



## **Effectiveness of class-wide peer tutoring on idiom comprehension in middle school students with Specific Learning Disability**

Received : 10.11.2021  
Accepted : 06.02.2023  
Published : 30.03.2023

DOI: <https://doi.org/10.5281/zenodo.7799680>

Gowri Arakere<sup>1</sup>  
Loma Linda University  
Karen Mainess<sup>2</sup>  
Loma Linda University

### **Abstract**

Idioms are frequently used in classrooms. Students with learning disabilities have challenges in comprehending them. Providing idiom instruction in the student's least restrictive environment (i.e., the classroom) is effective and time efficient. The present study examined the efficacy of Class Wide Peer Tutoring (CWPT) in twenty-one middle school students (6th and 8th grade) who had an educational diagnosis of Specific Learning Disability, an active Individual Education Plan (IEP) and attended a special day classroom for their English language arts instruction. Students were trained in CWPT procedures in the special day classroom 4 days a week for 4 weeks. They were assigned to dyads and learned six idioms each week for 4 weeks. Each idiom was presented in different contexts over the course of 4 days. Pre and posttest were given for thirty idioms including six idioms that were not trained via CWPT. Testing of the six idioms determined if the students could generalize the learned skill. Pre, post, and generalization data were analyzed using repeated measures ANOVA. Results revealed that students made significant progress in idiom comprehension in both grades. There was also statistical significance in the generalization of the six idioms. However, clinical significance for generalization was not consistent with statistical findings. Discussion specifically addressed clinical implications for use of the process both in the classroom and by Speech Language Pathologists (SLPs).

**Keywords:** Figurative language, idioms, class wide peer tutoring, specific learning disability, speech therapy

### **1. Introduction**

Figurative or nonliteral language is used extensively in many cultures in both formal and informal situations. For example: in Hindi, "Every sixth six months" means every once in a long time. In Spanish, "to take a French leave" means to leave without saying goodbye. In Italian, "to sweat seven shirts" means to work hard (Bhalla, 2009). Idioms are the most frequently used figurative language in classrooms (Kerbel & Grunwell, 1997). The significant role of idiom use in everyday language suggests that idiom comprehension should be included in academic curriculum. In the United

<sup>1</sup> Dr. Gowri Arakere is a speech language pathologist practicing in FONTANA, CA. Dr. Arakere specializes in speech, language and swallowing disorders in patients. Corresponding author: [gowri.arakere@alvordschools.org](mailto:gowri.arakere@alvordschools.org)

<sup>2</sup> Dr. Karen Mainess is a full-time Assistant Professor in the Department of Communication Sciences and Disorders at Loma Linda University. Her clinical background includes early childhood and school-based practice with specialization in developmental disorders and autism.

States, figurative language has become a part of the common core educational curriculum (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010).

Learning a language not only involves learning vocabulary and the syntactical structure but also learning the idioms and other figurative language to understand the language and the culture. Figurative language enriches meaning and is used to convey thoughts, feelings, and ideas in a more effective, persuasive, and impactful ways than literal language (Bischofshausen, Makoid, & Cole, 1989). It often compares two concepts or ideas that at first don't seem to relate to each other. For example: 'She runs like lightning' compares the speed of movement to the speed of lightning, indicating that she runs really fast. A simile uses the words "like" or "as" to compare one object or idea to another, indicating they are alike in some way (e.g., Busy as a bee). A metaphor states a fact by using an analogy, for example, 'That was a real train wreck'. Idioms are phrases that have both literal and nonliteral interpretations, e.g., "It's raining cats and dogs", and "two peas in a pod". Idioms are widely used by people who share a common language and culture. A speaker's metalinguistic competence, cultural background, and knowledge of the world constantly serve as a framework to a speaker's understanding of a language (Nippold, 2006). Literal language states the facts and there is transparency of what is said. However figurative language is used to make exaggerations or alterations of literal words for a particular linguistic point. Of all the various kinds of figurative language, idioms are the most frequently occurring in classrooms (Kerbel & Grunwell, 1997).

Syntactically, idioms can range from single words (e.g., nosey) to phrases (e.g., hit the nail on its head). Simpson and Mendis (2003) have defined idioms as "a group of words that occur in a more or less fixed phrase and whose overall meaning cannot be predicted by analyzing the meanings of its constituent parts". Without the understanding of these complex phrases, an individual reading a newspaper article, attending a classroom, or socializing with peers would be unable to grasp the intricate meanings conveyed (Hung & Nippold, 2013). Due to the pervasiveness of idiom use in classrooms, literature, and everyday language use, it is important that children and adolescents understand their meanings (Kerbel & Grunwell, 1997).

Idioms are unique to every language and culture, and it is difficult for a new speaker of a given language to understand them without prior knowledge of their meanings (in that culture). Idioms and figurative language comprehension are challenging for individuals with learning disabilities and for individuals whose first language is not English (Blue 1981; Irujo, 1986; Seidenberg & Bernstein, 1986). Children who struggle to comprehend idioms are at a disadvantage for understanding critical messages presented in the classroom and social situations. It is therefore important to examine how to best teach nonliteral language in the most relevant setting: the classroom. To address figurative language in a systematic way, it is essential to learn about the development of figurative language.



### 1.1. *Development of Figurative language*

Language development is a dynamic process and is not complete even by late childhood. It continues through adolescence and into adult years (Nippold, 2000; Nippold & Taylor, 1995). Abkarian et al. (1992) studied preschoolers and found that by age 6, children were able to provide some sort of rationale for the idioms they used accurately 70% of the time. Over the ages tested (3.5–6.5 years), this study demonstrated that with increasing age, children tend to interpret idioms less literally. Qualitative changes in understanding idioms change as a function of age. Typically developing children comprehend some idioms by age 5, and by age 11 their comprehension of idioms is essentially complete. In contrast, children with language learning disabilities were delayed in their comprehension of idioms and correlates with their severity of language delays (Johnson, 1985). Levorato and Cacciari (1995) also noted that children are literally oriented when younger and become more idiomatically oriented as they grow older. Nippold and Rudzinski (1993) and Nippold and Taylor (1995) have found that idiom understanding in children and adolescents were significantly correlated with the familiarity and transparency ratings of the expressions. Transparency refers to when literal and nonliteral meaning of an idiom are very close, whereas frequency is how often an idiom is used. Familiar idioms were easier to understand and were frequently used and understood by young people as compared to unfamiliar idioms (Nippold & Taylor, 2002). Opaque and infrequently used idioms, for example: “giving someone a cold shoulder”, “bag of bones” etc., on the other hand, were more difficult and are learned later in development for individuals (Nippold & Taylor, 2002). Teaching idioms in context results in more effective learning when compared to teaching them in isolation (Nippold & Martin 1989). When idioms were presented in two-sentence story contexts, adolescents aged 14-17 found it slightly easier than when idioms were presented without any story contexts. Hence, in schools it is prudent to teach students transparent and frequently used idioms-in-context before addressing opaque and unfamiliar idioms.

### 1.2. *Figurative language in Schools*

Figurative language is an essential part of academia. Not only do we find teachers using nonliteral language during lectures and conversation, but it is prevalent in textbooks, reading materials and social situations. Although specific idioms vary in frequency of use, the general use of idioms is frequent in both formal and informal speech and texts. Fifty-four hundred classroom teachers participated in a study by Lazar et al. (1989) who evaluated the utterances used by teachers and found at least one idiom in 11% of all utterances and contained at least one multiple meaning expression 36% of the time. They also found that the usage of idioms increases in higher grades. Although teachers use multiple meaning words and nonliteral language extensively with their students, Reed and Spicer (2003) found that the high school teachers ranked two communication skills associated with figurative language as the least important skill for student's communication with them. It is important to make the teachers aware of this discrepancy as it affects the student's comprehension of lectures and

curriculum, especially students who are second language learners or with learning difficulties.

### 1.3. *Idiom comprehension*

Idioms can be confusing to students who have language disabilities as well as students who have learned English as a second language. Often, idioms are one of the last features of a new language that an English language learner acquires. Students with language difficulties tend to be literal in language use and find it challenging to keep up with their typical peers in a classroom which is rich with idioms. The frequency of idiom usage could potentially pose a problem for students with language or learning disability who fail to understand non-literal language.

Rapin (1996) found that students with semantic-pragmatic language deficits are literal in their understanding of language and have challenges comprehending non-literal or figurative language. Similar findings have been reported by Seidenberg and Bernstein (1986) who studied simile and metaphor comprehension of third through sixth grade students. They found that the older learning-disabled students had difficulty with nonliteral language and performed on par with younger non-disabled students.

Research has found a significant relationship between reading comprehension and the comprehension of figurative language (Wiejak, 2014). Children who had received 2-4 years of reading instruction were given both reading and metaphor activities. Children with poor reading comprehension displayed poor metaphor identification whereas children with medium and good reading comprehension abilities fared well. Nippold (1998) indicated that the comprehension of figurative language is important to cultural literacy and linguistic competence. In adolescent years, the comprehension of figurative language becomes increasingly essential for peer interactions and may affect social relationship skills (Im-Bolter, Cohen & Farnia, 2013). One hundred and thirty-eight adolescents between the ages of 12 and 17 with mental health referrals were compared to age-matched adolescents with no mental health problems. Adolescents with mental health referrals had significantly lower social cognition and figurative language skills. They showed less mature social relationships as well as problem solving abilities.

Rinaldi (2000) reported impaired understanding of ambiguous language (including idioms) in older pupils with language impairment, age 11-14 years, who attended special classroom settings for adolescents with communicative disorders. Similar results have been reported by Lee and Kamhi (1990) and Nippold and Fey (1983) who found non-literal language comprehension deficits in children with learning disabilities. There are only a few studies that compare non-literal language comprehension in children with autism spectrum disorders and learning disabilities. One such study is by Mashal and Kasirer (2012) who studied the non-literal language comprehension in adolescents with language disabilities and autism. They found that both groups had difficulty comprehending the non-literal meaning of the figurative language when compared to typically developing adolescents. Chahboun et al. (2016) matched children with high functioning autism (HFA) and typically developing children on their intelligence and language level. Even though the structural language of both groups were



matched, children with HFA had difficulty with nonliteral language. Furthermore, Norbury (2004) studied children with communication disorders between 8 and 15 years old and found that providing an idiom in context offered an advantage in comprehension of unfamiliar idioms in children with language and communication impairments. However, context did not provide much advantage to children with deficits in structural language i.e., impairments in semantics and syntax. Qualls et al. (2004) studied adolescents with language-based learning disabilities and found that they often interpret idioms literally. Idioms with context do not provide a lot of support for students with language-based learning disabilities to comprehend idioms, as they have trouble comprehending the context itself. These children will have trouble learning the meanings of idioms incidentally and will need to be taught explicitly via repeated exposure and assistance in processing the meaning of nonliteral language in order for generalization to occur.

#### *1.4. Idiom Interventions*

Idiom comprehension is important for academic and social success. Trup (2009) examined teaching idioms to children with autism and found that explicit instruction in idioms helps in idiom comprehension. Whyte, Nelson & Khan, (2013) found similar results when they introduced idioms in a community social skills program designed for children with autism. They studied the effectiveness of group idiom intervention for 2 weeks in 7–12-year-old children with autism spectrum disorders (ASD). They found that children with ASD showed enormous gains not only during the intervention but also during the delayed posttests. Children with ASD showed improvements even on idioms that were not taught to them during the intervention.

Idiom intervention within the classroom has shown favorable results. Abrahamsen and Smith (2000) compared two different modalities of idiom instruction in children with communication disorders. Computer teaching and classroom intervention were studied and both methods proved effective in teaching idioms; however, the classroom method was significantly more effective than the computer method (Abrahamsen & Smith, 2000). Additionally, teaching idioms using computers took two hours each week while classroom instruction for the entire class took only 20-30 min each week. Similar results were found by Lundblom and Woods (2012) when they used class wide peer tutoring (CWPT) in middle school students with low reading and achievement scores. Four students made considerable gains on idiom comprehension when they took the role of a tutor and tutee using CWPT, while the teacher supervised the class.

It is the professional responsibility of a speech-language pathologist (SLP) to provide culturally competent services to a diverse population of students. Common core curriculum is implemented in many U.S. states and requires implementation in the least restrictive environment. There are many ways for an SLP to work with language disordered or delayed students within the classroom. SLPs are also greatly involved in response to intervention (RTI) and the Individualized Education Plan (IEP) processes.

Class wide peer tutoring (CWPT) is an instructional strategy which can be used by SLPs to implement strategies in the least restrictive environment for students who have language or learning disabilities (Maheady & Gard, 2010). The diversity of backgrounds and various capabilities of the students in different classrooms can make it difficult to tailor the classroom instruction. CWPT has been proven to be a helpful method for providing intervention to students using peers as tutors. This technique uses reciprocal peer tutoring and group reinforcement. The whole classroom of students are actively involved and engaged in learning and practicing various academic and social skills simultaneously, in a systematic fashion. An SLP may choose to utilize CWPT to provide structured language enrichment. This structured language enrichment might include instruction of figurative language, using skills such as asking relevant questions or staying on topic, particularly for students identified as having language learning difficulties (Nippold, 2000).

CWPT can provide numerous practice opportunities for students in the basic subject areas (i.e., reading, vocabulary, spelling, math facts) as they are engaged in learning tasks with a peer tutor. The CWPT program has been researched and used since 1980 and has repeatedly demonstrated that the tutoring process increases students' time on tasks and improves overall academic performance (Delquadri, Greenwood, Stretton, & Hall 1983; Greenwood, 1991). CWPT can be a valuable resource for students of all age levels and has been effectively implemented within general and special education populations and limited English proficient students. With increasing numbers of students in secondary schools requiring language intervention, SLPs can use this technique effectively either as a classroom consultant or a service provider (Nippold, 2000).

The goal of CWPT is to enable student success and to assist in achieving knowledge in the academic areas. It includes a game-format tutoring technique that reinforces error correction and benefits both tutor and tutee (Greenwood, Delquadri, & Carta, 1997). In CWPT, student dyads work together as tutor and tutee and cooperatively learn the academic task. The tutee responds to the tutor either orally and/or in writing. The tutor has the responsibility to monitor and assess the accuracy of the responses provided by the tutee. When explicit teaching is used, not only do typical students' progress in the areas that are used with CWPT, but students with learning disability, and intellectual disability have shown growth in academic and social areas (Lundblom & Woods, 2012; Whyte, Nelson & Khan, 2013; Qualls et al, 2004; Ezell & Goldstein, 1992). With the introduction of the common core curriculum as well as the paradigmatic shift of speech/language service delivery from 'pull-out' to more inclusive services, CWPT has proven to be beneficial (Klecan-Aker, 1985).

Idioms are the most frequently occurring figurative language in our classrooms as well as in social situations. It is crucial that our students, especially with language learning difficulties comprehend them to fully participate in both academics and in social relationships. With the introduction of RTI and Common Core, collaboration of the classroom teacher and the SLP in terms of intervention and monitoring of development of language skills is increasingly taking a center stage. CWPT provides



intervention in the student's least restrictive setting, collaboration among educators, and more involvement of the students in the process.

This research explored the efficacy of CWPT in training middle school students identified with specific learning disability (SLD) in the comprehension of idioms.

Research questions were as follows:

1. Is there a significant difference in idiom comprehension when CWPT is used over time for middle school students identified as having specific learning difficulties?
2. Do formally taught idiom comprehension skills generalize to comprehension of novel idioms?

## **2. Methodology**

### *2.1. Participants*

Twenty-one middle school students between the ages of 11 and 14 were recruited to participate in this study. All students had received an educational diagnosis of Specific Learning Disability (SLD) and had an Individualized Education Plan (IEP). According to California Code of Regulations (CCR), SLD is defined as a "disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken, or written, that may have manifested itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The basic psychological processes include attention, visual processing, auditory processing, sensory-motor skills, cognitive abilities including association, conceptualization and expression". All participants in this study attended a special education classroom for English Language Arts (ELA) instruction each day. Written consent was obtained from the student's parents, and student assent was obtained in accordance with the Loma Linda University institutional review board (IRB) requirements for ethical treatment of study participants.

The selected and consented students were administered the 'idiomatic language' subtest of Comprehensive Assessment of Spoken Language (CASL) (Carrow-Woolfolk, 2016). To meet inclusionary criteria, the students scored at or below the 16th percentile on the subtest. Any student with a record of chronic absenteeism was excluded from the study.

### *2.2. Material*

Forty-eight idioms were selected for this study from previous research and the scholastic dictionary of idioms (Terban, 1998). The middle school teachers provided input regarding the familiarity of the idioms by classifying 48 idioms into high, medium, and low familiarity. Out of 48, 30 idioms which had a mix of high, moderate, and low familiarity were chosen for this current study. Appendix A shows the rating scale given to the teachers. Out of the 48 idioms, 24 idioms that are a mix of high, moderate, and low familiarity were selected to be used for this study. Another six idioms were

selected for pre- and post- testing. These six idioms were not used during the CWPT sessions. The 24 idiomatic phrases used for the idiom training were randomly assigned to one of four sets.

During the CWPT sessions, each idiom was presented in the context of short stories consisting of 1-3 sentences. Four choices were provided to the student to identify the correct figurative meaning of the idiom presented. Students were provided a choice of four possible answer choices including a figurative interpretation, a literal interpretation, and two unrelated answer choices. The students were expected to provide a verbal response to each item. If the answer was correct, the student received two points. If not, the tutor read a scripted message for error correction; "Not quite. Let's read the story again to look for clue words and think about what is happening in the story". The tutor then asked the tutee to try again. If the student's second response was correct, they received one point. After two tries, if the student continued to give erroneous responses, the tutor provided the correct answer. In this condition, the tutee did not receive any points.

### *2.3. Training*

The SLP facilitated and provided reinforcement to the CWPT dyads. The teachers were provided a copy of the manual regarding CWPT: Together we can! Classwide peer tutoring to improve basic academic skills (Greenwood, Delquadri, & Carta, 1997). The SLP reviewed the CWPT procedures with the teacher by role playing activities with the stimulus items. The teachers demonstrated comprehension of the procedures by return demonstration of the CWPT process and explanation of the entire procedure.

The students were trained on CWPT procedures before beginning the study. The SLP and the special education teachers (educators) conducted the training by explanation, modeling, and practice. The educators demonstrated the tutoring procedures, rules, and methods to correct errors and earn points. To demonstrate, two students, guided by the educators, practiced the CWPT process in front of the class. The educators provided feedback highlighting the appropriate error correction procedure, tutoring, and scoring procedure. Students were well trained to perform tutoring at the end of the training session. The CWPT sessions began once the training sessions were completed?

### *2.4. Instrumentation*

Each student was given a pretest and posttest of 30 idioms before the beginning of the CWPT sessions and at the end of four weeks. The students received a 1 or a 0 for correct and incorrect responses, respectively. Each student could score from 0-30 points. Appendix B shows the training set that was used in pre- and post-test conditions. The figurative meaning of each idiom was presented, and the participant selected the corresponding idioms from four choices including the correct idiom and three randomly chosen idioms. The randomly selected idiom choices were from the aforementioned 30 idioms selected for this study.



### *2.5. Procedures*

Classroom students selected and consented as participants were paired as tutor-tutee for the duration of the study. Each pairing was randomly assigned. CWPT pairs typically change each week. However, the pairs remained constant in the present study to control for variability.

CWPT sessions were conducted in the student's special education classroom. The SLP initiated the sessions during the class period in which Language Arts was taught. The length of the CWPT sessions did not exceed 20 minutes. The sessions were implemented 4 days a week for 4 weeks. The SLP and classroom teacher moved around the classroom to ensure appropriate implementation (including reading the stimulus cards, providing correction prompts, and scoring of the answers) of the procedures.

At the start of each session, the subject partner dyads sat together. A set of six flashcards with the week's idioms was handed to the individual dyad groups. A timer was set for 10 minutes. The tutor read the idiom in its context as well as the answer choices. The tutee reviewed the answers and verbally responded by choosing an answer. The tutor provided a score of 2, 1 or 0 depending on the tutee's responses. Two points were earned if the answer was correct. If the tutee chose the wrong answer, the tutor read from the stimulus item prompt "Not quite. Let's read the story again to look for clue words and think about what is happening in the story". If the tutee got the right answer after this prompt, then he/she earned one point. If not, the tutor gave the correct answer, but no points were earned. Two separate sets of stimulus material cards were utilized for the tutor and tutee roles. Appendix C provides an example of an idiom card used by the tutor/tutee dyads. After the first 10 minutes, the roles of tutor and tutee reversed, and the same procedure followed. At the end of the 20 minutes, the educators went around the room and collected the number of points earned by each student in the pairs. These numbers were documented at the end of each CWPT session.

### *2.6. Data Collection and Analyses*

The students totaled the number of points earned during each session. The SLP collected and documented all points earned by each student across four weeks. Additionally, the students were administered a pre and posttest of the 30 aforementioned idioms (at the beginning and end of the four-week period).

A repeated measures ANOVA was used to analyze the data from both pre- and post-test for idiom comprehension and generalization of the six idioms. Students obtained a score between 0 and 30 for pre- and post- tests and a score between 0 and 6 for pre- and post- test generalizations.

## **3. Findings**

IBM SPSS Statistics version 25.0 was used to perform data analysis. There were 12 participants from the sixth grade (6 girls, 6 boys) and 9 participants from the ninth grade (1 girl and 8 boys). All the students had Individualized Education Programs (IEPs) and were enrolled in special education programs. The students attended a special day class for their English language arts instruction taught by a special education teacher.

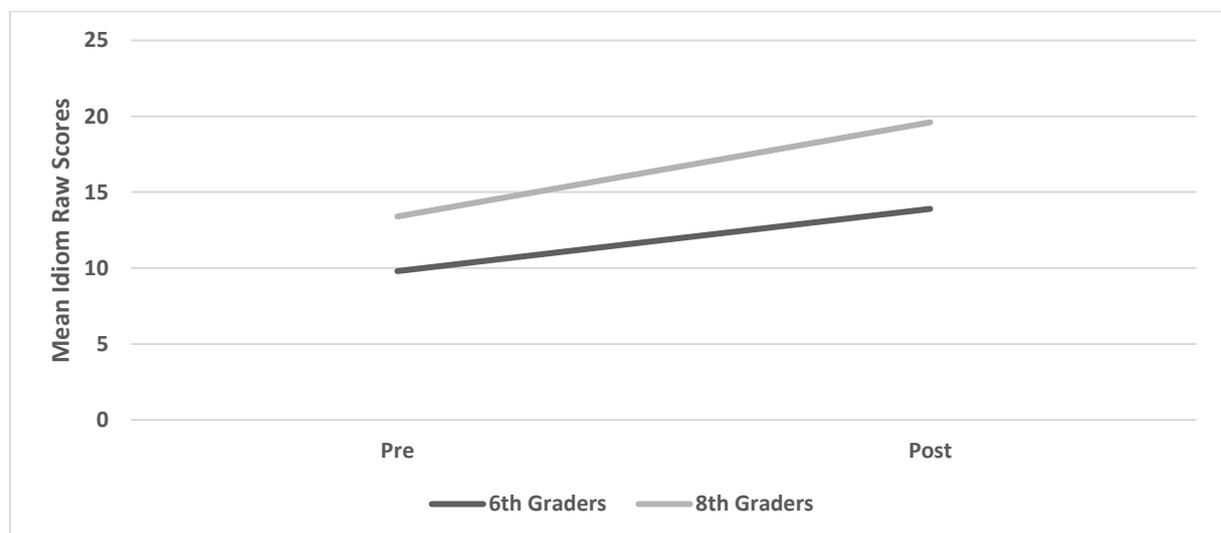
Idiom Comprehension: Mean pre- and post-test scores were compared across 6th and 8th grade students to determine the efficacy of CWPT training. There was a significant difference in performance on pre- and the post-test scores [ $F(1, 19) = 11.5, p = .003$ ] with increases indicated on post scores (Table 1).

Table 1

*A comparison of pre and posttest mean idiom comprehension scores within and across grades*

	6 <sup>th</sup> Grade n=12 Mean (SD)	8 <sup>th</sup> grade n= 9 Mean (SD)	<i>p</i> value
Pretest	9.8 (3.6)	13.9(3.9)	0.33
Post test	13.4(6.1)	19.6(2.6)	0.33
<i>p</i> value	0.001	0.001	

Although there were significant differences in pre- and post- test scores for both grades, there were no observed differences between groups [ $F(1, 19) = 1.0, p = .33$ ]. Figure 1 illustrates pre-test and post-test data points for the 24 idioms that were used to train the students during CWPT.



*Figure 1.* The effect of CWPT training on pre and post-test scores of 6th and 8th graders

Generalization: Six idioms, which were not used in training, were presented to the students during pre and post CWPT training to observe their ability to generalize comprehension of novel idioms. There was a significant difference in performance in pre- and post-test scores [ $F(1, 19) = 7.93, p = .01$ ] (Table 2). There were no observed differences between groups [ $F(1, 19) = 0.00, p = 1.0$ ]. Although we found statistical significance on the generalized idioms,



it cannot be determined if there was clinical significance as the group scores varied by only one raw score point.

Table 2

*A comparison of pre and post mean generalization scores within and across grades*

	6 <sup>th</sup> Grade n=12 Mean (SD)	8 <sup>th</sup> grade n= 9 Mean (SD)	<i>p</i> value
Pretest	2.0 (0.95)	3.0 (1.5)	1.0
Post test	3.4 (1.26)	4.4 (1.5)	1.0
<i>p</i> value	0.003	0.003	

Figure 2, below, illustrates pre-test and post-test data points for the 6 idioms that were novel to the students and used to determine the ability to generalize idiom knowledge.

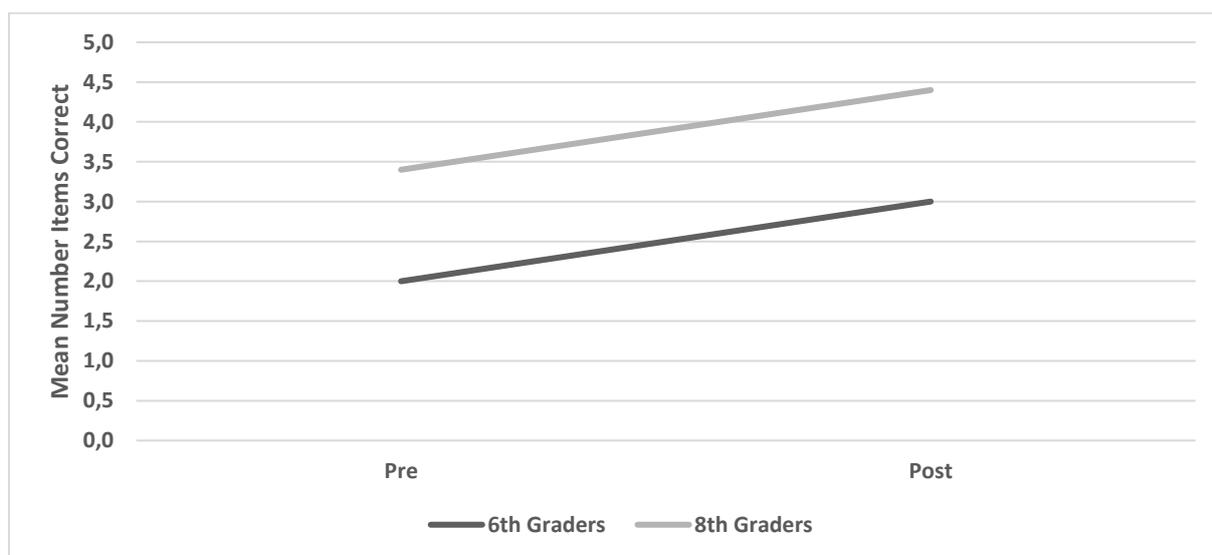


Figure 2. Pre and post mean generalization scores across grades

#### 4. Discussion

The results of this study are consistent with the findings of former research (Lundblom & Woods, 2012; Nippold & Martin, 1989). Ezell and Goldstein (1992) demonstrated that students with mild mental retardation were able to generalize comprehension of idioms to novel contexts. Our study involved a different population and comparable results were observed. Students in both grades showed improvement in comprehension of six idioms that were not used in the CWPT sessions. However, although the difference was statistically significant, they were not clinically significant as there was a difference of only one raw score point.

We considered the number of study participants a strength, as the numbers were solid enough for drawing fair and objective conclusions from the data. The study included the involvement of classroom teachers in rating the selected idioms from previous research and the scholastic book of idioms based on the familiarity of idioms. According to Lazar et al. (1989) 11% of the teacher's utterances contain some form of figurative language. Hence, the involvement of teachers assured the most familiar idioms were included in the study along with an equal number of medium and low familiarity idioms. The idioms used were presented to the students in different contexts each day, which contributed to improved comprehension of the idioms (Norbury, 2004). Less than 20 minutes of daily class time was spent teaching the students 24 new idioms over a period of four weeks.

Some limitations of the study included that students with primary diagnoses other than SLD could not participate as specified by the inclusionary criteria. They were therefore present in the classroom and participated in the CWPT process; however, their data was not collected or used. The students attending special day classes tend to represent a diversity of disorders, so including the other students in the study would have given us a more realistic view of our outcomes. There was also a gap in the grade levels that were included in the study. That is, seventh grade students were obviously absent from this research. There were several reasons for this but the strongest were that the classroom teachers felt that the idiom training process would monopolize instruction time. The teachers also did not feel that they had adequate spare time for learning these training concepts.

Although not the focus of the present study, we observed that the participants who were second language learners had more difficulty than the other students regarding comprehension of idioms (Blue, 1981; Irujo, 1986; Seidenberg & Bernstein, 1986). The students were not classified by language (monolingual English, dual language learners), but if they had been, this would have provided information regarding how second language learners perform while participating in CWPT. In retrospect, we also realized that the groups were not balanced for gender and number. Despite findings of statistical significance, we wonder how balancing these two variables might have influenced the results.

We learned a few things from this study. First, it seems that context is a critical component of learning idioms. As reported by previous research, the chances of learning idioms improve when the idioms are presented in a context (Norbury, 2004). In our study, we observed that the students found identifying the meanings of the idioms in isolation a challenging task. However, when the idioms were presented in context, their accuracy improved. Maintaining fidelity of training and implementation when using CWPT was also determined to be a crucial factor to success. The students and the teachers participated in extensive training and role-playing before the study. The students required several role-playing sessions to master the CWPT format. In one instance, after a few days of training, the students were observed deviating from the prescribed format by not reading the "error correction" message following a tutee error. The teacher and researcher reminded the students of the importance of following all the CWPT rules to



maintain study reliability. The students participated and worked during their classroom time, so teacher cooperation and commitment were important for effective application. This study supports that with effective implementation of the process, not only can CWPT be used as RTI (Response to Intervention) (Lundblom & Woods, 2012), but also as a classroom language therapy strategy.

Future research should address several issues related to this study. Inclusion of a diverse population of students including those with various disorders and language status (monolingual or bilingual) may prove to be significant, given the differences in learning idioms as a native speaker or an English language learner. The results of the present study should also be extended to explore teaching other skills such as vocabulary, sentence structure, or other types of figurative language. Our study included only six idioms to test for generalization; however, testing more idioms for generalization would have added value to the results. Therefore, utilizing more idioms might provide useful information in determining the generalization of learned skill to novel idioms. Future research could also determine the effect of length of time of CWPT implementation on the comprehension skills.

## **5. Conclusion**

The purpose of the current study was to determine the effect of Class wide Peer Tutoring (CWPT) on the comprehension of novel idioms for middle school students in special day classes. Positive changes in idiom comprehension were demonstrated in students in both 6th and 8th grades. Following implementation of CWPT there was a significant increase in the students' comprehension of idiomatic phrases. Training students on idiom familiarity and contextual comprehension resulted in more effective learning as evidenced by the increase in the post-test scores in both grades. Students in both grades showed improvement in comprehension of six idioms that were not used in the CWPT sessions. However, although the difference was statistically significant, they were not clinically significant as there was a difference of only one raw score point.

## **References**

- Abkarian, G. G., Jones, A., & West, G. (1992). Young Children's Idiom Comprehension Trying To Get the Picture. *Journal of Speech, Language, and Hearing Research*, 35(3), 580-587
- Abrahamsen, E. P., & Smith, R. (2000). Facilitating idiom acquisition in children with communication disorders: computer vs classroom. *Child Language Teaching and Therapy*, 16(3), 227-239.
- Bhalla, J. (2009). *I am not hanging noodles on your ears: and other intriguing idioms from around the world*. Sydney, N.S.W
- Bischoffshausen, S., Makoid, L., & Cole, J. (1989). Effects of Inference Requirements on Comprehension and Recognition of Metaphors. *Metaphor and Symbolic Activity*, 4(4), 227-246. [http://dx.doi.org/10.1207/s15327868ms0404\\_2](http://dx.doi.org/10.1207/s15327868ms0404_2)
- Blue, C. M. (1981). Types of utterances to avoid when speaking to language-delayed children. *Language, Speech, and Hearing Services in Schools*, 12, 120–124.

- Carrow-Woolfolk, E. (2017). *Comprehensive assessment of spoken language, second edition (CASL-2)*. Pearson assessments, Bloomington, MN.
- Chahboun, S., Vulchanov, V., Saldaña, D., Eshuis, H., & Vulchanova, M. (2016). Can You Play with Fire and Not Hurt Yourself? A Comparative Study in Figurative Language Comprehension between Individuals with and without Autism Spectrum Disorder. *Plos ONE*, 11(12), 1-24. doi:10.1371/journal.pone.0168571
- Delquadri, J. C., Greenwood, C. R., Stretton, K., & Hall, R. V. (1983). The peer tutoring spelling game: A classroom procedure for increasing opportunity to respond and spelling performance. *Education and Treatment of Children*, 225-239.
- Ezell, H. K., & Goldstein, H. (1992). Teaching idiom comprehension to children with mental retardation. *Journal of Applied Behavior Analysis*, 25(1), 181-191. doi:10.1901/jaba.1992.25-181
- Greenwood, C. (1991). Classwide Peer Tutoring: Longitudinal effects on the reading, language, and mathematics achievement of at-risk students. *Journal of Reading, Writing, And Learning Disabilities International*, 7(2), 105-123. <http://dx.doi.org/10.1080/0748763910070203>
- Greenwood, C. R., Delquadri, J. C., & Carta, J. J. (1997). *Together we can! Classwide peer tutoring to improve basic academic skills*. Longmont, CO: Sopris West.
- Hung, P., and Nippold, M (2013). Idiom understanding in adulthood: Examining age-related differences. *Clinical Linguistics & Phonetics*, 28 (3), 208-221.DOI: 10.3109/02699206.2013.850117
- Im-Bolter, N., Cohen, N. J., & Farnia, F. (2013). I thought we were good: social cognition, figurative language, and adolescent psychopathology. *Journal of Child Psychology & Psychiatry*, 54(7), 724-732. doi:10.1111/jcpp.12067
- Irujo, S. (1986). A piece of cake: learning and teaching idioms. *ELT Journal*, 40(3), 236-243. doi:10.1093/elt/40.3.236
- Johnson, G. A. (1985). *The development of idiom comprehension in normally developing and Language-deficient children.in Schools*, Theses, dissertation for University of Montana.
- Kerbel, D., & Grunwell, P. (1997). Idioms in the classroom: an investigation of language unit and mainstream teachers' use of idioms. *Child Language Teaching And Therapy*, 13(2), 113-123. <http://dx.doi.org/10.1177/026565909701300201>
- Klecan-Aker, J. (1985). A Study of the Language Choices of Middle School Children. *Communication Disorders Quarterly*, 8(2), 165-177. <http://dx.doi.org/10.1177/152574018500800207>
- Lazar, R., Warr-Leeper, G., Nicholson, C., & Johnson, S. (1989). Elementary School Teachers' Use of Multiple Meaning Expressions. *Language Speech and Hearing Services in Schools*, 20(4), 420.<http://dx.doi.org/10.1044/0161-1461.2004.420>
- Lee, R., & Kamhi, A. (1990). Metaphoric Competence in Children with Learning Disabilities. *Journal of Learning Disabilities*, 23(8),476-482. <http://dx.doi.org/10.1177/002221949002300805>
- Levorato, M. C., & Cacciari, C. (1995). The effects of different tasks on the comprehension and production of idioms in children. *Journal of Experimental Child Psychology*, 60(2), 261.
- Lundblom, E. E., & Woods, J. J. (2012). Working in the classroom: Improving idiom comprehension through classwide peer tutoring. *Communication Disorders Quarterly*, 33(4), 202-219.
- Maheady, L., & Gard, J. (2010). Classwide Peer Tutoring: Practice, Theory, Research, and Personal Narrative. *Intervention in School and Clinic*, 46(2), 71-78. <http://dx.doi.org/10.1177/1053451210376359>



- Mashal, N., & Kasirer, A. (2012). Principal component analysis study of visual and verbal metaphoric comprehension in children with autism and learning disabilities. *Research in Developmental Disabilities*, 33(1), 274-282.  
<http://dx.doi.org/10.1016/j.ridd.2011.09.010>
- National Governors Association Center for Best Practices, Council of Chief State School Officers (2010). Common Core State Standards (English Language Arts-Literacy). Retrieved from <http://www.corestandards.org/ELA-Literacy/L/6-8/>. [1]
- Norbury, C. F. (2004). Factors Supporting Idiom Comprehension in Children With Communication Disorders. *Journal of Speech Language and Hearing Research*, 47(5), 1179. doi:10.1044/1092-4388(2004/087)
- Nippold, M. (2000). Language Development during the Adolescent Years. *Topics in Language Disorders*, 20(2), 15-28. <http://dx.doi.org/10.1097/00011363-200020020-00004>
- Nippold, M. A. (1998). *Later language development*. Austin, TX: Pro-Ed.
- Nippold, M. A. (2006). Language development in school-age children, adolescents, and adults. *Encyclopedia of language and linguistics*, 6, 368-372.
- Nippold, M. A., & Taylor, C. L. (1995). Idiom understanding in youth: Further examination of familiarity and transparency. *Journal of Speech, Language, and Hearing Research*, 38(2), 426-433
- Nippold, M., & Fey, S. H. (1983). Metaphor understanding in preadolescents having a history of language acquisition difficulty. *Language Speech, and Hearing Services*. 14, 171-180.
- Nippold, M., & Martin, S. (1989). Idiom Interpretation in Isolation versus Context. *Journal of Speech Language and Hearing Research*, 32(1), 59.  
<http://dx.doi.org/10.1044/jshr.3201.59>
- Nippold, M., & Rudzinski, M. (1993). Familiarity and Transparency in Idiom Explanation. *Journal of Speech Language and Hearing Research*, 36(4), 728.  
<http://dx.doi.org/10.1044/jshr.3604.728>
- Nippold, M., & Taylor, C. (2002). Judgments of Idiom Familiarity and Transparency. *Journal Of Speech Language And Hearing Research*, 45(2), 384.  
[http://dx.doi.org/10.1044/1092-4388\(2002/030\)](http://dx.doi.org/10.1044/1092-4388(2002/030))
- Qualls, C., Lantz, J., Pietrzyk, R., Blood, G., & Hammer, C. (2004). Comprehension of idioms in adolescents with language-based learning disabilities compared to their typically developing peers. *Journal of Communication Disorders*, 37(4), 295-311.  
<http://dx.doi.org/10.1016/j.jcomdis.2003.12.001>
- Rapin, I. (1996). Practitioner Review: Developmental Language Disorders: A Clinical Update. *Journal of Child Psychology and Psychiatry*, 37(6), 643-655.  
<http://dx.doi.org/10.1111/j.1469-7610.1996.tb01456.x>
- Reed, V. A., & Spicer, L. (2003). The Relative Importance of Selected Communication Skills for Adolescents' Interactions with Their Teachers: High School Teachers' Opinions. *Language, Speech & Hearing Services in Schools*, 34(4), 343-357.
- Rinaldi, W. (2000). Pragmatic comprehension in secondary school-aged students with specific developmental language disorder. *International Journal of Language and Communication Disorders*, 35, 1-29
- Seidenberg, P. L., & Bernstein, D. K. (1986). The comprehension of similes and metaphors by learning-disabled and non-learning-disabled children. *Language, Speech, and Hearing Services in schools*, 17, 219-229
- Simpson, R., & Mendis, D. (2003). A corpus-based study of idioms in academic speech. *TESOL Quarterly*, 419-441.
- Terban, M. (1998). *Scholastic dictionary of idioms*. New York: Scholastic Reference.

- Trup, E. M. V. (2009). *Idiom Intervention for Children with Autism* (Doctoral dissertation, Pennsylvania State University).
- Whyte, E. M., Nelson, K. E., & Khan, K. S. (2013). Learning of idiomatic language expressions in a group intervention for children with autism. *Autism*, 17(4), 449-464.
- Wiejak, K. (2014). Recognition of figurative language and reading ability in Polish school children. *L1 Educational Studies in Language and Literature*, 13-14, SI ELit esPol (Early lit. research in Poland), 1-18. <http://dx.doi.org/10.17239/11esll-2014.01.12>



## Appendices

### Appendix A

Please rate the following idioms based on your familiarity.

<b>Idioms</b>	<b>Low familiarity</b>	<b>Moderate familiarity</b>	<b>High familiarity</b>
Monkey Business			
Miss the boat			
All Ears			
At the drop of a hat			
Back to square one			
Beat around the bush			
Break a leg			
Bug someone			
Zip your lips			
Catch you later			
Chill out			
Cold feet			
Dime a dozen			
To get away with murder			
Face the music			
Fat cat			
Fish out of water			
Get out of my face			
Get real			
Go fly a kite			
Go to the dogs			
Hang in there			
Head in the clouds			
Hit the books			
In a nutshell			
In the same boat			
Let the cat out of the bag			
Mess with someone			
On cloud nine			
Kick the bucket			
Sleep on it			
Play with fire			
Rain or shine			
Rock the boat			
See eye to eye			
Shake a leg			
Sky's the limit			
Take the cake			
Throw in the towel			
Under the weather			
Hit the sack			

Bury the hatchet			
Break the ice			
Jump the gun			
Pull your leg			
Drive someone crazy			
Piece of cake			

### Appendix B

Example of pre- and post- test

<p>Check the idiom that means:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;"><b>To stop talking</b></p> </div> <ol style="list-style-type: none"> <li>1. Face the music</li> <li>2. Get away with murder</li> <li>3. Zip your lips</li> <li>4. Go fly a kite</li> </ol>
---

### Appendix C

Example of CWPT week 1 post-test

<p>Check the idiom that means:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;"><b>To stop talking</b></p> </div> <ol style="list-style-type: none"> <li>A. Face the music</li> <li>B. Catch you later</li> <li>C. Zip your lips</li> <li>D. Sky's the limit</li> </ol>
--



## Appendix D

Tutor and tutee cards for CWPT sessions

Front of tutor and tutee card

Idiom: Zip your lips

Mary was tired of her friend constantly talking to her in the class. She asked her friend if she could zip her lips during the important math lesson.

What is the meaning of “Zip your lips?”

- A. Mary’s friend should stop talking.
- B. Mary’s friend should sew a zip on her lips
- C. Mary’s friend likes math
- D. Mary’s friend likes to talk to Mary

Back of the Tutor card

What is the meaning of” Zip your lips”?

A. Mary’s friend should sew a zip on her lips. Not quite, Let’s read the story again to look for clue words and think about what is happening in the story.

**B. Mary’s friend should stop talking.**

**First Answer: That’s correct, you get 2 points**

C. Mary’s friend likes math. Not quite, let’s read the story again to look for clue words and think about what is happening in the story.

D Mary’s friend likes to talk to Mary. Not quite, let’s read the story again to look for clue words and think about what is happening in the story.

If the second attempt is correct, award 1 point. If the second answer is incorrect. Read the correct answer. 0 Points