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Nonliteral Language Used By Teachers In The Classroom

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Nonliteral Language Used by Teachers in the Classroom

Jenna K. Szybowicz

Thesis

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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Abstract

The purpose of this research project was to determine if regular education and special education classroom teachers used a varying amount of idioms in the classroom. Two groups of subjects were involved in the study; 12 regular education classroom teachers (four first grade; four second grade; and four third grade) and 12 primary cross-categorical classroom teachers. The teachers were observed for one to two hours via naturalistic observation methods during math and language arts lessons. The sample was transcribed and analyzed using *Systematic Analysis of Language Transcriptions* (SALT). The transcriptions were coded for the following criteria: nonliteral idioms[n] (e.g., *just a minute*); idioms used literally[l] (e.g., *raise your hand*); idioms not present in the online dictionary [nd] (e.g., *my bucket feels full*); and number of different idioms used by each teacher. Results indicated that primary cross-categorical teachers used fewer idioms than regular education classroom teachers; however, the difference was not statistically significant.

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So in completing a thesis, I have learned many things. It takes hard work, patience, dedication, and determination. I have become an "expert" in the art of nonliteral language and as a result, my life is forever changed because everywhere I look and everyone I talk to, idioms always seem to have the last laugh.

Chapter I

Introduction

Sixty percent of elementary school children's time is spent listening, with two-thirds of that time listening to teacher talk (Lazar, Warr-Leeper, Nicholson, & Johnson, 1989). Children's success in school is largely dependent on an accurate interpretation of teacher language; therefore, various aspects of teacher talk are of interest to educational professionals.

The majority of teachers' language is used to structure lessons and explain and enforce different classroom rules (Lazar et al., 1989); it can be categorized as explanatory, directive, or questioning. The explanatory portion of teacher language is the core teaching method, which is used when teachers introduce and clarify new topics and concepts to the class. It gives students new information or expands on information they already have. The directive portion of teacher language is used when providing directions during instructional tasks. Directive language is often divided into different steps which students remember and complete. The third part of teacher language is questions, which may require basic or complex answers.

Explanatory, directive and question language used by teachers may include literal and nonliteral language components. Language and cognitive deficits may impact students' understanding of literal and nonliteral language in the classroom. Nonliteral and indirect language is often described as having a hidden meaning that cannot be literally interpreted (Chan & Marinellie, 2008; Kerbel & Grunwell, 1997). Comprehension of nonliteral and indirect language is dependent on basic language foundation, exposure, and contextual cues.

There is disagreement in the education field regarding the amount of nonliteral language that should be used in the classroom with children who have language impairments. Blue (as cited in Kerbel & Grunwell, 1997) suggested that a high usage of ambiguous nonliteral language could lead to increased difficulty with comprehension of classroom material. Conversely, Lazar et.al (1989) suggested that children need to be exposed to nonliteral language frequently in order to learn it. Nippold and Martin (1989) found that exposure to idioms in both written and spoken language helps children understand and use idioms in the correct context. Nippold (as cited in Kerbel & Grunwell, 1997) reported that children are being exposed to nonliteral language in classroom textbooks; by third grade, 6% of sentences contain idioms while by the eighth grade, 10% of sentences contain idioms.

Research studies have measured the types of nonliteral language that teachers often use in the classroom (Evans-Brouhard, 1992; Kerbel & Grunwell, 1997; Lazar et.al, 1989; Newton, 1985). Several of these studies investigated the use of idioms, indirect requests, and multiple meaning words. Two of the studies (Evans- Brouhard, 1992; Newton, 1985) concluded that idioms were the most frequent type of figurative language used in classrooms.

In addition, there is limited research on whether teachers reduce or change their use of nonliteral language when interacting with language impaired students. Evans-Brouhard (1992) recorded the language used by a third grade teacher in the classroom and found fewer idioms utilized with language impaired children than typically developing children at the beginning of the year, but the rate was comparable at the end of the school year. Newton (1985) found teachers used a similar frequency of idioms with

hearing impaired children in auditory-oral classrooms as compared to regular education classrooms, whereas fewer idioms were used in total-communication classrooms.

Kerbel and Grunwell (1997) conducted the only study that measured figurative language/idiom usage by teachers in regular education compared to special education classrooms. The investigators found a slight trend towards special education teachers using fewer idioms, but the study included only six teachers in special education and five teachers in mainstream settings; therefore, statistical analysis had limited validity. Additionally, Kerbel and Grunwell's (1997) results were difficult to compare to past studies due to an idioms per minute rather than idioms per utterance calculation. Extraneous variables, such as silent reading time and other activities with minimal teacher verbalizations, impacted the results and made it difficult to interpret and replicate findings.

Therefore, the purpose of the present study was to evaluate if there is a significant difference in the amount of idioms used by teachers in two classroom settings (i.e., regular education and special education). Additionally, the current study evaluated if idiom diversity differs between the groups of teachers. Common and uncommon idiom use by teachers as a whole are also reported.

Chapter II **Review of the Literature**

Semantics

Semantics is one of the five parameters used to categorize the parts of language; the other four parameters are morphology, syntax, pragmatics, and phonology. Semantics is the meaning of language and includes the relations between language, thought, and behavior (McLaughlin, 2006). It is the ability to determine and provide the meaning within expressions. Much of language can be interpreted literally by understanding the meaning of individual words that make up a sentence. However, nonliteral language is atypical and cannot be understood literally (Hulit & Howard, 2002). Nonliteral language and expressions are often saved and stored in the brain as a single lexical unit that is learned, and is not separated into different parts or different literal meanings (Norbury, 2004). The meaning of nonliteral language is inferred from repeated exposure to these expressions over time and over multiple settings (Norbury, 2004).

Types of Nonliteral Language

Nonliteral language includes metaphors, similes, ambiguous statements, proverbs, and idioms (Lazer, et. al, 1989). Metaphors describe properties of an object by labeling it as a different object resembling the properties. For example, *The bird was a rainbow flying in the sky* signifies that the bird is colorful and can be compared to a rainbow's colors (Nippold, Leonard, & Kail, 1984). Similes are similar to metaphors; however they use *like* or *as* to make a comparison between two objects, for example, *He fights like a lion* (Fishelov, 2007). Proverbs are short sayings that are used to advise, comment, or interpret behaviors and attitudes. Some examples include the following: *When the cat's*

away, the mice will play; every cloud has a silver lining (Power, Taylor, & Nippold, 2001). Idioms are a type of language that do not follow any particular rule system and cannot be interpreted literally.

There is considerable disagreement in defining idioms within the English language. Appendix A and Table 1 present summaries of various definitions of idioms provided in dictionaries, language textbooks, and individual research articles. Idioms have been defined very broadly to include everything from metaphors and similes to single multiple meaning words (e.g., *cool*) and proverbs (e.g., *silence is golden*) (Makkai, 1972). Other authors (McLaughlin, 2006) advocate a narrow interpretation and believe that in order for a short expression to be considered an idiom, it must include an analogy (e.g., *on the spur of the moment*). More commonly, the definition of an idiom is that it must contain multiple words (an expression) and it cannot be interpreted literally. For example, Kerbel and Grunwell (1997) identified idioms as short multi-word expressions in which the idiom cannot be deduced from the primary meaning of each individual word in the expression.

Dimensions and Influence Factors of Idioms

The literature identifies several semantic, syntactic, and frequency of use dimensions in which idioms can be differentiated (Kerbel & Grunwell, 1997). Appendix A presents a few of these conventions found in the literature. Familiarity and transparency are the two most common classification systems for idioms.

Familiarity is based on cultural use and may be specific to an ethnic group, local dialect, or social group (Wallach & Butler, 1994). Familiarity measures how frequently a specific expression is used in the language. *An arm and a leg* and *kick the bucket* may be

more frequently heard in the English language and may hold more familiarity than *six or one half dozen of the other* and *take to one's heels*.

Table 1

Idiom Definitions by Source

Source	Idiom Definition
Idiomatic Dictionaries	<ul style="list-style-type: none"> -Includes metaphors, similes, and multiple meaning words (Makkai, 1972). -New meanings to words that originate from literal meanings (Boatner, Gates, & Makkai, 1987). -Generally, idioms can be defined as phrases that cannot be understood literally (Spears, 2007). -Idioms are English expressions in which a sense of the whole cannot be arrived at from a prior understanding of the parts (Cowie, Mackin, & McCaig, 1993).
Textbooks	<ul style="list-style-type: none"> -Idioms are short analogous expressions that cannot be analyzed grammatically (McLaughlin, 2006). -Idioms include literal and figurative interpretations (Owens, 2005; Wallach & Miller, 1988; Wallach & Butler, 1994).
Children's Idiom Comprehension Research Articles	<ul style="list-style-type: none"> -Idioms are figurative expressions that can be understood given the context and contain both literal and figurative meaning (Nippold, Leonard, & Kail, 1984; Nippold, 1991; Nippold & Taylor, 1995; Nippold, Moran, & Schwarz, 2001; Nippold & Taylor, 2002; Nippold, Mansfield, Billow, & Tomblin, 2008). -Figurative expressions used to express complex meanings (Nippold, 1991). -Additional literal interpretations to the fixed figurative meaning (Norbury, 2004).
Teachers' Production Research Articles	<ul style="list-style-type: none"> -Idioms are words or groups of words within an expression that differ from the definition provided in the dictionary. The meaning of the idiom cannot be derived from the meanings of each individual word (Evans-Brouhard, 1992). -Idioms are part of multiple meaning expressions (MME) (Lazar, Warr-Leeper, Nicholson, & Johnson 1989). -Idioms function more figuratively than the intended meaning (Newton, 1985). -Short, multi-word expressions in which the idiom cannot be deduced from the meaning of each individual word in the expression (Kerbel & Grunwell, 1997).

Transparency is the degree to which the literal and nonliteral meanings are similar. The idiom is considered transparent if there is a clear overlap of nonliteral and literal meaning in the message (e.g., *my lips are sealed*). Idioms are considered opaque when none of the literal meanings in the expression can be used to interpret the nonliteral meaning of the expression, such as *face the music* (Nippold & Taylor, 2002; Cain, Towse, & Knight, 2009). Therefore, transparent idioms are easier to analyze and interpret (Nippold, 1998). Other terms related to transparency are pure and semi-idioms. Pure idioms cannot be comprehended without previous exposure or context because the relationship between the idiomatic and literal meaning is nonexistent (Kerbel & Grunwell, 1997). Examples of pure idioms include: *kick the bucket*, *all tied up*, and *straight away*. Semi-idioms are when one word carries a figurative sense, while the other holds a literal meaning (e.g., *jog one's memory*; Kerbel & Grunwell, 1997).

Some idiom classification systems discuss types of idioms based on syntactic properties (Boatner, Gates, & Makkai, 1987; Kerbel & Grunwell, 1997; Makkai 1972). These authors included single multiple meaning words when secondary meanings were used as idioms, as well as compound words in which a new meaning was derived when words were combined (e.g., *makeup*, *field trip*, *bubble gum*). There are several types of phrasal idioms including adverbial, verbal, and adjective. Adverbial phrases include verb + adverb combinations when the adverb does not contain primary meaning (e.g., *work out*, *made up*, *cracked up*). An example of a verb phrasal idiom is, *hang on* and *take away*, whereas an adjective phrasal idiom is *salt and pepper hair* or *spic and span*. Clausal idioms contain a noun and verb and are a play on words, contexts, and literal definitions (e.g., *curiosity killed the cat*; *kick the bucket*) (Kerbel & Grunwell, 1997).

The majority of the idioms used are phrasal idioms. These idioms consist of phrases such as *line up*, *come on*, and *just a minute*. Phrasal idioms may be common in classroom language and often tend to be overlooked unless specific focus is placed on acknowledging the idiomatic status. Phrasal idioms commonly infiltrate everyday language, making it virtually impossible to conduct lessons without their use (Kerbel & Grunwell, 1997).

The acquisition of nonliteral language relies on numerous factors, such as the context in which it is used, how the speaker conveys the message, and the literal versus nonliteral interpretation of different words. These factors contribute to the complexity of the acquisition of nonliteral language in both language impaired and typically developing children (Kerbel & Grunwell, 1997).

Vosniadou (1987) suggested that the degree of a child's knowledge and greater world knowledge may influence children's ability to understand nonliteral language. These limitations impact the success of acquiring language for effective use in the classroom.

The degree of knowledge children have of certain objects impacts how nonliteral language is comprehended. A child must often have a complete understanding of the literal message of a saying before he can comprehend it as a figure of speech. If a child does not have sufficient vocabulary, he may struggle with nonliteral language due to the lack of schemas and knowledge. For example, *The brain is like a computer* cannot be fully understood if a child does not understand the concept of a computer and, therefore, will never grasp the nonliteral meaning. Children with language and learning disabilities who have not yet acquired sufficient language will struggle to understand contexts and

will not be able to linguistically interpret what message is being conveyed (Vosniadou, 1987).

Similarly, greater world knowledge influences the ease of comprehension for idiom and figurative language. The ability to interpret figurative expressions of nonliteral language is influenced by world knowledge. For example, *smooth sailing* and *fishing for a compliment* have more meaning if one has sailed or fished (Owens, 2005).

As previously mentioned, transparency and the frequency of exposure play a vital role in learning the meaning of an idiom. Transparent idioms are easier for children and adults to comprehend than opaque ones. Idioms, such as *hold your tongue*, are viewed to be metaphorically transparent because they have a similar meaning in comparison to the nonliteral meaning (Cain & Towse, 2008; Cain, Towse, & Knight, 2009; Nippold & Taylor, 2002). Less literal idioms are more difficult to understand from childhood through adulthood (Owens, 2005). Young children are exposed to idioms quite frequently in oral and written language. Research has found that repeated exposure to idioms in both written and spoken language helps children understand the nonliteral meaning and slowly begin to use idioms spontaneously in correct context (Nippold & Martin, 1989). Owens (2005) found that nonliteral expressions are easier for adolescents to understand when they are presented in an appropriate context, as opposed to being presented in isolation.

Development of Comprehension of Nonliteral Language

Nonliteral and indirect language are not easy to understand, but with exposure, children can be successful in comprehending idioms and multiple meaning words. Exposing children at an early age can increase the children's comprehension and use of nonliteral language.

Research has shown that idioms and multiple meanings can be understood as early as preschool years, so it is important to have an enriching environment to ensure a full understanding of language in a variety of contexts (Vosniadou, 1987). Idioms are complex and children need to receive frequent exposure to understand the nonliteral meanings. Typically developing children cannot interpret multiple meaning expressions if they have not received exposure and the correct context to use the expressions (Nippold, 1991). Language comprehension in children aged 5 to 7 years depends heavily on the physical aspect of a word rather than the psychological aspects. For example, if a 5-year-old was told, *she is a cold person* he would interpret the expression literally and take it as “she is a chilly person.” The physical definition of *cold* would be applied rather than inferencing the psychological aspect of the word, such as uncaring or unsympathetic.

At the age of 7 years, comprehension of nonliteral language seems to be dependent on the context in which it is presented. At this point, children’s comprehension of nonliteral language far exceeds their production. Eight to 9-year old children will begin to show an understanding of psychological aspects of different words, such as that of colors. For example, *I feel blue*, does not imply that the individual feels like a color, instead *blue* can be used to show a psychological state of being upset or distressed (Owens, 2005).

Several research studies have examined children’s comprehension of idioms (Nippold, Leonard & Kail 1984; Nippold & Taylor 1995; Nippold, Moran, & Schwarz 2001; Nippold & Taylor 2002; Nippold, Mansfield, Billow, & Tomblin 2008; Norbury 2004; Cain, Towse, & Knight 2009). Investigators found that age and familiarity of idioms were important factors in comprehension. Older students performed better on a

forced choice idiom comprehension task than younger children who had fewer opportunities to become familiarized with idioms. Exposure to idioms in the classroom is a factor in increased familiarity idioms. Chan and Marinellie (2008) found idiom comprehension was not fully developed until 18 years of age, with early school-aged children interpreting many idioms literally.

Research has found that idioms are difficult for children with learning disabilities to interpret (Abrahamsen & Burke-Williams, 2004). Children with language and learning disabilities may not be able to understand and use nonliteral language effectively. These children are more likely to interpret idioms literally and may not be aware that a figurative interpretation is expected (Abrahamsen & Burke-Williams, 2004). Failure to make sense of nonliteral language, when used in conversation and other forms of communication, can result in difficulties for the school-aged child, since verbal jokes, puns, and language-oriented games occur frequently in social interactions (Vance & Wells, 1994).

Nonliteral Language in the Classroom

It is important to incorporate indirect and nonliteral language in classrooms to ensure exposure and later acquisition of complex language. However, the child's language knowledge and cognitive level will determine his comprehension of idioms (Norbury, 2004). Teachers need to know the cognitive and linguistic abilities of their students when generating written and verbal language in the classroom. Although literal language is the primary language of classrooms, nonliteral language is integrated at varying amounts based on the students, classroom, and teacher (Nippold, 1991). Children at all cognitive levels need to be exposed to nonliteral and indirect language so

they understand proper use (Nippold, 1991). However, disagreement exists regarding the amount of nonliteral language that should be used in classrooms.

Due to the complexity of nonliteral language for typically developing children, it has been suggested to reduce exposure of nonliteral language for language impaired children (Kerbel & Grunwell, 1997). Children with language impairments often misinterpret idioms in context and have more difficulty understanding the concepts. It has been suggested by Blue (as cited in Kerbel & Grunwell, 1997) that the use of idioms should be avoided in language impaired and special needs settings all together. These authors argue that classroom language should be idiom-free until children with language impairments have achieved proficiency in literal language use. Gross (as cited in Kerbel & Grunwell, 1997) stressed that in order to avoid confusion for children with learning disabilities, the message needs to represent the literal meaning.

Lazar et. al (1989) argue that eliminating idiomatic language from classrooms will have a negative effect on children with language impairment. It is acknowledged that these children have difficulty understanding and decoding idioms, but idioms are an essential component to language development. The authors stress that simply avoiding these expressions would restrict individuals' ability to interpret and use idioms. Instead, teachers should be aware of verbal and non-verbal signals conveyed by students and provide explanations of idioms when signs of confusion or misunderstanding are present. In summary, there are no definitive directions on how to address idioms in language impaired classrooms. The use of idioms and nonliteral language is often left to the discretion of the individual classroom teacher.

Research on Teacher use of Nonliteral Language in the Classroom

Evans-Brouhard (1992) examined nonliteral language used by one third grade teacher over a one year time period to evaluate if there was a difference noted between the beginning and end of the school year. The author also evaluated if the use of nonliteral language varied between teacher language directed to children with language impairment and teacher language directed to typically developing children. The teacher in the study held a Master's degree and had taught several grade levels. The classroom contained 20 students, including five students identified with speech and language deficits.

The data were collected during language arts activities in three half-hour segments, during September and April. The language arts lessons typically involved a review of spelling words and then an activity integrating the words. Approximately 2,600 utterances were collected and transcribed during the two language samples. Nonliteral language was examined by tallying the occurrence of idioms, sarcasm, metaphors, similes, and ambiguous statements. Idioms were defined as expressions that cannot be understood by the individual words. Sarcasm included utterances where the attitude of the speaker may be contradictory to the words spoken. Metaphors occurred when a word or phrase was used in place of another word or phrase to show similarities. Similes compared two objects using *like* or *as*. Last, ambiguous statements were defined as the speaker's intended message not being specifically stated.

Results indicated few differences in the amount of nonliteral language used in the classroom at the beginning and end of the school year directed towards children without language impairment. Idioms were the most frequently used type of nonliteral language.

In September, the teacher used idioms with the whole class in 10.79% of her total utterances, but only 4.60% with children with language impairment. In April, idiomatic expressions directed to the entire class and language impairment children increased to 11.73% and 10.89% respectively. The authors concluded that in September, the teacher avoided idiomatic expression directed towards language-impaired students because the students were unable to manage nonliteral forms. However by April, the teacher had provided more exposure of idioms to the language-impaired students. Other types of nonliteral language were relatively infrequent at the beginning and end of the school year. Sarcasm occurred in only 0-.2% of utterances; ambiguous statements in 0-1.4%; metaphors in 0-.1% and similes in .1-1.9% of utterances.

Newton (1985) compared nonliteral language used by teachers in hearing classrooms, auditory-oral classrooms, and total communication classrooms. Thirty teachers were chosen, ten from each setting, with the students' ages ranging from 2:4 to 7:6 years. The participants were located in six different programs in three cities of Texas.

Each teacher was videotaped while participating in a spontaneous communication activity, as well as a story-telling activity. The teachers were observed for 30 minutes in five different activities to allow for different types of language use and more spontaneous conversation. The teachers were given a box that included books and toys. They were asked to spend half the time discussing the objects from the box and the other half conversing about school, home, and other interests. During the storytelling activity, the teacher read a modified version of *The Golden Goose* that included nonliteral language. The modified version ensured the use of idiomatic language.

The examiner transcribed 300 utterances from the teachers' samples and analyzed 180 utterances containing the greatest idiom usage. Transcribed samples were evaluated for idiomatic language and indirect requests. All utterances containing nonliteral language were identified in both the oral and signed portion of video tapes.

Results indicated no differences between hearing ($M=41.80$ per 180 utterances; $SD=5.67$; .23 idioms per utterance) and auditory-oral ($M=36.80$ per 180 utterances; $SD=10.67$; .20 idioms per utterance) teachers' use of idioms in the classroom; however, the total communication teachers used significantly fewer idioms in their total utterances ($M=27.80$ per 180 utterances; $SD=7.64$; .15 idioms per utterance). Results indicated that teachers in the total communication classroom used fewer idioms and the idioms were often signed incorrectly. In the total communication classroom, 295 signed idioms were used by the teachers; however, only 113 (38%) were signed correctly. In addition to idiom use, the study also measured the frequency of indirect requests. Indirect requests were used similarly between the two groups and infrequently with means ranging from 2.5-4.0 per 180 utterances.

Lazar et. al (1989) evaluated the frequency and use of nonliteral language by teachers in regular classrooms ranging from kindergarten through eighth grade. Twenty-one teachers, two different teachers from each grade level, were chosen from two public schools in Ontario, Canada.

Each teacher was audio-taped for one full day with each lesson ranging from approximately 200 to 600 utterances. Three lessons (math, language arts, and reading) were asked to be taught; however, for some grade levels, only one or two of the lessons were taught. When only one or two lessons were taught, the teachers from the same

grade level were grouped together, which resulted in data from 18 groups of three lessons. Teachers were unaware of the researcher's intentions, but were told they were not being evaluated on teaching skills. Data were analyzed based on researchers choosing 100 consecutive utterances from each lesson in the different grade levels and resulted in a total of 5,400 utterances analyzed. A percentage of each type of nonliteral language usage was calculated.

The types of nonliteral language that were evaluated included idioms, similes, metaphors, irony, and indirect requests. Similes, metaphors, irony, and indirect requests were not defined by the authors of the study. Idioms were identified for data analysis using *A Dictionary of Idioms for the Deaf* (Boatner & Gates, 1975). Idioms included in this dictionary were phrasal idioms and compound words, but not single multiple meaning words.

Results indicated indirect requests were the most frequent multiple meaning utterances with .27 indirect requests per utterance (e.g., could you pass your papers in). The use of indirect requests remained consistent across the grade levels. Results indicated teachers' utterances contained a mean of .11 idioms per utterance (i.e., 11% of utterances overall contained idioms). Lazar et. al (1989) found idiom use increased with grade levels, ranging from 4-8% in kindergarten through second grades, 9-15% in third through seventh grades, and 20% by eighth grade. Results suggested idioms are used more frequently in later grades with older children.

Kerbel and Grunwell (1997) studied the use of idioms by teachers in a language unit (i.e., special education) and mainstream classrooms. The subjects were eleven primary school teachers; six teachers from four language unit classrooms and five

teachers from three mainstream classrooms. The students in the language unit classrooms were between 6 and 11 years old. In the mainstream setting, teachers observed had children varying from 6 to 11 year-old students.

All teachers were blind to the study and were recorded from 45 minutes to two hours during one “morning’s routine classroom activities” (p. 117). The teachers wore an attached microphone with a small tape recorder throughout instruction to insure clear and accurate utterance collection. The recordings were transcribed and analyzed for the amount of phrasal idioms (more than one word) including a) pure idioms which allow for no syntactical changes and no literal interpretation of the words (e.g., *kick the bucket* and *carry on*); and b) semi-idioms which are more transparent where one word is more figurative while the other is literal (e.g., *jog one’s memory*). Single multiple meaning words were not included as idioms. Kerbel and Grunwell counted the total number of idioms. The authors did not report the total number of utterances produced, but only reported the number of minutes recorded per teacher. They calculated the rate of idiom usage per minute by each teacher.

Results indicated the language unit teachers used approximately 1.73 idioms per minute, whereas, the mainstream teachers averaged 2.04 idioms per minute. Mann-Whitney statistical analysis indicated the difference between mainstream and language unit teachers’ use of idioms was not significant. However, mainstream classroom teachers used a greater variety of idioms compared to the language unit classroom teachers. In the mainstream classrooms, teachers used 0.99 different idioms every minute, whereas language unit teachers used 0.72 different idioms per minute. It was noted in

both settings that clausal idioms were rarely produced and semi-idioms and pure idioms were more common.

Rationale and Purpose of the Study

The previous studies on idiom use in different grade levels and changes in idiom use for various grade levels produced similar results. Lazar et. al (1989) found an increase with grade levels from kindergarten through eighth grade. Evans-Brouhard (1992) and Newton (1985) found 11-23% of teachers' utterances contained an idiom. There is still limited research in evaluating if teachers reduce or change their use of nonliteral language with language impaired students. Researchers found a slight trend towards special education teachers using fewer idioms, but confounding variables were present. For example, Kerbel and Grunwell's (1997) results were difficult to compare and interpret in relation to past studies, due to idioms per minute rather than idioms per utterance calculation. Extraneous variables, such as silent reading time and other activities with minimal teacher verbalizations, may have impacted the results and made it difficult to replicate their findings.

Therefore, the purpose of this study was to evaluate if there was a significant difference in the amount of idioms used by teachers in two classroom settings (i.e., regular education and special education). Additionally, the current study evaluated if idiom diversity was different between the groups of teachers.

Research Questions

1. Is there a significant difference in the amount of idiom use by regular education and special education classroom teachers?
2. Is there a significant difference in idiom diversity used by regular education and special education classroom teachers? What are the common and uncommon idioms used by the group of teachers as a whole?

Chapter III Methodology

Participants

The participants of this study consisted of 24 certified elementary classroom teachers. The participants taught in two different academic settings: regular education classrooms and primary cross-categorical special education classrooms. Before contacting the teachers for participation, the researcher gained approval from the Eastern Illinois University Institute Review Board (IRB) (Appendix B) and from the superintendents and principals of the participating districts and schools. Once approved to contact participants, emails were sent to teachers encouraging participation. Twelve teachers from cross categorical classrooms, four regular education first grade teachers, four regular education second grade teachers and four regular education third grade teachers were recruited to participate. The subjects were informed of the methods of the study and signed a consent form (Appendix C). The subjects were interviewed by the researcher to gather background information. Interview items included education level, years of teaching at current grade level, number of language impaired students in the classroom, and when math and language arts were taught (Appendix D). Teacher characteristics for education level, years of teaching experience and current grade level are summarized in Table 2.

Table 2

Mean and Range Teacher Characteristics in Each Group

Classrooms	Amount of college completed	Years of teaching experience	Years of teaching at current grade level
Cross-Categorical Teachers	5-Masters 2-Working on Masters 5-Bachelors	8 1-17	5 1-10
1 st Grade Teachers	4-Masters	12 6-24	10 1-23
2 nd Grade Teachers	1-Masters 1-Working on Masters 2-Bachelors	9.5 5-13	6.5 3-12
3 rd Grade Teachers	1-Doctorate 3-Masters	7 3-14	5.75 1-11

Research Design

A group comparative design was used to analyze the teachers' use of language in the two classroom settings. The independent variable was the type of classroom, i.e., cross categorical special education or regular education. The dependent variable was the amount of idioms used by the teachers.

Independent Variable

The type of classroom was the independent variable in the study. The settings included first, second, and third grade regular education classrooms and primary cross-categorical special education classrooms. Data were collected in an even distribution of rural and suburban school settings to obtain data across different environments and locations. Table 3 presents classroom characteristics of groups.

Table 3

Mean and Range of Classroom Characteristics

Classrooms	Number of Students	Percent of Children with Language Impairment	Proportion of Rural/urban
Cross-Categorical Teachers	10 4-17	0.61 0.0-.82	5:7
1 st Grade Teachers	22 20-24	0.13 .04-.23	2:2
2 nd Grade Teachers	24.5 23-25	0.16 .04-.48	3:1
3 rd Grade Teachers	25.8 24-27	0.08 0.0-.12	1:3

Dependent Variable

Teacher language was recorded during language arts and math lessons.

Comparisons were made between settings for the amount of idioms presented to students during language arts and math lessons.

Recording of Teachers' Language in Classrooms

An observation time was scheduled with each teacher to record math and language arts lessons. The researcher sat in the back of the classroom and had no interaction with the children or teachers in order to collect the language sample naturalistically. Teachers were given a *Sony IC* audio recorder to place near themselves while instructing the class. The placement of the voice recorder ensured clarity of the teachers' speech. The participants were instructed to maintain their current teaching method to ensure validity of language samples. If a sample was not properly recorded or language use was minimal, a second recording occurred on a later day.

Transcription of Language Samples

After data were collected, the researcher transcribed the teacher's language sample using *Systematic Analysis of Language Transcriptions* (SALT) software (Miller & Chapman, 2010). Utterances were transcribed using communication units (CU). A CU was defined as an independent clause and all of the clauses that modify it (Kaderavek, 2011). A maximum of 400 communication units were obtained for transcription per teacher. Each transcription consisted minimally of 200 units from one subject area (i.e., math or language arts) and 100 from the other subject area.

Coding for Idioms within Transcriptions

Transcriptions were coded for the presence of idiomatic expressions with the use of an *American Idiom* online dictionary provided by Makkai, Boatner, and Gates (2010). An idiom was defined as an expression in which the idiom cannot be deduced from the primary meaning of each individual word in the expression (Kerbel & Grunwell, 1997). Past research (Kerbel and Grunwell, 1997; Lazar et. al, 1989) used idiom dictionaries as criteria when identifying idioms used during teacher talk; however, literal and nonliteral expressions were used and not identified as such. Other authors (Spears, 2007; Hulit & Howard, 2002; Nippold, Leonard, & Kail, 1984; Nippold, 1991; Nippold & Taylor, 1995, 2002; Nippold, Moran, & Schwarz, 2001; Nippold, Mansfield, Billow, & Tomblin, 2008; Norbury, 2004; Cain, Towse, & Knight, 2009; Newton, 1985) often defined an idiom as "nonliteral," but the research authors included fixed multi-word phrases whether they were literal or nonliteral (i.e, *sit down*, *raise your hand*, and *going to*). Additionally, past research included idioms that were clausal (e.g., *spill the beans*), verbal (e.g., *pick up*), and adjectival (e.g., *straight away*).

Transcriptions were examined by the primary investigator for clauses, verb, and adjective phrases that could be considered idiomatic. The researcher consulted the online idiom dictionary and if the phrase was present in the dictionary, it was coded as an idiom. If the teacher used an individualized phrase/expression that was clearly nonliteral, but not mentioned in the dictionary, it was also coded as an idiom (e.g., *that makes my bucket feel full*) as [nd]. These idioms were coded as [nd] because they were considered idiomatic based on the expression not being deduced from the primary meaning of each individual word in the expression (i.e., *marshmallow toes*, or using quiet feet when walking in the hall).

The idioms were then coded more specifically. Idioms were coded with an [n] when the idioms was used in a nonliteral sense and the student could not interpret the phrase literally (i.e., *put your thinking cap on*, which is to think about a topic or idea; *in order*, which is to follow the rules). Idioms were coded with a [l] if the phrase was presented to the students in a literal sense (i.e., the literal meaning of *raise your hand*, indicated to move your hand upward rather than the nonliteral sense of lending a helping hand; the literal meaning of *in order* which indicated a proper arrangement versus the nonliteral meaning of *in order* was to follow the rules/complete a requirement).

As transcriptions were coded, an Excel spreadsheet was created to list the idioms used by the teachers and how often the idioms occurred in the different teachers' speech. The researcher added to the spreadsheet during the coding process to tally idiom occurrence. When all coding was completed, the frequency of each idiom was counted. Idioms were then labeled as common or uncommon. Following Kerbel and Grunwell's (1997) method, an idiom was considered common if it was produced ten times or more in

regular and special education classrooms. An idiom would then be considered uncommon if produced nine times or less.

Reliability

A faculty member in Communication Disorders and Sciences reviewed four of the 24 transcriptions to independently identify and code for the presence of idioms. The faculty member used the Excel spreadsheet created by the researcher and referred to the online idiom dictionary. An agreement index was used to calculate inter-judge reliability. Reliability for the identification of idioms was 85%. When disagreements occurred, it was primarily due to missed coding by the researcher or faculty member. Also, there were inconsistencies when coding idioms as [nd]. There were several idioms the faculty member coded as [nd] such as *goes in*, *come down*, and *call on* that the researcher did not code, which lowered the reliability percentage.

Data Analysis

Descriptive statistics were applied to compare the results. The total number of idioms in each classroom setting was tabulated in addition to the total number of transcribed teacher communication units. The mean number of idioms overall per communication unit was calculated for each teacher group. Additionally, the mean number of literal and nonliteral idioms was determined.

As an indication of variety or repetitiveness of idiom use, a diversity ratio was computed for each teacher. This ratio was based on the number of different idioms produced over a number of total idioms produced. The study used independent t-tests to determine if a significant difference in the frequency or diversity of idiom use by teacher groups in the different classroom types was present.

Chapter IV

Results

Twelve regular education teachers and twelve special education teachers were observed for two hours during math and language arts lessons. Three hundred to four hundred communication units were transcribed per teacher for a total of 8,258 communication units transcribed. The 12 regular education teachers produced a total of 785 idiomatic phrases and the twelve special education teachers produced a total of 611 idiomatic phrases. The mean number of idioms per communication unit was calculated for individual teachers and teacher groups.

Mean idiom production for the two groups of teachers is presented in table 4. The mean total number of idiomatic phrases produced by regular education teachers was 65.42 and by special education teachers was 50.92. The mean total idiomatic production per utterance was .20 for the regular education teachers and .15 for the special education teachers. The difference between the groups was not statistically significant.

When only the idiomatic phrases with nonliteral interpretations were analyzed, the regular education teachers produced a mean of 21.92 nonliteral idiomatic phrases and special education teachers produced a mean of 18.20. The mean number of nonliteral idiomatic phrases per communication unit was .07 for the regular education teachers and .05 for special education teachers. The difference between the groups was not statistically significant.

Individual teacher results are presented in Appendix E. Review of individual results and mean by grade level for regular education teachers indicated there was not an increase in total idiom use or nonliteral idiom use with grade level. One first grade teacher, one second grade teacher, and one third grade teacher had high usage of idioms

with .27, .27 and .31 idioms per communication unit respectively. Similarly one first, one second and two third grade teachers had a relatively low level of idiom production per communication unit (.12-.15). Slightly lower use of idioms per communication unit was observed for individual special education teachers; only two teachers had higher idiom use per communication unit (.23 and .24) while six teachers produced relatively low idiom use between .08-.15 idioms per communication unit. Mean idiom production for the two groups of teachers is presented in Table 4.

Although the nonliteral and total idiom use for regular education teachers ($M_s = .07$ and $.20$ respectively) was slightly higher than the special education teachers ($M_s = .05$ and $.15$ respectively), independent t-tests revealed the difference was not significant.

Table 4

Mean, Range, and Standard Deviation of Literal and Nonliteral Idioms Produced by Teachers

Group	Number of Nonliteral Idiomatic Phrases	Number of Literal Idiomatic Phrases	Total Number of Idiomatic Phrases	Total Number of Utterances	Nonliteral Idioms per Utterance	Total Idioms per Utterance
Regular Education						
Mean	21.92	45.17	65.42	336.58	.07	.20
Range	11-38	20-76	44-93	300-400	.03-.12	.12-.31
SD	(8.53)	(16.38)	(16.05)	(40.54)	(.03)	(.06)
Special Education						
Mean	18.20	33.40	50.92	351.58	.05	.15
Range	10-37	18-62	33-72	300-400	.03-.12	.08-.24
SD	(8.04)	(13.76)	(15.08)	(43.98)	(.03)	(.05)
Statistical Significance					.78 not significant	.66 not significant

The number of different idioms, the number of total idioms, and the ratio of the number of different to number of total idioms produced were evaluated as an indicator of the diversity/repetitiveness of idioms produced by teachers. Individual results are included in Appendix F. Some individual teachers used less repetition within their idiom productions. For example, one first grade teacher produced 30 different idioms within the 49 total idioms produced for a ratio of .61. Other teachers used more repetition within their idiom production. For example, one third grade teacher produced 21 different idioms within a total of 93 idioms for a ratio of .23. Similar trends were seen within individual special education teachers with some teachers producing limited repetition of idioms (e.g., CC1 produced 23 different idioms within 43 total idioms for a ratio of .53) while other teachers produced a greater number of repetitions (e.g., CC10 produced only 15 different idioms within the 71 total produced for a ratio of .21). Overall, the regular education teachers' diversity ratios ranged from .23 to .61 with a mean of .36. The special education teachers' diversity ratios ranged from .21 to .53 with a mean of .38. Group results are presented in Table 5. T-tests revealed differences between the groups of teachers were not significant.

Table 5

Mean, Range, and Standard Deviation of Different Idioms, Total Idioms, and Diversity of Idiom Usage by Teachers

Group	Mean Number of Different Idioms (NDI)	Mean Number of Total Idioms (NTI)	Type-Token Idiom Diversity Ratio NDI/NTI
Regular Education			
Mean	22.67	65.42	.36
Range	14-30	44-93	.23-.61
SD	(4.74)	(16.05)	(.10)
Special Education			
Mean	18.17	50.92	.38
Range	14-23	33-72	.21-.53
SD	(3.07)	(15.08)	(.10)
Statistical Significance	.14 not significant	.70 not significant	.79 not significant

Another indicator of repetitiveness of idiom production between teachers was the frequency in which they produced specific idioms. Similar to Kerbel and Grunwell (1997), individual idioms were counted as common when produced ten or more times and uncommon when produced nine times or fewer. Table 6 lists idioms used most often by teachers in both classroom settings. The common idioms were produced by multiple teachers with *going to* (499 productions) as the most frequent idiomatic phrase used by all. Other frequent idioms were also verbal phrases such as *put on* (58), *put in* (48), *go ahead* (33), *go over* (25), *hold on* (20), etc. One clausal idiom, *raise your hand* was used 49 times, but in a literal sense of putting your hand in the air to answer a question. There were instances of nonliteral clausal idioms used frequently such as *here we go* (33) and *figure it out* (20).

Table 6

Idioms Used Ten Times or More by Regular and Special Education Classroom Teachers

Frequency	Common Idioms
75+	Going to (499)
50-75	Put on (58); Raise your hand (49); Put in (48)
25-50	Go ahead (33); Here we go (33); Kind of (30); Go over (25)
10-25	Come up (23); Figure it out (20); Hold on (20); Look up (20); In the middle (20); Put down (20); Sit down (18); Pay attention (17); Sit up (15) up (14); Take out (14); Put away (13); Count on it (12); Going on (11); Use a quiet hand (11); Thumbs up (11); Make up (10)

Table 7 displays uncommon idioms produced nine times or less. Ninety-one different idioms were produced by teachers only once or twice.

Table 7

Uncommon Nonliteral Idioms Used Nine Times or Less by Regular Education and Special Education Classrooms Teachers

Frequency	Uncommon Idioms
9	Keep Track; Move on
8	Fill in; Go up; Mix up
7	All the way; Eyes up; Hands down; Hold up; Just a minute; In order; Put back; Tune into; Give me a two
6	Find out; Way to go; Hurry up; Inside your head; Put up; Push up; Sound out
5	Come on; Eyes on; Go on; Just a second; Stick up
4	Come over; Give me five; Gone up; On top; Show up; Sit on; Stand up
3	Stuck in your brain; Take a minute; Pass out; Put under; Sit in; Slow down; Stretch that; Take a break; Take off; Work out
2	Come back; Come down; Drag out; Filling up her bucket; Follow up; Give back; Go along; Hands on; Hands in; Hands up; Hang out; Head down; Inside your mind; Look over; In a minute; Just a moment; Pick up; Put over; Right away; One second; Sort out; Split up; Stay with me; Stay in; Stick together; Thumbs down
1	On the ball; Brain freeze; Break it down; Break up; Bucket feel full; Call on; Put your thinking cap on; Catch on; Double check; Check up; Clear up; Come in; That's my cold talking; Dawned on me; Where are my math detectives; Dress up; Dry up; Good eye; Eyes off; End up; Fall behind; So far; Fill out; Fill up; Finish up; Go with the flow; Full house; Go around; Go off; Go down; Go straight; Hands off; Hand in; Hang tight; Hang on; Geometry hat on; We got to hightail it; High five; Keep on your toes; Keep it up; You are killing me; Knock it off; Made out; Wait a minute; Open up; Pull that up; Running out of room; Two seconds; Any second; For a second; Set up; Settle down; Slip out of mind; Stick out; Take down; Thinks up; Time out; Touch up; Turn this off; Up to you; Brain working; Work on; Wheels turning; World of knowledge; Wrap it up

Chapter V Discussion

Summary of Results and Past Research Relation

The current study did not find significant differences in idiom use between regular and special educational teachers. The rate of teachers' use of idiomatic phrases per communication unit was .20 for regular education teachers and .15 for the primary cross-categorical teachers. The rate of idiom use for nonliteral idioms was .06 for both groups of teachers. Kerbel and Grunwell (1997) conducted a similar study; however, they measured idiom use per minute. Kerbel and Grunwell also found that teachers in language unit classrooms used fewer idioms (1.73 idioms per minute) than regular education teachers (2.04 idioms per minute), but the difference between the teacher groups was not significant. Newton (1985) also evaluated the frequency of idiom production by groups of classroom teachers. Regular education teachers produced .23 idioms per utterance, whereas special education teachers of the hearing impaired produced fewer idioms; auditory oral and total communication teachers used .20 idioms per utterance and .15 idioms per utterance respectively. Although Newton's number of idioms per utterance was similar to the current study, Newton found a significant difference between total communication classroom teachers and the other two groups. In comparison to the current study and the other two published research studies of groups of teachers (Kerbel and Grunwell, 1997; Newton, 1985), Evans-Brouhard (1992) reported fewer instances (.11 per utterance) of idiom production by a single classroom teacher at the end of the school year. Although the rate of idiomatic phrases per communication unit was .20 for regular education teachers in the current study, there were individual teachers who produced low rates of idioms per communication unit (.08 and .09).

The current study did not find a significant difference in the variety of idioms used by regular education and special education teachers. Regular education teachers produced an average of 22 different idioms while special education teachers produced 18 different idioms. However, Kerbel and Grunwell (1997) found a significant difference in the number of different idioms produced by teachers, with language unit teachers using 241 ($m= 40.2$ per teacher) different idioms and mainstream teachers producing 312 ($m= 42.6$ per teacher) different idioms. The current study and Kerbel and Grunwell both reported that relatively few clausal idioms were produced, as compared to other types of idioms (e.g., verbal).

Although the current study did not focus on grade level differences, there were four teachers at each grade level and differences were qualitatively evaluated. There was considerable variability within grade levels with no clear increase across grade levels. However, Lazar et. al. (1989) compared idiom use by teachers from kindergarten through eighth grade and found that teachers increased their idiom production with grade level. Kindergarten teachers produced .05 idioms per utterance with an increase to .20 idioms per utterance by eighth grade.

Clinical and Theoretical Implications

It is difficult to discuss the clinical implications of this study without relating these findings to past studies that evaluated aspects of idiom comprehension. Nippold and colleagues (Nippold, 1991; Nippold, Moran, & Schwarz, 2001; Nippold & Taylor, 1995; Nippold & Taylor, 2002) found idiom comprehension was related to exposure and transparency. A series of studies conducted by Nippold found that with more exposure to idioms, children were able to better understand and use the idioms in correct contexts. In

the present study, there was a degree of repetition of idioms by regular and primary cross-categorical classroom teachers, thus suggesting frequent exposure to some idioms. Even though comprehension of idioms was not evaluated in the current study, it is thought that exposure to idioms could lead to better comprehension of nonliteral language (Nippold, 1991; Nippold, Moran, & Schwarz, 2001; Nippold & Taylor, 1995; Nippold & Taylor, 2002).

Kerbel and Grunwell (1998b) discussed idiom comprehension in typically developing children and children with semantic-pragmatic difficulties and other language disorders. The groups included a young typical language group (ages 6;6-7;6), an older typical language group (ages 10;6-11;6), a language disorder group (ages 8;6-11;2) and a group with semantic-pragmatic deficits that included some children with high functioning autism (ages 6;5-11;3). The authors evaluated 12 common idioms used by classroom teachers in their previous study. The following 12 idioms were evaluated in the study: *ran over*, *took off*, *gave a hand*, *moved up*, *got on to*, *on the spot*, *turned over*, *kept under lock and key*, *pick up*, *kept an eye on*, *dropped in*, and *went around*. The comprehension study of the 12 common idioms included several types of idioms, such as clausal idioms (e.g., *keep an eye on*), phrasal verb idioms (e.g., *run over*, *get to*), and adverbial phrase idioms (e.g., *under lock and key*). Each of the 12 idioms had at least one idiomatic meaning and one literal meaning. The idioms were then embedded into a story that was read to the children. Comprehension within four groups of children was evaluated during definition and play-based tasks.

Results indicated that all performed better during play tasks rather than definition tasks; however, the semantic-pragmatic group performed significantly poorer than the

other three groups overall. The older and younger typical children demonstrated understanding of the nonliteral idioms with 75% and 62% accuracy respectively in a definition task, and 81% and 76% accuracy respectively during the play-based task. The children with general language disorders only demonstrated 47% accuracy in a definition task, but during a play task, idiom comprehension improved to 74%. The group with semantic-pragmatic deficits demonstrated the poorest understanding with 48% accuracy of idiom comprehension in the definition task and 61% accuracy on the play-based task. The authors concluded that children with language disorders and semantic-pragmatic difficulties comprehended common idioms, but could not generate explanations (Kerbel & Grunwell, 1998b). Older typically developing children misunderstood one out of every five common idioms and children with semantic-pragmatic deficits did not understand two out of every five common idioms. Children with semantic-pragmatic deficits struggled to comprehend common idioms even when provided with context.

Results of the current study were consistent with past research on idiom comprehension, which indicated that teachers should be aware of their language usage and observe the students' comprehension when common idioms are presented in the classroom. A teacher could use a common idiom, such as *kept an eye on*, and then follow with an explanation (*that means I am going to watch you complete the assignment*). Children would receive nonliteral language to build their language foundation, but they would also receive an explanation to avoid confusion. It appears that teachers should be aware of possible confusion with idiom use since even older typically developing children may not understand some common idioms.

The present study did not find a significant difference in regular education and special education classrooms in regard to the amount of idioms use by teachers; however, the number of language impaired students in regular education classrooms varied and could have impacted the teacher's language use. In regular education first, second, and third grade classrooms, the percentage of children with language impairments varied from 0-48%. This variability could have impacted the teachers' language use.

The severity of disabilities and teacher impressions of the classes' skill level may have affected the teacher's language use in the classroom. From the interview information, teachers suggested they made adjustments and modifications to the material taught based on the needs of the students. The diversity ratio indicated that many teachers repeated some idioms, which increased children's exposure and familiarity with the idioms across contexts. The current study did not, however, measure the frequency of explanations or definitions that teachers provided an when nonliteral idioms were used. Exposure and explanation would both be important factors in facilitating idiom comprehension.

Strengths

There were several strengths in the current study. In comparison to previous studies, the current study provided a clear idiom definition and used an idiom dictionary as a resource to identify idioms. Past studies either used an idiom dictionary without a clear definition or defined an idiom but without using a published resource for consistency. Past studies also failed to account for idiomatic phrases present in the dictionary that could have a literal meaning. The current study evaluated idioms produced

and categorized them as literal versus nonliteral productions. In doing so, the researcher obtained a better understanding of which types of idioms were used more frequently.

The current study contained a sufficient sample size (N=24) and transcript length (300-400 utterances from two curriculum areas). Evans- Brouhard's (1992) study included 1 participant and Kerbel and Grunwell (1997) included 11 participants. Lazar et. al. (1989) had 21 participants; however, all were from regular education classrooms. Only Newton (1985) included a similar sufficient number of participants with 30 teachers.

The number of utterances evaluated for idiom production in the current study was larger than the past group studies of idiom production. Lazar et. al (1989) transcribed 100 utterances and Newton (1985) evaluated 180 utterances. Kerbel and Grunwell's (1997) results were tabulated in minutes rather than total utterances, therefore, transcription length was not provided.

Limitations

Several limitations were present in the current study. It was not possible to control variability within levels of instruction across cross-categorical classrooms offered in different districts within the state. Each of the primary cross-categorical classrooms contained students at different functioning levels. The material taught varied across classrooms, due to factors such as severity level of students, size of classroom, and district curriculum. These differences may have contributed to varying amounts of idioms used during the lessons.

Another limitation was the number of language impaired students in regular education classrooms, which varied from zero students (T2G3) to 11 (T2G2). This difference could have impacted the language production used by the teacher in the classroom. It is possible that teachers tailored their instruction to accommodate the children with language impairments. A classroom with 11 language impaired students might result in the teacher using language that is more comparable to a primary cross-categorical classroom. Directions might need to be repeated or simplified to facilitate the language impaired students' performance in the classroom.

During the recording process, the researcher was present in the classroom, but did not interact with the teachers or students. However, the researcher's physical presence may have contributed to modifications in the teachers' language use. The teachers could have been more conscientious about their language production and tried to produce more literal and specific directions than their typical teacher talk, even though they were unaware that they were being observed for nonliteral language.

Future Research

Future research is needed to address questions regarding children's comprehension of nonliteral language based on the severity of their language deficits. Future research studies should include vocabulary tests for children in regular and special education classes to determine the children's language abilities. If children present with lower language levels, they may have limited comprehension of abstract concepts such as idioms.

As previously discussed, there is an on-going debate on whether idioms should be introduced into the classroom. Lazar et. al. (1989) stated that when introducing idioms, teachers should follow-up with the literal interpretation of the idiom if confusion occurs among the students. Future research could also measure not only the number of times teachers use idioms or other nonliteral language, but also how often they follow-up with an explanation. Future research could evaluate if providing more frequent explanations improves children's comprehension of idioms.

Future research should also consider the inclusion of a speech-language pathologist in the classroom to co-teach structured lessons in nonliteral language or work with the teacher to use explicit explanations of nonliteral language. Past research (Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000) suggested that having speech-language pathologists and teachers work together enhanced students' vocabulary knowledge during structured lessons. Speech language pathologists and teachers can work collaboratively in both regular education and special education classrooms to introduce and expose students to nonliteral language.

Based on past research and the current study's results, idioms are frequently used within our everyday language. Teachers use idioms throughout their day exposing students to more abstract language. It has been found that defining an idiom is complex and requires higher level language abilities, which can be impacted with students who have language deficits. By providing students with the basic foundation of idioms through exposure in the correct context, students can begin to comprehend nonliteral language in academic and social situations.

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Appendix A
Idiom Definitions

Source	Author	General Definition of Idiom	Subtypes
Dictionary	Makkai (1972)	Defined broadly to include everything from metaphors and similes to multiple meaning words (e.g., <i>cool</i>) and proverbs (e.g., <i>silence is golden</i>)	<p>Phrasal Verb Idioms -verb + adverb</p> <p>Cultural (Hypersememic) Idioms- multi-network. Short with familiarity based on culture or education and not familiarity (e.g., It's getting chilly, isn't it?)</p> <p>Tournure Idioms- larger than a phrasal verb and consists of at least three lexons. Most complex and cannot be altered (e.g., kick the bucket)</p>
Dictionary	Cowie, Mackin, & McCaig (1993)	English expressions where a sense of the whole cannot be arrived at from a prior understanding of the parts.	<p>Pure Idioms- more transparent. Knowledge of the literal definition helps decode the figurative meaning. If not exposed, impossible for listener to understand.</p> <p>Figurative Idioms- More opaque. Rare and are not in everyday use.</p> <p>Restricted Collocations- Often known as semi-idioms & considered opaque. One word holds a figurative sense, while the other is more literal and familiar. Arguable if should be considered an idiom due to limited use.</p> <p>Open Collocations- Transparent in phrases. Both verb and object are fully interchangeable.</p>

Dictionary	Boatner, Gates, & Makkai (1987)	Assignment of a new meaning to a group of words that have their own meaning.	<p><u>Lexemic Idioms</u></p> <p>Verbal: get up</p> <p>Nominal: hot dog</p> <p>Adjective: salt and paper, meaning black and white hair mixed with grey</p> <p>Adverbial: like the breeze</p> <p><u>Tournures or phraseological Idioms</u></p> <p>Clausal: <i>fly off the handle; kick the bucket</i></p> <p><u>Sayings and Proverbs</u></p> <p>A penny saved is a penny earned</p> <p><u>Multiple Meaning Words</u></p> <p>A word holds a different meaning than the original (e.g., <i>lemon, cool, hot dog</i>)</p> <p><u>Familiarity</u></p> <p>How often the listener is exposed to idioms</p>
Dictionary	Spears (2000) and Spears (2007)	Phrases that cannot be understood literally.	<p>Fixed: Idioms are often described as fixed; lack of variation</p> <p><u>Variable</u></p> <p>Optional Elements- alike as (two) <i>peas in a pod</i>. <i>Two</i> is optional and can be omitted</p> <p>Variable Elements- classes or lists of words. Elements include <i>so=someone, some place=location</i></p> <p>Movable Elements- A phrasal verb that can be moved within the phrase without changing the meaning. <i>Take the trash out*</i> and <i>Take out* the trash</i>.</p> <p>Grammatical Variation- Variations within tense, voice, irregular forms, pronouns, and number</p>

Textbook	McLaughlin (2006)	Short analogous expression (e.g., <i>the brain is like a sponge</i>)	N/A
Textbook	Owens (2005)	Short expressions that cannot be analyzed grammatically (e.g., <i>all tied up, hit the road</i>)	N/A
Textbook	Nippold (1998)	Expressions that contain both literal and figurative interpretations based on the context	Opaque- little relationship between figurative and literal meanings Transparent-easy to analyze and interpret
Textbook	Wallach & Miller (1998)	Idioms are different than metaphors and proverbs.	N/A
Textbook	Wallach & Miller (1994)	“Commonly used expressions whose meaning may not be derivable by determining the meaning of each of the individual words” (285)	<u>Metaphoric transparency/opacity</u> Transparency- determine the meaning from the literal meaning of the words Opaque- figurative meaning does not relate to literal meaning Cultural Idioms- familiarity based off of culture use. Specific to an ethnic group, local dialect, or social group
Textbook	Hulit & Howard (2002)	Figurative expression atypical to language or group of individuals. Cannot be understood literally	N/A

Research Article <i>Teachers' Production</i>	Evans-Brouhard (1992)	Words or groups of words within an expression differ from the definition provided in the dictionary Meaning can't be derived from the meanings of each individual word	N/A
Research Article <i>Teachers' Production</i>	Newton (1985)	Words that function figuratively to the intended meaning. Relationship is obscure. "Difficulty in defining idiomaticity has led to discrepancy in reports of its frequency; however, its very dense proportion in everyday speech is broadly supported" (337).	N/A
Research Article <i>Teachers' Production</i>	Kerbel & Grunwell (1997)	"Short, multi-word expression, the meaning of which is fixed, is included in dictionaries and cannot be deduced from the meaning of the individual words" (114).	Pure Idioms- No lexical or syntactic modifications Semi-Idioms- Replaced by a single word of similar meaning. The particle cannot be deleted; however, the verb can be substituted Clausal Idioms- Rarely used. Opaque form and play on words, contexts, and literal definitions Phrasal Idioms- Can be replaced by a single word of equivalent meaning. "The unity of the expression cannot be broken without altering its meaning" (114).

Research Article <i>Teachers' Production</i>	Lazar, Warr-Leeper, Nicholson, & Johnson (1989)	"Five types of multiple meaning expressions (MME) were identified in the transcripts. These were: similes, metaphors, irony, idioms, and indirect requests" (422). Dictionary of Idioms for the Deaf was used to code idioms.	<i>Going to, have to, and all right</i> were omitted due to inflation of the MME count and distorted results. Idioms were too frequently seen and did not pose any processing problems.
Research Articles <i>Children's Comprehension</i>	Nippold, Leonard, & Kail (1984); Nippold (1991); Nippold, & Taylor (1995); Nippold, Moran, & Schwarz (2001); Nippold & Taylor (2002); Nippold, Mansfield, Billow, Tomblin (2008)	Idioms are figurative expressions. Easy to understand when involving supportive context. "Idioms are figurative expressions that can express complex meanings in concise, colorful, and intriguing ways" (1991, p. 100).	Familiarity- How frequent a specific expression is used in the language Transparency- Comparison of literal and nonliteral meanings. If idiom's interpretation is similar to the literal meaning of the words, it is <i>transparent</i> . If it unrelated to the literal meaning it is <i>opaque</i> . Range- Single words; multiword phrases; noun and verb phrases; adjective and adverb phrases; and independent clauses Categories- Foods, animals, clothing, colors, body parts, and plants

Research Article	Norbury (2004)	Phrases that have additional literal interpretations to the fixed figurative meanings.	Giant lexical units- Figurative meanings of idioms are acquired as single lexical items are.
<i>Children's Comprehension</i>		“Involves a combination of top-down (contextual processing) and bottom-up (semantic analysis) processes” (1180-1181).	Metasemantic- Shouldn't learn idioms in chunks Transparency- Easily understood vs. opaque expressions
Research Article	Cain, Towse, & Knight (2009)	Figurative language that has literal and figurative meaning. It depends on the context.	Transparent Idioms- Clear overlap of figurative and literal meanings for the message. Opaque Idioms- Idioms that cannot be broken down word by word. Cannot understand and analyze when the components of the words are broken down in the phrase.
<i>Children's Comprehension</i>			

Appendix B
IRB Approval

August 10, 2010

Jenna Szybowicz
Communication Disorders and Sciences

Thank you for submitting the research protocol titled, "Teacher's Use of Nonliteral Language in the Classroom" for review by the Eastern Illinois University Institutional Review Board (IRB). The IRB has reviewed this research protocol and effective 7/28/2010, has certified this protocol as Exempt from Further Review. The protocol has been given the IRB number 10-082.

The classification of this protocol as Exempt from Further Review is valid only for the research activities and subjects described in the above named protocol. IRB policy requires that any proposed changes to this protocol must be reported to, and approved by, the IRB before being implemented. You are also required to inform the IRB immediately of any problems encountered that could adversely affect the health or welfare of the subjects in this study. Please contact me, or the Compliance Coordinator at 581-8576, in the event of an emergency. All correspondence should be sent to:

Institutional Review Board
c/o Office of Research and Sponsored Programs
Telephone: 217-581-8576
Fax: 217-581-7181
Email: eiuirb@www.eiu.edu

Thank you for your cooperation, and the best of success with your research.

Robert Chesnut, Chairperson
Institutional Review Board
Telephone: 217-581-2125
Email: rwchesnut@eiu.edu

Appendix C
Consent to Participate in Research

You are invited to participate in a research study conducted by Jenna Szybowicz, Dr. Rebecca Throneburg, Ms. Lynn Calvert and Dr. Tena McNamara, from the Communication Disorders and Sciences Department at Eastern Illinois University. Your participation in this study is entirely voluntary. Please ask questions about anything you do not understand before deciding whether or not to participate.

Purpose of the Study

The purpose of the study is to evaluate different types of language used in regular and primary cross-categorical special education classrooms.

Procedures

The observation will take place in a variety of first, second, third, and primary-cross categorical classrooms. The researcher will not interact with the students, but remain in the back of room to observe the subjects' language use. The participant will have an audio recorder placed near the front of the room during math and language art lessons. Each teacher will be observed for one hour. A minimum of 300 communication units will need to be collected. If the sample of language collected is not sufficient, re-recording may be necessary. The observation is not related to or being used for any type of teacher evaluation.

Potential Risks and Discomforts

The risks of the study are minimal; however, possible risks may include heightened anxiety due to the presence of an observer in the classroom and distractibility of the students while the researcher is present.

If any participant chooses to withdraw from the study, his/her data will be destroyed by means of shredding and erasing tapes.

Potential Benefits to Subjects and/or to Society

The benefits of the study include having a better understanding of the type of language used in different classroom settings.

Confidentiality

All information obtained in connection with this study will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of being kept secure at the Speech-Language-Hearing Clinic at Eastern Illinois University. The only individuals who will have access to the data will be the researcher and two faculty supervisors. Data will be stored on a secure jump drive. The data will be kept for three years post study, and then destroyed by means of shredding, deleting files, and erasing tapes.

Participation and Withdrawal

Participation in this research study is voluntary and not a requirement or a condition for being the recipient of benefits or services from Eastern Illinois University or any other organization sponsoring the research project. If you volunteer to be in this study, you may withdraw at any time without penalty or consequences of any kind or loss of benefits or services to which you are otherwise entitled.

If you have any questions or concerns about this research, please contact:

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If you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave
Charleston, IL 61920
Telephone: (217)-581-8576
Email: eiuirb@www.eiu.edu

You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the Institutional Review Board. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with EIU. The IRB has reviewed and approved this study.

I voluntarily agree to participate in this study. I understand that I am free to withdraw my consent and discontinue my participation at any time. I have been given a copy of this form.

Printed Name of Participant

Signature of Participant

Date

Appendix D
Teacher Interview

1. Years of teaching experience.
2. Level of education completed.
3. Number of years at current grade level.
4. How many students are in your current class?
5. How many language impaired students are in your current class?
6. How many students have an IEP?
7. Identify the types of language impairments present.
8. At what time of day do you teach math and language arts?
9. Any additional comments?

Appendix E
Individual Teacher Characteristics

Teacher	Suburban or Rural	Years of Teaching Experience	Level of Education Completed	Years at Current Grade Level	Number of Students in Class	Number of Language Impaired Students	Number of Students with IEPs
T1G1	Suburban	6	Masters	1	22	5	2
T2G1	Rural	24	Masters	23	20	1	4
T3G1	Suburban	12	Masters	12	24	1	2
T4G1	Rural	7	Masters	4	22	4	3
T1G2	Rural	7	Bachelors	7	25	3	3
T2G2	Rural	13	Masters	12	25	1	1
T3G2	Rural	5	Working on Masters	4	25	1	4
T4G2	Suburban	13	Bachelors +13	3	23	11	2-IEP; 6BIP
T1G3	Suburban	4	Doctorate	4	26	3	2
T2G3	Suburban	8	Masters	7	27	0	3
T3G3	Suburban	14	Masters +16	11	26	2	2
T4G3	Rural	3	Masters	1	24	3	3
CC1	Suburban	6	Masters	6	13	6	13-14
CC2	Suburban	1	Working on Masters	1	5- 4 self- contained	3	5
CC3	Rural	17	Masters	10	7	7	7
CC4	Rural	9	Masters	5	13	5	13
CC5	Rural	4	Bachelors	3	4 in AM; 3 in PM	3	7
CC6	Rural	11	Bachelors	8	17-9 self- contained	14	21
CC7	Suburban	6	Bachelors	2	6	6	6
CC8	Suburban	8	Masters	8	7	5	7
CC9	Rural	6	Masters	2	9	4	9
CC10	Suburban	9	Bachelors	5	8	7	8
CC11	Suburban	15	Working on Masters	4	15	0	13
CC12	Suburban	4	Bachelors	4	10	10	10

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Appendix F
Individual Frequency of Idiom Use Results

Teacher	Total Utterances	Literal Idioms	Nonliteral Idioms	# of Total Idioms	% of Utterances with Nonliteral Idioms	% of Utterances w/ Idioms
1ST GRADE						
T1G1	400	20	19	49	0.07	0.12
T2G1	322	58	30	88	0.12	0.27
T3G1	350	46	18	65	0.05	0.19
T4G1	315	44	17	61	0.05	0.19
2ND GRADE						
T1G2	300	43	27	70	0.12	0.23
T2G2	302	63	21	83	0.07	0.27
T3G2	314	32	12	44	0.04	0.14
T4G2	305	43	19	62	0.07	0.20
3RD GRADE						
T1G3	400	57	10	67	0.03	0.17
T2G3	399	37	21	58	0.05	0.15
T3G3	330	23	22	45	0.07	0.14
T4G3	302	76	16	93	0.05	0.31
Mean 1st-3rd Regular Ed.	336.58	45.17	19.33	65.42	0.07	0.20
CROSS CAT.						
CC1	400	18	19	43	0.06	0.11
CC2	325	25	17	42	0.05	0.13
CC3	400	25	10	35	0.03	0.09
CC4	300	36	36	72	0.12	0.24
CC5	397	23	10	33	0.03	0.08
CC6	320	40	19	59	0.07	0.18
CC7	400	19	18	37	0.05	0.09
CC8	305	28	17	45	0.06	0.15
CC9	312	30	10	40	0.03	0.13
CC10	310	62	9	71	0.04	0.23
CC11	400	45	25	69	0.07	0.17
CC12	350	52	13	65	0.04	0.19
Mean Cross Categorical	351.58	33.40	16.90	50.92	0.05	0.15

Appendix G
Individual Diversity of Idiom Results

Teacher	# of Different Idioms	# of Total Idioms	NDI/NTI
1ST GRADE			
T1G1	30	49	0.61
T2G1	25	88	0.28
T3G1	24	65	0.37
T4G1	26	61	0.43
2ND GRADE			
T1G2	29	70	0.41
T2G2	25	83	0.30
T3G2	14	44	0.32
T4G2	18	62	0.29
3RD GRADE			
T1G3	22	67	0.33
T2G3	20	58	0.34
T3G3	18	45	0.40
T4G3	21	93	0.23
Mean 1st-3rd Reg	20.30	65.42	0.36
CROSS CAT.			
CC1	23	43	0.53
CC2	15	42	0.36
CC3	16	35	0.46
CC4	21	72	0.29
CC5	17	33	0.52
CC6	18	59	0.31
CC7	14	37	0.38
CC8	19	45	0.42
CC9	17	40	0.43
CC10	15	71	0.21
CC11	23	69	0.33
CC12	20	65	0.31
Mean Cross Cat	18.20	50.92	0.38