

Spring 2015

The Development of English and Chinese Oral Language through Drawing for Primary Grade Students

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Running Head: THE DEVELOPMENT OF LANGUAGE THROUGH DRAWING

The Development of English and Chinese Oral Language through Drawing for Primary Grade
Students

Minzhi Yu

Action Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of
Arts in Education

California State University Monterey Bay

May 2015

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The Development of English and Chinese Oral Language through Drawing for Primary Grade
Students

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Acknowledgements

I really appreciated that the education department of California State University, Monterey Bay, gave me the opportunity to get into the M.A.E. program and start this research. I would like to express my profound gratitude to my advisor, Dr. Lou Denti, for your encouragement. There were times I struggled. But in spite of them, you supported me to keep doing my research. Your patient guidance, invaluable feedback, and help filling in the little details were invaluable throughout this thesis. Without your support, this thesis would not have been possible.

I'd like to give my sincere thanks to the professors, the staff at CSUMB, who supported me along the way. Dr. Jason Levin, and Dr. Mark O'Shea, thank you for helping to establish a solid foundation for my study. Dr. Anna Moore, and Dr. Bill Jones, thank you both for your useful suggestions and great assistance in strengthening my research. Dr. Kerrie Chitwood, Dr. Cathi Draper Rodriguez, and Dr. Kris Roney, thank you all for your useful comments and great assistance in strengthening my thesis. I'd like to thank the staff of Jene Harris, for her great help during the program of study.

I would also like to thank all the participants who took part in the research. Their valuable time and views have contributed greatly to this work. This research would not be possible without them.

Finally, I am grateful to, my family and friends who were always supporting me and encouraging me with their best wishes. My research would not have been possible without their help.

Abstract

This research explored how the drawings of five-to seven-year-old children reflect their interests and emotions. This research also evaluated the role these drawings played in their literacy education and development. Two groups of students were compared in regards to the impact drawing had on their literacy development. The experimental group received the drawing intervention while the control group received literacy instruction only. Teachers were interviewed to ascertain whether the intervention affected the students' literacy development, as well as to gain insight into children's thinking emanating from their drawings. It was found that the students who used drawing as a complement to their study increased comprehension and retention of the material more than students who did not include drawing as a part of their studies. The results of this research showed that drawing may assist children's oral expression of literature comprehension and may also help their memory.

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Chapter 1: Problem Statement

Introduction

Generally, adults do not think much about what children's drawings reflect, and sometimes they even ignore the role of drawing in children's early education curriculum (Striker, 2001). However, through drawing, children can express abstract knowledge in a more specific and concrete way. Brooks stated that children's drawings help in the development of higher mental functions for those children that are given the opportunity to draw (2009). For instance, when children learn the concept "to fly" in any language, they could draw a bird flying in the sky. Children were able to draw a picture of land, sky and trees in the correct place and have the birds placed in the sky flying. The drawings were based on their observation of the world, but these same children could not verbally describe the concept of "to fly" and drawing enabled them to express this concept clearly. Drawing makes the verb more vivid and gives children a deep impression about the concept "to fly" (Konomi, 2014). Drawing also enables young children to express what they know more comprehensively than they would be able to if they were limited to doing so solely by means of oral communication or writing (de la Roche, 1996).

Children's drawing can also be a form of expression comparable to writing (de la Roche, 1996). When a child talks about his or her drawing, the child's self-expression skills can be improved at the same time. Maehr (1991) realized that some children might consider their drawings to be actual writing as both are done with the hand. When asked to explain their drawings they read them with a clear message or story (Maehr, 1991). Drawing enables children to transform ideas and concepts that they do not fully grasp into a more concrete and substantial form. Oğuz's (2010) study exposed that a child's drawings are influenced by his or her family and living environment. Oğuz (2010) claimed that children often describe their happiness,

unhappiness, future dreams, hopes, wants, and ambitions through their drawings, and that drawings can offer teachers and parents unparalleled insight into their child's mind. According to Kendrick (2004), drawings can be an effective communication tool in early education. Kendrick studied how the communication attained from children's drawings and the experience of sharing their life story can help to develop the understanding of literature. Kendrick investigated young children's drawings as an innovative way of sensing their perceptions and comprehension of literary works, and found that the drawings provided a glimpse into the "spontaneous concepts" being developed by the children in relation to literacy.

According to Oğuz (2010), drawings are a unique tool that reveals a child's thoughts, interests, and feelings. Oğuz also stated that a child's drawing can be interpreted as a representation of his or her intelligence and emotional experiences, as well as indirectly reflecting the child's inner world. Horrocks (2009) believed drawing is in the same field of expression as play and speech. Drawing is an outlet for communication, and children's artwork represents a view of their personalities (Malchiodi, 1998). Children express their fears, joys, and dreams through drawings, giving observers a better understanding about their relationship to the world and other concepts (Horrocks, 2009). While McGlynn (2011) found that discussing drawings with children could help clarify their thought processes, can accelerate a child's understanding of early literature, and also improve vocabulary. McGlynn also found that students' reading comprehension could be assessed through the analysis of their artwork (2011). These studies on children's drawings revealed clues about the perceptions and emotions children have about the world around them. Analyses of these drawings assisted both teachers and parents in gaining an enhanced understanding of their children in order to improve communication.

Personal experience has demonstrated that children's drawing can enhance a teacher's communication with a child, as well as the communication of the child with the teacher. Teachers can observe children's behavior and learn more about their inner world when they are drawing pictures. Drawing is a vehicle of expression for children and a manifestation of their inherent character (Oğuz, 2010). For instance, some children are shy when they are about to participate in a collective game. However, the style of their bold outlines and range of different colors in their paintings is contrary to their usual shy character. Personal observation has shown that the true nature of children's feelings and emotions is expressed in their drawings, while their interaction with one another, or their interaction with a teacher may be more muted. On the other end of the spectrum, some children who are usually very active tend to be very meticulous when they draw a picture. There are certain aspects of a child's character that can only be revealed through his or her drawing. Thus, a child's drawing allows teachers to better understand a child's inner world and true character. By studying a child's drawings one can glimpse the child's representational world (Cherney et al., 2006).

Drawing pictures may be an alternative way of knowing more about children's interests and what they are thinking. A student who spends most of their time drawing animals may have a strong affinity for animals, and buildings and architecture may fascinate a student who draws pictures of buildings. Furthermore, young children, between five and seven years of age, like to draw because no one criticizes what they draw on the paper (Özar, 2012). Drawing a picture is a relaxing way for children to express their thoughts (Maureen & Yasmin, 2014).

Coupling reading picture books with drawing pictures dramatically increases student engagement (McGlynn, 2011). A colorful picture is more engaging than words alone when communicating with students either verbally or through written expression. Moreover, specific

graphics can help children enhance their memory of vocabulary and promote their oral expression. Children are drawn to picture books because of the colors and shapes. Pictures-books and drawings enhance the written story and allow the children to follow along better and increase their reading comprehension (Paris & Paris, 2003).

Statement of the Problem

Children between the ages of five and seven are in the early stages of language development. At this stage, they cannot verbally express some of their feelings and interests adequately (Ostrosky, Hemmeter, Murry & Cheatham, 2005). Adults may not comprehend a child's understanding of the world, which may negatively influence an adult's attempts at resolving children's issues or guiding children's education. Miles (2000) suggested that asking children to respond in writing to open-ended questions is limiting because their writing capability may not be properly developed and the child becomes paralyzed by an inability to express him or herself, whereas, a child given a range of choices may be able to express his or herself accurately. Yet, by giving a child a range of choices one may inadvertently limit the range of choices available to the child and thus influence the results. Teachers may derive insights into how children process information by instructing children to draw pictures. These drawings might diminish adult misinterpretations of children's thoughts and feelings. Miles (2000) emphasizes that drawings may allow children to relax and better communicate with adults. Educators may learn more about a child's psychological state by interpreting his or her drawing. Thus, a student's drawings can assist educators in understanding a child's thoughts and interests, and therefore guide children's learning.

Soundy (2012) indicated that drawing affords young children a means to express real and imaginary ideas, which is a form of communication worthy of teacher recognition and support.

Moreover, communicating with children about their drawings may help children improve their vocabulary, which benefits their literature comprehension. When children apply new vocabulary to their drawings and use it in discussion, they are more likely to learn the specialized language they encounter in informational texts (Block, Gambrell, & Pressley, 2002).

Waltmire (2013) noted that shifting between words and pictures improves children's learning. Typically, as children learn to read and write, drawing becomes secondary to other forms of communication. Current research suggests that there is a need to systematically integrate drawing as an essential component of the core curriculum (Waltmire, 2013). If drawing can be successfully integrated into the classroom, children may be afforded the opportunity to express themselves in new ways while simultaneously improving their literary skills. If children can draw a picture to illustrate a story it would demonstrate that the students are able to comprehend story details at an enhanced level. Research also points to the fact that drawing aids in a preschool child's acquisition of language and learning, and that there continues to be a need to offer opportunities for preschool children to express themselves through drawing (Einarsdottir et al, 2009; Waltmire, 2013).

Purpose of Study

The main purpose of this study was to investigate the role drawing might play in promoting children's early literacy development and expression. This research intended to reveal the relationship between children's drawings and their inner-world through incorporating drawings in children's early language learning. This study also included an analysis of how students in a bilingual Chinese-English preschool responded to drawing pictures to express their thoughts on paper and whether or not this experience increased their oral language skills. These students were all born in the United States and were learning Chinese as a second language.

Research Questions

1. Do drawings enhance K-2 student's expression of thoughts and interests?
2. If so, can the drawings be used as a means for students to demonstrate their comprehension of a literary narrative as an alternative to oral confirmation of comprehension?

Theoretical Framework

Children between the ages of five and seven are in the early stages of learning language. They cannot express or choose not to express some of their feelings accurately (Ostrosky, Hemmeter, Murry & Cheatham, 2005). Thus it is both helpful and meaningful to understand children's inner worlds through their drawings. Drawings and pictures can also aid in teaching and a child's learning (Paquette, Fello & Jalongo, 2007).

Luquet (1927) believed that the study of children's drawings could be used to measure their cognitive development. One of the most well known methods used is the Draw-a-Man (DAM) test, (Goodenough, 1926). Lowenfeld and Brittain (1987) described the graphic expressions of children between the ages of 2 and 16 in terms of six stages including scribbling, pre-schematic, schematic, dawning realism, pseudo-naturalistic and decision-making.

The theoretical underpinning of color psychology helped to discover a child's interests and emotional development from his or her drawings. It explains that children's emotional reactions to bright colors become increasingly positive as they grow older (Milne & Greenway, 1999).

Bandura's (1977) self-efficacy theory explained that children's drawings differ from reality because of the perception and understanding of the child. Bandura's theory emphasized the role of observational learning, social experience and reciprocal determinism in the development of a child's personality and this development is reflected in a child's drawings. The

drawings provide a snapshot into the mind of the child in that stage of development. In the current research study, the independent variables were children's ages, genders, cultural backgrounds, whether or not the student was in the control or test group, and the environment in which the drawings take place. The dependent variables are the increase or decrease in literary comprehension as determined by both a rubric score dependent quantitative variable and a qualitative analysis of teacher interviews.

Drawing is a child's special and relaxed language because drawing allows children to concentrate their thoughts and communicate in ways they previously were unable to do. Drawing begins the conversation the children are unable to initiate on their own (Miles, 2000). The cognitive theory suggests the level of detail and accuracy of a child's drawing reflects his or her thinking and concepts (Milne & Greenway, 1999; Mayesky, 2012).

This research focuses on five- to seven-year-old children, an age group that can be examined from a developmental standpoint. According to Lowenfeld's stages of development in children's art, the children in this age range are at the pre-schematic stage (Lowenfeld & Brittain, 1987). Therefore, children's drawings do not reflect what they see, but rather what they think, even though what they think depends what they see (Tversky, 1999).

Mcleod (2007) stated that thought precedes language development and social interactions may influence cognitive processing, including processing used during drawing (Mcleod, 2007). Thus, drawing as a communication tool is useful to children's cognitive development as well. Brooks (2009) found that the process of drawing allows children to shift from spontaneous concepts to scientifically-grounded concepts, all the while promoting higher cognitive performance. The researcher also found that when children are encouraged to express their

thoughts about their own drawings, they could improve their communication skills (Brooks, 2009).

According to Gardner's (2011) theory of multiple intelligences, children and adults possess different types of intelligences. Gardner stated that human beings have nine different kinds of intelligence that are reflected through different methods of interacting with the world. Each person has a unique combination or profile of these intelligences. Teaching and learning is an interactive process and understanding the intelligences of the students can help to improve the educational process. He coined the term "artistic intelligence" as one key intelligence people have, different from linguistic or naturalistic intelligence or the other intelligences outlined in his theoretical postulations. His perspective and theoretical framework give credence to the fact that artistic intelligence is a hard-wired in each person and can be nurtured through exposure to artistic endeavors. Students seem to be drawn to expression through the visual and performing arts. Perhaps, through drawing, one can discover the learning modality that best suits a particular child.

Currently, there is a body of research investigating individual differences within the context of learning, the most prominent of which is the Multiple Intelligences theory. According to the Multiple Intelligence Theory, every student can be guided according to the profile of his or her developed intelligence. According to Gardner (2001), students who possess different types of minds will learn and comprehend in different ways. The processes by which students learn varies greatly; certainly, students would benefit from teachers presenting school lessons targeting different learning styles (Vincent & Ross, 2001).

Examining drawings may provide insight into their life experiences and this information may be used in the development of children's literature comprehension. Children recount their

memories by means of storytelling (Burke, 2012). The storytelling may take multiple forms, such as drawings or play. Drawings reveal a great deal of information about children' understanding of the world (Hsu, 2014). The many uses of drawing in the classroom will be explored in the proposed research study.

Definition of Terms

Multiple intelligence. Gardner identified nine different types of intelligences that each individual has the capacity to possess. The idea of multiple intelligences is important because it allows for educators to identify differing strengths and weaknesses in students and also contradicts the idea that intelligence can be measured through IQ (Gardner, 2011).

Cognitive development. Cognitive development is defined as a series of progressive changes in the way individuals think and view the world when faced with experiences that conflict with their intellectual way of knowing (Sternberg & Berg, 1992).

Communication skills. The ability to interact effectively with other people at all levels (Gushgari, Francis & Saklou, 1997).

Oral expression. Oral expression is defined as the ability to communicate information and ideas in speaking so others will understand (Gothberg, Peterson, Peak, & Sedaghat, 2015).

Early literacy development. Early literacy development is defined as acquisition and mastery of the fundamentals of reading, writing, and other literacy-related skills (Hall, Larson, & Marsh, 2003).

Chapter 2: Literature Review

Introduction

Children between the ages of five and seven are in the early stages of learning language, and often have difficulty with oral expression as they have limited vocabulary and language skills. To compensate for their lack of language skills, most early education programs teach children how to draw. Drawing is a comfortable medium that gives children a natural way to communicate their thoughts and feelings (Steele, 2005). In addition to play and speech, drawing should be considered as an important outlet for children to express their joys, fears and other feelings. Moreover, besides offering a way to naturally express emotion, Oğuz (2010) postulates that drawing could also provide insight into children's personalities and inner characters.

Over the past century, children's drawings have been an important research topic for many educators and psychologists. In the late 1900's, research on the value of drawings produced by children resulted in tangible changes to early childhood education and was incorporated into school curricula (Oğuz, 2010). Building upon that research, professionals began to see a connection between drawings and enhanced cognitive development that lead to a better understanding into the psyches of young children. Soon after, research was conducted into how thoughts and emotions expressed in drawings offer teachers and parents a better understanding of their children; thus drawings were implemented in certain types of therapies. Recent research continues to expand on the usefulness of drawings, showing how children are more open and expressive when drawing (Oğuz, 2010).

Several tests are used by psychologists to help analyze children's drawings and glean information about a child's personality, intelligence and possible problems (Maley, 2009). One such example comes from researcher Inglis-Arkell (2013). Inglis-Arkell wrote the house-tree-

person (HTP) test is part of a wider genre of drawing-based tests that build upon one another and were developed over a hundred years ago. Since that time, teachers have looked at drawing as a way to both teach and evaluate their students (Inglis-Arkell, 2013). It was then that drawing and art became a cornerstone of children's education, and were seen as effective ways to accelerate development and evaluate progress.

Levin & Barry conducted a study to find out children's thinking about technology, in which children, when asked to draw a technologist, younger children greatly exaggerated the size of computer compared to themselves while older children drew the computers in proportion to themselves. The drawings were analyzed and it was found that objects of personal significance were emphasized, revealing the child's perspective (1997). This notion of personal significance was taken a step further by the findings of Lev-Wiesel and Al-Krenawi in 2000. This research provided the basis for determining what was most significant to the child, and allowed teachers and therapists to interpret that information (Walker, 2012).

Children's drawing was also effective for communicating deeper thoughts and emotions, giving both teachers and parents a better understanding of the children's mind. Drawing offers a powerful communication tool for transmitting ideas and concepts to others (Anning, 1997).

Tversky agreed that drawings are a tool to express ideas and help with memory and cognition (Tversky, 1999). Due to their ability to offer such powerful insight into the mind, perceptions, and emotions, drawing components have been integrated into several types of therapy. Miles believed that this drive to dovetail therapy and art stems from the early research and the recognition that art is a way to break down communication barriers (Miles, 2000). Talking about drawings is an effective way to encourage children to open up emotionally, which leads many researchers to believe that it can also help children's early literature development (Davis, 2005).

Research conducted by Gross and Hayne in 1998 suggested this for the first time. In their study, when children were given the opportunity to draw while talking about their emotional experiences, they reported up to two times more information than the children in therapy without a drawing component (Miles, 2000). Kendrick (2004) noted that drawing provided opportunities for young children ages five and six to communicate their literacy, knowledge and experience. Drawings allow for an open expression of feelings and thoughts making them a powerful tool for understanding children, improving therapy, overcoming other challenges in communication.

The Development of Children's Drawing

Even with all the ongoing research, there is no widely accepted rule for interpreting children's drawings, especially if they were spontaneous drawings. However, some clues have been identified from studies on children's drawings from different perspectives. Lowenfeld found that there are five stages of development in children's art depending on their ages (1957). According to Lowenfeld's five stages of development in children's art, children's drawings have the following characteristics: Scribbling, which occurs in years 2-4, has no realism in the picture. In the pre-schematic period (years 4-7) a very common error children make is the merging of the head and body without evidence of neck; the head and body are one entity. Details of many features are usually lacking, for example fingers, pupils and realistic lips. In the Schematic period of development (ages 7 and up) many detailed features of the object are present. There is much more meaning to the picture and evidence of schema is present (for example "v" shapes for seagulls). Children in the transitional period around 9 years of age attempt to produce artwork that meets adult standards, but it is not until the realism period at age 12 that the child becomes most critical and self-conscious about their ability to produce realistic artwork (Lowenfeld, 1957).

Art as a natural language develops as a child grows and matures. It is understandable then that children between the ages of 4 to 7 draw artwork that often lack specific details. Tversky verified this and adds that drawings can omit, distort or enhance things in the drawings (Tversky, 1999). For example, children often draw people as a circle for a face with arms and legs extending from it without the body. Children understand that people have necks, torsos and other appendages, but their vocabulary to express these parts both in drawing and in language is limited. Tversky noted that drawings reveal people's conceptions of things, but not the perceptions of things and this shows the inner reality of the child, not reality as the outside observer sees it (Tversky, 1999). By examining a child's artwork, educators can begin to understand what a child's viewpoint of the world might be, along with the vocabulary they use to describe it.

The Factors Influencing Children's Drawing

Many factors influence children's drawings such as family, friends and schools. Important information can be discerned from such drawings, including their interests and emotions. Oğuz wrote, "drawings are an important part of child's life. Children can describe their happiness, unhappiness, future dreams, past lives and continuing lives as they want through their drawings" (Oğuz, 2010, p. 3003). Children's drawings could also reflect their relationships with family members. Gur and Dilci found that through drawings, children expressed different family life styles, including jealousy, strong relationships with family members, or weak communication with them (Gur & Dilci, 2013). Clearly, drawings contain significant information that may be helpful in understanding a child's perceptions of his or her reality.

Children's drawings reveal many aspects of their life, including their family, cultural background and social environment. Included in their background and social environment are

friends, family, and teachers, who may appear in their drawings (Oğuz, 2010). Understanding children's perceptions, personality, and social environment can guide teachers in crafting a more effective curriculum, and thus enhance the children's education.

Children's Drawing, Thinking, and Communication

A child's drawing may reflect his or her thinking, although the drawing may not portray thoughts accurately. It is important to note that even though these internal representations might be inaccurate, we must not assume that they have no role in determining the outcome of the drawings because they reflect children's inner worlds and are their silent language (Brooks, 2009; Malchiodi, 1998; Ring, 2001). Changes in children's thinking become visible through changes in their drawings (Brooks, 2009). The process of drawing also clarifies the children's perceptions and makes them more concrete. According to Brooks (2009), drawing aids in the comprehension of vocabulary that regularly would only exist through recitation. Further, drawing includes the use of many mechanisms, including memory, experience, imagination, and observation (Brooks, 2009).

Discussing drawings improves the children's cognitive and communication skills. Brooks (2009) suggested that drawing stimulated higher cognitive functioning. In the study, drawing played a significant role in the growth and movement between spontaneous concepts and scientific concepts. Supporting a collaborative and communicative approach to drawing allows these children's efforts to assist in the development of higher mental functions (Brooks, 2009). A drawing can often give a much more complete picture and the thinking behind that picture than words alone and by analyzing drawings a researcher may gain a deeper understanding of their subject (Soundy, 2012).

Talking to the children about their drawings can also help adults avoid misinterpretation and over-interpretation. Drawing a response to a question is a more relaxing way for children, compared to writing a response, and may elicit additional information. Therefore, guiding children to write from an open-ended prompt is more limiting, as it relies on significantly developed cognitive factors, such as literacy (Miles, 2000). Miles noted that a child might bias his or her response to open-ended prompts because the child might feel intimidated by the writing process.

According to McGlynn (2011), images and pictures are a communication tool that has been used for centuries, even without supporting text and that children easily accept pictures as a form of communication. Picture books are attractive and effective tools used in early childhood literature education. Since picture books became popular, they became a means of both entertainment and education (McGlynn, 2011). In preschool and primary schools, picture books are the main format used to let children experience literature (Sipe, 1998).

Children's Drawing, Communication, and Literature

Incorporating drawing into the curriculum may have positive outcomes for forming relationships. Steele (2005) suggested that drawings can serve as a tool for starting conversations and as a means of expressing ideas about literature by conveying important themes. Because children are more comfortable drawing than talking, using this process can enhance relationships between children and adults (Steele, 2005). Bonding often occurs through the disclosure of life experience, and drawing can serve as a means to communicate these events.

Children's drawings can capture a variety of their sensory modes in a way that language cannot (Kendrick, 2004). As Kendrick and McKay (2002) noted, children often demonstrate a higher level of literacy in their drawings than may otherwise be evident, and that these drawing

provide an insight into the personal experiences of the child and how the child processes the world around them (Kendrick & McKay, 2002). Children will learn a new verb actively in literature when they talk about drawing it, which simplifies a complex “world of literacy”. As children apply new vocabulary to their drawings and use it in discussion, they are more likely to understand, remember, spell, write, and use the specialized language they encounter in informational texts (Block, Gambrell, & Pressley, 2002). Drawing narratives develop children’s early literature knowledge and aid communication in education. According to Burke (2012), children’s narratives provide insight into the connections that students make with course content.

The Role of Teachers and Parents in Children’s Drawing

Through providing children with opportunities to draw, parents and teachers can have a positive impact on the development of a child’s ability to express themselves as well as increasing the child’s creativity and self confidence (Oğuz, 2010). Adults could aid in increasing child’s self-confidence by respecting the child’s drawings, giving rewards, and providing positive responses (Oğuz, 2010). These positive interactions and encouragements can have a lasting effect and encourage further exploration of the child into the realm of personal expression.

According to Gardner (1999), humans have nine different kinds of intelligence that reflect different ways of interacting with the world. Each person has a unique combination or profile of such intelligence. Therefore, educators can guide a child to success by engaging the child’s talent through drawing (Gardner, 1999).

The inclusion of art classes in all levels of education has a positive effect on the classroom because it provides the skills students need to accurately represent things artistically. This then gives teachers the ability to integrate art into the classroom and provide context for lessons in all subjects (Nobori, 2012).

Conclusion

Current research suggests that drawing is a tool that can help teachers and parents understand children's thoughts, feelings and interests (Malchiodi, 1998; Oğuz 2010). Research has revealed that cognitive processes can be inferred from drawings and that drawings can be effective in determining literature comprehension. Children's drawings improve the depth of understanding between children and adults, in turn allowing for bonding opportunities. Discussing children's drawings and using drawings to tell stories accelerates children's literary development and rapidly improves their vocabulary. Incorporating drawings into education helps teachers develop effective learning materials and facilitate communication between children and teachers.

Chapter 3: Research Methodology

Introduction

The aim of this study was to explore the role of drawing's impact on literary comprehension for student's age five to seven. The research explored how K -2 students' drawings reflect their interests and emotions. The students' drawings also were used to analyze the role drawings play with early education and literary development. Researcher observation was used to collect data. This observation method has been used extensively with a long history in social research (Liu & Maitlis, 2010). Data collection included student assessments (See Appendix A) and teacher interviews (See Appendix E).

1. Do drawings enhance K-2 student's expression of thoughts and interests?
2. If so, can the drawings be used as a means for students to demonstrate their comprehension of a literary narrative as an alternative to oral confirmation of comprehension?

Research Design

Both qualitative and quantitative data were collected through interviews with teachers and assessments (See Appendix A) with two groups of students. The participants were divided into two groups with six students in the experimental group and six in the control group. Both groups were read a free verse by their teacher at the beginning of class. After the teacher finished reading the verse, both groups engaged in activities that determined their comprehension. Once finished, the experimental group drew an interpretation of what they heard. The control group proceeded with class without drawing and participated in the literature lesson and reviewed the vocabulary according to the standard curriculum. Following that, the students demonstrated their understanding orally to the instructor.

The researcher recorded qualitative data regarding the how the two groups differed in conversation based on the following criteria: depth of understanding, eagerness to participate, and willingness to share-outside-of-the-classroom information such as aspirations, hobbies, and interests. This information was gathered through in class observations and note taking by the researcher. The teachers were then interviewed by the researcher in a semi-structured format (see Appendix E). The researcher took field notes to record the teachers' responses. Finally, the teachers were asked if they would consider using drawings as a means of enhancing comprehension and as a tool for students to access language.

Once student assessments (See Appendix A) were conducted, which included a vocabulary exercise, poem recollection and the oral description of animals (results in Table 2-4), a reflection was gathered from the participating art and language teachers about what successes and failures they observed from both methods of instruction.

Setting. This research study took place at an after school program for grades K-6 in Northern California. The city has a total population of approximately 60, 000 residents. Sixty percent (60%) of the population is Asian and 31% is Caucasian. The after school program has approximately 100 students who have a variety of family backgrounds including Chinese, Indian, and American descent. The school appeals to a diversity of interests and offers a variety of programs including classes on the Arts, Chinese, Science and Martial Arts. The classes in which the research project was conducted included Kindergarten, First, and Second Grade students.

Participants. Participants included 12 students. Each participant was assigned a pseudonym to ensure confidentiality and anonymity. The student population consisted of four students in Kindergarten (five years old), four students in First Grade (six years old), and four students in Second Grade (seven years old). The participants were divided randomly within each

grade into two groups; each group included two kindergarten students, two first-grade students, and two second grade students. One group learned a Chinese free verse selection by drawing while the other group learned the same Chinese free verse selection without drawing. All of the students were born and educated in America and English was their first language, despite coming from a variety of family backgrounds and cultures. The two groups were given two teachers, one who taught the drawing and Chinese portion of the class, and the other who taught a language section, which included both English and Chinese portions in the studies. These teachers each had several years of experience and acted as facilitators of the research. The backgrounds of twelve students were the following:

Table 1

Student Demographics (All the names were encrypted)

Name	Sex	Age	Family Background
Betty	Girl	5	Chinese
Kelvin	Boy	5	Chinese
Chan	Girl	5	Italian and Chinese
Alex	Boy	5	Chinese
Priya	Girl	5	Chinese
Nihaj	Boy	6	Indian
Darab	Boy	6	Iranian
Mason	Boy	6	Chinese
Sarah	Girl	6	Chinese
Ryan	Boy	7	Chinese
Adel	Boy	7	Iranian
Julia	Girl	7	Chinese
Stella	Girl	7	Chinese

Implementation. The implementation was as follows:

Step 1. One group of students learned the free verse selection entitled “I am like a bird.” The second group, after learning the same free verse selection, was instructed by the teacher to draw pictures pertaining to the literature.

Step 2. The language teacher asked three questions to each student individually related to the story topic: First, which part of the free verse interested you the most? Second, why does that part interest you? Third, if you were the character in the free verse what would you have done? Then, the language teacher instructed the students to retell the free verse. The goal was to explore and uncover the students’ interests and thought processes.

Step 3. The teachers were interviewed after class, and the researcher analyzed the students’ drawings. The purpose of the interview was to collect information about the six students that relates their drawings to their interests, emotions, and literary development. Any difference between the groups was explained with and without drawing.

Step 4. In the final step, the researcher compared the performance of the two groups’ of students by analyzing the data statistically.

Data Collection Procedures

Intervention. The researcher observed students and teachers, and data (sample in Appendix F) were collected on the students’ drawings to determine if being afforded the opportunity to draw influenced students’ thinking and literacy development. Teachers were then observed asking the students questions related to their drawings. After class, the teachers were interviewed by the researcher to gauge how well they understood the students’ thinking. Finally,

the teachers guided the students to retell the free verse through drawing, and the teacher's interpretations of the drawings were noted. The data were analyzed using a qualitative approach, which consisted of interviews of the teacher/facilitators (See Appendix E), which is an important method in social research (Fossey, Harvey, McDermott & Davidson, 2002).

Data Collection and Sources

Quantitative data

A rubric was developed specifically for this research by the researcher, which was based on learning expectations that were expressed by the teachers with three different levels of performance in the assessments (refer to Appendix A). The rubric consisted of three parts - vocabulary, character exploration and plot recollection – and was used to evaluate the groups' free verse retelling performance. In the vocabulary section, students could score 1, 2 or 3 points depending on the amount of new words that were used in the retelling. Each student at the beginning of the section identified the new vocabulary words they learned. The students were awarded one point for a few new vocabulary terms; two points for some new vocabulary terms; and three points for many new vocabulary terms. In the character section, students earned 1, 2 or 3 points depending on the frequency that characters were mentioned and their actions explained. Again, one point for almost no mention of the characters; two points for some mention of the characters; and three points for near-perfect recollection of the characters and their motives. Lastly, 1, 2, or 3 points were awarded for accurately recalling the plot (See Appendix A).

Quantitative Data Analysis

Data were analyzed and compared between the experimental group – the one participating in the additional drawing and language components of class - and the control group that followed the traditional curriculum. Each week, two rubric scores were given to the

assessments (See Appendix A) of both the control group and the experimental group. The participant students were grouped randomly at each grade level in the control and treatment groups before the research study. The data for all the 12 students were analyzed. A chi square (χ^2) statistic was used to investigate the results.

Qualitative Data

The qualitative data collection consisted of observations, interviews and descriptive narratives. Data collection was carried out over a four-week period.

1. Observation: The students' performance and the teachers' guidance in the classroom were observed. The data, consisting of field notes taken during each observation period, from the observations were used to identify how drawings can reflect the student's interests and thoughts. Furthermore, the observation allowed the researcher to identify the potential benefits of using drawing while teaching literature to young students.
2. Semi-structured Interview (Appendix E): In order to provide reliability, two teachers were interviewed and the data from the interviews was analyzed.
3. Descriptive narratives: A daily journal was kept by the researcher to record observations of students' activities and the differences between the two groups' comprehension of the material.

Qualitative Data Analysis

The field notes from the observation periods, the interviews with students and teachers and the daily journal were analyzed to determine if there were any emerging themes. Each piece was analyzed individually as well as in comparison to the other pieces of data within their group. Finally the data of the control group was compared to the treatment group.

Chapter 4: Findings

Introduction

Qualitative research methods were used to obtain the findings from observations made by the researcher as well as interviews with the involved teachers. Quantitative research methods including mean and chi square were used to analyze the research results statistically. To ascertain the impact of the treatment, control and experimental groups were established. The classroom teachers utilized three rubric-scoring indices to evaluate each student's comprehension of the material (Appendix A). Three observations by the researcher were then arranged on separate days. In addition, one-on-one structured interviews with teachers were conducted to ascertain their perceptions regarding the impact of drawing on student expression and literary comprehension. The data from the observations, grading rubrics and interviews were triangulated and five themes emerged from the data:

- Drawing is a way of revealing a student's thoughts and interests.
- Drawing enhances students' memory, and they recall more information from free verse poem.
- Students could improve their literature comprehension when they talk about their drawings.
- Drawing improves student's literature comprehension.
- The teacher facilitates student's oral confirmation of literary narratives.

Revealing Students' Thoughts and Interests

Two separate groups of students in three grades were observed. These students were all native English speakers and were taught a traditional Chinese free verse poem. The teacher in the treatment group in the kindergarten classroom asked the students to illustrate the poem called "I

am like a bird” (See Appendix C) after the poem was read aloud. The teacher then went around the table and encouraged the children to talk about their drawings. This discussion period allowed the teacher to identify individual student’s thoughts and interests through the discussion. One instance of this involves a boy named Mason who drew a flag in front of the horse (found in the poem) and wrote “horse winner” on the flag. Because there is no flag in the poem, this drawing attracted the teacher’s attention, so he talked to Mason. Here is their discussion about Mason’s drawing (See Figure 1):

Teacher: “The horse is a winner?”

Mason: “Yes, she is a winner.”

Teacher: “So I guess you like the horse best among these animals?”

Mason: “Yes, the horse runs faster”

During the conversation, Mason’s excitement level was elevated when he talked about the horse.



Figure 1. Mason’s drawing of the horse winner.

In the kindergarten class, most students drew a picture related to the topics and characters found in the story, but one boy named Alex chose not to draw a picture related to the poem. He instead drew some pictures freely without using colors (See Figure 2).

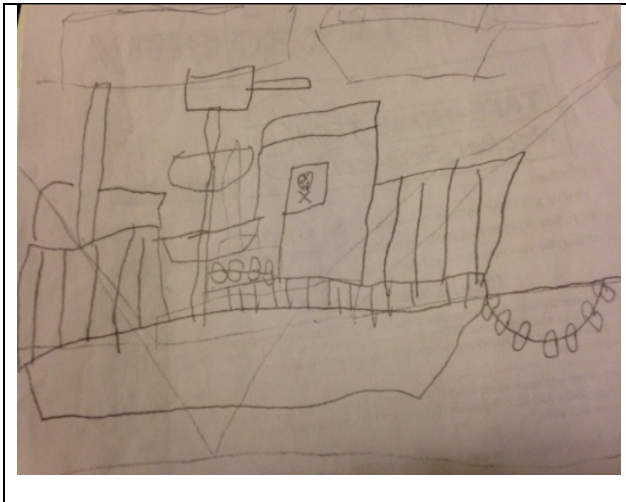


Figure 2. Alex's drawing of the boat.

Teacher: "Why you didn't you draw the animals?"

Alex: "I do not like [animals], I like to draw what I want."

Teacher: "Ok, what did you draw instead?"

Alex: "A boat."

Teacher: "A boat? Where will this boat go?"

Alex: "China."

Teacher: "Why?"

Alex: "Because my grandpa and grandma are living there."

Teacher: "Oh, you miss them..."

Alex: "No, I just have been there before."

From this discussion with the teacher, we know that Alex's, grandparents live in China, and he visits them occasionally. On another day, Alex drew a castle (See Figure 3):

Teacher: "Why did you draw a castle?"

Alex: "Because I like [castles]. I draw a lot [of them at] home."



Figure 3. Alex's drawing of the castle.

In this example, we learn that Alex's drawings reflected his thoughts and interests above and beyond the subject matter presented by the teacher. In the second grade treatment group, it was found that the colors Julia, another student, used reflected her interests (See Figure 4).

Teacher: "Oh, a brown horse."

Julia: “Yes, I saw a white horse and a brown horse, but I liked the brown horse better.”



Figure 4. Julia’s drawing of animals.

Additionally, Stella, a student in the treatment group, later told the teacher that her favorite animal was a horse, because her brother was born in a horse year according to the Chinese Zodiac Calendar (See Appendix B).

Ideas also emerged when the children sat together and drew pictures. Some students talked about stories from their life experiences, including stories about their families. Here, one sees a connection to the Chinese free verse poem and students’ home lives. Further, sharing ideas may improve students’ interests in drawing. For example, Stella drew animals, including chicks beside a warehouse (See Figure 5). She told the teacher that a friend of her mother raised chicks at a farm. Therefore, her drawing showed her perceptions of her life experiences in a manner similar to the way that Julia preferred brown horses.



Figure 5. Stella's drawing of animals near warehouse.

Another student, Chan drew a fish in an aquarium (See Figure 6). When the teacher asked about his picture, we understand how children use their drawings as a way to relate to their personal experiences with others.

Teacher: "So, you drew a fish in an aquarium?"

Chan: "Yes, I have fish at home."

Priya, who sat beside Chan, did not draw a glass box at first. When she heard the dialog between Chan and the teacher, she added a glass box to her drawing (See Figure 7). This demonstrates that her thoughts and actions could be affected by others' ideas.



Figure 6. Chan's drawing of fish and flower.



Figure 7. Priya's drawing of fish and flower.

When students did not know how to draw, the art teacher would draw some examples on the whiteboard. The students were all able to successfully draw with the teacher's help. An example of this is Sarah who did not know how to draw at the beginning of the class, but she did not give up. With the help of teacher, she drew a picture (See Figure 8).

Teacher: "There are 3 fish in pond?"

Sarah: "Yes, mother fish and her daughter[s]"



Figure 8. Sarah's drawing of animals.

Interestingly, despite the student's drawings looking much different than the teacher's, there were similarities between some of the K and 2nd grade girls' drawings. For instance, Julia and Stella always draw pictures together, and they are good friends. Moreover, Julia liked to add some of the same items that she became interested in after looking at Stella's drawings. Through the observation, it seemed that Chan and Stella did not mind other students copying their ideas. These results are in contrast to the researcher's previous working experience in a learning center where some students always complained that other students copied their drawings.



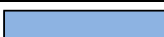









Drawing May Enhance Students' Memory

In the classrooms of K-2nd grade students, the two groups of students were requested to speak out new vocabulary terms after they learned the Chinese free verse poem entitled "I am like a bird" (See Appendix C). The poem included seven types of animals, six verbs, and eight sentences. Three requests were made to the students. First, students would recall the name of seven animals. Second, students would describe each animal's character with verbs. Lastly, students would attempt to recall the free verse poem.

Through comparing the rubric scores of the two groups (See Table 2), some differences were noticed. In the kindergarten classroom, Priya could remember and speak more words compared with the others with the drawing aid and her performance was influenced by the drawings. Priya was especially active in the classroom. When the teacher asked, "how are birds able to fly?" she raised her hand first, and answered: "because birds have wings." When another student had a question about why eagles can fly higher than smaller birds, she responded, "Because eagles have bigger wings." However, when she recalled what animals she learned, she recalled the same five animals that Chan and Kelvin recalled. Then, the teacher encouraged her to continue thinking about more animals by showing her a drawing after a few seconds. "Oh, a chick...", said Priya, "I remember...". She seemed embarrassed that she forgot an animal. Chan was quieter than Priya, and she recalled three animals rather quickly, and then added another after further thought. However, Chan did not recall any more after looking at her drawing. It seems her drawing was unhelpful because there were no cues for the animals she left out of her drawing.

Table 2

Summarizes the Data from the Vocabulary Exercise

Group	Grade	Name	Point	Average
Control	K	Betty	 1	1.83
		Kelvin	 2	
	1st	Nihaj	 2	
		Darab	 2	
	2nd	Ryan	 2	
		Adel	 2	
Treatment	K	Chan	 2	2.5
		Priya	 3	
	1st	Mason	 2	
		Sarah	 2	
	2nd	Julia	 3	
		Stella	 3	

In the first grade classroom, students' performances from both groups were the same, according to their rubric scores. More information was obtained from an interview with the teacher that many people in the school knew that Nihaj and Darab had learned Chinese prior to this research study. This was verified in the observation that they both had good pronunciation in Chinese.

In the second grade, the treatment group scored higher than the control group. Through the observation of these three classrooms, two thirds of the students could remember more new vocabulary when using drawing as a media tool. Compare the control and treatment groups regardless the ages, their performances were not obvious different ($\chi^2=3.28$, $p\approx 0.19$). However,













the effectiveness of drawing aid should not be neglected because the limited sample size in this study.

According to the findings, the control group could recall four to five animals. However, when the teacher encouraged the students' to recall animals by describing characteristics using verbs, the students could recall one or two more animals. Moreover, after the treatment group looked at their drawings, two thirds of the children could recall at least two more animals. This was especially prominent with the second grade students, who could recall the rest of the animals after viewing their drawings. It was noticed that Stella recalled six animals very easily while Julia recalled three animals when they did not use drawing aid. Since Julia's drawing contained some animals that she did not recall at first, her drawing was helpful in reminding her of the other three animals.

In the control group of the kindergarten classroom, Betty recalled two sentences from the poem, while Kelvin recalled four sentences. In the treatment group, Chan recalled four sentences and Priya recalled six sentences. In the first grade classroom, Nihaj and Darab from the control group recalled six and five sentences respectively, whereas in the treatment group, Mason and Sarah recalled six sentences. In the second grade control group, Ryan recalled seven sentences, and Adel recalled six sentences; Julia and Stella from the treatment group recalled seven sentences of the poem. Although the performance difference between the two groups was not obvious in statistic analysis ($\chi^2=4.50$, $p=0.11$), the qualitative analysis provided evidence of stronger recall by the students in the treatment group rather than the control group.

Table 3

Summarizes the Data from the Poem Recall

Group	Grade	Name	Point	Average
Control	K	Betty	 1	2.17
		Kelvin	 2	
	1st	Nihaj	 3	
		Darab	 2	
	2nd	Ryan	 3	
		Adel	 2	
Treatment	K	Chan	 2	2.83
		Priya	 3	
	1st	Mason	 3	
		Sarah	 3	
	2nd	Julia	 3	
		Stella	 3	

Drawings Improve Oral Expression of Literature Comprehension

The children liked animals regardless of which group they were in, and nearly all students showed interest in learning the animal's characters. However, in the control group, when they described animal's character with verbs, they answered quickly, but forgot the information easily. There are some differences in performance that were discovered from the rubric scores (See Table 4).

Compared to the control group, students in the treatment group were more excited to talk about animals for longer periods of time and their performances were better as well ($\chi^2=6.28$, $p<0.05$). The average point in the control group is 1.83 while the one of the treatment group is

2.67. Thus indicating that the treatment group had increased retention. Although the control group students were active in the discussions they recalled less information than the treatment group. Moreover, the control group became frustrated if they did not recall the information instantly. An example of this was Ryan from the control group. Ryan studied hard, and he asked more questions than the other students. When the teacher said eagles could fly higher than small birds, he asked, "Why can an eagle fly higher than a small bird?" However, despite his involvement in the discussion, when it was his turn to describe the animals, he became nervous and was unable to answer the question.

Ryan said: "Eagles can fly, frogs can jump..., birds can fly too..., oh, horse can run..., and...En...I don't know."













"Are any animals in the water?" The teacher tried to remind him.

Ryan responded, "I do not know, ok..., I do not know..." and he gave up.

In the treatment group, when a student tended to give up, he or she was allowed to take a look at his or her drawing as a reminder. In this way, some students would gain confidence and try to recall more of the story. For example, Julia used her drawing to assist her memory: She said, "Oh, yes, there is a fish...fish can swim, but the fish cannot fly, ha-ha." After recalling the last animal through the drawing aid, she laughed and was satisfied with her answer. This again reinforces the idea that drawing improved recall as well as providing a reference point for students to look back upon.

Table 4

Summarizes the Student Performances in Describing Animals

Group	Grade	Name	Point	Average
Control	K	Betty	 1	1.83
		Kelvin	 2	
	1st	Nihaj	 2	
		Darab	 2	
	2nd	Ryan	 2	
		Adel	 2	
Treatment	K	Chan	 2	2.67
		Priya	 3	
	1st	Mason	 3	
		Sarah	 2	
	2nd	Julia	 3	
		Stella	 3	

The research also showed that the students' hand-drawn illustrations were more useful in recalling information than an instructor's prompting in most cases. The drawings gave students more confidence to speak, and encouraged them not to give up if they stumbled. A student drawing the information provided another processing opportunity for the student and so recall was enhanced.

Developing Children's Literature Comprehension

After the teacher taught the students the poem in both English and Chinese, they were asked to answer three questions (See Appendix D) to improve their comprehension of the work. Students needed to tell the teacher their favorite animal, and which animal they would like to be

if they could be one of the animals. In the control group of kindergarten students, many of the students' answers were conventional. Betty liked small birds the most because she wished to be a bird herself. Kelvin said she wished to be an eagle because she wanted to fly even higher than a bird.

Conversely, instead of relying on the animals' attributes, students in the treatment group answered the questions with reference to their drawings. For example, Chan said her favorite animal was the fish, but she did not want to be a fish. She explained that it's difficult to breathe in the water and even harder to breathe while swimming. She pointed at her drawing (See Figure 6), which has a flower with big happy face on the paper, and said, "I want to be a flower. The flower is happy." Unlike Chan, Priya liked the fish the best because of the way she had drawn and colored it (See figure 7).

Teacher: "Which animal do you like the best, Priya?"

Priya: "I like the fish."

Teacher: "Why do you like the fish?"

Priya: "She can swim in the water."

Teacher: "Wow, it's a really colorful fish."

Priya: "Yes."

Teacher: "Why did you choose these colors?"

Priya: "Because the fish would feel cold in the water without color."

Students' drawings reflected both their imagination and inner thoughts and beliefs.

Instead of relying on oral confirmation alone, the comprehension of the students in the experiment group could be measured by the details found in their drawings, and provided the teacher with another way to evaluate the student's comprehension.

There was no better example of this than when Stella, a student in the treatment group, drew a pig and sheep, which were not in that day's poem. She explained that pigs and sheep like to live in the barn as well and described an entire narrative using the animals. She described, "The horse was running after a butterfly. The bird guards the other animals. Frog touches his belly while the fish swims in the water. And the fish is happy because she's smiling."

The Teacher Facilitates Children's Oral Confirmation of Literacy Narratives

The role the teacher plays in facilitating the oral confirmation of literary narratives should not be understated. Each teacher was competent in executing his or her role of promoting students' oral confirmation of literacy narratives, and when students stumbled, the teacher gently corrected them. The teacher tried to relate to the students' drawing by asking questions that evoked emotion and improved students' motivation to comprehend the literature.

In an interview with Teacher B, he said he believed that a teacher could understand what the students' interests were from their drawings. When the teacher discussed a drawing with a student, he used welcoming language like "I guess...", "It is interesting..." etc.

It is also important to consider how best a teacher can facilitate children's drawing. The teacher ran into problems with the treatment group when Alex did not draw a picture related to the topic and when Sarah, who wanted to draw, did not know how.

In the interview, Teacher B said, "When facilitating students' drawing, the teacher should provide not only paper, crayons, but also some sample pictures, or demonstrations for the students, which will lead to good results." He continued, "Different students have different drawing styles, but each student delights and surprises when I talk about his or her drawing."

When he was asked what the most important take-away was about using art in the classroom, he answered, "Give students confidence about their drawings." In the treatment group

classroom, teacher B often said words such as “the color you picked is beautiful,” “the chick you drew is cute,” and “look how nicely it turned out.”

In this way the teacher used the discussion to help children acquire more vocabulary to build simple sentences. For example, when the teacher asked Sarah about her drawing (Figure 8), “What is the horse doing?” She said, “She wants to swim with fish.”

Summary

The results indicate that drawing magnifies some student’s interests, thoughts, and expressions helping them to use and retain information over longer periods of time. The above findings showed the value of using art in kindergarten through second grade classrooms to help develop literature comprehension as well as to improve the student’s ability to speak about one’s work.

While the correlation was not strong between the quantitative findings and the intent of the study, the qualitative results as evidenced by the interviews with the teachers provided much more evidence that drawing is an important teaching technique that improves student recall and comprehension of both written texts and oral story telling. Additionally drawing helps to imprint upon students vocabulary and details of stories needed for future lessons.

The findings provided evidence that drawing can play an important role in enhancing students’ oral expression and literacy development. The data collected also supported the five common themes identified for the purpose of this research. The next chapter will present an in-depth discussion, tying the results of this study to extant literature. It will also address the limitations of the study so as not to exaggerate the findings but to add to an established knowledge base.

Chapter 5: Discussion

Introduction

The findings obtained from the case study were conducted with one afterschool program, which used drawing to assist language learning for primary school students. The main findings of the research demonstrated how drawing can reflect students' thoughts, interests and expressions, and its active role in promoting students' oral confirmation of literature comprehension. All the research data were collected from a kindergarten through second grade Chinese language classroom. It was found that drawing, combined with regular curricula, could help students to meet the expressed desired learning outcomes of teachers more easily than just the curriculum alone.

The findings suggest that drawing reinforces the material students learned in class and provided evidence that student's literature development was enhanced in a school where teachers helped facilitate students' oral confirmation of literature narratives. The short overview of the literature and research suggests that drawing plays a significant role in students' early language learning. The data collected for this investigation also confirmed the literature related to drawing and language development. The main purpose of this study, hypothesizing that the role of drawing in promoting students' early literature development and expression reveals the relationship between students' drawing and their interests by incorporating drawing in student's early language curriculum, proved not only to be a successful hypothesis but also resulted in a valid correlation.

After comparing the performances of the treatment group and the control group, it was evident from higher rubric scores and observation that students used the act of drawing as a media tool to help recall more information from what they learned. Students from the treatment

group acquired more vocabulary, recalled more sentences from the poem, and described the characters with more details than the control group students who learned the Chinese literature without a drawing aid. According to Block, Gambrell, & Pressley (2002), it is well known that as children apply new vocabulary to their drawings and use it in discussion, they are more likely to understand, remember, spell, write, and use the specialized language they encounter in informational texts.

Rubric scores used to evaluate students' vocabulary and memorization of the material showed that the treatment students retold poems more accurately after drawing a visual scene and achieved better performance, explored more critical and imaginative ideas, and overall improved their literature comprehension. Kendrick (2004) while conducting research of a similar nature, found that in students ages five to six drawing communicated their literacy knowledge and experience better than using text by itself.

Beyond the quantitative data, the interviews with the teachers reinforced the notion that students' drawing could be an assessment of what concepts the students understood and what knowledge they learned. Inglis-Arkeel (2013) recommended that drawings should be used as a way to both teach and evaluate students. By retelling a story with a visual aid, the treatment group students integrated what they learned, consequently revealing more details related to the story.

Brooks (2009) believes that drawing plays a significant role in the growth and movement between spontaneous concepts and scientific concepts. Supporting a collaborative and communicative approach to drawing allows teachers to better assist in the development of higher mental functions. These findings and previous literature lend credence to that theory. Also

confirm, in answer to the second question, that drawings can be used as a means for students to demonstrate their comprehension of a literary narrative as an alternative to oral confirmation.

Results of Finding

In the research study, each of the students in the treatment group drew a picture based on the Chinese poem “I am like a bird,” which they learned in both English and Chinese. These pictures reflected their favorite colors and animals, parts of their personalities and often something they experienced in their lives. The idea that drawing can be used as a learning tool is not wholly unique or novel, and previous literature on this topic correctly hypothesized that by using students’ drawing as medial tools teachers could learn more about their students’ inner psyche. In fact, according to Anning (1997), drawing is a powerful tool one may use to clarify one’s own thinking, or communicate ideas and concepts to other people. Based on the data collected during the study, the treatment group students could recall more vocabulary from what they had learned in class than the control group students. Another prominent researcher on the subject of childhood learning, Tversky (1999), believed that drawings were a kind of external representation, and is one of many cognitive tools that can facilitate people’s memory and thinking. Based on the observation, the treatment group students’ behavior in the current study corroborated Tversky’s research. For example, when the teacher talked to the students about their drawings, students would be happy to share their interests and respond with creative and imaginative thoughts and feelings. As Soundry (2012) indicated, a picture is often a deeper expression of one’s own thoughts than one can communicate verbally.

As discussed in Chapter Four, both qualitative and quantitative research methods were used to analyze the data from the observations made by the researcher, the rubrics used to score literature comprehension, and interviews with the participating teachers. Through the observation

of the treatment group in the first grade classroom and interviewing the teacher, it was found that although some students did not like to draw a picture about the subject matter, most of the students like to draw. However, some students did not know how to draw, though they were willing to get the help from the teacher and eventually completed the task.

From the data obtained in the research, it appears that primary school students' drawings reflect their interests, thoughts and expressions, regardless of whether these pictures were drawn about the subject matter presented by the teacher or drawn freely from the student's own imagination. As predicted, when the teacher talked to a student about his or her drawing, the student's interests, thoughts and expressions were identified.

By observing the primary school students' drawing activities in the classroom, it became clear that when the students sat down and drew pictures together, they shared their critical ideas and life experiences. Additionally some students did not mind other students copying their work and encouraged collaboration. This corroborates research indicating the social and non-competitive nature of students. Farokhi & Hashemi (2011) thought that insights can be gained as to the social experience of each child through the children's drawing, and each child's social experiences were added to pictures by children (Farokhi & Hashemi, 2011). Based on this data, an interesting unintended result was obtained that the girls were more social than boys when they were drawing. Another finding in the research was that when students answered questions and described the character from the poem with the use of the drawing aid, they were more relaxed and had more motivation to engage in conversation.

When comparing rubric scores of the two groups, time and time again the drawing aid helped the students to present more details about the story. It seems that when teachers incorporate students' drawing into the curriculum, students draw more specific content, leading

them to retain the more specialized information. Moreover, when students were requested to retell the poem, students performed better with the aid of their drawing. Their ability to recreate the narrative was also improved. Though the research did not track this explicitly, even the assessment portion became easier and more fun for students when drawing played a role in the assessment.

Action Plan and Implication

This research suggests that drawing should be part of the regular routine in schools' curricula for the language study of all students in primary school. Drawing should also be a regular part of family time, and adults should encourage children to talk about their drawings. The curriculum should be organized to provide students with the opportunity to draw at every opportunity. Since some students cannot draw, teachers who have art skills should give demonstrations, and teachers who do not can provide students with example pictures. Schools will need, of course, to provide adequate drawing supplies in the classroom.

This research has shown a positive correlation between drawing as a teaching aid and students' retention of information. Accordingly, parents and teachers should pay more attention to students' drawing and change the traditional dogma that drawing has no connection with any academic subject or provides no academic value. It has become the norm for educators to ignore children's drawing unless it is extreme in its content or above the standard for their age. Artwork contains meaningful information – no matter if it is on walls, doors, the floor, refrigerators, notebooks or coloring books. In addition, drawing is not only a way to express ideas but also serves as an alternative expressive language for children. However, if children were provided an opportunity in school to hone this expressive form of language, much like their native language, adults would discover the connection between the children's drawing and their critical thinking,

imagination, and thoughts while providing teachers another tool to develop and promote comprehension.

The importance of improving literature comprehension and the firsthand experience showed how drawing can help students improve their oral descriptive ability and work on their critical thinking skills. Furthermore, it may be that the act of drawing is like pre-writing for the brain, building stores of information and organizing it into cohesive ideas. Based on the research data, when students recalled information from the class, those who had a drawing aid had more motivation to express their ideas in the discussion and used more effort. Thus children should be encouraged to practice drawing regularly or even every day, both inside and outside of the classroom. Drawing activities could be part of the daily routine in schools' curriculums and a regular part of family time. Moreover, adults should encourage children to talk about their drawings, thus improving the child's critical thinking and expressive abilities when he or she is back in the classroom.

Through this research, it was found that when students explain their drawings in a language classroom they have a way to express their critical thinking, develop better literature narratives, and practice public speaking. It is no wonder that some Chinese afterschool programs regularly use drawing to help children learn Chinese writing and pique their interest in the material. The norm, however, is that most afterschool programs and public schools refrain from using art within the core curriculum, despite the inclusion of art as a core subject in the No Child Left Behind Act (Drucker & Soundy, 2009). Sadly, drawing is not valued enough in the design of primary-school language-learning curricula.

As a teacher in an afterschool program, the author suggests to use drawing to help students improve how they express the information they have learned. The curriculum can be

arranged to have drawing practice one or two times a week. It must not be understated how valuable using drawing as an education tool in the classroom.

As an example of what this might look like, a class's drawing component might have three parts. Students, after learning a story or small vignette from their teacher, would be encouraged to draw a picture related to topics from the story. For the drawing process, they would be arranged into groups to more easily share their thoughts or discuss new ideas with other students. After discussions in the groups, every group would elect a presenter to summarize the group's discussions and comments. In the next class, a second member of each group would give a presentation to the class.

By presenting each other's work and points from the discussion, the students would develop their social skills and ability to cooperate. The group presenter should ask someone to help him or her when needed, so that other students and the teacher could give him or her support, thus building up the students' confidence and maintaining a good learning climate in the classroom. Throughout this process, the teacher would ask questions on the material. As a bonus for participating, students might receive extra credit for answering questions actively and thoroughly. Finally, a handful of students would represent their ideas, describing the characters from the story and recalling what they had learned by addressing the class with the help of their drawing aids. These learning activities, as mentioned earlier in the findings, meet the foreign language framework for California public schools language learning continuum stage I standard.

This strategy of using artwork as a means of retrieving information should not be limited to foreign-language classes. It would also work for early-childhood English classes as a way to further enrich the students understanding. Teachers must develop their students' ability to use language effectively. We ask, "What exactly is a good speech? How do we get students to speak

and present effectively?” In addition to simple practice, students need more than one method to improve their oral expression. The research data show that drawing is an effective way to help students improve their oral expression and their understanding of the literature they read.

Depending what medium the teacher chose, schools would need enough drawing supplies in the classroom, such as crayons, color pencils, and watercolor brushes.

The integration of drawing into primary-school language classrooms benefits both teachers and students. When students create visual aids, they explore their imaginations, improve their oral expression, and create their own versions of the literature’s narrative. Students’ artwork gives teachers a way to find out about students’ interests, thoughts, and emotions as the students discuss their drawings. Having learned students’ interests, teachers can better guide students to improve their comprehension of vocabulary, as well as also learning social and public speaking skills. According to Howard Gardner’s Theory of Intelligence (1999), humans have nine different categories of intelligence that reflect different ways of interacting with the world. Using drawing in the classroom is one more way to help students who are visual-spatial learners to comprehend and retain information.

Overall, it is recommended to utilize drawing to assist language learning for all students in primary schools. Every elementary school or afterschool program should integrate drawing into the curriculum and provide such a class once or twice a week. Learning how to integrate drawing efficiently on a systematic level is a critical and valuable topic, worthy of its own study further on.

Researcher’s Reflections

The researcher believes every child has the inalienable right to express him or herself in all forms. In multi-cultural classrooms, when children share a story from their cultures or unique

background, they display a level of understanding and communication that is not bounded by their limited language or knowledge of the world – even sometimes surpassing the adults around them if they are able to utilize drawing as a medium. According to Denti and Guerin (2012), “Social justice demands that the laws that assure public education for all and that require regular school attendance become a reality for all students and that education serve the needs of both individual and society” (p. 118).

Moreover, the researcher believes that students have the right to express their thoughts, and improve their cognitive development without judgment of their cultural or socio-economic backgrounds. Teachers and parents, as much as they strive for understanding, typically do not attempt to understand children’s inner worlds often trivializing children’s thoughts. Therefore, when adults analyze a child’s drawing, they should consider it not only as a tool for communication but also a child’s primary way of expression, and respect it like they would do in a conversation with another adult.

Limitations

This research is limited by its sample size and length of the time of the study. As a result of the small sample size, it is hard to draw an accurate, mathematically significant conclusion without more data and a more diverse set of students. It should also be noted that this research investigated the role of drawing in primary school classrooms and that the findings are only associated with one afterschool program. Participants were also limited that just twelve students were included. Parents were not involved in the research. Students who are used to learning language through traditional means may need more time to adapt to the incorporation of drawing into the curriculum. Obviously, time is a scarce resource in the classroom and there may not be enough time to fully commit to using art every week unless drawing was integrated into the

curriculum. The outcome also might be different if the research is conducted in a public elementary school setting. Utilizing multiple classes, schools, and conducting the study over several years would have helped alleviate these limitations.

A potential limitation of this research was that the data might have been biased in that the students might have behaved differently during observation than they would in normal classroom settings. Also, the students in the treatment group might need a longer time in the study process because of the additional time working on the drawings.

Also, because some students do not know how to draw or lack confidence in their drawing skills, the overall effectiveness of this research will vary from student to student. Moreover, some students do not like to learn language through drawing at all, choosing to completely ignore the story. To avoid compromising student learning, video recorders and cameras were not allowed in the class during the observation, making it difficult to record all details of the research activities. Some students' performances also would be affected by the present of the researcher's observation.

Yet these limitations also point to directions of further study that should be undertaken. The promise of enriched language comprehension suggested by this study leads one to design a longer-term study that would cover multiple ages, schools and regions. Ideally this new study would be a multi-year study involving the same students over several years. This further study could also examine any changes in student comprehension as they moved from a non-drawing class to a class incorporating drawing.

Conclusion

A common complaint from the parents of students in language programs is that their children give up on learning Chinese too easily or lack the ability to focus on their studies. Like

most classes, learning a language is frustrating at times and rewarding at others. How to best help children learn by magnifying their interests is an eternal topic in education and is of particular importance in primary grade education. Introducing visual arts as a media tool is a promising way.

This research also gave a new perspective on children's drawings especially how their family, school, and life environment affected the content of their drawings. The drawing could also reflect children's thoughts, interests and expression. But more exciting things learned in this research are that students' talking about their drawings joyfully in the classroom, their comprehension of the literature greatly improved and a new platform for the children to share their thoughts and views of the world. Therefore, adults, teachers, and students should give children more opportunities to explain their drawings. Integrating drawing into the curriculum can help to elevate children's interest in language learning and improve their skills such as public speaking and collaboration.

As for students' cognitive functioning, visualizing a story and recreating it through drawing allows students to process abstract ideas. Using drawing as an educational tool and approach proves to be an efficient and relaxed way to learn a language and improve comprehension from narrative text.

Students between the ages of five to seven need to be encouraged to express their thoughts and interests in alternative ways in order to meet new rigorous literacy content standards. This research has shown that incorporating drawing into the classroom, even for one or two days a week can play an important role in enhancing literacy skills to meet educational standards.

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Appendix A

Learning Section (Assessment Preparation)

Both groups (control & treatment) of students would learn the Chinese free verse entitled “I am like a bird” (See Appendix C). The poem has seven types of animals, six verbs, and eight sentences. Each student in the treatment group is asked to create a drawing according to the poem. The students in the control group do not make any drawing after learning the poem.

Assessment Steps

In the treatment group, each student would be asked to do the following steps and allowed to use his or her drawing as a reminder.

1. Recall the names of the seven animals in the poem.
2. Describe each animal’s character with the verbs.
3. Recall the free verse poem.

In the control group, each student would do the same steps listed above without any drawing aid.

Each student will be given a score for his or her performance according to the following rubric.

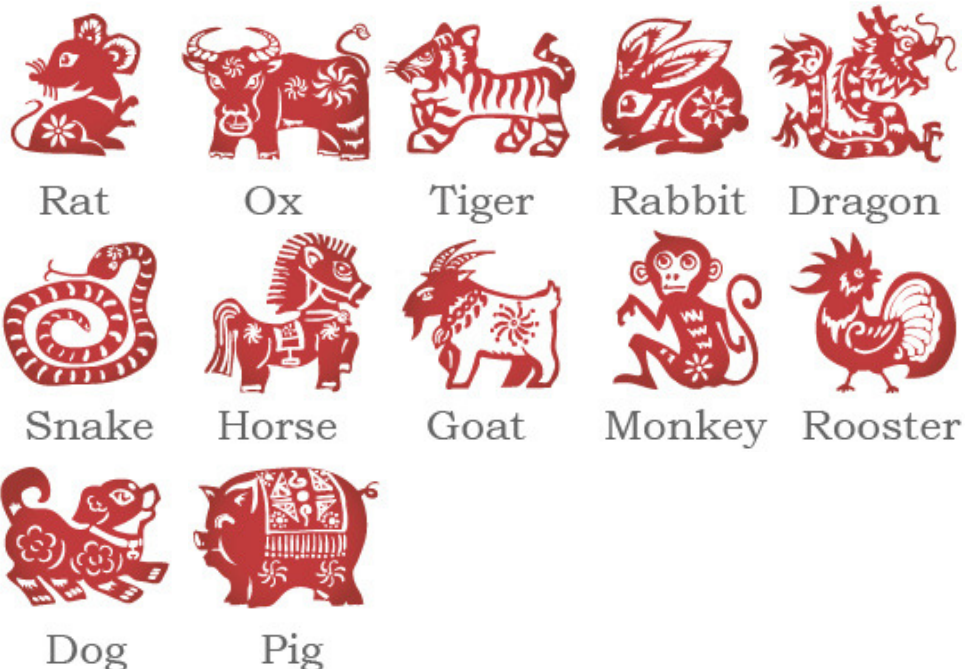
Assessment Rubric

Kindergarten			
Points	1	2	3
Vocabulary	2-3 animals	4-5 animals	6-7animals
Describe animal's character	Describe animal's character with 2-3 verbs correctly	Describe animal's character with 4 verbs correctly	Describe animal's character with 5 verbs correctly
Retelling poem	2-3 sentences	4-5 sentences	6-7 sentences
First grade			
Points	1	2	3
Vocabulary	3-4 animals	5 animals	6-7animals
Describe animal's character	Describe animal's character with 3 verbs correctly	Describe animal's character with 4 verbs correctly	Describe animal's character with 5 verbs correctly
Retelling poem	3-4 sentences	5 sentences	6-7 sentences
Second grade			
Points	1	2	3
Vocabulary	4 animals	5 animals	6-7animals
Describe animal's character	Describe animal's character with 4 verbs correctly	Describe animal's character with 5 verbs correctly	Describe animal's character with 6 verbs correctly
Retelling poem	4 sentences	6 sentences	7-8 sentences

Appendix B

The 12 Animals of the Chinese Zodiac (Wu, 2015)

In order, the 12 animals are: Rat, Ox, Tiger, Rabbit, Dragon, Snake, Horse, Goat, Monkey, Rooster, Dog, and Pig.



Chinese Zodiac Calculator — Find Your Animal Sign

Your Chinese Zodiac sign is derived from your birth year, according to the Chinese lunar calendar. See the years of each animal below or use the calculator on the right to determine your own sign.

Those born in January and February take care: Chinese (Lunar) New Year moves between 21 January and February 20. If you were born in January or February, check whether your birth date falls before or after Chinese New Year to know what your Chinese zodiac year is.

- Rat: 2008, 1996, 1984, 1972, 1960 Ox: 2009, 1997, 1985, 1973, 1961 Tiger: 2010, 1998, 1986, 1974, 1962
- Rabbit: 2011, 1999, 1987, 1975, 1963 Dragon: 2012, 2000, 1988, 1976, 1964 Snake: 2013, 2001, 1989, 1977, 1965
- Horse: 2014, 2002, 1990, 1978, 1966 Goat: **2015**, 2003, 1991, 1979, 1967 Monkey: 2016, 2004, 1992, 1980, 1968
- Rooster: 2017, 2005, 1993, 1981, 1969 Dog: 2018, 2006, 1994, 1982, 1970 Pig: 2019, 2007, 1995, 1983, 1971

Appendix C

我像小鸟

我学老鹰飞飞。

我学小鸡刨刨。

我学青蛙跳跳。

我学鱼儿游游。

我学马儿跑跑。

我学花儿笑笑。

我呀，

快乐得像只小鸟。

(Ma, 2005)

I am like a bird

I learn to fly like a bird.

I learn to scratch like a chick.

I learn to jump like a frog.

I learn to swim like a fish.

I learn to run like a horse.

I learn to smile like a flower.

I am happy like a bird.

Appendix D

Three questions were asked in the class by teachers

First, which animal do you like best in the free verse?

Second, why does that animal interest you?

Third, if you were the animal in the free verse what would you have done?

Appendix E

1. How do you value children's drawing?
2. How do you interpret children's drawing?
3. Could you describe the level of language skills of each student in your class?
4. How often do you use drawing in your class activities?
5. What we should pay attention when using drawing to assist children's language learning?.
6. How do children react to drawing activities? Please describe each student if you can.
7. How do you create a good environment for children to draw?
8. In your opinion, does drawing have impact on children's literacy education?
9. How to talk to the children to reveal more information from their drawings?

Appendix F

Sample Qualitative Data

Alex chose not to draw a picture related to the poem.

Stella told the teacher that a friend of her mother raised chicks at a farm. She included chicks in her drawing. And her favorite animal was a horse, because her brother was born in a horse year.

Unlike other children, Alex did not draw any animals, instead he drew a boat and a castle. He told the teacher he do not like animals.

Sample Quantitative Data

Poem recall section: Betty recalled 2 sentences, Kelvin recalled 4 sentences, Chan recalled 4 sentences and Priya recalled 6 sentences.

Vocabulary section: Stella recalled 6 animals. Julia remembered 3 animals first without drawing aid but recalled the other 3 animals with drawing aid.