language that the imagination is nourished and nurtured. Consequently, with the acquisition of language the imagination becomes an instrument for such higher order mental functions as thinking, logical memory, and human consciousness. In turn, the combination of thinking and memory provides a fertile ground for the imagination to bloom (Egan, 1989, 1997; Vygotsky, 2004). Just as language develops over time from simple words and phrases to complex vocabulary and messages; the imagination evolves gradually from simple to complex in conjunction with language (Egan, 1997; Fuhriman, Barlow, & Wanlass, 1989; Gajdamaschko, 2005, 2006; Vygotsky, 2004). Like language acquisition, the imagination is a tremendously complex process with every act of language (reading, writing, speaking, listening, viewing, and thinking), as in every act of the imagination, having an extensive history (Greene, 1995; Singer, 1979; Vygotsky, 2004). Both language acquisition and the imagination are dependent on the needs and interests of learners when certain conditions for learning are in place to create a sense of wonder and awe (Cambourne, 1988; Egan, 1997; Skukauskaité & Green, 2004; Vygotsky, 2004).

Conditions for Learning

When considering the role of the imagination in reading, certain conditions in the learning environment need to be in place (Cambourne, 1988; Guthrie & Wigfield, 2000). There are eight universal conditions of complex learning that are in place during language acquisition (Cambourne, 1988, 2001) of which the imagination is dependent upon. The conditions for learning that Cambourne (1988, 2001) found are: immersion, demonstration, approximation, response, responsibility, engagement, use, and expectation. Although when true learning is occurring these eight conditions occur simultaneously, each is addressed individually with the understanding that learning exists when they are all place in what Cambourne refers to as a "synergistic network." Cambourne (2007) places the condition of engagement at the core of learning.

Demonstration

Through multiple exposures to an activity students develop a sense that they can accomplish an activity. In addition, they also begin to understand the benefit of engaging in the activity. The benefit of engaging in the activity could be for any number of reasons: for entertainment, to further another activity, to support a sense of independence, or to assist in helping others just to mention a few. All of these activities are what Cambourne (1988) refers to as contextually relevant. According to Cambourne (1988, 2001) demonstrations have to be constantly repeated and that there is no assigned length of time that each demonstration should last.

Responsibility

The condition of responsibility in learning focuses the importance of the student taking responsibility for the learning. It manifests itself when students are willing to make decisions about their learning and more knowledgeable others trust that students will be involved in the demonstrations provided. Responsibility is encouraged in classrooms and schools when students are asked to try something before asking for help. Furthermore, when help is required it is offered in a collaborative solution-seeking spirit. Schools and classrooms that offer choice in an information-intensive learning environment are encouraging students to take responsibility for their learning and promoting self-efficacy (Bandura, 1998).

Approximation

When learning is defined as a form of hypothesis testing, approximations are paramount in order to process information (Cambourne, 1988, 2001). Moreover, approximations are necessary for students to develop a feed-forward mechanism that functions to make learning efficient (Clay, 2001; Johnston, 1997). Approximations are predictions and estimations that initiate information processing. Without approximations, information processing is halted and sophisticated processing becomes an impossibility. Setting up an environment where learners are free to take risks is critical. Without approximations being accepted, the likelihood of forward shifts in learning will not occur. Making mistakes is part of learning (Routman, 1996).

Response

In Cambourne's (1988) work the term "response" is used rather than the mechanistic term "feedback." Feedback generally indicates a one sided point of view irrespective of the student. Historically, education has focused on providing corrective feedback. In providing "corrective" feedback teachers are diminishing the importance of approximations and taking the responsibility of learning from the student (Cambourne, 2001). By providing a generative response teachers are honoring and extending the learner's approximations to encourage forward shifts and the development of a self-extending system (Clay, 2001). Responses in learning are based on the dance between the student and the more knowledgeable other. Providing a response is dependent on the student's experiences and the experiences of the more knowledgeable other to promote independence. A response is always made respectfully and sensitively to a student's approximation.

Immersion

Students need to be immersed in an information-intensive environment where reading, writing, speaking, listening, viewing, and thinking is germane and intentional (Cambourne, 1988, 200; Rushton, Eitelgeorge & Zickafoose, 2003). By immersing students in an information-intensive environment teachers are acknowledging, utilizing, and appreciating the available technology that students are growing and comfortable with in their everyday lives (Puig & Froelich, 2011).

Expectation

Rosenthal and Jacobson (1968), addressed the importance of expectation in their study and revealed the importance of expectation in learning. Expectation is correlated to self-esteem in students (Cambourne, 1988) and self-efficacy (Bandura, 1998).Expectations have a powerful influence on learners' emotions, learning, and memory when processing information (Rushton, Eitelgeorge & Zickafoose, 2003) provided assessment and reflection on the students' strengths and needs take place.

Experienced teachers know that negative emotions are counterproductive to learning (Lyons, 2003; Rushton, Eitelgeorge & Zickafoose, 2003). When expectations are too high, students may develop a defeatist attitude stimulated by assignments and projects that are too challenging. Striking a balance on expectations becomes a critical point for reflection since emotions are generally acknowledged as a gateway to long-term memory (Caine & Caine, 1997; Lyons, 2003).

Engagement

Cambourne (1988) found that there are four principles for engagement to take place. The first principle is that the student believes that if they delve into a learning situation, they will be successful. There has to be a sense of self-efficacy in place to be engaged (Bandura, 1997). Understanding the purpose and the benefit in an activity or learning situation, is a second principle identified by Cambourne. It's having the understanding of "what's-in-it-for-me." Without this sense of purpose or clear understanding of benefits, learners are not likely to be engaged. Cambourne's third principle of engagement is the idea that there will not be any

negative impact during the process of learning. In other words, to ensure engagement by a student, the student needs to feel safe to take risks. The fourth principle of engagement according to Cambourne is the concept that the learner respects and admires the person providing the demonstrations.

Use/ Employment

Research in neuroscience states that practice or use assists students in taking information into long-term memory (Goldberg, 2001; Jensen, 1998; Wolfe, 2001). The concept of use is not new in education. Effective instructional practices couples use or practice with social interaction in order for new learning to take place (Wink & Putney, 2002). Cambourne (1988, 2001) has stated that new learning is a by-product of social interaction and personal reflection. This concept is further validated by Vygotsky (1978) and Caine and Caine (1997) when they claim that learning is amplified through socialization with others.

Instructional Practices that Do and Don't Nourish the Imagination

Although the role and use of instructional practices that nourish the imagination is at times blurred, there is consensus that ultimately its purpose is to support students in constructing mental models of possibilities (Egan, 1997, Eisner, 1998; Frye, 1968; Greene, 1995; Moskowitz, 1994). Mental models are generated by exposure and experience to a variety of texts (in-the-head and out-of-the-head) and cultures. The in-the-head texts or invisible information referred to are the learner's language or cognitive operating system constructed by the learner over time. The out-of –the-head texts or visible information are all external input such as magazines, radio, television, books, computers and other people that learners use to evolve and transform learning.

This variety of input consequently feeds the imagination. It may include aural, olfactory, visual, kinesthetic, and tactile input (Baines, 2008; Egan, 2006). A variety of aural, olfactory, visual, kinesthetic, and tactile input has the potential to jumpstart the imagination by taking learners to imaginary models of possibilities (Baines, 2008; Egan, 2006; Fernald, 1988; Greene, 1995; Hicks, 1995). Many learners have had the experience of hearing a sound (or sounds) or smelling a scent and the experience transports them into a different dimension of the mind. Those experiences jumpstart the imagination and prompts the recipient of the input to create mental models that serve as a springboard to imagine other images, situations, and possibilities (Eisner, 1998; Greene, 1995; Noel, 1999).

If educators fail to consider nourishing and developing the imagination of adolescent students in intensive reading classes, a significant part of a curriculum will be missing that has the potential to foster critical and diverse thinking (Baines, 2008, Egan, 2006; Eisner, 1998; Gajdamaschko, 2006; Greene, 1995; Vygotsky, 2004). Furthermore, learners cannot make personal, global, or textual connections without imagination and inter-existentiality is impossible without imagination (Ayman-Nolley, 1992; Greene, 1995; Gajdamaschko, 2005; Russ & Grossman-Mckee, 1990).

The nourishment and development of the imagination appears to be missing in contemporary intensive reading classes due in part to the political and public demands for high-stakes testing and technical, mechanistic teaching leaving little to the imagination (Eisner, 1998; Greene, 1995; Smith, 2003). In succumbing to the political and public demands, it is creating intensive reading classes grounded in theories of behaviorism that leaves little to no room for the use of the imagination from the learners' perspective (Allington, 2002; Coles, 2000; Guthrie & Davis, 2003; Richmond, 1993; Ravitch, 2010). In turn, prescribed and scripted reading programs

are insulating low-progress adolescent students from thinking critically, questioning and experimenting; activities that require imagination (Smith, 2003; Wonder & Rollins, 1996, 1998; Ravitch, 2010; Zacharias, 2004). Students learn essentially to not question or imagine alternative possibilities and prescribed, scripted programs serve as the mantle to cover the status quo (Eisner, 1997; Greene, 1995; Ravitch, 2010). These arguments pose concerns on nourishing and developing the imagination of adolescent students, and highlights reasons as to why the development of students' imagination is not occurring in intensive reading classes.

In developing intensive reading classes, serious consideration needs to be given to the kinds of input that learners are being exposed to in any program. Egan (2008) proposes six instructional practices to nourish and develop students' imagination. Those six instruction practices are: storytelling (Egan, 1989; King, 2007; Langer, 1997; Singer & Singer, 1990); teaching for binary opposites or comparing and contrasting (Egan, 2006); using metaphorical language (Duthie & Zimet, 1992); using poetry (Duthie & Zimet, 1992); incorporating and highlighting humor (Egan, 2006); and promoting intertextuality through thematic learning (Greene, 1995). According to Egan (2008), these instructional practices increase the potential for students to develop cognitive tools (Vygotsky, 1978) that enable students to create mental models of possibilities (Eisner, 1997, Greene, 1995).

The interactive act of responding in an intensive reading class to support students in using their imagination is crucial to enable them to construct mental models of possibilities. Without the ability to construct these mental models of possibilities, not only will adolescent students be incapable of acquiring academic knowledge, they will in turn lack the motivation and interest to expand and extend their current body of knowledge. Educators need to address and design

curriculum that promote and prompt low-progress adolescent students' minds to think beyond the conventional in all academic and non-academic areas.

Ethnography as Assessment

A phenomenon such as the imagination is best approached from an ethnographic perspective because of the idiosyncratic nature of low-progress adolescent students (Agar, 1996; Frank, 1999; Heath & Street, 2008; Moje et al, 2004). Although considered qualitative in nature, ethnography takes into account the hard data or what is considered quantitative. In essence, ethnography documents and triangulates participant observations, non-participant observations, and artifacts (Agar, 1996; Heath, 1993; Heath & Street, 2008; Froelich & Puig, 2010). Participant observations are documented in the form of field notes and transcripts of formal and informal conversations and interviews (Power. 1996; Spradley, 1980). Like participant observations, non-participant observations are also recorded in field notes and transcripts of conversations (Froelich & Puig, 2010; Heath & Street, 2008; Power, 1996; Puig & Froelich, 2011). The artifacts are the tangible items produced by the by the actors or subjects being observed or assessed. The primary concept behind ethnography is that when participant observations, non-participant observations, and artifacts are crosschecked and triangulated to compare and contrast against each other, the researcher is more likely to uncover or discover a particular situational phenomenon (Agar, 1996; Froelich & Puig, 2010; Heath & Street, 2008; Power, 1996; Puig & Froelich, 2011).

An ethnographer's work is highly conceptual (Agar, 1996; Frank, 1999; Heath & Street, 2008). The work is a theory building construct grounded in detailed and systematic collection and analysis of data. Ethnography forces the researcher into consciously considering ways of

entering into a situation to understand a phenomenon (Agar, 1996; Heath & Street, 2008). The ethnographer's work is a network of various directions and vistas. Prior to documenting observations of a phenomenon, ethnographers/researchers have to study as much a possible about the phenomena. Constant comparison of data is part of the course where newly acquired data is constantly compared to existing data. It is a given that in ethnography the physical appearance of the ethnographer has the potential to prevent true participant and non-participant observations (Agar, 1996; Heath & Street, 2008). Hence, to minimize the impact of the ethnographer/researcher presence, data is always triangulated over time. Every ethnographer/researcher has to constantly be mindful of an interactive effect during an observation. A fundamental rule of ethnography is to simply record only what occurs. In other words, ethnographer/researchers only record what is heard and seen.

The issue of replicability and reliability surfaces often in ethnographic research. Reliability is addressed by constant comparison to other work or studies; although, like replicability the uniqueness of a phenomena prevents it. Ultimately, all ethnographic studies are inherently interpretive, subjective, and partial. Consequently, it is critical that decision rules are in place to guide the data collection systematically over time. Therefore, validity falls into the empirical and theoretical domain. In empirical validity is obtained through the artifacts and hard data collected. Theoretical validity on the other hand, occurs through rich and accurate details documented systematically through constant comparison and triangulation.

Overall, ethnographers do not conduct research or engage in a study with a succinct research question or delimiting hypothesis. Consequently, the importance of the role of the literature review is elevated to ensure that the study or ethnography builds and contributes to current work. It is not uncommon for ethnographers/ researchers to develop a hybrid theoretical

position while engaged in a dialogical constant comparison of data (Bakhtin, 1981; Heath & Street, 2008; Skukauskaité & Green, 2004).

Summary

This literature review provides the background for the work proposed in this study. The review was used to guide, construct, and contribute to the research study to augment the existing body of work in an effort to advance the quality and efficacy of future emerging research (Boote & Beile, 2005) on the role of the imagination in reading and reading instruction with low-progress adolescent students. Throughout the review, findings and interpretations support the investigative nature of the work and study at hand. The primary focus of the review was to support the study with previous scholarly work about the role of the imagination in reading and reading instruction for low-progress adolescent students to improve comprehending.

Since a comprehensive and scholarly literature review is the foundation and stimulus for significant and practical research (Boote & Beile, 2005), a broad sampling of documents and studies from 1898 to the present were reviewed. Scholarliness, currency, and appropriateness (Beile, Boote, & Killingsworth, 2004) were considered; although a combination of peer-reviewed journal articles and sources from scholarly presses were reviewed along with contemporary sources to enhance currency. Even though some documents were written over a century apart, the overarching theme of the importance of the imagination remained the same. Most of the studies in the literature were qualitative in nature with a few mixed methods.

The initial review of the literature on the role of the imagination in reading confirmed the necessity to broaden the search and elaborate on specific subtopics to support a grounded theory while constantly comparing collected data with existing publications. The broader search led to

the following subtopics: defining the imagination; understanding reading as a process; developmental stages of reading; transactional nature of reading; multiple or disciplinary literacies; understanding adolescent learners; understanding low-progress readers; language acquisition and the imagination; conditions for learning; instructional practices that nourish the imagination; and ethnography as assessment. Due to the conceptual subject matter, a narrower search would not have provided sufficient background for the proposed study. Consequently, the broader search contributed to the researcher's understanding and a better definition of the complexity of arriving at a theory grounded in systematically collected data over time.

CHAPTER THREE: METHODOLOGY

A Hybrid Paradigm

Using a hybrid of traditional ethnographic approaches of triangulating participant observations, non-participant observations and artifacts, the researcher employed a pre-test post-test design with mixed qualitative and quantitative assessments. The population for this grounded theory study is low-progress adolescent students in three Florida high school, intensive reading classes in an urban school setting.

The population sample of students produced a short essay-type written response to determine their perceptions on the role and use of the imagination in the process of reading and comprehending. The proposed short essay-type written response is a current instructional practice utilized by the classroom teachers as "bellwork" for students as they enter the classroom. The data collected was compared and triangulated with pre- and post- Florida Assessments for Instruction in Reading, intensive reading teacher focus group, Florida Comprehensive Assessment Test, teacher behavior frequency matrix, Non-participant Classroom Observation form, and classroom observations. Semi-structured intensive reading teacher focus group conversation and classroom observations were transcribed and analyzed; while the Non-participant Classroom Observation form was analyzed and quantified. Although there was only one researcher utilizing the Non-participant Classroom Observation form during classroom observations, for future reference a statistical analysis using Fleiss kappa (1971) inter-rater reliability was conducted using the form with six doctoral students (including the researcher) and one professor observing a videotaped lesson.

The students in the class were involved in a psycho-educational intervention utilizing a combination of young adult novels and a basal series designed for adolescents. Although the intervention is a year-long enterprise the data collection period of the study took place from September to December, essentially over a nine-week grading period with the three randomly selected intensive reading teachers being observed two to three times a week.

The dependent variables are the students' short essay responses, focus group responses, and classroom observations. The independent variables are the published materials used, race, ethnicity, age, attendance, and gender. A correlation and regression analysis was conducted and co-triangulated to identify significant relationships. Pre and post Florida Assessments for Instruction in Reading scores in were used for evidence of growth in comprehending.

Statement of the Problem

The *Executive Summary* of the 911 Commission Report, the *National Assessment of Educational Progress* report (2009), and a report in the July 19, 2010 issue of *Newsweek* clearly provide grounds for a growing concern to improve literacy instruction and imaginative divergent thinking, particularly with low progress adolescent students identified by standardized testing. Not only do both academic and popular culture documents highlight the need to study and improve instruction for low progress adolescent students, they shed light on the value of teaching students to think both critically and imaginatively. The problem, from a hebegogical perspective, brings to question what instructional practices nourish and develop the imagination to improve convergent and divergent thinking to improve comprehending. Adding to the *Executive Summary* of the 911 Commission Report, the July 19, 2010 issue of *Newsweek* featured research that shows American creativity is declining and highlights the importance of

being imaginative and creative in order for the U.S. to compete in a global economy. Although the *911 Commission Report* and the *Newsweek* article are nearly a decade apart, both documents stress the importance of imagination and the fear of its decline in the United States.

The *Executive Summary* of the 911 Commission Report clearly states that "the most important failure was one of imagination" (p. 9). Before the event of 911, no one imagined that a group of people could ever dream such a nefarious plan involving a large aircraft as a bomb to attack a financial center of a country, thus instilling worldwide fear and impacting the global economy. The White House, the Pentagon, and U.S. Government were shocked and horrified; confirming that the imagination can be used for good or evil (Greene, 1993). Compounding this fear is the 2009 *National Assessment of Educational Progress* report stressing the increasing number of U.S. students reading below grade level, in particular adolescent students. An overarching question arises: what are we doing in our intensive reading and developmental language arts classrooms to nourish and promote the development and use of the imagination to enable our adolescent students to comprehend and compete in a global economy where survival of the fittest means being imaginative and creative?

As core standards are promoted in the U.S., less and less attention is given to promoting the use of the imagination and its byproduct, creativity; leaving U.S. students at a disadvantage to compete in a global economy (*Newsweek*, 2010). Consequently, in an age of accountability to support a standards-based curriculum, a panopticon (Foucault, 1986) has been created to hold all stakeholders (parents, students, teachers, administrators, and universities) accountable as evidenced by the Federal authorization of the No Child Left Behind Bill (2000) and its offspring Reading First (Allington, 2002; Coles, 2000; Gallagher, 2009; Ravitch, 2010; Smith, 2003). In other words, NCLB, SBRR, and Reading First became what Foucault (1978) has coined as

technologies of domination that did not honor reading instruction that promoted the imagination and did promote a lockstep convergent method of severe phonemic awareness and phonics instruction over divergent thinking. Although NCLB was intended to diminish the instructional gap among socio-economic groups, as a congressional investigation by the U.S. Department of Education found, NCLB's Reading First became a vehicle for promoting one particular program of study over another to the benefit of certain political groups and educational organizations under the guise of scientifically-based reading research (SBRR) (Allington, 2002; Gallagher, 2009; Ravitch, 2010; Smith, 2003). Furthermore, NCLB, SBRR, and Reading First promoted systematic and explicit instruction over intentional and relevant instruction (Allington, 2002; Coles, 2000; Gallagher, 2009; Ravitch, 2010; Smith, 2003). Instruction promoted by NCLB focused on teaching students to rely primarily on their cognitive graphophonic, syntactic, and lexical operating systems to the neglect of their cognitive pragmatic, semantic, and schematic operating systems. Instruction stressed convergent surface thinking rather than integrating convergent and divergent thinking to promote critical deep imaginative comprehending (Allington, 2002; Coles, 2000; Gallagher, 2009; Ravitch, 2010; Smith, 2003).

The Study

In a grounded theory study it is from conceptualization that theory is developed (Corbin & Strauss, 1990). Consequently, the use of multiple data sources enhances construct validity and reliability. In this study, the literature review is used as a secondary source of data (Strauss & Corbin, 1990) while field notes, student assessments, and focus group transcript serve as a primary data source. Since not all data are equally relevant, the depth of enquiry into each one is not the same (Pandit, 1996) leading to a complex account of a phenomena rather than a

simplistic linear explanation (Turner, 1981). Proceeding through the process of research design, data collection, data ordering, data analysis, and literature comparison, this grounded theory study engaged multiple perspectives and used a range of methods. In the data ordering and data analysis stage, the researcher calculated descriptive statistics compared to participant and non-participant classroom observations to measure the impact of the select instructional practices on adolescent students' comprehension. In addition, student short essay responses and semi-structured focus group conversations were recorded, transcribed and analyzed. The coded transcript is Appendix D. Students' pre and post Florida Assessments for Instruction in Reading (FAIR) as required by their district were used. All data were analyzed by the researcher after student identifiers have been removed. Reports of this data will only be recorded in group format. Student data was not disaggregated by classroom.

During the data collection stage, other measures were used to measure the impact of the instructional practices on the adolescent students' comprehension. The following are the other measures used:

- The researcher compared and analyzed whole group level statistics of the Florida Assessment In Reading, Florida Comprehensive Assessment Test, informal classroom assessments, demographic data (age, race, gender), attendance records, writing samples for all three classes in the study. The data was provided to the researcher.
- A review of instructional practices believed to nourish the imagination was conducted prior to the study with all intensive reading teachers and again during the semi-structured focus group conversation.

- The researcher conducted prearranged and unobtrusive observations for a sample of study related events.
- The researcher will review teacher lesson plans.

In this study research questions centered on whether or not the investigation was meeting its stated objectives. For example:

1. What is the influence of storytelling, poetry, text sets (intertextuality), comparing and contrasting, humor, and metaphorical language when employed as an instructional practice in nourishing the imagination of low-progress adolescent students identified by the Florida Comprehensive Assessment Test (FCAT) reading scores?
2. What influence does storytelling, poetry, text sets (intertextuality), teaching for comparing and contrasting, humor, and metaphorical language have as an instructional practice on low-progress adolescent students' reading comprehension according to the Florida Assessment for Instruction in Reading (FAIR)?
3. To what extent do low-progress adolescent students believe their imagination impacts their comprehension and prepares them for deep understanding?

Population and Sample

Florida employs the FCAT to track student achievement in core academic areas. Students are tested annually in grades 3 through 10 in reading and math; in grades 4, 8 and 10 in writing; and in grades 5, 8 and 11 in science. High school students have to pass the tenth grade FCAT in order to graduate. The FCAT is a standards-based instrument that measures specific skills prescribed for each grade level by the state of Florida. The FCAT is a criterion-referenced test

founded on the Sunshine State Standards, which measures how students are learning specific skills defined by the Florida Department of Education.

The Sunshine State Standards are Florida's state standards, which set expectations for student learning. They are divided into eight subject areas: the arts, foreign languages, health, physical education, language arts, mathematics, science and social studies. Each of these standards is divided into grade groups (pre K-2, 3-5, 6-8 and 9-12). Although students in the study are tested on a variety of subject areas, the study was limited to looking at student performance on the language arts portion only.

The FCAT includes multiple-choice, fill-in-the-blanks and short and extended essay-type tasks. The multiple-choice and fill-in-the-blanks questions are machine scored. Each short and extended essay-type task is scored by trained readers.

There are various types of scores reported from the FCAT. Reading mean scores are reported on a scale of 100 to 500. Grade-level/subject-level scores are given in terms of five achievement levels, with 1 being the lowest and 5 the highest. Students in the study were limited to those identified in achievement levels 1 and 2 in need of extra reading or language arts instruction.

An explanation of how the Florida Department of Education assigns school grades is provided along with the most currently available statistical data charts from the Florida Department of Education on this school to illustrate the limiting and delimiting factors that situate the school in the broader community and state may impact the current hybrid ethnographic study. The Florida Department of Education gives each school a letter grade (A-F) based on: overall performance of the school's students on the FCAT, the percentage of eligible

students who took the test, and whether or not students are making adequate progress in reading and math. The current school grade for Edgewater High School in Orange County in which the study will be conducted is a B. The grade was assigned for the academic school year of 2010-2011. In 2009-2010 the school received a D. In 2007-2008, the school received a B. In 2006-2007, the school received a D.

The following charts from the Florida Department of Education website provide a wide-angle snapshot of East Lake High School (pseudonym) and the educators that work there. The charts are provided in this study to enhance the ethnographic nature of the study in addition to the quantitative and qualitative data collected from September to December; essentially one school grading period.

As reported by the Florida Department of Education for 2009-2010, the FCAT results listed in Figure 1 provide four years of results for reading scores in ninth and tenth grade for the school where the study was conducted. For 2010, the ninth grade reading scores are just below the state average of 48% of students reading at or above grade level. The tenth grade reading scores indicates that 44% of the students are at or above grade level placing the tenth graders reading ability above the state's 39% average.

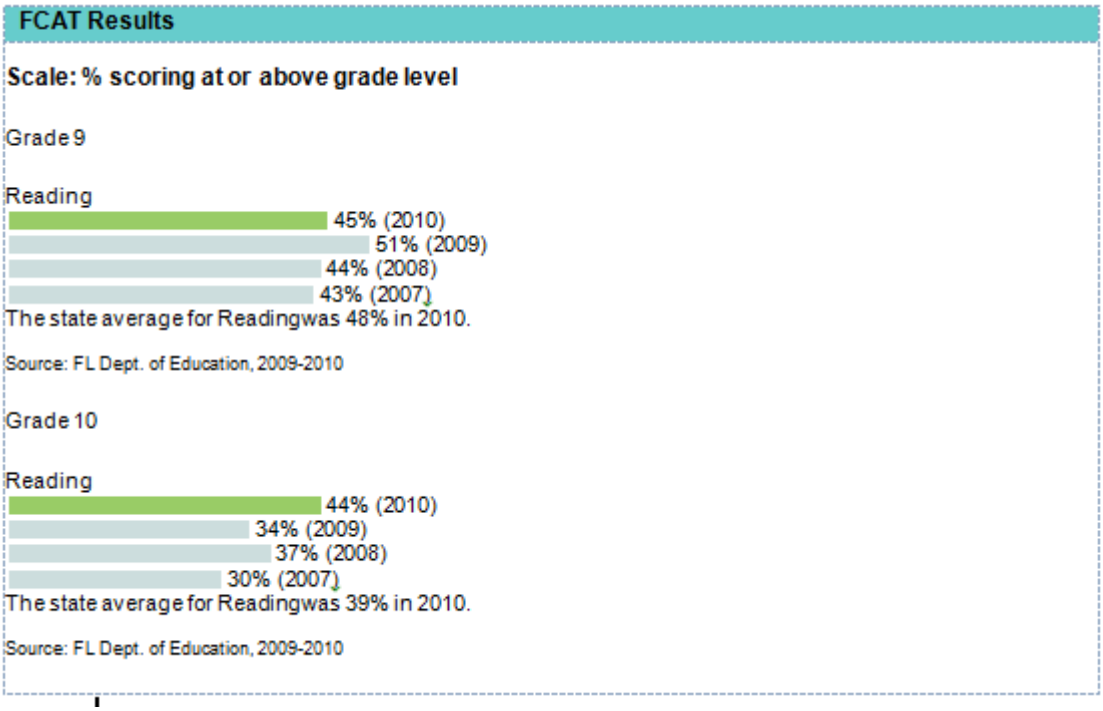
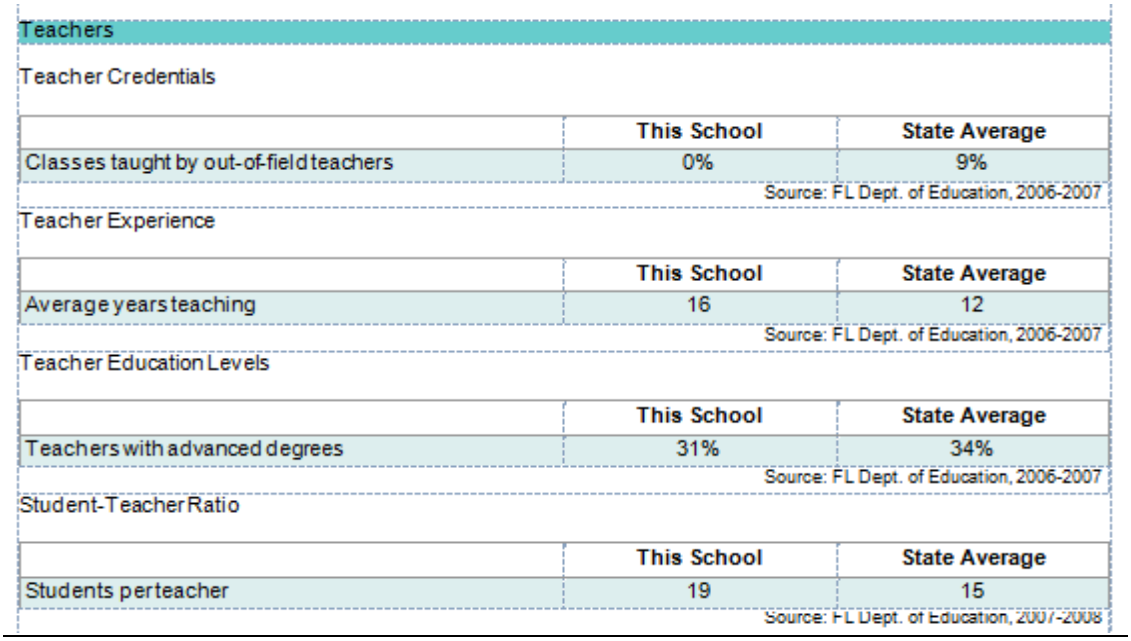


Figure 1: FCAT Results

Since teacher selection for the study was random the following chart from the Florida Department of Education is provided to enrich the ethnographic perspective of the study. Although the charts show figures from 2006-2007, the building principal indicated that the figures listed are not significantly different than the current status of the faculty or student population. As indicated by Figure 2 the average years of teaching experience for teachers employed at the school is 16 placing the school's teacher experience 4 years above the state average. Teachers with advanced degrees make up 31% of the faculty with the student/teacher ratio at 19:1. However, in the three intensive reading classrooms where the study was conducted the student/teacher ratio was lower in the majority of the classrooms, providing teachers the opportunity for more intensive instruction

with students that have been identified as low-progress by the FCAT in reading.



Teachers

Teacher Credentials

	This School	State Average
Classes taught by out-of-field teachers	0%	9%

Source: FL Dept. of Education, 2006-2007

Teacher Experience

	This School	State Average
Average years teaching	16	12

Source: FL Dept. of Education, 2006-2007

Teacher Education Levels

	This School	State Average
Teachers with advanced degrees	31%	34%

Source: FL Dept. of Education, 2006-2007

Student-Teacher Ratio

	This School	State Average
Students per teacher	19	15

Source: FL Dept. of Education, 2007-2008

Figure 2: Teacher Credentials

The latest student demographics of the school available by the Florida Department of Education are for 2008 and they indicate that the largest ethnic/racial subgroup are Black at 47% followed by White at 37% with Hispanics at 11% and Asians and multiracial at 5%. Figure 3 provide a visual representation of student subgroups according to ethnicity, race, free and reduce lunch, exceptional education, attendance, and mobility rate. In the three intensive reading classrooms included in the study the subgroups were: 71% Black, 18% white, 11 % Hispanic.

Students

Student Ethnicity

Ethnicity	This School	State Average
Black	47%	23%
White	37%	46%
Hispanic	11%	25%
Asian/Pacific Islander	3%	2%
Multiracial	2%	4%
American Indian/Alaskan Native	<1%	<1%

Source: FL Dept. of Education, 2007-2008

Student Subgroups

	This School	State Average
Students eligible for free or reduced-price lunch program[1]	31%	46%
Students with disabilities[2]	15%	13%
Gifted students[2]	8%	5%
English language learners[2]	4%	5%

Source: [1]FL Dept. of Education, 2007-2008
[2]FL Dept. of Education, 2006-2007

Attendance and Completion

	This School	State Average
Students absent more than 21 days	28%	15%
Stability rate	90%	92%

Source: FL Dept. of Education, 2006-2007

Figure 3: Student Demographics

From an ethnographic perspective, the following Figure 4 chart is included to provide information per pupil expenditures. District-wide the average per pupil expenditure is less than the state's. At 57%, instructional staff expenditure accounts for the largest expense in the district; still, below the state average of 60%. Included, as well, are the latest numbers of teachers employed in the school and student enrollment by gender and grade level. In the three intensive reading classrooms included in the study, 71% were males and 28% were females. The student population remains at 51% female and 49% male. As of 2009, the student population hovered around 2272; a number that the building principal confirmed has

not significantly changed for the current school year.

Spending Per Pupil

	This District	State Average
Total per pupil expenditures	$8,116	$8,514

Breakdown By Expenditure		
Instructional	57%	60%
Student and staff support	14%	11%
Administration	10%	9%
Other expenditures	19%	20%

Source: NCES, 2006-2007

Figure 2: Teacher Credentials

Figure 3: FCAT Results

Total Students	2272 students
% Male / % Female	51% / 49%
Total Classroom Teachers	121 teachers
Students by Grade	Grade 9 - 581 students
	Grade 10 - 607 students
	Grade 11 - 504 students
	Grade 12 - 580 students

Source: FL Dept. of Education, 2008-2009

Figure 4: Per Pupil Expenditures

Data Collection

Data was collected during all phases of the study to provide and obtain timely formative feedback to and from project stakeholders on implementation, participants' perspectives about what they may have learned, and how goals and objectives are being met.

Data collection methods included fieldnotes and a schedule of observation dates, semi-structured focus group transcript, pre and post Florida Assessments for Instruction in Reading (FAIR) and student short essay responses. The numbers of involved individuals in the study were

tracked for statistical analysis. Demographics at the individual level included grade level, gender, and race. These methods coupled with observations, and semi-structured focus group conversations helped the researcher develop a holistic perspective, and a better understanding of the phenomena being assessed.

Qualitative semi-structured conversation of a focus group, using a structured protocol was conducted with six out of seven intensive reading teachers during the grading period. The protocol was developed and an item bank of questions has been provided. See Appendix C.

The study is confidential: although the researcher will know the identity of subjects but will not divulge identity or private information to others without permission as was agreed upon when information was given. Teacher/s will link all pre/post assessments and black-out all student names prior to submitting to the researcher for analysis. Although the classroom observations and short essay responses involved all students, only FAIR scores from students that had pre and post were used. The participant focus group discussion and non-participant field notes from classroom observation do not identify students or teachers by name. No sensitive information on either teachers or students was collected in this study.

Instrumentation

In this section a brief explanation on the Florida Comprehensive Assessment Test (FCAT), and the Florida Assessment for Instruction in Reading (FAIR) is provided since both instruments were used in the study to provide quantitative data on the students included in the study. Student pre and post FCAT and FAIR data are provided in Appendices A and B.

The FCAT is a test administered to Florida students to measure what they know and are able to accomplish in reading, writing, mathematics, and science. The test is part of Florida's

plan to increase student achievement. It measures content standards, called the Sunshine State Standards. The Sunshine State Standards are general statements that describe what a student should know and be able to do at every grade level. These standards cover seven content areas: social studies, science, language arts, health/physical education, the arts, foreign language, and mathematics. The standards are separated into smaller units called "benchmarks," which chart the specific content, knowledge, and skills that students are projected to learn in school. Each student's performance on FCAT Reading, Writing, Mathematics, and Science tests indicates his or her progress in reaching these benchmarks.

Development of the Sunshine State Standards began in 1993, and the standards were adopted by the State Board of Education in May 1996. The Sunshine State Standards include more thought-provoking material than previous state standards, which focused on minimum competencies. To face the assorted challenges of today's workplace, students must be knowledgeable in mathematics and science, be adept to read and comprehend difficult texts, and be competent writers. FCAT test questions are intended to gauge the literacy, numeracy, and science skills that students ought to obtain. The test serves as a resource to help teachers, principals, and superintendents determine the level of achievement students have in meeting and exceeding the Sunshine State Standards. The FCAT is administered to students each year in February (Writing) and in March (Reading, Mathematics, and Science).

In August 2009, the Florida Department of Education created the new Florida Assessments for Instruction in Reading (FAIR) and made it available to K-12 public schools free of charge. Developed by the Florida Center for Reading Research in collaboration with the Just Read, Florida! Office, this new assessment system is intended to provide teachers with screening,

progress monitoring, and diagnostic instruments that provides essential information for guiding instruction.

FAIR is available for administration to all students in order to identify those most likely to be on or above grade level in reading by the end of the school year. In Grades K-2, the FAIR includes Letter Sounds, Phonemic Awareness, and Word Reading. In Grades 3-12, the test includes an adaptive reading comprehension measure. This adaptive reading comprehension measure will predict student success on the FCAT and will also provide a Lexile score for each student. A Lexile is a widely used numeric measure representative of an individual's reading ability or a text's readability.

Low performance on the FAIR measures can indicate the need for further assessment using the Targeted Diagnostic Inventory. In Grades K-2, the Inventory includes Print Awareness, Letter Identification, Phonemic Awareness, Letter Linking, and Word Building. In Grades 3-12, the Inventory includes Maze and Word Analysis, which may also be used for progress monitoring. Progress Monitoring measures are available to assess student progress between administrations of the initial FAIR measure in Letter Sounds, Word Analysis, Word Building, and Oral Reading Fluency.

Students in Grades K-2 can also be administered measures from the Broad Diagnostic Inventory in order to gain useful information about student abilities in the areas of Listening or Reading Comprehension and Vocabulary. The Diagnostic Toolkit contains formative assessments to administer to students in Grades 3-12, such as a Phonics and Sight Word Inventory, a Comprehension Strategy Inventory, and Teacher Guides for Scaffolding Comprehension in order to probe for deeper understanding of the passage.

In addition to the FCAT and FAIR, a Non-participant Classroom Observation Form along with Teacher Behavior Frequency Matrix was used in the data collection. The Non-Participant Classroom Observation Form (Appendix A) incorporating a five point Likert scale was used in conjunction with fieldnotes to inventory the frequency of specific instructional practices employed by the teacher. The fieldnotes and the Non-Participant Classroom Observation Form was then used to develop the Teacher Behavior Frequency Matrix.

Data Analysis

The data analysis in the study was couched in a constant comparison model. In other words, as data was collected it was perpetually compared with personal memos or notes being generated over time. Fieldnotes from classroom observations were collected and quantified using a Teacher Behavior Frequency Matrix adapted from Flanders (1970). Adaption was necessary since systematic observation varies dependent on the context and objective of the lessons (Flanders, 1970). To enhance the ethnography, in October a focus group conversation was recorded and transcribed. Using a tag cloud method (Viégas & Wattenberg, 2008) responses were analyzed for underlying themes along with coding and discourse analysis (Gee, 1999). As part of the classroom routine, the three teachers in the study assigned a prompt for writing which students provided a short essay response. The students' writing was analyzed and categorized by the researcher into dominant themes that emerged from the writing. Pre and post FAIR scores were collected for reading comprehension and Maze and statistically analyzed for significance using a multivariate t-test (Howell, 2007). Although the researcher was the single observer using the Non-participant Classroom Observation Form, an inter-rater reliability was conducted using

the form with six doctoral students and one professor observing a videotaped lesson. A statistical analysis was conducted to determine significance on the seven observations using Fleiss kappa (Fleiss, 1971). The following chart illustrates the systematic documentation and sequential analysis of the data collected from September to December.

Table 2: Table 2: Sequence of Data Analysis Sequence of Data Analysis

Sequence of Analysis	Data	Method	Analysis
First	Fieldnotes	Qualitative	Teacher Interaction
Second	Focus group	Qualitative	Tag Cloud
Third	Short essay response	Qualitative	Thematic
Fourth	Pre-Post FAIR	Quantitative	Multivariate t-test
Fifth	Teacher Obs. Form	Quantitative	Fleiss kappa

Summary

All students in the study were involved in a reading intervention program utilizing a combination of young adult novels and a basal series designed for adolescents. Although the intervention is a year-long program, the data collection period of the study took place from September to December, essentially over a nine-week grading period with the three randomly selected intensive reading teachers being observed two to three times a week. Additionally, all students taught by the three intensive reading teachers involved in the study produced a short essay-type written response self-reporting their perceptions on the role and use of the imagination in their personal process of reading and comprehending.

Due to a growing concern to improve literacy instruction and imaginative divergent thinking, particularly with low progress adolescent students, this grounded theory study was conducted with low-progress adolescent students in three intensive reading classes in an urban

Central Florida high school setting. The problem, from a hebegogical perspective, crystallizes into what instructional practices nourish and develop the imagination to improve convergent and divergent thinking to improve comprehending. The purpose of this hybrid ethnographic study is to develop a grounded theory and extend our current understandings of how adolescents actively process print and comprehend. Employing a pre-test post-test design with mixed qualitative and quantitative assessment, this hybrid of a traditional ethnography triangulated participant observations, non-participant observations and artifacts.

The data collected were compared and triangulated with pre- and post- Florida Assessments for Instruction in Reading, intensive reading teacher focus group, Florida Comprehensive Assessment Test, teacher behavior frequency matrix adapted from Flanders 1970), Non-participant Classroom Observation form using a Likert scale of 1 to 5, and classroom observations in order to develop a theory grounded in the data. Semi-structured intensive reading teacher focus group conversation and classroom observations were transcribed and analyzed; while the Non-participant Classroom Observation form was analyzed and quantified so that the researcher could explore the impact of teacher behavior on student outcomes. For future reference, inter-rater reliability research was conducted using the form with six doctoral students (including the researcher) and one professor observing a videotaped lesson.

The dependent variables in the study were: the students' short essay responses, focus group responses, and classroom observations. The independent variables were: the published materials used, race, ethnicity, age, attendance, and gender. To identify significant relationships among these variables and students' imagination, a multivariate t-test was used for statistical analysis and co-triangulated with other data to identify significant relationships. Pre and post

Florida Assessments for Instruction in Reading (FAIR) scores were used for evidence of growth in comprehending.

In the next chapter, findings from the study are shared. Data include timed and dated fieldnotes, semi-structured focus group transcript, FCAT scores, pre and post Florida Assessments for Instruction in Reading (FAIR) scores and student short essay responses. Moreover, due to the complexity of grounded theory studies, the researcher combined tag cloud analysis and discourse analysis (Gee, 1999) with ethnographic methods (Frank, 1999; Heath, 1983; Heath & Street, 2008; Spradley, 1980) in order to respond to the research questions. By studying discourse the researcher developed new insights into the dynamic and complex subject of the role of the imagination in reading with low-progress adolescent students and implications for instruction.

CHAPTER FOUR: FINDINGS

Introduction

The purpose of the study was to develop a grounded theory and extend our current understandings of how adolescents actively process print and comprehend. Founded on the understanding that reading is an interactive process (Clay, 2001; Goodman, 1994; Rumelhart, 1994; Santiago, 1997; Singer, 1994), the study investigated whether or not a correlation existed among six instructional practices during intensive reading instruction: storytelling, teaching for thinking in binary opposites (comparing and contrasting), using metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) in nourishing and developing the imagination of low-progress adolescent students to improve comprehending.

A better understanding of which instructional practices promote and nourish the imagination of low progress adolescent students and increase their abilities to comprehend was determined by triangulating and co-triangulating data to answer the following questions to ground and develop a theory of how low-progress adolescent students actively process print and comprehend. The intent of the study was to construct a grounded theory and broaden our current understandings of how adolescents actively process print and comprehend. The study was conducted with the understanding that reading is an interactive process (Clay, 2001; Goodman, 1994; Rumelhart, 1994; Santiago, 1997; Singer, 1994). The researcher explored whether or not a correlation existed among six instructional practices during intensive reading instruction: storytelling, teaching for thinking in binary opposites (comparing and contrasting), using

metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) in nourishing and developing the imagination of low-progress adolescent students to improve comprehending. The major findings of the study were:

- Teachers believe the imagination has an important role when reading;
- Conversation, storytelling, and humor are predominant factors in encouraging metaphorical language in the intensive reading classroom;
- Although recognized by teachers and experts as instructional practices that nourish the imagination, the use of text sets and poetry are virtually non-existent in intensive reading classrooms;
- Students believe their imagination plays a critical role in comprehending;
- The majority of students in the study believe that the imagination aids in visualizing when reading;
- Divergent and convergent thinking, imagining possibilities, and making intertextual connections has the potential to enhance low-progress adolescent students' feedforward mechanism of predicting and anticipating.

The following research questions guided the study to enhance the researcher's understanding and support the construction of theory grounded in data.

Question One: Influence of instructional practices

1. What is the influence of storytelling, teaching for thinking in binary opposites (comparing and contrasting), using metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) when employed as an

instructional practice in nourishing the imagination of low-progress adolescent students identified by the Florida Comprehensive Assessment Test (FCAT) reading scores?

Although, classroom field notes, Non-participant Classroom Teacher Behavior Matrix, and focus group transcript were used, quantifiably, there was not statistical significance between pre and posttest FAIR. Therefore, a correlation between the frequency of an instructional practice and its impact on students' imagination and subsequently comprehension was not possible. Statistical analysis charts for the pre and post FAIR are in Appendix F. However, triangulating the data revealed that although the intensive reading teachers believed that the instructional practices listed nourished the imagination of low-progress adolescent students, not all of them were employed in the classroom. The data showed that the teachers in the study employed storytelling, comparing and contrasting, and humor often during the 50 minute period, but seldom, if ever, used poetry, text sets, and metaphorical language.

Question two: Influence of instructional practices on students' comprehension

2. What influence does storytelling, teaching for thinking in binary opposites (comparing and contrasting), using metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) have as an instructional practice on low-progress adolescent students' reading comprehension according to the Florida Assessment for Instruction in Reading (FAIR)?

To answer this question, classroom field notes, Non-participant Classroom Teacher Behavior Matrix, and student standard scores in reading comprehension and Maze on the FAIR were triangulated. Typically, low-progress adolescent readers do not make the accelerated

progress of their average and above average peers (Allington, 2001; Clay, 2001; Fernald, 1988; Lyon, 2003). Low-progress readers make progress in smaller increment. Hence, the students' scores on the FAIR showed a slight improvement in reading comprehension. However, a statistical analysis using a multivariate t-test (Appendix F) revealed that there was no significance between the pre and the post assessment. Even though the teachers in the study confirmed their beliefs on the importance of the instructional practices listed in developing the imagination of low-progress adolescent students, there was no statistical significance between pre and posttest, making a correlation between the frequency of an instructional practice and its impact on student comprehension impossible.

Question three: Students' beliefs on the impact of the imagination on comprehension

3. To what extent do low-progress adolescent students believe their imagination impacts their comprehension and prepares them for deep understanding?

In combination with the classroom field notes and focus group transcript, a primary source to answer this question was the students' short response essays assigned by the classroom teachers as bellwork when the students entered the classroom. Analysis of the 174 student responses revealed that 53% believed their imagination supported their visualization to predict and anticipate prior to reading and supported their visualization during the reading to construct meaning. While the majority of the students believed that their imagination helped them visualize, 21% believed that it helped them empathize with characters and 23% of the students responded that their imagination helped them predict and anticipate prior to reading. Only 3% of students believed that their imagination prompted intertextual connections.

Data collection methods included timed and dated fieldnotes, semi-structured focus group transcript, FCAT scores, pre and post Florida Assessments for Instruction in Reading (FAIR) scores and student short essay responses. The numbers of involved individuals were monitored over time. Demographics at the individual level included grade level, gender, and race. These methods coupled with observations and semi-structured focus group conversations helped the researcher develop a holistic perspective and a better understanding of the phenomena being assessed. Qualitative semi-structured conversation of a focus group, using a structured protocol, was conducted with six out of seven intensive reading teachers during the grading period. The protocol was developed and an item bank of questions was shared.

Participant Observations

In ethnography, participant observations are made when there is interaction between researchers and the subjects or actors in a study (Heath, 1983; Heath & Street, 2008; Spradley, 1980). In this study the researcher interacted as a participant observer with six out of the seven intensive reading teachers during a 50 minute focus group discussion. The conversation was recorded, transcribed, and coded. The coded transcript is Appendix D. Using a tag cloud or weighted list (Viégas & Wattenberg, 2008) and discourse analysis (Gee, 1999), the transcribed conversation was studied for predominant themes on the role of the imagination in literacy acquisition and instruction of low-progress adolescent students. For anonymity, names were substituted with codes on the transcript (Appendix D). The codes were: PO for participant observer/researcher; RC_1 for one reading coach; RC_2 for the second reading coach; and T_1 thru T_6 were used to identify the six intensive reading teachers.

Due to the complexity of grounded theory studies, the researcher combined tag cloud analysis and discourse analysis (Gee, 1999) with ethnographic methods (Heath, 1983; Heath & Street, 2008; Spradley, 1980) in order to respond to the research questions. Discourse analysis techniques were used to investigate the knowledge that was socially constructed (Gee, 1999; Hicks, 1995; Luke, 1995; Vygotsky, 1978). By studying discourse, the researcher developed new insights into the dynamic and complex subject of the role of the imagination in reading with low-progress adolescent students and implications for instruction. In combination with the tag analysis, the discourse analysis revealed situated meanings and cultural models. Situated meanings were the understandings developed on the spot during the focus group conversation and based on everyone's past experiences (Agar, 1996; Gee, 1999). Cultural models were the informal theories developed and associated with the work involving the students (Spradley, 1980). The process enabled the researcher to examine cognitive processes through conversations on the influence of select instructional practices on the imagination of low-progress adolescent students' processing of print.

Guided by an ethnographic perspective, the discourse analysis became the foundation for identifying the intensive reading teachers' knowledge, skills, and dispositions (Heath, 1983; Heath & Street, 2008) in an intertextual context (Bloome & Bailey, 1991). The ethnographic perspective provided the researcher a general overview for analyzing the potential for professional learning opportunities.

A tag cloud or a weighted list analysis provided a visual overview of word frequencies that is easy to comprehend and publish (Viégas & Wattenberg, 2008). The more frequently a word occurs in a specific text, the bigger the word will emerge, signifying aprimary theme and providing the researcher with a visual representation. Tag clouds are a weighted list of words

with varying font sizes that indicate the prevalence of a word within a text. It is an innovative and emerging form of qualitative data analysis which produces a visual image of the regularity of a series of words within a text (Viégas & Wattenberg, 2008). The clouds were generated based on raw data without regard to contextualization which may produce misleading interpretation unless it is crosschecked with other forms of assessment and analysis. A tag cloud analysis aids impression formation. Impression formation or "gisting" is seen as a means to assess an underlying meaning within a specific body of text (Sinclair & Cardew-Hall, 2007). The gisting approach was used for pursuing information from the focus group transcript. The value of a tag cloud analysis lied in non-specific information discovery. As an initial tool for non-specific information discovery and preliminary thematic inquiry, tag clouds are an emerging innovative method for exploring great amounts of text for fundamental significance.

Both participants' and the researcher's conversations were recorded and used in developing the tag clouds. Because of the transactional nature of conversation (Cazden, 1988; Gee, 1999; Rosenblatt, 2005; Heath; 1983; Heath & Street, 2008), all oral responses during the focus group conversation were taken into consideration. Using the Wordle application at http://www.wordle.net, all texts were entered in response to the focus group questions to develop the tag clouds. Created by Jonathan Feinberg, Senior Software Engineer at IBM Research, texts are entered into the Wordle application and turned into a graphic tag cloud highlighting an underlying theme indicated by the text size. The images created by the Wordle application are licensed under a Creative Commons Attribution license making its use copyright free as long as the creator of the application and website are listed in the document.

The following data results and description illustrate the Wordle generated graphics for each of the fifteen questions asked during the focus group followed by a narrative. The full coded transcript of the semi-structured focus group conversation is in Appendix D.

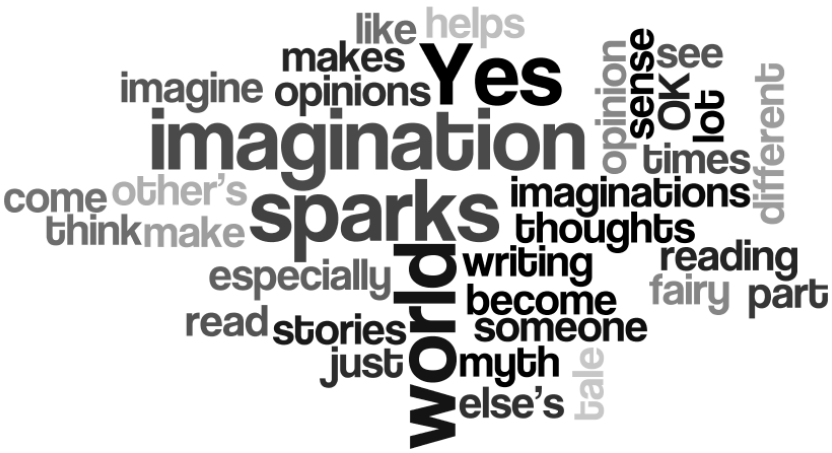


Figure 5: Tag Cloud – Is listening to stories critical in developing the imagination?

The Figure 5tag cloud graphic substantiates the unanimous yes response from all intensive reading teachers in attendance and the two reading coaches. When prompted by the researcher to explain their answers T_1 and T_4 responded that listening to stories was critical in developing the imagination because it placed the reader in a state of "flow" (Csíkszentmihályi, 1996). What the tag cloud graphic does not show is that T_2, T_5, RC_1, and RC_2 nodded in agreement. Transcript analysis indicated an egocentric personal connection.

Figure 6: Tag Cloud - Does listening to stories promote visualizing images?

Although only two participants said yes, it was with some hesitation as indicated by the addition of the phrase "I think". At this point in the conversation, the rest of the participants were non-committal unless prompted for a response by the participant observer/interviewer. When prompted by the researcher to explain their response, T_4 answered that it involved sensory perception. The key word in the Figure 6 tag cloud is think. When compared to the transcript the term "I think" was used to preface sensory perception. In this instance, "I think" implied insecurity. Participant responses to this question were from a personal first person stance. Transcript analysis indicated a reference to include others, veering away from how listening to stories supports their personal visualizations. T_4's response in this instance indicated an informal theory developed and associated with the work involving students.

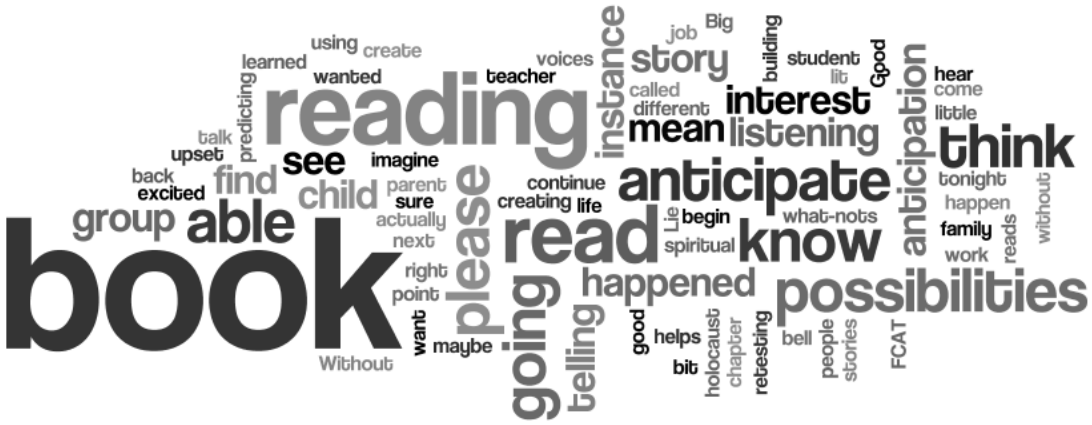


Figure 7: Tag Cloud - Does listening to stories encourage predicting and anticipating?

At first glance, the Figure 7tag cloud shows "book" as the underlying theme in response to the question. Crosschecked against the transcript of the focus group, the participant responses connect books to children and teaching. Global connections are evident with the statement made by RC_1, "When other people are telling about life I think it helps them see possibilities and when you're able to see possibilities and hear different possibilities then you're able to anticipate." In addition to global connections, personal and intertextual connections were made when T_4 made a point in the conversation by talking about the book *The Big Lie: A True Story* (1994) by Isabella Leitner, Irving Leitner, and Judy Pedersen.

The majority of the interaction in response to this question was done by T_1, T_4, and RC_1. All three participants made connections verbally indicating that informal theories were developed and associated with the work involving students. Additionally, when RC_1 commented, "So when other people are telling about life I think it helps them see possibilities", the participant was developing an understanding during the conversation and based on the others' past experiences.

Figure 8: Tag Cloud - Are all the senses necessary in order to imagine?

For the first time in the focus group conversations some of the teachers responded with no or maybe. Based on the Figure 8tag cloud, on the surface, the theme is think. A careful review of the transcript indicates that although the word "think" is used most often it is in the context of "I think" or "I was thinking". In this case, "I think" or "I was thinking" indicated a sense of self-doubt further indicating an evolving sense of understanding. The response in this section of the discourse also indicated dialogical thinking (Bahktin, 1981) evidenced in the argument placed by T_1, "What about all the kids who can't hear, can't see, or can't really touch. I think of Micah (pseudonym) who's wheelchair bound. The only way he's ever going to do...see anything of this world is through his imagination." Additionally, intertextual connections were made by referencing *The Other Boleyn Girl* (2004) by Phillipa Gregory and the movie *Elizabeth* (2007) produced by Universal Studios.

Figure 9: Tag Cloud - Do proficient readers utilize all the senses to comprehend when reading?

Reading is the predominant term in this Figure 9tag cloud. The participants in the focus group responded to this question with more intertextual connections ranging from *The Da Vinci Code* (2003) by Dan Brown to the basal series used in the intensive reading classes. The intertextual connections were grounded in cultural models of understanding. Evidence of dialogical thinking surfaced when RC_1 said, "So then, do you have to have the experiences?" Then T_1 rebutted with, "And it's also the opposite because I had been to the Louvre in my brain because I had read *The Da Vinci Code* and then when I actually got there it was like revisiting it." At this point in the conversation T_4 brought up empathy in the discussion by referring to the plight of the character in *The Lovely Bones* (2002) by Alice Sebold.

In responding to this question, the predominant responses by the teachers were informal theories developed and associated with their work with students; while the reading coaches' responses were more dialogical in nature with understandings developing during the conversation and based on the past experiences of the group.

Figure 10: Tag Cloud - Do proficient readers draw on select senses based on the genre they are reading?

Both the Figure 10tag cloud and the transcribed conversation confirmed that the underlying theme of the conversation and response to the question is that it depends on what the reader knows. Overall, the participants responded "maybe" with the conversation revolving on the concept that it depended on the student and the text. An analysis of the transcript illustrates numerous intertextual connections in response to the question. The group was prompted to think dialogically when T_1 asked, "Am I using my senses or memories?" The question brought to the surface the role of emotions and memories. Although agreement was not reached, T_5 made the point, that when we can't visualize, we rely on the author's craft to assist us.

An analysis of the conversation that transpired based on this question revealed that, although the conversation was dominated by T_1, T_4, and RC_1,it revolved around informal theories developed in association with their work with students. To a small degree, RC_1's contribution to the conversation was based on understandings developed during the conversation and based on colleagues' past experience.

Figure 11: Tag Cloud - Do low-progress readers rely only on sight to predict and anticipate when reading?

The Figure 11tag cloud highlights primarily that low-progress readers think rather than rely on sight to predict and anticipate. A review of the transcript of the conversation of the focus group confirms the tag cloud theme. Beyond the identified theme, participants elaborated by referring to student performance and making intertextual connections. A question on the impact of choice in reading material was made by RC_1,building on the concept of predicting and anticipating in regards to interest and motivation.

In this section of the conversation, the discourse was based on informal theories developed by the participants in association with the work involving students. Three short responses after the question indicated dialogical thinking that understandings were developing grounded in the conversation and based on everyone's past experiences. Such comments as, "Well maybe" or "maybe they don't understand" or "I don't know, it's hard to tell", are

indicative of dialogical thinking and prompting the group the group to construct knowledge together.

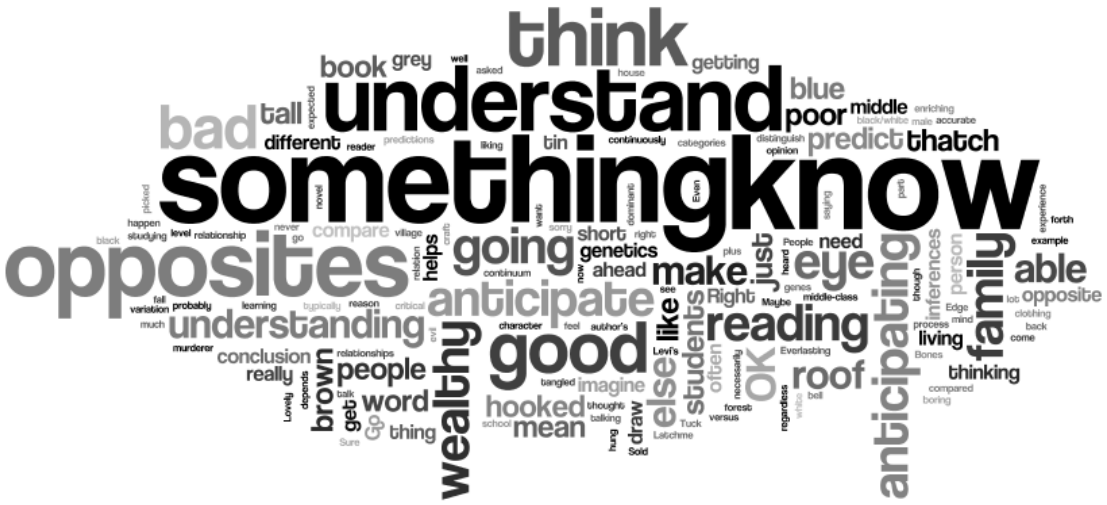


Figure 12: Tag Cloud - Is understanding opposites a critical skill for predicting and anticipating when reading?

In response to this question, the focus group responded "no" but that predicting and anticipating was influenced, as the Figure 12 tag cloud shows, by knowing something about relationships. In other words, according to the group, predicting and anticipating were intimately dependent on the reader's ability to compare and contrast. Furthermore, being able to compare and contrast enriched the reader's predictions and emotional anticipations. The interaction prompted by this question included five intertextual connections and one personal connection.

The intertextual connections made indicated that the participants developed informal theories associated with their work. Based on the conversation, when RC_1 said, "I'm just thinking I don't quite understand it. But I think, when I'm reading and I'm anticipating, I have to understand that…I'm anticipating something different"; the participant is demonstrating a

developing understanding based on the group's conversation and past experiences. The participant goes on to confirm that "yes, I have to think in opposites to anticipate."

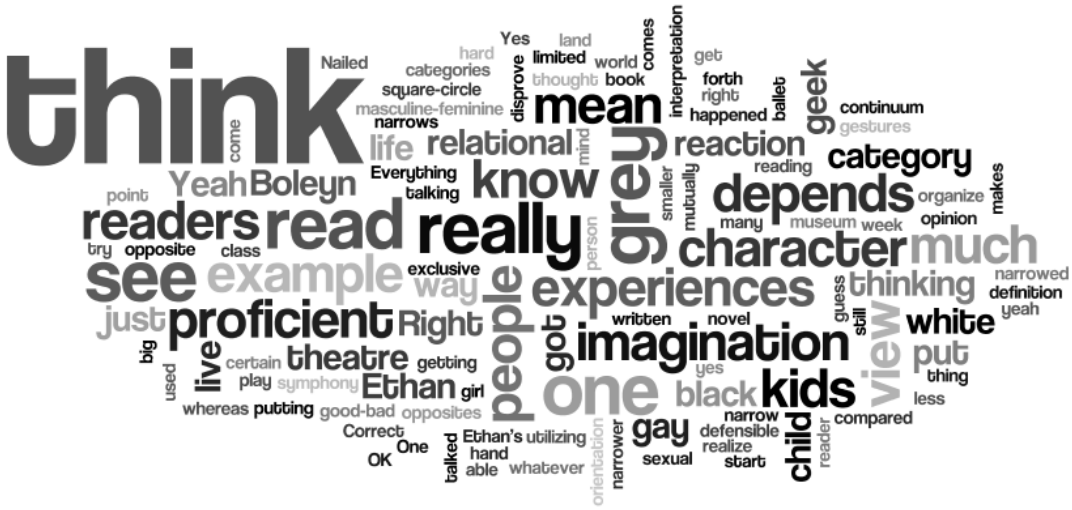


Figure 13: Tag Cloud - Do proficient readers organize a defensible interpretation by utilizing opposites?

In crosschecking the term "think" from the Figure 13tag cloud, with the transcript of the conversation, the term is used tautologically to imply an indecision which is why it shows up prominently in the tag cloud. Five intertextual connections and one dialogical question were asked during this section of the focus group conversation. Additionally, one reference to student performance and the impact of a lack of intertextuality was discussed. The density of the tag cloud indicates the rich conversation surrounding the question.

The majority of the conversation during this section was informal with theories grounded in the teachers' work. RC_1 proposed a few dialogical questions, such as "is it mutually exclusive?" and "how did they come to have imagination" that indicated a developing understanding based on the conversation with the group and questioning further to mine into the

participants' past experiences for answers. In addition, RC_1 reached out for clarity when the question was asked, "Is their imagination narrowed compared to less proficient readers…"

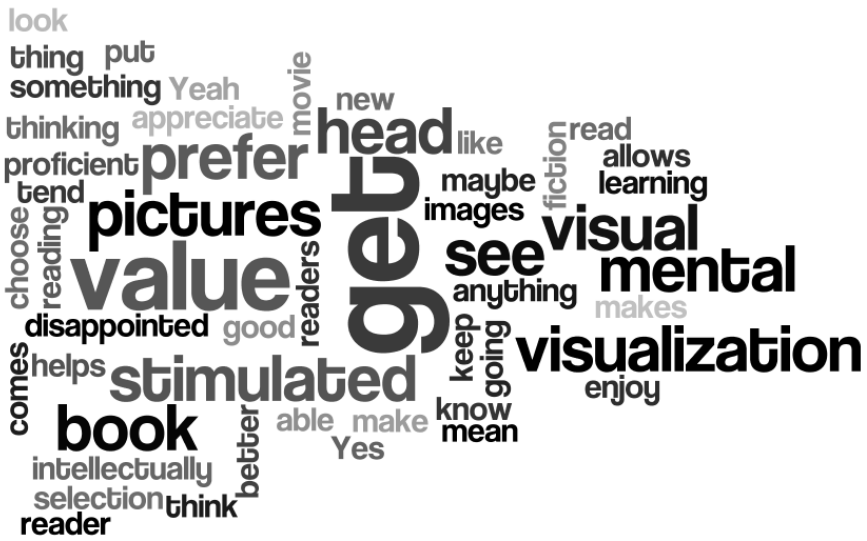


Figure 14: Tag Cloud - Do proficient readers create mental images when reading?

Unanimously, the focus group was in agreement in response to this question. Although only T_6 and T_4 responded with a verbal yes, the rest of the group nodded in agreement. The operative word based on the Figure 14tag cloud is "get". A careful review of the transcript of the conversation revealed that "get" was repeatedly used to describe that to "get" into the book readers needed to be able to visualize. In this section one personal connection was shared by T_4 and one dialogical question was asked by RC_1; whether or not the issue of creating mental images was based on what the reader valued.

The response from T_1 and T_4 indicate that these two teachers developed informal theories grounded in practice; while RC_1's response establishes a dialogical conversation with the question, "Does it have anything to do with what they (the students) value?" The nature of the question indicates RC_1's desire to develop an understanding while relying on mentor colleagues.

Initially, RC_1 asked the participant observer/ researcher for clarification to further engage in the conversation.

Figure 15: Tag Cloud - Is reading generating images from words?

The term "something" was used multiple times in the context of the conversation to describe the images generated from words. During this section of the conversation, four references were made to student performance in the classroom. In addition, two personal connections and one intertextual connection were made. Everyone in the group agreed that reading was generating images from words.

At thirty-six minutes into the conversation, T_2, T_6, and T_5 begin to contribute more to the conversation. Up to this point, the majority of the conversation was dominated by T_1, T_4, and RC_1; although RC_1's contributions to the conversation were generally dialogical in nature prompting further discussion within the group. Overall, this section of the focus group

conversation involved informal theories developed in association with the teachers' work with students.

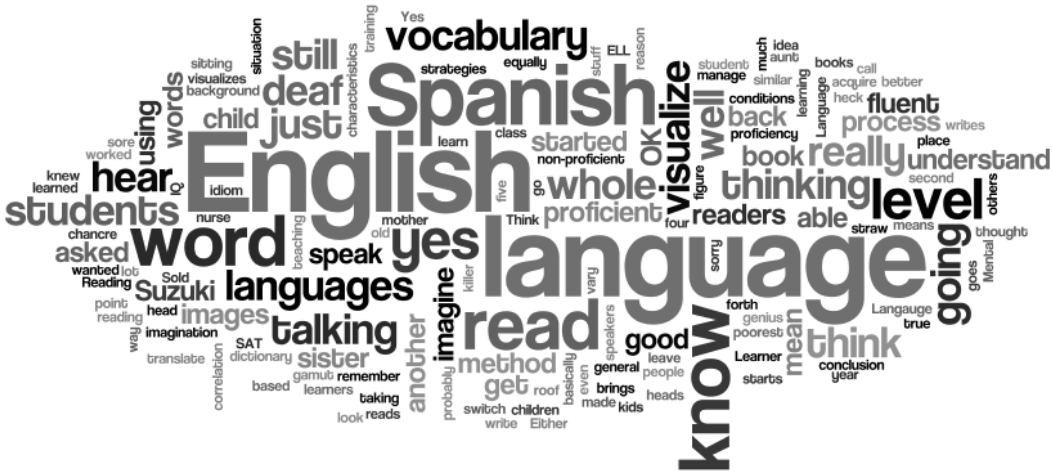


Figure 16: Tag Cloud - Is there a strong association between mental images and language level?

Although the question referred to language level in general, as Figure 16 illustrates, the focus group narrowed the conversation to English Language Learners. The teachers in the group did not reach consensus on a response, but rather raised dialogical questions about non-traditional learners and learners of different ages. Four personal connections were mentioned during this section of the conversation in addition to three references to student performance.

Such participant generated questions as: "What the heck is going on when they read in English and think in another language?"; "What about deaf children?"; and "They don't hear a word, can they imagine it?" prompted a dialogical conversation within the group to develop an understanding from each other and their past experiences. Although, the questions prompted further conversation, the majority of the discourse revolved around informal theories developed by the teachers in their practice. The conversations grounded on the teachers' practice generally

began with “I was just thinking” or “I remember”. Conversations involving personal experiences rarely prompted further discussion until a dialogical question was posed.

Figure 17: Tag Cloud - Do proficient readers use metaphors to create mental images when reading?

This section of the conversation lasted 1.05 minutes. The brevity of the discourse is evident in the sparseness of Figure 17 tag cloud. The Figure 17tag cloud highlights the terms metaphors, appreciate, and understand. Although brief in duration, an analysis of this portion of the conversation revealed that: a personal connection was made; a confirmation was provided with examples; a question was posed; and a declarative statement was made. During the conversation with the teachers they questioned whether low-progress readers understand metaphors in order to appreciate them during reading.

There were no instances of any dialogical questioning in this section, indicating that all the utterances, on the surface, were based on informal theories developed and associated with personal experience of which not all involved students. Such comments as, “They (the students)

have to understand it to appreciate it", confirmed RC_1's theory that readers, in particularly students, used metaphors to create mental images providing they understood the metaphor.

Figure 18: Tag Cloud - Do low-progress readers interpret metaphors literally?

The question in this section was dependent on the participants' response from the previous question; hence, all utterances in response to this question occurred in 32 seconds. The visual sparseness of the Figure 18 tag cloud confirms the brevity of the conversation in this section. Even though this section of the conversation was brief, limitations, personal connections with examples, acknowledgments, and confirmations transpired. Crosschecked with the Focus Group transcript, Figure 18 shows that T_1 and RC_1 expressed that they doubted low-progress readers interpreted metaphors because they had to understand them to appreciate them. T_3 pointed out the difficulty of understanding idioms for English Language Learners.

Although situated meanings are always possible (Agar, 1996; Gee, 1999), the nature of the question cued participants to discuss informal theories grounded in their interactions with students. In addition, although the question referenced readers in general, the group readdressed the issue of English Language Learners even through English Language Learners make up 11%

of the student population at the school and English Language Learners make up 11% of the student population in the intensive reading classes in the study.

Figure 19: Tag Cloud - Do metaphors assist readers in comprehending?

Participant conversation to this question lasted 2.94 minutes. Predominant talkers in this section were T_1, T_4, and RC_1. In this final section of the conversation, the Figure 19tag cloud highlights the term metaphor. Teachers in the focus group discussed how metaphors assist readers in comprehending by using examples of impressionist art and photography. T_1 made an intertextual connection to a book on Monet to make a point and three references to student performance. In addition, the conversation in this case involved positive responses with limitations and examples, clarification of comments, and confirmation with examples.

Comments like, "it makes it more engaging to see it in their (students') heads", is proof that in this section cultural models (Agar, 1996; Gee, 1999) of informal theories were developed and associated with the participants work with students. Even when intertextual connections were made, they related to the participants' work with students.

In addition to the narratives following each question and tag cloud, an overall analysis of the focus group revealed that 25 intertextual references were made within a 50 minute period amounting to approximately one text being referenced every 2 minutes. The text reflected a broad spectrum of genres, such as: adult best sellers, high school basal series, young adult novels, crossover young adult novels, and non-narrative informational texts. Frequency of utterances by focus group participants within the 50 minutes professional conversations are as follows: PO 93/ 50 minutes;$RC_1$29/ 50 minutes; RC_2 13/ 50 minutes; T_1 59/ 50 minutes; T_2 5/ 50 minutes; $T_3$2/ 30 minutes; $T_4$36/ 50 minutes; T_5 3/ 50 minutes; and $T_6$11/ 40 minutes.

Because of the intricacies of grounded theory studies, the researcher merged tag cloud analysis and discourse analysis (Gee, 1999) with ethnographic techniques (Heath, 1983; Heath & Street, 2008; Spradley, 1980) in order to answer the research questions. Discourse analysis techniques were employed to examine the knowledge that was socially constructed (Gee, 1999; Hicks, 1995; Luke, 1995; Vygotsky, 1978). By studying discourse, the researcher acquired new insights into the dynamic and multifaceted subject of the role of the imagination in reading with low-progress adolescent students and implications for instruction.

In combination with the tag analysis, the discourse analysis exposed situated meanings and cultural models (Agar, 1996; Gee, 1999). Categorizing, coding, and tabulating the participants' responses revealed that that 75% of the responses were cultural models or informal theories developed by their work with students. Consequently, 25% of the responses were situated meanings where the understanding developed occurred during the conversation and relying on colleagues' past experiences. Furthermore, 54% of the connections made were intertextual while 42% were personal with 4% global. The process allowed the researcher to

inspect cognitive processes through conversations on the influence of select instructional practices on the imagination of low-progress adolescent students' comprehension.

Directed by an ethnographic perspective, the discourse analysis became the basis for ascertaining the intensive reading teachers' knowledge, skills, and dispositions (Heath, 1983; Heath & Street, 2008) in an intertextual context (Bloome & Bailey, 1991). The ethnographic perspective gave the researcher a general overview to survey the possibility for professional learning opportunities based on what was learned.

Non-Participant Observations

Non-participant observation is a research technique whereby the researcher observes the subjects of his or her study, with their knowledge, but without directly interacting with them (Heath & Street, 2008). The approach is sometimes criticized because the observation may lead people to behave differently, thus invalidating the data obtained, as for example in the case of the so-called Hawthorne effect in the Western Electric study (Owens, 2004). The Hawthorne effect refers to the tendency of some people to work harder and perform better when they are participants in an experiment. Individuals may change their behavior due to the attention they are receiving from researchers rather than because of any manipulation of independent variables. This effect was first discovered and named by researchers at Harvard University who were studying the relationship between productivity and work environment. Researchers conducted these experiments at the Hawthorne Works plant of Western Electric. The study was conducted to determine if increasing or decreasing the amount of light workers received increased or decreased worker productivity. The researchers determined that productivity increased due to attention from the research team and not because of changes to the experimental variable.

Later research into the Hawthorne effect has suggested that the original results may have been overstated. In 2009, researchers at the University of Chicago reanalyzed the original data and found that other factors also played a role in productivity and that the effect originally described was weak at best.

In this study, to overcome the Hawthorne effect while engaging in non-participant observations, the researcher observed a number of similar situations, over a period of time. As a non-participant observer, the researcher sequenced teacher/student interactions and preserved the information on dated and timed fieldnotes. The events were then tabulated on a teacher behavior frequency matrix (Flanders, 1970) and correlated for significance to student achievement using the FAIR reading and Maze standard scores. From the onset there was no guarantee of positive or negative results.

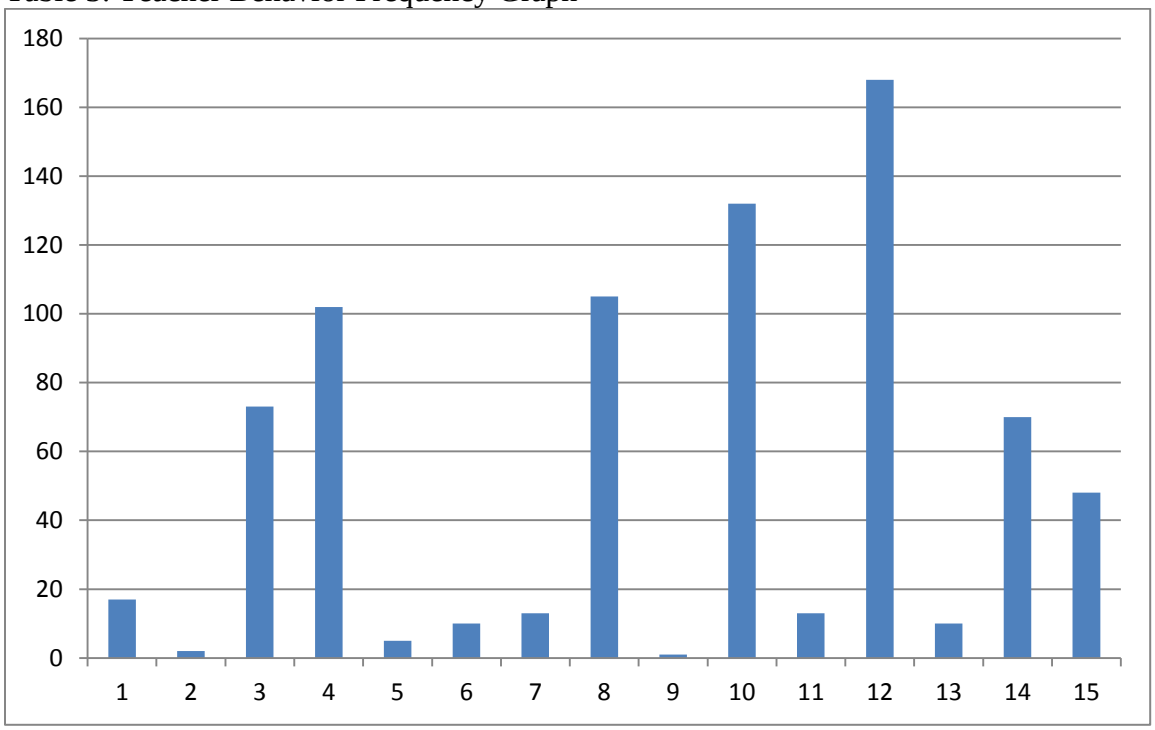
Fieldnotes were taken over a period of eighteen days of classroom observations in three intensive reading classrooms from September to December and quantified using a 1-5 Likert scale with the Non-participant Classroom Observation Form (Appendix C). The Likert scale quantified the teacher behavior frequency with 1 being never, 2 rarely, 3 sometimes, 4 often, and 5 frequently within a 50 minute classroom period. For statistical analysis numeric values were assigned to the frequencies of observed behaviors. Numeric values for the frequency were: 0 for never; one for rarely; two for sometimes; three for often; and four or more for frequently. Teacher/student interactions were analyzed and tabulated from the fieldnotes and Non-participant Classroom Observation Form. Using an adaptation of Flander's (1970) interaction analysis, a teacher behavior frequency matrix was generated and plotted onto a bar graph. The matrix with the tabulation is located in Appendix E while Figure 20 illustrates the bar graph with the graph of the teacher behaviors. The numbers on the matrix do not imply a scale but rather a

classification (Flanders, 1970). Although the teacher behavior frequency matrix does provide information systematically arranged it cannot illustrate all the possible idiosyncrasies of classroom dynamics (Flanders, 1970). Therefore, in addition to the field notes and the Teacher Behavior Frequency Matrix, an analysis of the focus group transcript and students' short essay responses were necessary to develop a grounded theory on the role of the imagination.

In interaction analysis, teacher/student conversations are categorized into direct or indirect influence while teacher and student discourse is inventoried. All statements from the fieldnotes were categorized into teacher direct influence, teacher indirect influence and student discourse. Teacher direct influence is defined as intentional use of: metaphorical language; text sets; comparing and contrasting; storytelling; sensory stimulation; highlighting the unknown; highlighting patterns; and highlighting intertextual connections. Indirect influence is incidental use of: poetry; humor; an information intensive environment; and conversation.

Analysis of the data collected indicated that teacher/student interactions involved primarily comparing and contrasting, storytelling, making intertextual connections, using humor, and promoting conversations. All of these instruction practices are recognized to nourish and support the development of the imagination (Baines, 2008, Egan, 2006, Greene, 1995). On the other hand, during the observation periods, teacher/student interaction did not extensively manifest metaphorical language use, text sets, sensory stimulation, and poetry; all recognized as instructional practices that nourish and develop the imagination and consequently increase students' ability to process information efficiently (Clay, 2001; Egan; 1997; Johnston, 1997; Greene, 1995).

Table 3: Teacher Behavior Frequency Graph



Categories for Interaction Analysis

Teacher Discourse	**Direct Influence**	1. Teacher uses metaphorical language. 2. Teacher utilizes text set/s during lesson. 3. Teacher models comparing and contrasting. 4. Teacher tells stories during lesson 5. Teacher uses sensory stimulation during lesson. 6. Teacher highlights the unknown during lesson. 7. Teacher highlights patterns during lesson. 8. Teacher highlights intertextual connections during lesson.
	Indirect Influence	9. Teacher incorporates poetry during lesson. 10. Teacher incorporates humor during lesson. 11. Teacher promotes an information-intensive environment. 12. Teacher promotes topic centered or topic associated conversations.
Student Discourse		13. Teacher reinforces students' use of metaphorical language. 14. Teacher reinforces students' intertextual connections. 15. Teacher reinforces students' storytelling.

Figure 20: Categories for Interaction Analysis

Student Short Essay Response Analysis

In addition to the classroom observations, non-participant observations included a careful analysis of student writing to a prompt posted by the teachers in the study. As part of the classroom routine of providing "bellwork" teachers in all three observation classrooms posted the following prompt: How does your imagination prepare you to understand what you are going to read and helps your understanding while you are reading? The three intensive reading teachers made the decision to ask all their intensive reading classes to respond to the prompt and after blanking out all the students' names handed all the writing samples to the researcher. Consequently, the writing samples are used to enhance this research study by highlighting students' voice, all 174 samples were used to report the following information.

Analysis of the 174 student responses revealed that 53% self-reported that it supported their visualization to predict and anticipate prior to reading and supported their visualization during the reading to construct meaning. While the majority of the students claimed that their imagination helped them visualize, 21% claimed that it helped them empathize with characters and 23% of the students responded that their imagination helped them predict and anticipate prior to reading. Only 3% of students claimed that their imagination prompted intertextual connections.

Table 4: Student Short Essay Response Analysis

Students	Aids visualization	Creates empathy	Prompts predicting and anticipating	Prompts intertextual connections
N = 174	53%	21%	23%	3%

Statistical Analysis of Pre/Post FAIR

Using pre and post FAIR standard scores for 28 low-progress adolescent students from three high school intensive reading classrooms, Hotelling's Trace, a multivariate t-test, indicated that there was not a difference between pre and post test scores, T = .067, F (2,26) = .874, p = 4.29. Univariate, within-subjects ANOVAs indicated that there was no difference in FAIR reading scores from pretest (M = 86.3571, SD = 9.85906) to posttest (M = 89.7143, SD 13.49035), F(1,27) = 1.441, p =.240; there was not a difference in FAIR Maze scores from pretest (M = 91.5357, SD = 10.35833) to posttest (M = 92.7143, SD = 11.38178), F(1,27) = .795, p = .380. Quantifiably, since there was not statistical significance between pre and posttest, a correlation between the frequency of an instructional practice and its impact on student comprehension was not possible. Statistical analysis charts for the pre and post FAIR are in Appendix F.

Inter-rater Reliability of Classroom Observation Form

Although there was only one observer/rater in the study using the Non-Participant Classroom Observation Form, an inter-rater reliability analysis was conducted for potential future reference. The Fleiss kappa (1971) statistic was performed to determine homogeneity between seven volunteer raters using the Non-Participant Classroom Observation Form after watching the same videotaped lesson. Each of the seven raters had over 10 years of experience in K-12 education. The inter-rater reliability was found to be Kappa = 0.116254603 which indicated a slight agreement between raters. The slight agreement between the raters may indicate that further professional learning opportunities using the instrument are needed to

establish reliability. Statistical analysis charts for Fleiss kappa are in Appendix G. Since the Fleiss kappa is not commonly used, an explanation on its use to determine multiple inter-rater reliability follows.

In statistics, inter-rater reliability, inter-rater agreement, or concordance is the degree of agreement among raters. It gives a score of how much homogeneity, or consensus, there is in the ratings given by individual raters. Inter-rater reliability is useful in refining the instruments given to raters to determine if a particular instrument is appropriate for measuring a particular phenomenon. If various raters do not agree, either the instrument needs to be revised or the raters need more professional learning opportunities to establish consensus.

There are a number of statistics which can be used to determine inter-rater reliability. Different statistics are appropriate for different types of measurement. Some options are: joint-probability of agreement, Cohen's kappa (1960) and the related Fleiss kappa (1971), inter-rater correlation, concordance correlation coefficient and intra-class correlation.

Fleiss' kappa is a generalization of Scott's pi statistic, a statistical measure of inter-rater reliability. Scott's pi (1955) is a statistic for measuring inter-rater reliability for nominal data in communication studies. Specific instructional practices observed are accounted for and tallied by different raters, and various measures are used to assess the extent of agreement between the raters, one of which is Scott's pi. Since quantifying observations of specific instructional practices is a popular problem in natural language processing, assessing to what extent raters agree with each other is important for establishing the reliability of an observation instrument intended to promote teacher reflection and improve instruction.

Scott's pi is similar to Cohen's kappa in that they improve on simple observed agreement by factoring in the extent of agreement that might be expected by chance. However, in each

statistic, the expected agreement is calculated slightly differently. Scott's pi makes the assumption that annotators have the same distribution of responses, which makes Cohen's kappa slightly more informative. Scott's pi is extended to more than two annotators in the form of Fleiss' kappa.

The equation for Scott's pi, as in Cohen's kappa, is:

$$\kappa = \frac{\Pr(a) - \Pr(e)}{1 - \Pr(e)},$$

however, Pr(e) is calculated using joint proportions.

It is also related to Cohen's kappa statistic. Cohen's kappa coefficient is a statistical measure of inter-rater agreement or inter-annotator agreement for qualitative (categorical) items. It is generally thought to be a more vigorous measure than simple percent agreement calculation since κ takes into account the agreement occurring by chance. Cohen's kappa measures the agreement between two raters who each classify *N* items into *C* mutually exclusive categories.

The equation for κ is:

$$\kappa = \frac{\Pr(a) - \Pr(e)}{1 - \Pr(e)},$$

where Pr(*a*) is the relative observed agreement among raters, and Pr(*e*) is the hypothetical probability of chance agreement, using the observed data to calculate the probabilities of each observer randomly choosing each category. If the raters are in complete agreement then $\kappa = 1$. If there is no agreement among the raters, other than what would be expected by chance, then $\kappa \leq 0$.

Cohen's kappa measures agreement between two raters only. The Fleiss kappa, however, is a multi-rater generalization of Scott's pi statistic, not Cohen's kappa. Cohen's kappa and Scott's pi differ in terms of how Pr(*e*) is calculated.

Whereas Scott's pi and Cohen's kappa work for only two raters, Fleiss' kappa works for any number of raters giving categorical ratings (see nominal data), to a fixed number of items. It can be interpreted as expressing the extent to which the observed amount of agreement among raters exceeds what would be expected if all raters made their ratings completely randomly. It is important to note that whereas Cohen's kappa assumes the same two raters have rated a set of items, Fleiss' kappa specifically assumes that although there are a fixed number of raters (e.g., seven), different items are rated by different individuals (Fleiss, 1971, p.378). That is, Item 1 is rated by Raters 1,2,3,4,5,6, and 7 a given number of times; but Item 2 could be rated by Raters 4, 5, and 6 a given number of times.

Agreement can be thought of as follows, if a fixed number of people assign numerical ratings to a number of items then the kappa will give a measure for how consistent the ratings are. The kappa, κ, can be defined as,

$$\kappa = \frac{\bar{P} - \bar{P}_e}{1 - \bar{P}_e}$$

The factor $1 - \bar{P}_e$ gives the degree of agreement that is attainable above chance, and, $\bar{P} - \bar{P}_e$ gives the degree of agreement actually achieved above chance. If the raters are in complete agreement then $\kappa = 1$. If there is no agreement among the raters (other than what would be expected by chance) then $\kappa \leq 0$.

A list of how Kappa might be interpreted (Landis & Koch, 1977) is provided in the following table:

Table 5: Kappa Interpretation

Kappa	Interpretation
< 0	Poor agreement
0.0 – 0.20	Slight agreement
0.21 – 0.40	Fair agreement
0.41 – 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 1.00	Almost perfect agreement

Summary

A better understanding of which instructional practices promote and nourish the imagination of low progress adolescent students' and increase their ability to comprehend was ascertained from answering the following questions to ground and develop a theory of how low-progress adolescent students actively process print and comprehend. The following research questions guided the study.

1. What is the influence of storytelling, poetry, text sets (intertextuality), comparing and contrasting, humor, and metaphorical language when employed as an instructional practice in nourishing the imagination of low-progress adolescent students identified by the Florida Comprehensive Assessment Test (FCAT) reading scores?
2. What influence does storytelling, poetry, text sets (intertextuality), teaching for comparing and contrasting, humor, and metaphorical language have as an instructional practice on low-progress adolescent students' reading comprehension according to the Florida Assessment for Instruction in Reading (FAIR)?

3. To what extent do low-progress adolescent students believe their imagination impacts their comprehension and prepares them for deep understanding?

Data collection methods included timed and dated fieldnotes, semi-structured focus group transcript (Appendix D), FCAT scores, pre and post Florida Assessments for Instruction in Reading (FAIR) scores (Appendix A) and student short essay responses (Table 4). Fifty-one low-progress readers and three intensive reading teachers were tracked. Demographics at the individual level included grade level, gender, and race. These methods coupled with observations, and semi-structured focus group conversations helped the researcher develop a holistic perspective, and a better understanding of the phenomena being assessed. Qualitative semi-structured conversation of a focus group, using a structured protocol was conducted with six out of seven intensive reading teachers during the grading period. The protocol was developed and an item bank of questions was shared.

The purpose of the study was to develop a grounded theory and extend our current understandings of how adolescents are perceived to actively process print and comprehend. The study was conducted with the understanding that reading is an interactive process (Clay, 2001; Goodman, 1994; Rumelhart, 1994; Santiago, 1997; Singer, 1994). The researcher investigated whether or not a correlation existed among six instructional practices during intensive reading instruction: storytelling, teaching for thinking in binary opposites (comparing and contrasting), using metaphorical language, using poetry (Duthie & Zimet, 1992), using humor, and thematic learning (intertextuality) in nourishing and developing the imagination of low-progress adolescent students to improve comprehending.

In the next chapter, conclusions, personal reflections, suggestions for future research, and limitations will be discussed.

CHAPTER FIVE: CONCLUSIONS AND DISCUSSION

Conclusions

The study was designed to investigate the correlation between a set of instructional practices recognized for nourishing and developing the imagination (Egan, 2006) and student scores on the Florida Assessments for Instruction in Reading (FAIR) to arrive at a conclusion on the impact of the instructional practices on low-progress adolescent students' comprehension. Descriptive data were provided on the school, students, teachers, and district where the study was conducted to illustrate the limitations and delimitations of the study. The study was limited to low-progress adolescent students as identified by the Florida Comprehensive Assessment Test. Further, the pre and post Florida Assessments for Instruction in Reading (FAIR) mandated and administered by the district limited the use of assessments. Participant and non-participant observations were used to triangulate and co-triangulate data to determine the correlation between the frequency of select instructional practices and low-progress adolescent students' comprehending as evidence by their FAIR reading and Maze scores to develop a theory grounded in the data.

Field notes, teacher behavior frequency matrix, and focus group transcript analysis was used to enhance the ethnographic nature of the study. The field notes and focus group transcript analysis, along with the teacher behavior frequency matrix, were used to provide the information needed to crosscheck in a constant comparison model (Corbin & Strauss, 1990). Quantitative and qualitative data was utilized to investigate the role of the imagination in reading with low-progress adolescent students. The data collected and analyzed provided the researcher a wealth of information to draw upon to generate a theory about the role of the imagination in reading

with low-progress adolescent students. Contemporary literature describes reading as a process of predicting and anticipating, monitoring or checking those predictions, searching further at difficulty, and self-correcting. Figure 21 provides an adapted graphic interpretation of reading as a process (Puig & Froelich, 2011).

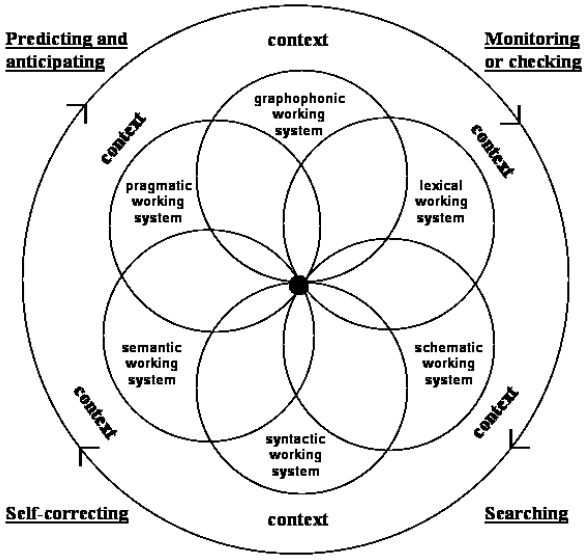


Figure 21: Reading as a Process

The literature review strongly supported the concept that the imagination was necessary to begin processing information when reading by predicting and anticipating. It was further argued that without the imagination, predicting and anticipating were virtually impossible. Due to the conceptual nature of studying the role of the imagination, it was critical that multiple perspectives had to be employed in order to study and generate a viable theory grounded in the data.

Although, as the literature review exposed, it is an accepted fact by theorists and experts in the field of literacy acquisition and instruction that the imagination plays a vital role in

all stages of processing information, it is particularly important in predicting and anticipating (Greene, 1995). The majority of the studies in the literature were qualitative in nature with a few mixed methods. The literature review provided the background for the work executed in this study. The review was used to guide, construct, and contribute to the research study to augment the existing body of work in an effort to advance the quality and efficacy of future emerging research (Boote & Beile, 2005) on the role of the imagination in reading and reading instruction with low-progress adolescent students. Throughout the review, findings and interpretations supported the investigative nature of the work and study at hand. A review of the literature supported the study with previous scholarly work about the role of the imagination in reading and reading instruction for low-progress adolescent students to improve comprehending.

Since a comprehensive and scholarly literature review is the foundation and stimulus for significant and practical research (Boote & Beile, 2005), a broad sampling of documents and studies was necessary. Scholarliness, currency, and appropriateness (Beile, Boote, & Killingsworth, 2004) were taken into account; although a combination of peer-reviewed journal articles and sources from scholarly presses were studied in addition to contemporary sources to enrich currency. Even though some documents were written over a century apart, the predominant theme of the significance of the imagination remained the same.

The preliminary review of the literature on the role of the imagination in reading substantiated the necessity to extend the search and elaborate on specific subtopics to buttress a grounded theory while constantly comparing collected data with existing publications. The broader search indicated the following subtopics: defining the imagination; understanding reading as a process; developmental stages of reading; transactional nature of reading; multiple or disciplinary literacies; understanding adolescent learners; understanding low-progress readers;

language acquisition and the imagination; conditions for learning; instructional practices that nourish the imagination; and ethnography as assessment. Due to the conceptual subject matter, a narrower search would not have afforded satisfactory background for the study. Subsequently, the broader search added to the researcher's understanding and a better definition of the complexity of constructing a theory grounded in methodically collected data over time.

By utilizing a pre-test post-test design with mixed qualitative and quantitative assessment this hybrid of a traditional ethnography triangulated participant observations, non-participant observations and artifacts. The grounded theory study involved low-progress adolescent students in three intensive reading classes in an urban Central Florida high school setting.

The data collected were evaluated and triangulated with pre- and post- Florida Assessments for Instruction in Reading, intensive reading teacher focus group, Florida Comprehensive Assessment Test, teacher behavior frequency matrix adapted from Flanders 1970), Non-participant Classroom Observation form using a Likert scale of 1 to 5, and classroom observations. Semi-structured intensive reading teacher focus group conversation and classroom observations were transcribed and analyzed; while the Non-participant Classroom Observation form was analyzed and quantified. For future reference, inter-rater reliability research was conducted using the form with six doctoral students (including the researcher) and one professor observing a videotaped lesson.

The students in the three intensive reading classrooms involved in the study wrote a short essay-type response self-reporting their perceptions on the role and use of the imagination in their personal process of reading and comprehending. The students in the class participated in a reading intervention program utilizing a combination of young adult novels and a basal series designed for adolescents. Although the intervention is a year-long program, the data collection

period of the study took place from September to December. Table 6 outlines the calendar of classroom observation visits.

Table 6: Calendar of observations

Preliminary visit with teachers
September 2, 2010 7:00 AM – 11:00 AM
September 13, 2010
September 23, 2010
Classroom observation calendar
October 5, 2010 7:00 AM – 11:00 AM
October 10, 2010
October 12, 2010
October 14, 2010
October 18, 2010
October 22, 2010
October 25, 2010
October 26, 2010
November 1, 2010
November 2, 2010
November 4, 2010
November 8, 2010
November 9, 2010
November 12, 2010
November 15, 2010
November 30, 2010
December 7, 2010
December 13, 2010
December 15, 2010
December 16, 2010

The dependent variables in the study were: the students' short essay responses, focus group responses, and classroom observations. The independent variables were: the published materials used, race, ethnicity, age, attendance, and gender. A multivariate t-test was used for statistical analysis and co-triangulated with other data to identify significant relationships. Pre

and post Florida Assessments for Instruction in Reading scores were used for evidence of growth in comprehending.

Data collection methods included timed and dated fieldnotes, semi-structured focus group transcript, FCAT scores, pre and post Florida Assessments for Instruction in Reading (FAIR) scores and student short essay responses. The numbers of involved individuals were tracked. Demographics at the individual level included grade level, gender, and race. These methods coupled with observations, and semi-structured focus group conversations helped the researcher develop a holistic perspective, and a better understanding of the phenomena being assessed. Qualitative semi-structured conversation of a focus group, using a structured protocol was conducted with six out of seven intensive reading teachers during the grading period. The protocol was developed and an item bank of questions was shared.

In co-triangulating the triangulated data used to answer the three research questions, a theory grounded in the data emerged. Three particular strategic activities surfaced as vital to improve predicting and anticipating. Based on the data collected over time, it appears that making intertextual connections, employing convergent and divergent thinking, and imagining possibilities has the potential to improve predicting and anticipating there by increasing the likelihood of enhancing a low-progress adolescent reader's feed-forward cognitive mechanism. Although a correlation between instructional practices believed to enhance the imagination and student's ability to comprehend could not be confirmed statistically, the literature review, conversations with the teachers, observing classroom interactions, and analyzing student written responses confirmed that the imagination plays a critical role in comprehending when reading. It was also evident in the data that not only does the imagination play a critical role in improving students' comprehension; it increases the pleasure of reading.

Figure 22 provides a graphic representation of the intersubjectivity of making intertextual connections, employing convergent and divergent thinking, and imagining possibilities. The three strategic activities of making intertextual connection, employing convergent and divergent thinking, and imagining possibilities adds to the interactive model of reading as a process (Clay, 2001; Goodman, 1994; Rumelhart, 1994; Santiago, 1997; Singer, 1994) and expands the strategic activity of predicting and anticipating. Understanding the theory and its implication for instruction has tremendous potential to improve comprehending not only in intensive reading classes but across all content areas.

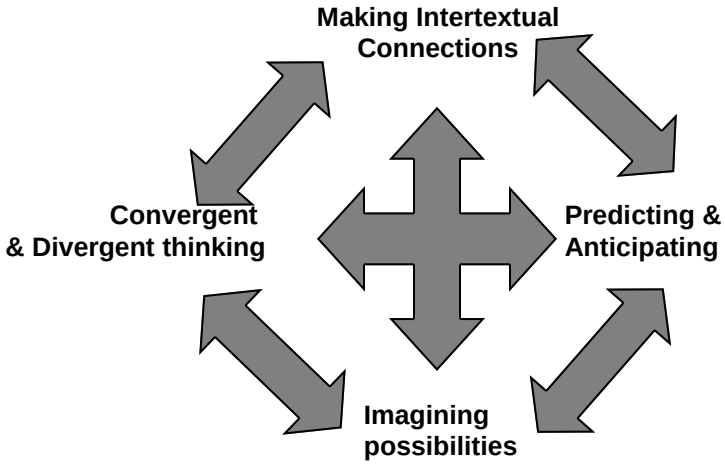


Figure 22: Expanding a feedforward mechanism

Personal Reflections

Little attention has been given to the concept of predicting and anticipating when reading. Interestingly, even though the literature is saturated with studies confirming the importance of emotions and memory in learning (Caine & Caine, 1997; Jensen, 1998; Lyons, 2003, Wolfe, 2001), the concept of anticipating, which is grounded in emotions and memories, is seldom

addressed in instruction. Based on the conversations with the teachers in the study, it was clear that they all agreed on the importance of anticipation. Yet, few took it into account when planning lessons. In part, this may be due to an over dependence, prompted by state and district politics and policy, on the use of published series of materials rather than a program of study based on the students' strengths and needs.

Mathematics, science, language arts, and social studies demand efficient and effective processing of information by all students especially low-progress adolescent students in order to increase the potential of acceleration in learning and success in those subjects. Moreover, although the cognitive operating systems of graphophonics, semantics, syntactic, pragmatic, lexical, and schematic function with different information (Clay, 2001; Keene, 2008; Puig & Froelich, 2011; Rumelhart, 1994; Singer, 1994), the process of predicting and anticipating, monitoring, searching at difficulty, and self-remains the same. Different descriptors may be used in the different content areas for the processes student engage in, but the fact remains that the process itself is similar (Polya, 2004). Consequently, instruction for low-progress adolescent students, or for that matter any low-progress student, should focus on supporting students in accelerating their learning to catch up to their peers (Allington, 2001, Clay, 2001; Lyons, 2003).

When planning for instruction considering the role of the imagination shows potential for engaging students in learning and strengthening their efficiency in learning. Therefore, strengthening low-progress adolescent students' efficiency in learning will accelerate their learning and increase the likelihood of catching up to their peers. Whenever specific instructional practices such as storytelling, making intertextual connections, and humor were implemented, students were engaged; the conversations were dynamic and interspersed with humor. An example of humor that comes to mind during the classroom observation was a particular public

conversation a male senior student had with a teacher in the classroom. The student arrived and announced that he had gotten a new "tranny". The teacher corrected him by telling him that he got a new transmission, not a new tranny. The student responded that of course that is what he meant because it would not make any sense to say he got "a new transsexual". The class laughed and all students proceeded to engage in a conversation on the novel they were reading. Across the board, humor seemed to be one of the most engaging tools for the teachers to use to engage the students.

Even though the statistical analysis of the students' standard scores on the pre and post assessment used by the school and district did not show significance, the observations of the students and teachers and conversations with the intensive reading teachers convinced the researcher of the importance of the critical role of the imagination and teaching for comprehending. It was also evident that although everyone agreed on the importance of the imagination in predicting and anticipating, teachers' language during instruction did not focus students to be metacognitive about the potential of using their imagination to improve their comprehension. In actuality, as the field notes show, seldom was the word imagination even used during a lesson.

Suggestions for Future Research

The scholarly rhetoric on the role of the imagination in reading has been well documented for decades (Armstrong, 2005; Buehler, 1898; Cobb, 1959; Libby, 1908; Perky, 1910). It should serve as a foundation for future research. Although the primary intent of this study is to add to the existing body of work on the role of the imagination in reading by developing a theory grounded in data, it is also evident that much more research needs to be

conducted. For economy of time and limited by policy, this study used only static assessments, FAIR and FCAT, to determine students' comprehension. Data on the students were triangulated as well as data on the intensive reading teachers and the school and further cotriangulated to enhance the researchers' understanding. Future studies need to include: the impact of professional learning opportunities on instructional practices believed to nourish the imagination of low-progress adolescent students; the influence of dynamic assessment on instruction focused on nourishing and developing the imagination of low-progress adolescent students; and the impact of pre-service learning opportunities on instructional practices believed to nourish the imagination.

Limitations

Based on this research study, the limitations for future studies on the imagination are high school students' absenteeism, particularly juniors and seniors, district and state policies mandating a particular "teacher proof" program to deliver instruction, and high stakes testing. On any given day of observation in the classroom 10% to 20% of the low-progress students were absent, in particular classrooms that consisted primarily of juniors and seniors. In a sidebar conversation with one of the teachers observed, the comment was made that "if they (students) were here, I could teach them." The teacher's comment, while providing a solution to schooling low-progress adolescents, was an affirmation of the potential limitations of instruction and future studies involving low-progress adolescent learners. In addition to absenteeism, the teachers were limited, or at least in their minds, by the basal reading program that was mandated for them to use. Compounded with student absenteeism and mandated materials, future studies on the role of the imagination in reading will be limited by the extensive use of high-stakes static

assessments while neglecting the role of dynamic assessment to determine students' strengths, needs, and Zone of Proximal Development (Vygotsky, 1992, Wink & Putney, 2002).

The researcher's assessment, represented in the study, is constructed on the contemporary analysis of the data. It is imperative to note that the researcher's understandings of the occurrences in the study shape just one perspective on the role of the imagination in the reading comprehension of low-progress adolescents.

APPENDIX A: PRE/POST FCAT AND FAIR READING SCORES, LEXILE, AND % ILE

PRE/POST FCAT AND FAIR READING SCORES, LEXILE, AND % ILE

student	grade	FCAT	FCAT retake	FAIR rdg SS pre	FAIR rdg SS post	FAIR lexile pre	FAIR lexile post	FAIR %ile pre	FAIR %ile post
Student A	11	260	295	87	78	955	775	20	7
Student B	11	269	325	87	92	945	1035	19	29
Student C	11	NA	267	75	95	725	1100	5	37
Student D	11	294	309	71	86	640	920	3	17
Student E	12	100	NA	73	71	685	640	4	3
Student F	10	270	NA	89	92	980	1055	22	31
Student G	10	289	NA	97	108	1140	1355	42	71
Student H	9	297	NA	88	79	925	750	20	8
Student I	9	NA	NA	86	85	895	880	17	16
Student J	10	284	NA	93	84	1055	895	31	15
Student K	10	NA	NA	90	88	1005	975	25	22
Student L	10	290	NA	77	112	755	1420	6	78
Student M	10	259	NA	71	98	640	1150	3	43
Student N	10	214	NA	73	73	685	675	4	3
Student O	10	197	NA	76	89	735	985	5	23
Student P	10	NA	NA	71	78	640	770	3	7
Student Q	10	265	NA	85	79	905	790	16	8
Student R	10	233	NA	87	81	940	840	19	11
Student S	11	275	308	100	132	1200	1815	51	98
Student T	11	285	310	98	99	1155	1175	44	47
Student U	11	297	276	87	98	945	1165	19	46
Student V	11	294	278	87	94	955	1080	20	34
Student W	11	173	268	89	81	985	845	23	11
Student X	12	251	274	103	90	1250	1010	57	26
Student Y	12	282	283	98	81	1160	825	45	10
Student Z	12	264	292	97	72	1145	655	43	3
Student AA	12	289	326	83	106	880	1310	13	65
Student AB	12	294	382	100	91	1250	1025	51	28

APPENDIX B: PRE/POST FAIR MAZE AND WORD ANALYSIS, AND % ILE

APPENDIX B: PRE/POST FAIR MAZE AND WORD ANALYSIS, AND % ILE

student	grade	FAIR maze SS pre	FAIR maze SS post	FAIR maze %ile pre	FAIR maze %ile post	FAIR word SS pre	FAIR word SS post	FAIR word %ile pre	FAIR word %ile post
Student A	11	81	84	10	15	101	86	51	18
Student B	11	107	112	68	78	113	117	80	87
Student C	11	96	117	39	87	106	101	66	53
Student D	11	80	86	9	19	116	98	85	46
Student E	12	79	82	8	11	79	68	8	2
Student F	10	82	83	11	13	98	81	46	11
Student G	10	94	91	36	27	117	101	87	53
Student H	9	92	91	31	27	96	105	39	62
Student I	9	111	108	76	70	96	92	39	29
Student J	10	86	106	19	66	89	80	24	9
Student K	10	89	84	24	15	115	74	84	4
Student L	10	88	94	22	36	99	85	47	16
Student M	10	79	79	8	8	134	85	99	16
Student N	10	78	72	7	3	75	57	5	1
Student O	10	86	88	19	22	102	98	55	45
Student P	10	74	74	4	4	101	77	51	6
Student Q	10	88	88	22	23	93	81	32	11
Student R	10	101	91	53	28	99	90	47	24
Student S	11	86	88	19	21	99	97	47	43
Student T	11	101	105	52	63	103	116	57	85
Student U	11	105	103	62	58	106	90	67	24
Student V	11	90	88	26	22	101	98	51	45
Student W	11	110	100	76	51	115	120	84	90
Student X	12	105	105	63	63	115	83	84	13
Student Y	12	96	89	39	24	125	108	95	70
Student Z	12	100	105	51	64	99	86	47	18
Student AA	12	91	95	27	37	94	88	34	22
Student AB	12	88	88	23	22	111	101	76	52

APPENDIX C: NON-PARTICIPANT OBSERVATION FORM

NON-PARTICIPANT OBSERVATION FORM

Date:	Grade:

1 = never; (0 times) 2 = rarely; (1 time) 3 = sometimes; (2 times) 4 = often; (3 times) 5 = frequently (4 or more)

1.	**Teacher uses metaphorical language during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
2.	**Teacher utilizes text set during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
3.	**Teacher models comparing and contrasting during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
4.	**Teacher tells stories during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
5.	**Teacher utilizes sensory stimulation during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
6.	**Teacher highlights the unknown during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
7.	**Teacher highlights patterns during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
8.	**Teacher highlights intertextual connections during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
9.	**Teacher incorporates poetry during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
10.	**Teacher incorporates humor during lesson.**	**1**	**2**	**3**	**4**	**5**
	Example:					
11.	**Teacher promotes an information-intensive environment.**	**1**	**2**	**3**	**4**	**5**
	Example:					

12. Tchr. promotes topic centered or associated conversations. **1** **2** **3** **4** **5**

Example:

13. Teacher reinforces students' use of metaphorical language. **1** **2** **3** **4** **5**

Example:

14. Teacher reinforces students' intertextual connections. **1** **2** **3** **4** **5**

Example:

15. Teacher reinforces students' storytelling. **1** **2** **3** **4** **5**

Example:

Additional non-participant observations:

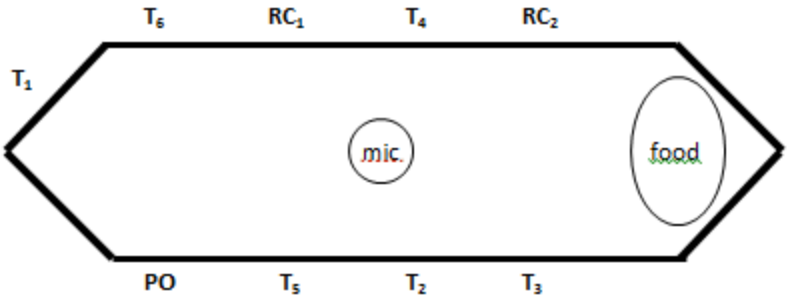
APPENDIX D: FOCUS GROUP TRANSCRIPT

FOCUS GROUP
10/29/10
8:30 AM – 9:30 AM

PO = Participant Observer/ interviewer (1)
T = High School Intensive Reading Teacher (6)
RC = High School Reading Coach (2)

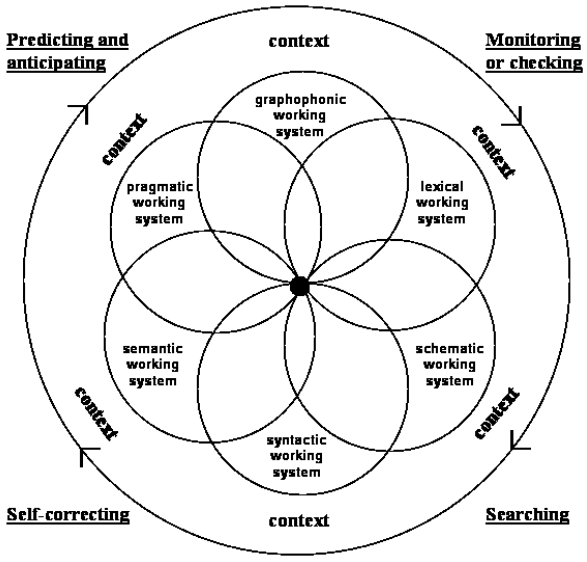
Food provided: orange juice, fresh fruit salad, croissants, spinach quiche, quiche Lorraine

Focus group table configuration



NOTE: 10 minute introduction to study and explanation of theoretical foundation was not recorded since minimal interaction occurred.

Theoretical reading as a process model explained from Puig & Froelich (2011)



PO: **Is listening to stories critical in developing the imagination?** :00

T_1: Yes

Comment [EP1]: Positive confirmation

PO: What's your opinion?

T_4: Yes

Comment [EP2]: Positive confirmation

(T_5, T_2, RC_1, and RC_2 nodded in agreement)

Comment [EP3]: Postive confirmation

PO: Why?

T_1: Because the stories come from someone else's imagination a lot of times especially if it's like a myth or a fairy tale and it sparks it just sparks other's imaginations and other thoughts. :37

Comment [EP4]: Intertextual connection

PO: OK. Any other opinions?

T_4: I think it makes sense because it helps you imagine more. You can see, you make your own world through writing or reading. You can read and become part of a different world. So that's imagination. :56

Comment [EP5]: Global connection

T_2: (response inaudible on recording)

PO: OK. Alright. Second question. **Does listening to stories promote visualizing images?**

1:34

T_4: Yes. I think.

Comment [EP6]: Confirmation with some doubt

PO: OK, again why?

T_4: I think yes because when they're listening and they don't have anything to see they have to use their imagination and they come up with to come up with what the speaker's talking about. I think its sensory perception. 2:11

Comment [EP7]: Reference to listener

PO: You said yes RC2, why?

RC_2: (response inaudible on recording)

PO: OK. Number three. **Does listening to stories encourage predicting and anticipating?**

2:42

T_4: I think as a child I know when you're listening to your parent read to you and they say we're not going to read chapter 2 tonight you begin to anticipate. They say please, please, please. They want to know what's going to happen next. They're excited about the book. That's anticipation and predicting right there. 3:12

Comment [EP8]: Reference to children

RC_2: (response inaudible on recording)

PO: OK.

T_1: Do you think that…I could imagine this that the teacher maybe reads a little bit about the book you know when you do a book talk and you're using the voices and what-nots you're creating more interest in the book if you do a good job you're going to create more interest than the child actually reading the book. 3:42

Comment [EP9]: Personal connection to teaching

T_4: Good point. For instance, I was reading this book called *The Big Lie*, it's a very spiritual book, about this family and holocaust and after the FCAT retesting I had a student come back and wanted to continue reading the book to find out what happened and he was upset when I said that he could read it after his bell work and you can find out what happened on your own.

Comment [EP10]: Intertextual connection

RC_1: And what I've learned from the group the lit group is without building that anticipation, for instance, I'm reading and I haven't read the book. I'm not sure what you mean by reading to a story or telling a story or do you mean it be both? 4:30

Comment [EP11]: Personal connection to teaching

PO: It's says (the question) listening to stories.

RC_1: So when other people are telling about life I think it helps them see possibilities and when you're able to see possibilities and hear different possibilities then you're able to anticipate. Without that you're not able to anticipate.

Comment [EP12]: Global connection

PO: OK. This one piggy backs on your comment (T_4's). **Are all the senses like sight, touch, smell, and hearing necessary in order to imagine?** 5:09

(Air conditioner turned off)

T_1: No.

Comment [EP13]: Negative confirmation

PO: OK.

T_4: Probably not all at once.

Comment [EP14]: Confirmation with limitations

T_1: What about the kids who can't hear, can't see, or can't really touch? I think of Michael who's wheelchair bound. He… 5:35

Comment [EP15]: Dialogical thinking

PO: That's who I was thinking about.

T_1: The only way he's ever going to do…see anything of this world is through his imagination.

Comment [EP16]: Confirmation with limitations

PO: But Michael has sight, hearing, taste,

T_1: Right.

Comment [EP17]: Positive confirmation

PO: Smell.

T_1: Right.

Comment [EP18]: Positive confirmation

PO: And he does have touch.

T_1: A little bit, yeah. I'm thinking about blindness. What about the blind and deaf kids? I think they have imagination.

Comment [EP19]: Dialogical thinking

RC_2: Helen Keller.

Comment [EP20]: Example provided to make a point

T_1: Yeah.

Comment [EP21]: Positive confirmation

T_4: But when our kids our listening or reading a text what are they touching? I mean the book yeah. But their imagination are mostly I think they're imagining smells. Yeah, they can imagine what things feel like and touching…I guess. That is true but I think when I read a book I think of how things…sights, smells, feelings.

Comment [EP22]: Reference to students and personal connection

6:35

PO: For example, if you read something like *The Second Boleyn Girl*.

Comment [EP23]: Intertextual connection

T_4: OK.

Comment [EP24]: Positive confirmation

PO: It's very descriptive about the Tudor costumes – the richness of the velvets and the silks, you can almost feel that in the way the author writes it. But I guess because you have prior knowledge of what velvet feels like. What silk feels like.

T_4: I think of all those things.

Comment [EP25]: Positive confirmation with some doubt

T_1: When we do read that we picture that we probably picture some movie that we've seen. Elizabeth that's oh that's the kinda dress that they're wearing with all the stuff. But if the kids have never seen a movie like that or they don't know that they've seen a movie like that who knows what they're imagining.

Comment [EP26]: Intertextual connection

7:43

PO: It's funny because when I've been in your class you bring up a lot of movies also and some of them the kids don't know and you explain…this movie is about this.

PO: Here's another one, **do proficient readers utilize all the senses to comprehend when reading?** 8:10

(class bell rings although it's a teacher workday/ student holiday)

RC_1: Can you say that again please?

PO: Do proficient readers, that's the key word, utilize all the senses when reading? Think of yourself as a reader.

(T_6 enters room and joins group)

T_1: Yes, I think so.

Comment [EP27]: Positive confirmation with some doubt

T_4: Yes. Well I read *The Lovely Bones* and I couldn't put it down right? So I'm thinking about when she goes down to the guy her neighbor who ends up killing her and the way the women (author) describes it I can sense the way the corn fields look, the flowers I'm feeling everything, even I have sensory…

Comment [EP28]: Intertextual connection

RC_2: Input.

Comment [EP29]: Example provided

T_4: Thank you. Sensory input. It's happening and it makes me a better reader.

Comment [EP30]: Positive confirmation

PO: It's funny because when I read *The Lovely Bones* years ago when it first came out and as you were saying that I remembered that one scene where they did bury her alive, you know, and I thought when I was reading that part I could, I guess you don't visualize when you smell something. But you could smell the mustiness of the earth where she was buried.

T_4: Right.

Comment [EP31]: Positive confirmation

PO: Because I had that prior experience I know what musty earth smells like.

T_4: Right.

Comment [EP32]: Positive confirmation

PO: Go to my backyard.

T_4: And her claustrophobic feeling also.

Comment [EP33]: Empathy

PO: Yeah, also. As you were saying.

T_5: I think proficient readers call on the senses naturally without thinking about it.

Comment [EP34]: Declarative statement

RC_1: So then do you have to have the experiences. There are times when I read something and I'm more hooked in and engaged in it because all the sense are brought up and there might be something else I'm reading where that doesn't happen. Is it because I don't have those experiences to do that? If I don't how do I call up those emotions? Like you said you had those experiences, what if you didn't have those experiences?

Comment [EP35]: Dialogical thinking

PO: This is just my opinion, I think you will have a better appreciation of what you are reading if you have had those experiences. That doesn't mean you can't have those experiences vicariously through the book either. You know. But I think you have to have. Like I remember also the first time I read *The DaVinci Code*. And the year before I had been to Europe and I had been to the Louvre and there was one thing that struck me at the Louvre was were the parquet floors. First time I stepped in that museum, I had never been there. The first thing that struck me was the parquet floor. And if you read *The DaVinci* Code the parquet floors are mentioned. I could literally…I was there. Because I had been there before.

T_1: See I don't know. You said you can't live vicariously through a book. I just disagree with that. — **Comment [EP36]:** Disagreement

PO: No. I didn't say you can't. I think the prior experience can optimize the reading experience. — **Comment [EP37]:** Clarification

T_1: And it's also the opposite because I had been to the Louvre in my brain because I had read *The DaVinci Code* and then when I actually got there it was like revisiting it. — **Comment [EP38]:** Intertextual connection

PO: The other way around? OK. 11:59

RC_2: Can you not support the less than proficient reader by giving them the experience of whatever it is you are reading in a way that they could have that experience? — **Comment [EP39]:** Dialogical thinking

T_1: Through a movie clip or something? — **Comment [EP40]:** Questioning

RC_2: Yes, but I mean I can't remember what it was but it involved food, home, and I brought in little containers of coffee cans and vanilla on a cotton ball and cinnamon then we had to walk around the room and we had the experience of the sensory stuff that was going on in the story. — **Comment [EP41]:** Confirmation with limitations

RC_1: This takes me back to the storytelling you were talking about and listening. Talking about that I hadn't been there and I remember reading certain books and being hooked in by somebody who had read that book and had those experiences. Because listening to them helped me imagine and be more engaged in what I was reading. — **Comment [EP42]:** Intertextual connection

PO: I'm sitting here quietly because you just gave me a whole world of ideas (responding to RC_2). Little cotton balls with scents?

T_1: I know that a couple of years ago when we were doing *REWARDS* for social studies the kids were eh-eh-eh and then all of a sudden I was like OK I'm going to start pulling out *National Geographics* that had anything to do with what the story is and as soon as the kids could see a picture . It...I'm telling you that was the turnaround with the kids cause they see. They had somewhere to start their imagination from. You know, maybe it's the picture. Maybe it's a movie clip and then that gives them a tiny bit of background knowledge to start out with. — **Comment [EP43]:** Intertextual connection

RC_1: They do that a lot with *Edge* (basal series used in the school). They get a lot of visuals to develop anticipation. 13:57 — **Comment [EP44]:** Intertextual connection

PO: OK. The next one I have …do proficient readers, again proficient readers, draw on select senses, which is what I think you were referring to, based on the genre they are reading?

RC_2: Can you repeat that? — **Comment [EP45]:** Clarification

PO: **Do proficient readers draw on select senses based on the genre they are reading?**

T_1: I don't think so. I think they draw on whatever senses are evoked by the particular book. The particular article. — **Comment [EP46]:** Disagreement with explanation

T_4: I think of non-fiction text and when I'm reading non-fiction how it smells, sounds, or

Comment [EP47]: Example provided

RC_1: I prefer to read non-fiction because it stimulates thinking, not as much emotion. People like to read fiction because it stimulates emotions and it's relaxing but I don't as much. I prefer non-fiction because it stimulates my brain to think. I don't know what that is.

Comment [EP48]: Personal connection

T_4: I know there's this one piece in the *Edge* book I was seventeen and I can think of the smells but you know of the restaurant and so to me that non-fiction piece is sensory input.

Comment [EP49]: Intertextual connection

PO: Think of yourself as proficient readers. You are proficient readers and I put a trigonometry book in front of you.

T_1: Yeah.

Comment [EP50]: Positive confirmation

PO: What senses

T_1: That's the difference. That's what I was thinking. It depends on am I using my senses or memories? Because if you were to put a trigonometry book in front of me I would start freaking out. Now, it's not that there is, you know, it has nothing to do with my senses and has to do with my complete lack of trigonometry in my brain.

Comment [EP51]: Dialogical thinking

T_5: It's an emotional response.

Comment [EP52]: Declarative statement

T_1: It's an emotional response. It's not a sensory response.

Comment [EP53]: Clarification

PO: How you differentiate an emotional response rather than a sensory response?

RC_2: What's the definition of sensory response?

Comment [EP54]: Clarification

PO: Visual, auditory, all of that.

T_4: Emotion I think more of a reaction to what you have experienced before…maybe. A reaction that doesn't have to involve all the senses…a memory. It's the memory.

Comment [EP55]: Positive confirmation with doubt

PO: So, an emotional response might…a definition of an emotional response might be a reaction to a past experience.

T_4: OK.

Comment [EP56]: Agreement

PO: Where a sensory response is current. It's a reaction but you're using the senses.

PO: Just help yourself (T_3 entered room and joined group at the table) 17:27

RC_1:

T_1: Sometimes yes cause I know, we all know, there's certain smells just like RC_2 said that that every time I smell gardenias it reminds me of when I was a kid and my dad belonged to a

country club and the ladies locker room had gardenia air freshener and I went there to this country club every time I smelled gardenias. It's one of my favorite smells. So…that's…it's a memory and a sensory.

Comment [EP57]: Personal connection

RC_1: I'm going back to the question about…I keep thinking about…I'm looking at that book *Non-Fiction Matters* if I'm reading that book. Do I have … do I use any of my sensory…

Comment [EP58]: Intertextual connection

PO: Well, you use visual.

RC_1: Yeah, visual I'm thinking more visualization.

Comment [EP59]: Agreement with example

PO: Could be also.

RC_1: I…

T_6: I don't think so. Not so much.

Comment [EP60]: Disagreement with doubt

T_1: Unless you're reading something to do with the environment and it's talking about a dump and then you might start smelling nasty…

Comment [EP61]: Limitations with example

RC_1: Do I think of students in the class? I know I'm thinking about the possibilities of what could be while I'm reading something like that.

Comment [EP62]: Metacognitive response with example

T_1: But is that senses?

Comment [EP63]: Clarification

T_4: If you're reading history like my eleventh grader reading about WWII, I don't know that much. So I would be reading it and wondering seeing it the whole time and maybe smell the gun powder or sensing how skinny the Jews were, you know, exactly that stuff. How burning bodies smell? But besides that who, what Stalin did, I don't know I'd be learning learning.

Comment [EP64]: Questioning

T_1: I think it all goes back to background knowledge.

Comment [EP65]: Declarative statement

PO: Talk more. What do you mean?

T_1: I mean all the questions. If you reading *The Other Boleyn Girl*, if you hadn't seen the movie Elizabeth or any sort of movie like that or ever seen a picture of these dresses and these outrageous things looked like you wouldn't be picturing it. And if you didn't know the peasants, everything was grey, brown, and black and hard stuff. I mean, if it was all new I don't know exactly what those people are imagining if they've never …

Comment [EP66]: Intertextual connection

RC_1: Things we haven't been a part of but we are still able to imagine.

Comment [EP67]: Confirmation

T1: Right.

Comment [EP68]: Positive confirmation

RC_1: There are so many books that I've read that I haven't had those experiences

Comment [EP69]: Intertextual connection

T_1: But have you seen something…are you connecting it to something that you've seen or read about in the past? 20:48

Comment [EP70]: Dialogic thinking

RC_1: Maybe read about but then when I read it what connections did I have. I mean where it began

Comment [EP71]: Metacognitive response

T_1: Right.

Comment [EP72]: Positive confirmation

PO: I think nowadays it's real easy to either Bing or Google and get a visual.

T_1: Right.

Comment [EP73]: Positive response

T_4: Like say Darfouth.

Comment [EP74]: Example for clarification

PO: What was the book I read in your class?

T_1: *Sunrise Over Fallujah.*

Comment [EP75]: Intertextual connection

PO: Which is a horrible book.

T_1: I'm thinking of science fiction. Where he creates a brand new universe and for the first time I read that I was probably background knowledge from Star Wars, from that sorta stuff but you know it's still if I had never seen a Star Wars if I had never seen anything like that I really don't you know what I really don't I still would have imagined what it would have looked like in my eye and what's funny is that what it looks like in my brain is not what it looks like on the movie screen.

Comment [EP76]: Intertextual connection

T_5: I think that's when we rely on the author's craft to paint the picture of something that's never been experienced never been read about or heard about but somehow the writers that he can put images into my mind.

Comment [EP77]: Declaration with some doubt

PO: OK. The next one deals with low-progress readers. **Do low-progress readers rely only on sight to predict and anticipate when reading?** 22:31

PO: What's your opinion? Low-progress readers, do they rely only on sight to predict and anticipate when reading.

T_4: Do you mean what they're looking at?

Comment [EP78]: Clarification

PO: Yes, on the page.

T_4: I would say yes but we really don't know what's going on in their heads.

Comment [EP79]: Positive response with limitations

PO: Yes, unless you ask them.

T_1: And I think we've been making connections for a hundred years now and I think that's what I mean that's kinda the point of that reading strategy is to when you read about the and Born Blue

where her mother you know sells her for crack when she's nine who does that remind you of in your life and that's who they picture.

Comment [EP80]: Intertextual connection

PO: OK.

T_1: You know so and so's cousin maybe that's who they're picturing when they picture that mom.

Comment [EP81]: Personal connection, reference to students

RC_1: I mean, I don't know when I talk with the students about something like their record of reading I ask them what's going on in their head or share and I ask them and they say nothing. Now is it because they're not engaged or interested enough because it isn't something that they choose and therefore I think that if they had selected something on their own independently would that response be different.

Comment [EP82]: Personal connection, reference to students

T_1: Well maybe it's just that they don't understand maybe they don't understand exactly what you're asking or they don't know how to verbalize it or that that's the answer what you're looking for. You know what I'm saying? Maybe they just don't realize that's OH, you're talking about that movie in my mind? Oh, ok, I don't know.

Comment [EP83]: Personal connection and dialogical thinking

RC_1: Who was it? I think it was in T_7's class when they talked about how they had a movie and it was a low-progress reader. So, I don't know it's hard to tell.

Comment [EP84]: Personal and intertextual connection

T_1: It talks about because the uncle was killed by gang related things and he has this movie that he has to go over and over in his mind a revenge movie he didn't act out on the movie but the movie is going on and on in his head.

Comment [EP85]: Personal connection, reference to students

PO: I might need to reword this one. **Is understanding opposites, OK, a critical skill for predicting and anticipating when reading?** 25:04

PO: What's your opinion? Do they have to have an understanding of good and bad to predict and anticipate when they're reading? Do they have to understand what wealthy and poor? Do they have to understand those opposites to be able to predict and anticipate?

RC_2: At some level.

Comment [EP86]: Limitations to arguement

PO: OK.

RC_2: I understand that good is good and bad is bad and they fall into those categories. If you want to make accurate predictions you need to have an understanding of those opposites.

Comment [EP87]: Confirmation with example

T_4: You have to make inferences. People who live in a forest versus a house like in *Tuck Everlasting*, you know, and you come to the conclusion you draw a conclusion that they're not a wealthy family but if you don't know a what wealthy means you're not going to understand about them not being wealthy and this is a reason why they're living in the woods and they make

their own clothing and their own food and living in the 1800's you know. I think it helps if you know opposites. So you can make inferences and draw conclusions.

Comment [EP88]: Intertextual connecton

T_1: Even though we know it's opposites, I think it's relationships. In the novel *Sold* I mean in the very first part of the book they talk about Latchme is so poor that her family has a thatch roof and the other people in the village have a tin roof and my students I asked them if any of them had heard the word thatch and that was the word they should have picked up on and it was really important to know the relationship between the people who had a thatch roof and people who had a tin roof because they were so poor. I'm not really sure if it's the opposite thing plus my students' definition of good and evil is different than probably ours.

Comment [EP89]: Intertextual connection

PO: That's to be expected.

T_1: So I don't feel it's opposite.

Comment [EP90]: Negative response

PO: An understanding regardless of what you think is good or bad; but is it something that a reader…for example back to *The Lovely Bones* that you were reading in my upbringing the male character in there the murderer is bad and the girl is good. So I automatically in my mind say OK this is a bad person in this book and this is a good person in this book. They were pretty much from a middle-class family and you have to understand that compared to a wealthy family and so on and so forth. So that's what I'm talking about its understanding those opposites that is critical to be able to predict and anticipate when reading or will it enrich the experience.

Comment [EP91]: Intertextual connection

T_4: I think you need to be able to compare.

Comment [EP92]: Declarative statement with doubt

RC_1: You have to have something to compare it to. Go ahead, I'm sorry.

Comment [EP93]: Declarative statement

T_6: I think it would be very enriching. I mean to know that. You have to know.

Comment [EP94]: Confirmation with example

T_1: I was getting hung up on the word opposites because there's black/white and a whole lot of grey.

Comment [EP95]: Clarification

T_6: Sure.

Comment [EP96]: Confirmation

T_1: I mean, you know, opposites is the thing I'm getting tangled up in.

Comment [EP97]: Confusion

PO: OK. 29:00

PO: And that helps you distinguish.

T_1: Right. Right.

Comment [EP98]: Confirmation

PO: So it's just something and this is something that I'm just learning about now and never thought about this. You know that to be able to imagine.

T_4: If you think about a continuum right. You know, here's black and white and grey in the middle. You're short and tall well how tall. It they're tall and they're short. There's a relation in variation.

Comment [EP99]: Example

T_6: Maybe you do have to understand it. We're studying genes and family.

Comment [EP100]: Personal connection, reference to students

PO: As in genetics or Levi's?

T_6: In the *Edge* it's genetics. You know if you have a brown eye dominant and you're most liking going to have (school bell rings) one of my students couldn't understand that. That if you have a brown eye and a blue eye that you're not necessarily going to get a brown eye or a blue eye but you're going to get something in the middle. You know, ummm, she could go blue. Go ahead.

Comment [EP101]: Intertextual connection

RC_1: I'm just thinking I don't quite understand is but I think when I'm reading and I'm anticipating I have to understand that because typically if I'm hooked into something often the author's craft depends on it and often I'm hooked in because I'm anticipating something different. I wouldn't be reading if it was all the same and I would be like OK this is boring and I'm anticipating something else and to anticipate I have to imagine that something else is going to happen. Do you see what I'm saying? So that's what hooks me in that continuously anticipating something else.

Comment [EP102]: Dialogical thinking

PO: But even in that process of anticipating you're thinking in opposites or something like that.

RC_1: Yes, I have to think in opposites to anticipate something else or I wouldn't be hooked in.

Comment [EP103]: Positive response with example

31:26

PO: OK. Next question. We have five more. **Do proficient readers organize a defensible interpretation by utilizing opposites**? One example that comes to for example good-bad, square-circle, masculine-feminine and so on and so forth. In my opinion one thing that happened in your class is this week was Ethan's reaction, which was my reaction into the character in *Nailed*. We both thought he was gay and he's not but the way the character is written up in that novel makes you think that until you get to a certain point and you realize he's not.

T_1: Correct.

Comment [EP104]: Confirmation

PO: But when you start reading your thinking of the sexual orientation of the character one way or the other and then you disprove it as you read on and whatever you're thinking. What do you all think about that? Do proficient readers organize a defensible interpretation by utilizing opposites? This is just one example that Ethan did.

T_6: In my mind, yeah, yes.

Comment [EP105]: Confirmation with limitation

T_1: I think it just depends on the reader because I don't live my life in opposite land. I live my life really in grey. I mean I don't I wouldn't think he's gay. I would think he's a theatre geek.

Comment [EP106]: Confirmation with limitation

PO: OK.

T_1: You know, it depends on my view if I don't put people in I really try hard not to put people in categories.

Comment [EP107]: Positive response with limitation

PO: So, isn't putting him in the theatre geek category a category?

T_1: Yeah, I guess, right.

Comment [EP108]: Positive response with possible limitation

RC_2: It's all relational. Everything you've talked about is relational. For those kids…

Comment [EP109]: Personal connection, reference to students

T_1: They're continuum is smaller. They've got this much whereas we've got this much. (used hand gestures)

Comment [EP110]: Example

T_4: And we're talking about proficient readers. Some people don't see grey, all they see is black and white.

Comment [EP111]: Clarification and example

T_1: Right. And Ethan is one of those kids.

Comment [EP112]: Personal connection with example

RC_1: I think we're all…I mean I think I'm really grey but I can still see the black and white or I wouldn't be able to see the grey.

Comment [EP113]: Confirmation with example and limitation

T_1: I think that our kids have a narrow view of the world.

Comment [EP114]: Declarative statement with doubt

T_6: Right.

Comment [EP115]: Positive confirmation

T_1: And as you know that narrows…

Comment [EP116]: Example

RC_2: So by definition is their imagination narrowed compared to less proficient readers who have limited experiences but big imagination.

Comment [EP117]: Dialogical thinking

RC_1: Yes.

Comment [EP118]: Confirmation

RC_2: Is it mutually exclusive?

Comment [EP119]: Dialogical questioning

RC_1: And how did they come to have imagination?

Comment [EP120]: Questioning

T_4: Were they read to as a child? Were they not read to as a child?

Comment [EP121]: Questioning for clarification

PO: It depends how many experiences have they had? Have they been to a play? Have they been to a museum? Have they been to the symphony? The ballet? I think the narrower your view it's because you haven't had those experiences.

T_1: And when you do read the book about the Boleyn girl, the Other Boleyn, you're not really getting' it, you know, it doesn't mean as much to that person.

Comment [EP122]: Intertextual connection

PO: Yeah. 35:01

PO: On…(class dismissal bell sounds) **Do proficient readers, again, do proficient readers create mental images when reading?**

T_6: Yeah. — **Comment [EP123]:** Confirmation

(group nods in agreement) — **Comment [EP124]:** Confirmation

RC_1: What do you mean by mental? — **Comment [EP125]:** Clarification

T4: That makes the book better to me. — **Comment [EP126]:** Intertextual connection

PO: Do you think that's why proficient readers tend to appreciate what they're reading because they can see it in their head?

T_4: Yes, it helps them make mental images so that when they get to the book they can't put it down and when the movie comes out they get disappointed because they had that visualization in their head. What it would look like. You know. — **Comment [EP127]:** Confirmation with example

RC_1: Does it have anything to do with what you value? I keep thinking about myself as a reader I don't I don't prefer fiction and I do get visual pictures (beginning class bell sounds) I get visual pictures when I read it but I would prefer to be stimulated intellectually stimulated and learning something new. So maybe it's what you value. If you value visualization then you'll be able to see that and it's a good thing for you and you enjoy that then I'm going to choose selection that allows me to do that. 36:35 — **Comment [EP128]:** Dialogical thinking

PO: This next one…is reading generating images from words**? Is reading generating images from words?** 36:47

T_2: That's how you comprehend. You visualize what the author has written down. — **Comment [EP129]:** Declarative statement

PO: What about non-fiction?

T_2: Non-fiction is the same thing. Even if it's wrong they have to be visualizing something. — **Comment [EP130]:** Intertextual connection

PO: OK.

RC_1: What about *Non-Fiction Matters*? Do you visualize anything when you read that? — **Comment [EP131]:** Intertextual connection

T_1: I don't know. I'll let you know. — **Comment [EP132]:** Doubt

PO: When you read something like that and it's obviously a professional text for teachers when you read something like that…when I read something like that I think of students in the classroom.

T_1: Yeah, I think that that's what I'll be doing. I'll read this then I'll be taking some notes and thinking how this book how I will translate it to here to how I can translate it into reality…how it works for me. 37:58

Comment [EP133]: Intertextual connection

T_6: You will visualize how it relates to your class.

Comment [EP134]: Example

PO: Specific student will probably come to mind.

T_6: And who said what and where.

Comment [EP135]: Clarification

T_5: I'm thinking of how students will act even to vocabulary and I think it's important for a kid to bring up a visual and that the most important part to even draw it.

Comment [EP136]: Personal connection, reference to students

PO: So even at the word level you still generate images in you head.

T_4: Absolutely. I thinking of my word wall right now and the word was oppression and a kid drew a swastika and that you know somebody had said something.

Comment [EP137]: Confirmation with example

PO: I was wondering why there was a swastika on your word wall.

T_1: That is…that is…when I think of my word wall that is the image that pops into my mind is the kid who drew the swastika for oppression and I kinda like it that it generates a reaction from people.

Comment [EP138]: Personal connection, reference to students

PO: OK. You would.

PO: **Is there a strong association between mental images and language level?** What do you think?

39:29

PO: Mental images…what you visualize and your language level? Think of your students.

T_4: I was just thinking…my vocabulary is good. I did well on my SAT. But I can visualize really well and then I have my sister who is a genius and if I don't know what a word means I'll look it up in the dictionary or I'll call my sister and I don't think that she visualizes any better than I do.

Comment [EP139]: Example

T_2: I remember when I wanted to be a nurse and I was using my mother books because I had not idea of what was going on because I didn't understand the vocabulary. I didn't have the vocabulary but then I started to acquire the words and I read the same book and I was able to visualize a chancre sore and all these others stuff.

Comment [EP140]: Personal connection

T_1: It goes back to Sold and the people had a roof made of straw. If the kids don't really get that they're the poorest of the poor…they missed the whole reason the whole book starts if they didn't get it.

Comment [EP141]: Intertextual connection

T_2: I'm sorry, I thought you were talking about proficient readers and not non-proficient readers. — Comment [EP142]: Clarification

PO: It's OK. Either way. Is there a correlation between mental images and language level. Langauge level doesn't just mean reading, you know, it could mean talking and the whole gamut of language.

RC_1: That is so true. — Comment [EP143]: Confirmation

RC_2: That brings up a good point about students who speak other languages. What the heck is going on (in their heads) when they read in English and think in another language. — Comment [EP144]: Dialogical thinking

PO: And…English idiom is a killer for second language learners or speakers of other languages other than English. 41:48

T_1: When I was taking the ESOL class they were sitting there talking about the characteristics of a an English Language Learner and I'm not teaching ELL and I'm going yes, yes, yes, yes and I basically came to the conclusion that a lot of my students aren't really proficient in their own language, first language. — Comment [EP145]: Personal connection

T_6: …knew that she had Spanish as another language and she started training in Spanish. — Comment [EP146]: Personal connection, reference to students

RC_2: I asked a student, how do you manage this when you are asked to read English and you're thinking in Spanish and she said I translate it as I go. There are some words that are similar in Spanish and English. In general, or they leave out the word they don't know or they can figure it out. — Comment [EP147]: Personal connection, reference to students

T_1: Reading strategies — Comment [EP148]: Declarative statement

RC_2: He still reads and writes well. — Comment [EP149]: Personal connection, reference to student

PO: But he's still not fluent in English. 43:12

PO: Because when you said that I was thinking when I read Spanish I don't process in English, I process in Spanish but I'm fluent in both languages so in my head I can switch back and forth with no problem. He's not there.

RC_1: What about deaf children? What would you say is their proficiency level if they're deaf? Could it vary just as much? Do they have an imagination if they don't hear? — Comment [EP150]: Dialogical thinking

PO: I don't know.

T_5: It's probably more based on IQ and background. — Comment [EP151]: Questioning

RC_1: They don't hear a word. OK, so they're a four or five year old and they don't hear a word can they imagine it. — Comment [EP152]: Dialogical thinking

PO: They still can learn to read and write.

RC_1: They can speak and understand the word but are they able to imagine equally? — **Comment [EP153]:** Dialogical thinking

T_6: Yes. — **Comment [EP154]:** Confirmation

T_4: My aunt worked with a deaf child using the Suzuki method and that child learned to play. — **Comment [EP155]:** Personal connection with example

PO: But even in the Suzuki method it's the conditions for learning that are in place. You know, I think it's the same situation.

PO: The next question is, **do proficient readers use metaphors to create mental images when reading?** 45:12

PO: Do proficient readers use metaphors to create mental images when reading?

T_4: When I'm reading a fictional piece they're such good writers that there are so many metaphors in it and visual imagery that I don't have to provide the metaphors. — **Comment [EP156]:** Personal connection

PO: No, but you're using the metaphors the author has provided.

T_4: Yes, I understand that and I appreciate that. It helps me to understand and be engaged. — **Comment [EP157]:** Confirmation with example

PO: You just said appreciate and the group agreed with you. Do low-progress readers appreciate metaphors?

T_1: I doubt it. — **Comment [EP158]:** Questioning

PO: Why?

RC_1: They have to understand it to appreciate it. — **Comment [EP159]:** Declarative statement

PO: **Do you think that low-progress readers interpret metaphors literally?** 46:17

T_1: Sometimes, yeah. — **Comment [EP160]:** Limitations

T_3: English language learners don't understand idioms that prepares them to understand. — **Comment [EP161]:** Personal connection with example

T_1: Then it's no wonder. — **Comment [EP162]:** Acknowledgement

T_3: She didn't understand…none of it. — **Comment [EP163]:** Confirmation

PO: OK…and last one.

PO: **Do metaphors assist readers in comprehending?** 46:49

RC_2: (inaudible)

T_4: Sometimes and it depends on the example like look he swims like a fish rather than he's a fish in the water. I think the metaphor is stronger that the simile. If they don't know a pool that metaphor might help them understand swimming in a pool. I don't think metaphor…what was the question again.

Comment [EP164]: Positive response with limitations and example

PO: …assist readers in comprehending?

T_4: I appreciate them.

Comment [EP165]: Clarification

RC_1: Well it makes it more engaging to see it in their heads.

Comment [EP166]: Limitations

PO: Usually metaphors are strong in poetry and poetry relies on metaphors and similes for you to …think of a haiku. There aren't that many words in a haiku. But they create images in your head, but of course it's what you bring to it…the background knowledge you bring to it.

T_1: One thing when I was having the data chats with the kids and it was that one that had descriptive language on their benchmark I have this book of Monet paintings and I pulled up a picture…oh…what's metaphor that I can use for like descriptive language, whatever, this Monet painting it's a Monet painting of the house and then there's a photograph of the house so I said you know in somethings they tell you exactly what it is like a photograph whereas like in this picture you kinda sorta get a feeling and how you're its more…more…and that's how I describe it to the kids was here's the impressionist painting and here's the photograph. So that's how I describe descriptive language to the kids through use of those metaphors.

Comment [EP167]: Intertextual connections

PO: You showed them the metaphor between the photograph and an impressionist painting.

T_1: Right and it was clear and this would be a descriptive language and this would be telling it like it is. 49:43

Comment [EP168]: Confirmation with example

PO: Any other comments.

T_1: I'm good.

PO: Thank you. 50:00

End of focus group discussion

Analysis

Fiction/non-fiction texts referenced: The Big Lie
The Second Boleyn Girl (3)
Lovely Bones (3)
The DaVinci Code (3)
REWARDS [social studies program]
National Geographics
Edge [basal reading program] (3)
Non-fiction Matters (2)
Sunrise Over Fallujah
Born Blue
Tuck Everlasting
Nailed
Sold (3)
Monet

25 references in 50 minutes: one text referenced every 2.00 minutes.

Movies referenced: Elizabeth (2)
Star Wars

Utterances:
PO – 93/ 50 minutes
RC_1 – 29/ 50 minutes
RC_2 – 13/ 50 minutes
T_1 – 59/ 50 minutes
T_2 – 5/ 50 minutes
T_3 – 2/ 30 minutes
T_4 – 36/ 50 minutes
T_5 – 3/ 50 minutes
T_6 – 11/ 40 minutes
T_7 – absent but referenced once

NOTE:
PO and RC_1 have worked together for over 15 years; PO and T_1 worked together previous year.

APPENDIX E: TEACHER BEHAVIOR FREQUENCY MATRIX

Categories for Interaction Analysis

Teacher Discourse	**Direct Influence**	1. Teacher uses metaphorical language. 2. Teacher utilizes text set/s during lesson. 3. Teacher models comparing and contrasting. 4. Teacher tells stories during lesson 5. Teacher uses sensory stimulation during lesson. 6. Teacher highlights the unknown during lesson. 7. Teacher highlights patterns during lesson. 8. Teacher highlights intertextual connections during lesson.
	Indirect Influence	9. Teacher incorporates poetry during lesson. 10. Teacher incorporates humor during lesson. 11. Teacher promotes an information-intensive environment. 12. Teacher promotes topic centered or topic associated conversations.
Student Discourse		13. Teacher reinforces students' use of metaphorical language. 14. Teacher reinforces students' intertextual connections. 15. Teacher reinforces students' storytelling.

Teacher Behavior Frequency Matrix

Interaction categories

Observation days	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0	0	9	7	0	1	0	13	0	7	3	7	0	8	4
2	3	0	4	13	0	0	3	15	0	5	0	6	2	13	2
3	1	0	2	2	0	0	1	6	0	5	1	2	1	4	3
4	0	0	4	9	3	0	2	11	0	5	3	14	0	5	7
5	5	0	6	5	1	3	1	5	0	6	0	6	0	3	6
6	1	0	3	0	0	0	0	3	0	5	0	7	0	3	0
7	1	0	7	5	0	0	0	7	0	16	0	10	0	4	0
8	2	0	8	6	0	0	0	3	1	6	0	11	0	3	0
9	0	0	0	0	0	2	0	0	0	10	0	6	0	0	0
10	0	0	2	12	0	0	0	8	0	9	0	11	0	6	6
11	1	0	11	7	0	0	0	7	0	11	0	20	0	6	2
12	2	0	1	9	0	0	3	2	0	12	0	14	1	1	6
13	2	0	4	4	0	0	0	5	0	4	0	14	6	5	6
14	3	0	5	8	0	0	0	7	0	3	0	20	0	6	0
15	0	2	4	7	0	2	0	8	0	9	2	5	0	0	3
16	0	0	3	2	0	0	1	0	0	0	2	6	0	2	0
17	1	0	0	3	1	2	2	2	0	11	2	5	0	0	0
18	0	0	0	4	0	0	0	2	0	8	0	5	0	0	3

APPENDIX F: STATISTICAL ANALYSIS OF PRE/POST FAIR

General Linear Model

Within-Subjects Factors

Measure	Time	Dependent Variable
Reading	1	FAIRrdgPre
	2	FAIRrdgPost
Maze	1	FAIRmazePre
	2	FAIRmazePost

Multivariate Tests[b]

Effect			Value	F	Hypothesis df	rror df	ig.
Between Subjects	It ercept	Pillai's Trace	.993	1736.040[a]	2.000	6.000	000
		Wilks' Lambda	.007	1736.040[a]	2.000	6.000	000
		Hotelling's Trace	133.542	1736.040[a]	2.000	6.000	000
		Roy's Largest Root	133.542	1736.040[a]	2.000	6.000	000
Within Subjects	Ti me	Pillai's Trace	.063	.874[a]	2.000	6.000	429
		Wilks' Lambda	.937	.874[a]	2.000	6.000	429
		Hotelling's Trace	.067	.874[a]	2.000	6.000	429
		Roy's Largest Root	.067	.874[a]	2.000	6.000	429

a. Exact statistic

b. Design: Intercept

Within Subjects Design: Time

Mauchly's Test of Sphericity[b]

Within Subjects Effect	Measure	Mauchly's W	Approx. Chi-Square	f	ig.	Epsilon[a]		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
	Reading	1.000	.000			1.000	1.000	1.000
ime	Maze	1.000	.000			1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b. Design: Intercept

Within Subjects Design: Time

Tests of Within-Subjects Effects

Multivariate[b,c]

Within Subjects Effect		Value	F	Hypothesis df	Error df	Sig.
	Pillai's Trace	.063	.874[a]	2.000	26.000	.429
ime	Wilks' Lambda	.937	.874[a]	2.000	26.000	.429
	Hotelling's Trace	.067	.874[a]	2.000	26.000	.429
	Roy's Largest Root	.067	.874[a]	2.000	26.000	.429

a. Exact statistic

b. Design: Intercept

Within Subjects Design: Time

c. Tests are based on averaged variables.

Univariate Tests

Source	Measure		Type III Sum of Squares	df	Mean Square	F	Sig.
Time	Reading	Sphericity Assumed	157.786	1	157.786	1.441	240
		Greenhouse-Geisser	157.786	1.000	157.786	1.441	240
		Huynh-Feldt	157.786	1.000	157.786	1.441	240
		Lower-bound	157.786	1.000	157.786	1.441	240
	Maze	Sphericity Assumed	19.446	1	19.446	.795	380
		Greenhouse-Geisser	19.446	1.000	19.446	.795	380
		Huynh-Feldt	19.446	1.000	19.446	.795	380
		Lower-bound	19.446	1.000	19.446	.795	380
Error(Time)	Reading	Sphericity Assumed	2956.214	27	109.489		
		Greenhouse-Geisser	2956.214	27.000	109.489		
		Huynh-Feldt	2956.214	27.000	109.489		
		Lower-bound	2956.214	27.000	109.489		
	Maze	Sphericity Assumed	660.054	27	24.446		
		Greenhouse-Geisser	660.054	27.000	24.446		
		Huynh-Feldt	660.054	27.000	24.446		
		Lower-bound	660.054	27.000	24.446		

Tests of Within-Subjects Contrasts

Source	Measure	ime	Type III Sum of Squares	f	Mean Square		ig.
Time	Reading	inear	157.786		157.786	.441	240
	Maze	inear	19.446		19.446	795	380
Error(Time)	Reading	inear	2956.214		109.489		
	Maze	inear	660.054		24.446		

Tests of Between-Subjects Effects

Transformed Variable:Average

Source	Measure	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Reading	434016.071	1	434016.071	557.533	.000
	Maze	475272.875	1	475272.875	2237.700	.000
Error	Reading	4581.929	27	169.701		
	Maze	5734.625	27	212.394		

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FAIRrdgPre	28	71.00	103.00	86.3571	9.85906
FAIRrdgPost	28	71.00	132.00	89.7143	13.49035
FAIRmazePre	28	74.00	111.00	91.5357	10.35833
FAIRmazePost	28	72.00	117.00	92.7143	11.38178
Valid N (listwise)	28				

APPENDIX G: FLEISS KAPPA STATISTICAL ANALYSIS

FLEISS KAPPA STATISTICAL ANALYSIS

	0 times	1 time	2 times	3 times	4 times	5 times	6 times	7 times	8 times	9 times	10 times
item 1	6	1	0	0	0	0	0	0	0	0	0
item 2	4	2	1	0	0	0	0	0	0	0	0
item 3	3	2	1	0	1	0	0	0	0	0	0
item 4	4	2	1	0	0	0	0	0	0	0	0
item 5	4	0	1	1	0	1	0	0	0	0	0
item 6	0	2	0	1	2	0	2	0	0	0	0
item 7	2	1	4	0	0	0	0	0	0	0	0
item 8	1	1	2	0	1	1	1	0	0	0	0
item 9	7	0	0	0	0	0	0	0	0	0	0
item 10	7	0	0	0	0	0	0	0	0	0	0
item 11	4	2	0	0	0	1	0	0	0	0	0
item 12	0	3	1	0	0	1	1	0	0	0	0
item 13	6	1	0	0	0	0	0	0	0	0	0
item 14	2	1	0	0	1	2	0	0	0	1	0
item 15	3	1	1	0	2	0	0	0	0	0	0
	53	19	12	2	7	6	4	0	0	1	0
	p										
	0.50	0.181	0.114	0.019	0.066	0.057	0.038	0	0	0.0095	0
	q										
	0.49	0.819	0.885	0.981	0.933	0.942	0.961	1	1	0.9904	1
	p*q										
	0.24	0.1482	0.101	0.018	0.062	0.053	0.036	0	0	0.0094	0

11 times	12 times	13 times		Raters	n (# items being rated)
0	0	0	37	7	15
0	0	0	21	7	
0	0	0	15	7	
0	0	0	21	7	
0	0	0	19	7	
0	0	0	13	7	
0	0	0	21	7	
0	0	0	9	7	
0	0	0	49	7	
0	0	0	49	7	
0	0	0	21	7	
0	0	1	13	7	
0	0	0	37	7	
0	0	0	11	7	NOTES: Put number of people who chose this rating in the cells.
0	0	0	15	7	
			351	Sum of Col D (sum of squares)	
0	0	1		Sum of Row 20 (sums for each column)	
				105	
0	0	0.0095		Sum of Row 21 (p*q)	
				0.689705215	
1	1	0.9904			
				KAPPA	
0	0	0.0094		0.116254603	

APPENDIX H: UCF INSTITUTIONAL REVIEW BOARD EXEMPTION LETTER

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

From : **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To : **Enrique Puig and Dr. Susan Wegmann**

Date : **June 29, 2010**

Dear Researcher:

On 6/29/2010 the IRB determined that the following proposed activity is not human research as defined by DHHS regulations at 45 CFR 46 or FDA regulations at 21 CFR 50/56:

Type of Review:	Initial Review
Project Title:	A hybrid quasi-experimental ethnographic study on the correlation between select instructional practices that promote the imagination and the comprehending of text by low-progress adolescents
Investigator:	Enrique Puig
IRB ID:	SBE-10-06988
Funding Agency:	N/A

University of Central Florida IRB review and approval is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are to be made and there are questions about whether these activities are research involving human subjects, please contact the IRB office to discuss the proposed changes.

On behalf of the IRB Chair, Joseph Bielitzki, DVM, this letter is signed by:

Signature applied by Janice Turchin on 06/29/2010 01:10:41 PM EDT

Janice M Turchin

IRB Coordinator

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