

2007

Using music therapy and visuals to facilitate language in exceptional preschoolers

Kimberly Joy Albert

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/etd-project>



Part of the [Humane Education Commons](#), and the [Music Therapy Commons](#)

Recommended Citation

Albert, Kimberly Joy, "Using music therapy and visuals to facilitate language in exceptional preschoolers" (2007). *Theses Digitization Project*. 3245.

<https://scholarworks.lib.csusb.edu/etd-project/3245>

This Project is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

USING MUSIC THERAPY AND VISUALS TO FACILITATE LANGUAGE IN
EXCEPTIONAL PRESCHOOLERS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Special Education

by
Kimberly Joy Albert
December 2007

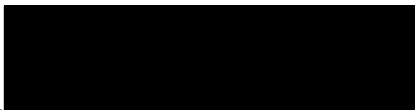
USING MUSIC THERAPY AND VISUALS TO FACILITATE LANGUAGE IN
EXCEPTIONAL PRESCHOOLERS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

by
Kimberly Joy Albert


December 2007

Approved by:



Dr. Judith Sylva, First Reader

12/21/07
Date



Dr. Richard Ashcroft, Second Reader

ABSTRACT

The purpose of this project is to explore the effectiveness of combining music and visual supports as a means of facilitating communication in exceptional preschoolers. Can the use of music combined with visual supports improve communication skills among exceptional preschoolers? Language samples were taken before and after the intervention. The results indicate that music and visual supports have some merit for increasing verbal responses.

TABLE OF CONTENTS

ABSTRACT iii

CHAPTER ONE: PURPOSE OF THE PROJECT

 Introduction 1

CHAPTER TWO: LITERATURE REVIEW

 Music Therapy 5

 Visual Supports 9

CHAPTER THREE: METHODOLOGY

 Participants 13

 Procedure 13

 Data Collection 15

CHAPTER FOUR: RESULTS 17

CHAPTER FIVE: DISCUSSION 20

APPENDIX A: FIGURES AND TABLES 24

APPENDIX B: ANECDOTAL NOTES DATA SHEET 28

REFERENCES 30

CHAPTER ONE

PURPOSE OF THE PROJECT

Introduction

As humans, we are naturally social. Communication is the key to life. Animals and insects use chemicals, movements and sounds to communicate. Humans communicate through these means, but they add words (Johnson, 2003). Communication is the basis of interpersonal relationships. Through communication we influence, learn and trust each other. Communication can build or end a relationship. It is our social nature to seek out communication with other people (Johnson, 2003). Through communication we complain, greet, request, praise, compliment, argue, demand, beg, order, inform, and the list goes on. Therefore, it is devastating when a parent realizes that their child is unable to communicate through words.

Speech and language disorders can affect children differently. Comprehension, analytical and processing skills can all be affected in a child with speech and language delays. Speech disorders can affect a child's fluency of words, voice quality and clarity. Language disorders can affect a child's ability to hold meaningful

conversations, problem solve, read and comprehend and express thoughts appropriately (American Speech-Language-Hearing Association, 2007).

Early childhood special education teachers work with students who have a variety of disabilities. It is not uncommon for students to have speech and language delays as their primary and/or secondary disability. Educators are always looking for new methods to help students express themselves. There are many strategies that educators and speech therapists use to elicit language from a student. Picture cards, sign language and augmentative devices are just a few of the communication systems available to assist students in expressing themselves (Bondy, 2001).

There is a general agreement that children love music and stories. Music can arouse emotions that motivate and engage a student (Pellitteri, 2000). Music can be a practical tool for facilitating language and social skills (Bae, 2006, Hooper, 2002, Duffy & Fuller, 2000). Music provides a relaxing atmosphere where a nonverbal child can find their inhibitions lessened (Pellitteri, 2000). Instead, music motivates the child to express themselves through clapping or humming. This intrinsic motivation can help the educator elicit responses from nonverbal students

by asking the child to pick their favorite song, or naming their favorite instrument (Pellitteri, 2000.)

Besides offering physiological and psychological benefits, music can be visual. Music is excellent for introducing print concepts, word comprehension and sequencing (Fisher & McDonald, 2001). Songs have a story to tell. By combining music and print, students learn the meaning behind the lyrics being sung. What is abstract becomes concrete through pictures and printed words.

The intent of this project is to explore the effectiveness of combining music and visual supports as a means of facilitating communication in exceptional preschoolers. The subjects of the study include nine exceptional preschoolers from an early intervention program located at a public elementary school. All students have speech and language delays, either as their primary or secondary disability. The subjects and school setting have been chosen for accessibility and the subject's Individual Education Plan (IEP) goals which reflect the need for increased communication.

Students will be introduced to music and hand movements initially, followed by visual supports. Language samples will be collected before the implementation of the

music intervention (pré) and following the implementation (post). The categories of language that will be observed include communication, meaningful language, peer interaction and social skills.

CHAPTER TWO
LITERATURE REVIEW

Music Therapy

The American Music Therapy Association (AMTA) defines music therapy as a clinical and evidenced-based use of music interventions. These interventions address physical, emotional, cognitive and social needs of individuals with disabilities and/or illnesses (AMTA, 2007). Music experience can include singing, vocalizing, playing various melodic and percussion instruments or listening. The various types of music therapy can include, but are not limited to the therapist playing music and soliciting responses from the client through various elements of music (Pellitteri, 2000).

It is important to distinguish the difference between music therapy and music education. The latter focuses on increasing one's knowledge of reading music and developing skill in playing a particular instrument (Pellitteri, 2000). The goal of music therapy is to improve psychological functioning through music experience. Some goals of music therapy intervention may include impulse control, attention and concentration, social functioning,

self expression, motivation and cognition (Pellitteri, 2000).

Music therapists use the power of music to arouse emotions that motivate and engage a student (Pellitteri, 2000). Music psychology research supports the theory that music affects heart beat, pulse rate and galvanic skin response (Pellitteri, 2000). Music affects brain development and enhances cognitive functioning (McTamane, 2005). Research in neurological studies suggest that musical structure is processed in the left hemisphere of the brain, where linguistics is also associated (Bae, 2006). Despite the fact that the left and right hemisphere of the brain function separately, it has been noted that when music is played, both hemispheres process the music simultaneously creating an ideal learning experience (Bae, 2006).

Music is a practical tool for facilitating language and social skills (Bae, 2006; Hooper, 2002; Duffy & Fuller, 2000). Music provides a relaxed atmosphere that can take away a nonverbal child's inhibitions. A nonverbal child can express themselves through instruments, clapping or humming to the music. Most children find music enjoyable and are eager to participate in musical activities. There

is an intrinsic motivation that develops through music. This motivation can help facilitate language by encouraging a child to name the instrument before they can play it, or requesting their favorite song (Pellitteri, 2000). The lyrics themselves seem to provide a stimulus for singing activities (Wylie, 1983).

In addition, there is evidence that music therapy can promote spontaneous speech in language delayed children (Seybold, 1971). In a lexical study, speech delayed preschoolers were presented with spoken and sung story scripts containing eight novel words. There was no significant difference in whether the children could name and comprehend the targeted words, whether they were sung or read. However, there was a significant increase in unsolicited target words produced from sung sessions. This indicates that sung input may enhance certain aspects of word learning (Khouri & Winn, 2006).

The rhythm and poetic melody of some music can help promote children's print concepts, prewriting skills, phonemic awareness and phonics (Fisher & McDonald, 2001; Register, 2001). Gromko (2005) found that the kindergarten students who received four months of music instruction scored higher in their phoneme-segmentation fluency than

the students who did not. Music can also contribute to a students understanding of stories and sequence (Fisher & McDonald, 2001). Music sessions that are designed with specific academic objectives in mind are more effective than general music activities (Register, 2001).

Finally, music therapy seems to encourage peer interaction and social skills. Music therapy encourages purposeful interaction via a nonverbal and non-threatening manner (Hooper, 2002). Music therapy is effective in improving social skills such as, turn-taking, imitation, vocalization, initiation and eye contact (Duffy & Fuller, 2000; Wingram & Lawrence, 2005). It can elicit emotions and establish a rhythmic connection, (Clarkson, 1994).

Music offers many possibilities for communicating non-verbally. For example, children with more severe disabilities, where verbal communication is not possible, can participate through augmentative devices, such as, electronic speech synthesizers and switch activated tapes (Humpal & Dimmick, 1995). Adaptations to instruments can help students with fine motor delays participate as well. All of these devices can give a "voice" or musical expression to students with severe disabilities (Humpal & Dimmick, 1995).

Visual Supports

Visual supports provide extra information to children with language and developmental delays. Words that have no meaning when spoken suddenly have concrete meaning when combined with pictures. Language alone, such as "clap your hands" or "stomp your feet" are more difficult to teach without modeling of movements or displaying of an object (Tissot & Evans, 2003; Bae, 2006).

Visual supports can help a student become more attentive by allowing them to focus on the message. They assist students in arranging their understanding of new vocabulary, and connecting meaning to words (Easterbrooks and Stoner, 2006). Visuals reduce anxiety, make abstract concepts more concrete, and help the student to communicate better (Rao & Gagie, 2006; Tissot & Evans, 2003). There is significant improvement in expressive and receptive language from preschoolers who are exposed to music and picture cards. Children, who learn a song reinforced by lyrical pictures, are able to demonstrate their understanding of the song, and its sequence by holding up pictures that represent specific segments of the song (Hoskins, 1988; Moyeda, Gomez, & Flores, 2006; Fisher & McDonald, 2007).

Educators who work with students diagnosed with Autism know that pictures give meaning to words. Johnston, Nelson, Evans and Palazolo (2003) used a graphic symbol to represent "Can I play" with children diagnosed with Autism. Johnston et al. (2003) noted that by providing the graphic symbol and modeling how to use it, all three students were able to use the symbol for play independently. These results suggest that visual supports are effective in enhancing communication. Pictures can be an effective tool for the generalization and maintenance of acquired verbal directions. Pictures can cue or trigger recall on previously learned skills (Preis, 2006).

One augmented communication system that utilizes visual support is the Picture Exchange Communication System (PECS) (Bondy, 2001). PECS is a pictorial system that was developed for children with social-communicative disorders. PECS uses basic behavioral principles and positive reinforcement. Picture cards are kept on a board by the child. When the child wants something, the child places a picture in the listener's hand. PECS is appealing because it requires few complex motor skills, and does not require the listener or the speaker to know sign language, and/or another means of communication (Bondy, 2001).

PECS is user friendly, can be taught relatively quickly, is portable and inexpensive (Charlop-Christy, 2002; Frost & Bondy, 1998). PECS is promoted as a unique communication system because it encourages the child to approach the listener and initiate interaction. In addition, there have been several reports of children developing language as a result of using PECS (Bondy, 2001).

Video modeling is another form of visual support. Video modeling promotes skills, as well as helps maintain previously acquired skills (Bellini and Akullian, 2007). Using visual supports, such as video modeling has had promising outcomes for increased unprompted social engagement with peers, as well as increased verbal and motor play skills (Bellinin, Akullian & Hopf, 2007; Paterson & Arco, 2007; Maione & Mirenda, 2006).

Studies conducted on the value and use of visual supports for enhanced learning is limited. Unfortunately, visual supports are a neglected area of research in the preschool population. The majority of studies that have been conducted have focused on the use of visual tools for teaching reading (Easterbrooks & Stoner, 2006).

It appears that the use of music combined with visual supports has promising results. Music is an avenue to self expression and social functioning (Pellitteri, 2000). It is a practical tool for facilitating language and social skills (Bae, 2006; Hooper, 2002; Duffy & Fuller, 2000). Children, who learn a song reinforced by lyrical pictures, can demonstrate their understanding of the song and its sequence (Hoskins, 1988; Moyeda, Gomez, & Flores, 2006; Fisher & McDonald, 2007). Visual supports make abstract concepts more concrete and helps the student to communicate better (Rao & Gagie, 2006; Tissot & Evans, 2003).

CHAPTER THREE

METHODOLOGY

Participants

The subjects of the study included nine exceptional preschoolers from an early intervention program located at a public elementary school. The age spans for the children were 3 years to 4 years of age. All students had speech and language delays, either as their primary or secondary disability. Six of the nine students intellectually functioned at a mild to moderate disability range. Three of the nine students intellectually functioned at a severe disability level.

Procedure

This project was a descriptive study that examined the effectiveness of utilizing music and visual supports to facilitate language in exceptional preschoolers. The project required the research of academic journals, interviews with school speech and language pathologists and parents. There were four phases to the intervention study.

The first phase included the gathering of informal language samples to establish a baseline (see Appendix A).

Participants were observed over a three day period during which the participant's usage of language in the classroom setting was recorded. In addition, daily anecdotal notes were taken from classroom observations and parent interviews. No music was introduced during this phase.

In phase two of the intervention, students were introduced to the song "The Wheels on the Bus." The song was chosen for its melody, hand movements and concrete meaning (6 of the students ride the bus to and from school) and language. The song and hand movements were practiced for the first 4 weeks of the intervention.

During the 5th week, and third phase of the intervention, Paul O. Zelinsky's pop-up book "*The Wheels on the Bus*" was introduced. First students participated in the music and hand movements. Afterwards, the pop-up book was shown to the students. Students were asked several questions about the cover of the pop-up book. Students were encouraged to respond with verbal responses and/or by pointing. Each page of the book was discussed before reading the book.

The final phase, and last 4 weeks of the study, included pictures of each lyric (i.e. wheels, doors, windshield wipers) attached to a tongue depressor.

Students were given the choice of which pictorial lyric they wanted to hold while the song was played. As the music played, students were encouraged to sing, and hold up their lyrical picture as representation for specific segments of the song.

As data was collected, modifications were made on how to better facilitate language during music time. During these modifications, the speech and language pathologist were consulted. At the 10th and final week of the intervention, a post language sample was recorded.

Data Collection

Data was collected throughout the study via observations and anecdotal notes. A record of notes was maintained for each student on a daily basis (see Appendix A). Outside observations were noted from parents, service providers and classroom aides.

Language samples were collected before the implementation of the music intervention (pre) and following the implementation (post). The categories of language that were observed included communication, meaningful language, peer interaction, and social skills. Each category was operationally defined to ensure

reliability across pre and post observations. *Communication* was defined as the use of spontaneous speech with at least 1-2 word utterances, and independently requesting.

Meaningful Language referred to the student initiating conversation, recalling events and associating abstract concepts. *Peer Interaction* included initiating play with a peer and/or sharing without a prompt. *Social Skills* were defined as imitating hand movements during music and taking turns without prompts.

Anecdotal notes were gathered spontaneously in correlation to events observed. Anecdotal observations were sought from parents and service providers on a weekly basis. All notes and records were maintained by the researcher to assure reliability.

CHAPTER FOUR

RESULTS

The informal language samples that were collected pre and post intervention are illustrated in Figure 1. The figure illustrates the change in the number of students engaging in language responses within each category before and after the intervention. Table 1 provides examples of how some of the student's language changed qualitatively before and after the intervention.

Anecdotal notes were analyzed to identify qualitative changes in the use of language by each of the participants in the study. Changes were observed across each category of language; however these changes were qualitatively different for each student. Not all of the participants demonstrated changes in each category.

According to the anecdotal notes, five students were using 1-2 word utterances on a frequent basis pre intervention. Post intervention, the anecdotal notes show an increase in word utterances, especially in Student 3, who had no utterances at pre intervention. In addition, there was evidence of increased spontaneous speech unrelated to the music. For example, student 1 pointed out

that a student was not at school; therefore they could not be greeted. Students 4, 6 and 7 made no progress in communication. Only two students made progress in displaying meaningful language, as shown in Figure 1.

Although the literature addressed music as a vehicle for encouraging peer interaction, this was not the case for this project. As shown in Figure 1, only Students 2 and 5 increased their peer interaction. These students sought out other playmates, whereas the rest of the students remained at the same parallel play. Moreover, the preferred playmates were the original two students who had demonstrated peer interaction during the pre intervention.

The most significant outcome from the intervention is the increase in student social skills, as shown in Figure 1. At the end of the 10 week study, all students participated during music time by taking turns, imitating hand movements, pointing to pictures and singing. The most dramatic reaction from students was the introduction of the pop-up book. Students were excited by the idea of seeing a book about their favorite song. As noted in the anecdotal notes, Students 1 and 9 attempted the hand movements while the book was read aloud. Students 3 and 5 imitated

Students 1 and 9. There are additional lyrics in the book. When the students heard the additional lyrics, Students 1 and 9 shook their heads "no," indicating that they disagreed with the new lyrics. Movements were shown for the new lyrics, and immediately Students 1, 2, 3, 5, and 9 imitated the new movements. At closing circle, "The Wheels on the Bus" book was read again. Students 1, 2 and 9 verbalized the new lyrics in the book. All the students were engaged.

In the final phase of the intervention, improvement in receptive language and choice making skills were noted in the anecdotal notes. Students were able to express their desire for either singing the music with "picture sticks," or singing to the pop-up book. Students 1, 2 and 9 were able to express what "picture stick" they desired, whereas the rest of the students needed verbal prompting.

CHAPTER FIVE

DISCUSSION

In comparing the pre and post language samples in Table 1, it appears that students who were at the beginning stages of using sentences with 3-4 word utterances benefited from the intervention. Singing the music and showing pictorial lyrics suggests that visual supports help students to organize their thoughts and words.

Only two students made progress in displaying meaningful language, as shown in Figure 1. There are several reasons for this. First, Student 1 is a true speech and language delayed preschooler with no cognitive delays present. Consequently, the student grasped concepts quickly and imitated when appropriate. The student was an active participant in his learning, thus creating an ideal educator/student relationship.

It is believed that Student 9 had successes in meaningful language because he is older than most of the students, and this was his second year in school. Due to his past experience, and recurrence of curriculum, it is believed that this allotted the student developmental growth in recalling events and abstract concepts.

Although the literature addressed music as a vehicle for encouraging peer interaction, only two students displayed improvement. As shown in Figure 1, Students 2 and 5, increased their peer interaction. Most likely, this can be attributed to both students having older siblings at home. It was reported by the parents, that both students play with their older siblings at home. Therefore, one can surmise that once a comfort level took place in the classroom, these two students sought out other children for play as demonstrated at home.

By far the most significant observation is the increase in student social skills, as shown in Figure 1. At the end of the 10 week study, all students participated during music time by taking turns, imitating hand movements, pointing to pictures and singing. This can be contributed to the melody of the music and literature. The music combined with the pop-up book brought meaning to the lyrics.

In her study on facilitating second language acquisition through music, Bae (2006) stated that simple teaching of songs was not enough. Concrete objects needed to be associated with the lyrics of the song. The findings of this project are similar to Bae (2006) in that music

combined with visuals offer students a more meaningful experience (Pelliteri, 2000; Wigram and Lawrence 2005). Initially, the study started with music and hand movements only. It was not until the introduction of the pop-up book, that "The Wheels on the Bus" became meaningful to the students. Suddenly, "The Wheels on the Bus" had significance to the students. The visual lyric support helped the students understand the vocabulary being sung, and connected meaning to the words (Bae, 2006; Easterbrooks & Stoner, 2006). They understood that the bus drove people around town, and that they rode the bus to and from school.

In addition to the comprehension of the lyrics, the music encouraged interaction and communication between peers and adults. The invisible wall (lack of self-confidence in communication) that seemed to separate the children, disappeared as music time was acknowledged as an every day occurrence. Like Hooper (2002) suggests, students felt comfortable to laugh out loud at silly songs or point out favorite pictorial lyrics. The music created a union of classmates and adults. This freedom of self expression carried over into other environments.

Both music therapy and visual supports require further research. The lack of empirical evidence hinders the use

of music therapy and visuals as a strategy to facilitating more language in exceptional preschoolers. However, the findings from this descriptive study indicates that the combination of music and visual supports can promote social skills and should be investigated further under more controlled conditions to determine the nature of this relationship.

APPENDIX A
FIGURES AND TABLES

Figure Caption

Figure 1. Change in student use of language from pre and post informal language samples.

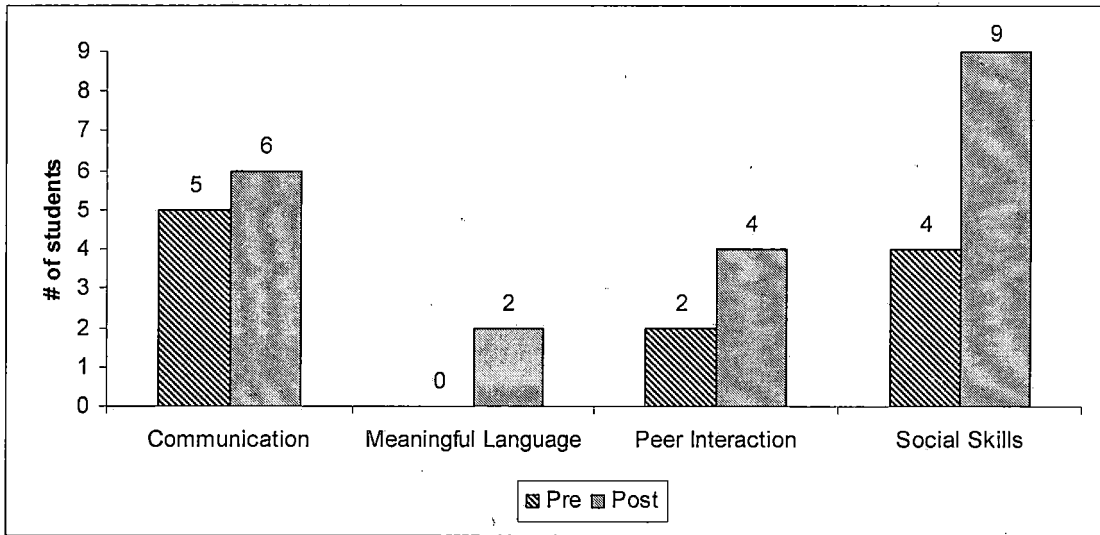


Table 1. Examples of informal language sample before and after intervention.

Student	Before Intervention	After Intervention
1	"My car!" "Teacher, look!" "Not here."	"Teacher, look! _____ is crying!" "_____ is sick. _____ at home."
2	"Mine." "We go?"	"Hi _____. How are you?"
3	No utterances.	"Hi teacher." "I'm fine." "Yeah."
5	"No." "I'm fine."	"I want an ice cream."
8	"Yes, I'm fine." "_____ is sick today."	"I don't ride the bus. I drive in my car."
9	"Why?" "He not here." "Mine."	"Why is _____ crying?" "_____ is hurt?" "My daddy is at work."

APPENDIX B
ANECDOTAL NOTES DATA SHEET

Anecdotal Notes Data Sheet

Student:

Date:

Present Levels of Language:

Observations:

Anecdotal Notes:

REFERENCES

- American Speech-Language-Hearing Association. (2007). *Frequently Asked Questions*. Available from www.asha.org/?public/?speech/?development/?schools_faq.htm
- Bae, S. (2006). Facilitating Second Language Learning with Music. *Journal of Zero to Three, 21*, 32-35.
- Bellini, S., & Akullian, J. (2007). A Meta-Analysis of Video Modeling and Video Self-Modeling Interventions for Children and Adolescents with Autism Spectrum Disorders. *Exceptional Children, 73*, 264-287.
- Bellini, S., Akullian, J., & Hopf, A. (2007). Increasing Social Engagement in Young Children with Autism Spectrum Disorders Using Video Self-Modeling. *School Psychology Review, 36*, 80-90.
- Bondy, A. (2001). PECS: Potential Benefits and Risks. *The Behavior Analyst Today, 2*, 127-132.
- Charlop-Christy, M. (2002). Using the Picture Exchange Communication System (PECS) With Children with Autism: Assessment of PECS Acquisition, Speech, Social-

- Communicative Behavior, and Problem Behavior. *Journal of Applied Behavior Analysis*, 35, 213-231.
- Duffy, B., & Fuller, R. (2000). Role of Music Therapy in Social Skills Development in Children with Moderate Intellectual Disability. *Journal of Applied Research in Intellectual Disabilities*, 13, 77-89.
- Easterbrooks, S., & Stoner, M. (2006). Using a Visual Tool to Increase Adjectives in the Written Language of Students Who Are Deaf or Hard of Hearing. *Communication Disorders Quarterly*, 27:2, 95-109.
- Fisher, D., & McDonald, N. (2001). The Intersection Between Music and Early Literacy Instruction: Listening to Literacy. *Reading Improvement*, 38(3), 106-115.
- Frost, L. A., & Bondy, A. S. (1998). The Picture Exchange Communication System. *Seminars in Speech and Language*, 19, 373-389.
- Gromko, J. (2005). The Effect of Music Instruction on Phonemic Awareness in Beginning Readers. *Journal of Research in Music Education*, 53(3), 199-209.
- Hooper, J. (2002). Using Music to Develop Peer Interaction: An Examination of the Response of Two Subjects with a

- Learning Disability. *British Journal of Learning Disabilities, 30*, 166-170.
- Hoskins, C. (1988). Use of Music to Increase Verbal Response and Improve Expressive Language Abilities of Preschool Language Delayed Children. *Journal of Music Therapy, XXV*, 73-84.
- Humpal, M., & Dimmick, J. (1995). Special Learners in the Music Classroom. *Music Educators Journal, 21*, 81-86.
- Johnson, D. (2003). *Reaching Out*. Boston: Allyn and Bacon.
- Johnston, S., Nelson, C., Evans, J., & Palazolo, K. (2003). The Use of Visual Supports in Teaching Young Children with Autism Spectrum Disorder to Initiate Interactions. *Augmentative and Alternative Communication, 19*, 86-103.
- Kouri, T., & Winn, J. (2006). Lexical Learning in Sung and Spoken Story Script Context. *Child Language Teaching and Therapy, 22*, 293-313.
- Maione, L., & Mirenda, P. (2006). Effects of Video Modeling and Video Feedback on Peer-Directed Social Language Skills of a Child with Autism. *Journal of Positive Behavior Interventions, 2*, 106-118.

- McTamanev, C. (2005, Summer). Why Music? *Montessori Life*, 17(3), 16-21.
- Moyeda, I., Gomez, I., & Flores, M. (2006). Implementing a Musical Program to Promote Preschool Children's Vocabulary Development. *Early Childhood Research and Practice*, 8(1), 1-12.
- Paterson, C., & Arco, L. (2007). Using Video Modeling for Generalizing Toy Play in Children with Autism. *Behavior Modification*, 31, 660-681.
- Pellitteri, J. (2000). The Consultant's Corner: "Music Therapy in the Special Education Setting". *Journal of Educational & Psychological Consultation*, 11(3/4), 379-391.
- Preis, J. (2006). The Effect of Picture Communication Symbols on the Verbal Comprehension of Commands by Young Children with Autism. *Focus on Autism and Other Developmental Disabilities*, 21, 194-210.
- Rao, S., & Gagie, B. (2006). Learning through Seeing and Doing. *Teaching Exceptional Children*, 38, 26-33.
- Register, D. (2001). The Effects of an Early Intervention Music Curriculum on Prereading/Writing. *Journal of Music Therapy*, 38(3), 239-248.

- Seybold, C. (1971). The Value and Use of Music Activities in the Treatment of Speech-Delayed Children. *Journal of Music Therapy*, VIII, 102-110.
- Tissot, C., & Evans, R. (2003). Visual Teaching Strategies for Children with Autism. *Early Child Development and Care*, 173(4), 425-433.
- Wigram, T., & Lawrence, M. (2005). Music Therapy as a Tool for Assessing Hand Use and Communicativeness in Children with Rhett Syndrome. *Brain and Development*, 27, 95-96.
- Wylie, M. E. (1983). Eliciting Vocal Responses in Severely and Profoundly Mentally Handicapped Subjects. *Journal of Music Therapy*, XX, 190-200.