



Using Reciprocal Teaching to Enhance the Picture Book Comprehension of Preschool Children

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Abstract

The objective of this study is to understand changes in the picture book comprehension of preschool children after receiving reciprocal teaching in preschool picture book classes. A qualitative case study method was employed. The research participants comprised a preschool teacher and 15 Pre-K 4 and Pre-K 5 students. Data were collected through observations, interviews, and handouts, and subsequently analyzed. During a 4-month research period, a total of 32 in-class observations of picture book instruction sessions were conducted. The researchers interviewed the teacher and students regarding issues that the picture books discussed. The results revealed that the teaching scaffolding that the teacher established by implementing diverse interactive strategies enhanced the picture book comprehension of the children, who performed exceptionally well in perspective taking and understanding the causal relationships presented in the picture books.

Key Words: reciprocal teaching, picture book, picture book comprehension

Research Background and Objective

Model demonstration, observatory learning, and recognition drive the ability to think and social development of preschool children. In the recent decade, picture books have been widely applied in practical instruction. Picture books are literary works that combine images and text to convey educational, interesting, and artistic stories that promote learning and thinking in preschool children. The learning effectiveness of using picture books to educate preschool children substantially exceeds that of verbal lectures. Furthermore, picture books are considered a medium that involves substantial interaction (Yang, 2000). Previous studies have confirmed that picture books can increase learning effectiveness in preschool children (Chiu & Chan, 2009; Li, 2009). The cognitive development and life experience of preschool children are limited; therefore, adult intervention and guidance is critical for reinforcing the basic reading comprehension of children.

Hsiao (2013) proposed that implementing picture books in instructional strategies helps preschool children form abstract concepts and cultivates their value judgment and problem-solving abilities. Lan (2010) confirmed that employing scaffolding concept mapping in instructional strategies improves preschool children's concept of friendship and their performance in six knowledge structure dimensions. The results of previous studies have indicated that picture book instructional strategies can effectively increase the reading comprehension of preschool children.

Instructional strategies for picture book comprehension benefit children in numerous aspects, such as comprehending story structures and enhancing narrative ability and life experience. Interactive dialogues are a crucial component in picture book instructional strategies. Such dialogues contribute to the establishment of interactive relationships between teachers and students (Lin, 2006). For teachers, the interactive conversations are indicators of the preschool children's level of understanding of the story and their depth and scope of thinking. For preschool children, interactive dialogues provide a chance to think and collaborate with others, helping preschool children confirm, expand, and revise their understanding of the story content. Along with adult guidance, picture books can be used to cultivate language skills such as listening comprehension, question proposal, and expression, which are the basics for establishing a meaningful knowledge system.

Reciprocal teaching emphasizes the use of dialogue-based interaction between teachers and students in order to promote the reading comprehension strategies of learners. The strategies of predicting, questioning, summarizing, and clarifying are used in dialogues, which enables teachers and students to construct the meaning of texts collaboratively (Palincsar & Brown, 1984). Thus, the researchers of this study collected and compiled international and Taiwanese literature and determined that the reading comprehension of numerous underperforming preschool children improved significantly after reciprocal teaching was employed (Palincsar & Brown, 1984; Kelly, Moore, & Tuck, 1994; Aarnoutse, 1997; Bruce & Robinson, 2001; Lin, 2003; Chan, 2004). The aforementioned four reading comprehension strategies emphasized in reciprocal teaching was shown to increase both picture book comprehension and comprehension monitoring. These strategies are reading skills that can be applied by novices and are critical aspects that children with poor reading skills need to improve in. Reciprocal teaching, combined with the scaffolding method, can be used to help preschool children's independent use of picture books and enable preschool children and their teachers and peers to construct the meaning of text collaboratively by employing comprehension strategies in interactive dialogues.

In addition, relevant literature reports that the instructional strategies of reciprocal teaching are predominantly used for preschool children with learning disabilities or those who experience difficulty in reading comprehension. Reciprocal teaching was employed in the picture book

instructional strategies of the research subject, a teacher named Fang-Fang. This study determined whether reciprocal teaching improves preschool children's comprehension of picture books.

The objective of this study is to understand changes in the picture book comprehension of preschool children after receiving reciprocal teaching in picture book teaching.

Picture book comprehension refers to preschool children's understanding of the causal relationships and character perspectives in picture books; that is, perspective taking.

Theoretical Basis for Reciprocal Teaching

Zone of Proximal Development.

The zone of proximal development concept was proposed by Vygotsky and is defined as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers.

Expert Scaffolding.

Expert scaffolding refers to the provision of supportive assistance from experts (e.g., teachers, peers, and parents) to children in text comprehension until children can solve problems independently. The purpose of scaffolding is to reduce the zone of proximal development of children gradually. The scaffolding strategy used in expert assistance is an adjustable medium that provides temporary support and can involve any type of teaching aid or strategy. Scaffolding is characterized by interactivity (Palincsar, 1986), and the support provided by scaffolding strategies can be adjusted according to the improvement of a child. When the ability of a child is improved and tasks can be completed autonomously or independently, teachers can gradually remove the scaffolding that supports the child in establishing new knowledge (Rosenshine & Meister, 1994).

Proleptic Teaching.

Proleptic teaching, which originated from Vygotsky's theory of child development, predicts the ability of preschool children. Learners are regarded as participants during instructional activities, and the teacher assumes the tasks of explanation and demonstration and provides a comprehensively supportive scenario. At the beginning of this instruction scenario, preschool children can complete simple aspects of a task; however, a high level of achievement is exhibited after the children gradually observe and learn expert behavior (Palincsar & Brown, 1984).

Reciprocal teaching is a method for enhancing reading comprehension that Palincsar and Brown (1984) proposed based on Vygotsky's zone of proximal development theory, expert scaffolding (Wood, Bruner, & Ross, 1976), and proleptic teaching (Rogoff & Gardner, 1984).

Content of Reciprocal Teaching

Reciprocal teaching involves learning groups comprised of teachers and preschool children. Teachers, children, and peers converse and take turns leading discussions to promote reading comprehension. Four reading strategies—questioning, summarizing, clarifying, and predicting—are used during discussions to elucidate the meaning of text with the objective of assisting preschool children in understanding and acquiring knowledge from the meaning of the text.

Reading Comprehension Strategies for Reciprocal Teaching

Picture book instructional strategies involve constant dialogues and interactions between the teacher and students who can collaboratively construct the meaning of text, enhancing the

students' comprehension of the picture book. Preschool children may require guidance and assistance from adults or peers to stimulate thoughts, which are then expressed verbally or through drawings. Palincsar (1984) contended that the four strategies in reciprocal teaching (i.e., questioning, summarizing, clarifying, and predicting) can increase children's comprehension of picture books (Hung, 2009). Therefore, the strategies proposed in reciprocal teaching are ideal for enhancing children's comprehension of picture books.

The four strategies of reciprocal teaching are described as follows:

Predicting

Predicting involves requiring preschool children to confirm clues and infer the upcoming content of text based on their prior knowledge and knowledge of the text (e.g., title, images, and descriptions in previous paragraphs). In other words, predicting refers to the process of children using their prerequisite knowledge and experience to predict possibilities in the picture book.

Clarifying

Clarifying refers to the problem-solving method that children use when the content of the reading material is ambiguous or unfamiliar. When teachers realize that children cannot understand the meaning of the picture book, the clarifying strategy is employed to assist children in understanding or resolving ambiguous concepts.

Summarizing

Summarizing refers to children identifying the key concepts of certain paragraphs or the entire text of the reading material and subsequently expressing these concepts in their own words. Repetitive and miscellaneous details and descriptions are discarded to emphasize the overall meaning of the text.

Questioning

Questioning involves requiring children to propose questions and answers related to the content and central concepts of the story, enabling children to self-reflect and determine whether they understand the key points of the story. In addition, questioning facilitates between-peer examination of the comprehension and memorization of the reading material. During picture book teaching sessions, teachers ask questions regarding the content that requires discussion, letting children attempt to combine prerequisite knowledge with contemplation and to examine the content of the picture book.

During picture book comprehension sessions, teachers should first understand the practical abilities and levels of preschool children and subsequently guide children toward learning and thinking by providing demonstrations, feedback, questioning, and understanding cognitive structures, enhancing the picture book comprehension abilities of children.

Research on Reciprocal Teaching

In recent years, reciprocal teaching has become a widely used instruction method in Taiwan. Numerous studies have indicated that reciprocal teaching is an effective method for enhancing the reading comprehension ability of general or underperforming students (Li & Lin, 2003; Ho & Lee, 2003; Lin 2005). The research analysis of several reciprocal teaching-related studies is presented as follows:

(a) In "Effects of Reciprocal Teaching on Reading Comprehension Improvements for Students at Resource Classroom of Elementary School" (Lin, 2005), the reading comprehension performance of students who participated in reciprocal teaching and their use of the four strategies

(i.e., predicting, questioning, summarizing, and clarifying) after the implementation of reciprocal teaching were examined. Based on the students' performance from using the four reciprocal strategies during the process of reciprocal teaching, reading comprehension was positively increased after reciprocal teaching was implemented.

(b) The objective of "The Effectiveness of Reciprocal Teaching on Students with Reading Comprehension Difficulties" (Ho & Li, 2003) was to elucidate the influence of reciprocal teaching on the reading comprehension abilities of students with reading comprehension difficulties. The primary findings indicated that reciprocal teaching was effective and retained the reading comprehension ability of students with reading comprehension difficulties.

(c) The objective of "The Research of Reciprocal Teaching on Improving the Reading Comprehension Abilities of the Students with Hearing Impairments" (Li & Lin, 2003) was to discuss the effectiveness of reciprocal teaching in enhancing the reading comprehension abilities of students with hearing impairments. The results suggested that reciprocal teaching enhanced the reading comprehension abilities of students with hearing impairments. Parents and teachers reported an enhancement in the reading comprehension abilities of the students after reciprocal teaching was employed, as did the participants (students) themselves.

The results of the aforementioned studies demonstrate that most studies support the notion that reciprocal teaching substantially improves reading comprehension abilities. However, most of the relevant studies have focused on students with learning disabilities or reading comprehension difficulties, and most of the participants were elementary or junior high school students. Few studies have examined the picture book comprehension of preschool children. Therefore, this study examined the changes in the picture book comprehension of preschool children after receiving reciprocal teaching during picture book sessions.

Methodology

A qualitative case study method was employed, and observations and semi-structured interviews were conducted to examine the discussion strategies adopted by the teacher during picture book sessions. As nonparticipants, the researchers observed and recorded interactions between the teacher and preschool children during picture book comprehension sessions to elucidate changes in the picture book comprehension of the children after reciprocal teaching was implemented. Interviews with the teacher and children were conducted to collect comprehensive data and compensate for insufficiencies during the observation process.

The research site was a private preschool known for excellent reading comprehension lessons. The research subject, Fang-Fang, was an experienced teacher who had been instructing preschool children for 14 years. Fang-Fang emphasized the importance of picture books and group discussion, which conformed to the requirements of this study. *I Am T-Rex* and *Why So Lucky Today* by Miyanishi Tatsuya were selected by Fang-Fang as picture book materials.

The body language and discussion content of the teacher and all of the children were video recorded. The transcription was coded to facilitate analysis. A sound recording device was used to record the interview with the teacher on the process of picture book instruction. Audio data from the video and sound recordings were then transcribed to acquire comprehensive and authentic data.

Research Findings and Discussion

Reciprocal teaching emphasizes the importance for children to ask questions actively during the process of picture book instruction and to learn and independently use the strategies of predicting, clarifying, questioning, and summarizing through scaffolding provided by the teacher.

This section presents and discusses the information collected from the observations, interviews, children's handouts, and research logs that were translated into textual data and then coded. The topics were connected and correlations were identified after the textual data underwent descriptive and cross-interpretation.

Teaching Scaffolding Based on Diverse Interaction Strategies to Enhance the Picture Book Comprehension of Children

The four strategies of predicting, clarifying, questioning, and summarizing are employed in reciprocal teaching. Teaching scaffolding is continually provided during reciprocal teaching and thus substantially enhances the picture book comprehension of children. When discussing the content of *Why So Lucky Today*, Fang-Fang identified a certain motivation and asked the children to think of ways to sooth the teacher's itchy throat. A student replied, "Scratching it will do." Fang-Fang then took a cough drop out of her pocket and expressed how lucky she was (observation 1-1_1020913). By demonstrating and scaffolding the concept of being lucky, the teacher enabled the children to observe the meaning of being lucky directly.

Discussing stories enabled the teacher and students to interact with ease. The teacher continued to use the reciprocal teaching strategies interchangeably to enhance the picture book comprehension of the children. "Why did Wulu feel lucky?" "What made him feel lucky?" (Student response: "Because he ran into a lot of piglets today"). "Yes, he feels lucky because he ran into a lot of piglets today, thank you! What else made Wulu feel lucky?" (Student response: "Curry mushroom soup"). "Curry mushroom soup. Do you think having curry mushroom soup made him feel lucky? How is that so?" (Student response: "It's yummy"). "It's yummy; the yummy curry mushroom soup made him feel lucky." (Observation 1-2_1020927).

The teacher used the strategies of questioning and clarifying to guide and encourage the children to think from different perspectives, and the logic and comprehension abilities of the children could be further understood based on their responses. "I might do more picture book reflections or propose metaphors based on experience. Yes, this is how I usually go about it. In the case of reflecting on, say, things that they find difficult to understand, I go back to review those paragraphs and explain them again." (Teacher interview-1_1020917). When the children did not completely understand the story content, the teacher repeated the story or recalled the content for clarification.

The teacher used the perspective-taking method to ask questions. "Would you save T-Rex if you were the little pterosaur?" (Observation 2-1_1021001). The children were encouraged to speak their minds and think from the perspective of the little pterosaur regarding whether to help T-Rex. Although this was a yes-or-no question, the reasons behind the children's answers were unique: "No, because he's mean." "Yes, because he's dying." (Observation 2-1_1021008). Perspective taking enabled the teacher to understand the children's level of understanding regarding the story content.

The teacher asked the children to predict the following content of the story based on clues and their existent knowledge. When children are required to employ the strategy of predicting, the answer should be logical rather than random guesses without basis. The teacher used the strategy of prediction to encourage the children to think of upcoming scenarios. Questions such as "so what's happening now?" and "what happens next?" (Observation 2-2_1021015) were used to guide the

children. Nevertheless, the children's guesses were based on imagination: "He will die" and "Then let him die." (Observation 2-2_1021011).

In picture book teaching sessions, the teacher repeated or summarized the children's words to help the children clarify their thoughts. During discussions, the teacher would repeat a child's words to the other children; for example, the teacher assisted in clarifying the statement of a child on stage: "Your grandmother cooked? You feel lucky because your grandmother cooked." The teacher then turned to the class and stated, "He said when he was hungry and wanted to eat, his grandmother cooked for him, so he feels lucky today." (Observation 1-3_1021112).

By using teaching scaffolding as support during the student-teacher interaction process of reciprocal teaching, the strategies of predicting, clarifying, questioning, and summarizing are employed. Subsequently, children gradually improve and adjust, thereby developing mature skills in using the strategies of reciprocal teaching and an enhanced picture book comprehension. Thus, based on the children's responses, teachers can determine what questions to ask. These questions provide children with appropriate scaffolding and enables children to learn how to think. By clarifying and repeating statements, teachers can help children further understand the meaning of picture books, enhancing the picture book comprehension of the children.

The Children Exhibited Excellent Performance in Perspective Taking and Comprehending the Causal Relationships of the Picture Books

The teacher held discussions to help the children understand the picture books. In this study, observations and interviews were conducted with the children and drawings on the children's handouts were examined to determine the picture book comprehension ability of the children.

The children could produce sentences expressing causality.

The picture book, *Why So Lucky Today*, was used to discuss the meaning of being lucky (student responses: "Because I got enough sleep," "I bought toys," and "I went out to play." Observation 1-1_1021108). A child was asked the following questions: "Were you lucky today?" (Student response: "I wanted a drawing book"). "Was it something you wanted really badly?" (Student response: "Yes, so my mom bought it for me"). "So how did you feel?" (Student response: "I felt lucky") (Observation 1-3_1021122). Based on this conversation, the children understood the causal context and could produce sentences with causality given the teacher's guidance. The following paragraph details the children's picture book comprehension situation based on observations and interviews conducted with the children.



Figure 4-1. Handout for *Why So Lucky Today* by Child B

The teacher asked: "Can you tell me what you drew in this picture?" (Student response: "I went out playing"). "Who did you go out with?" (Student response: "With my mother's coworker's

kid”). “What did the two of you do?” (Student response: “We played hide-and-seek”) (Child interview-1_1021119).

The teacher asked: “Can you tell me what you drew in this picture?” (Student response: “My mom took me out to play. I saw a shoe. I picked it up and threw...threw it all the way there, but because mommy said someone lost this shoe by accident, so we picked it back up and put it on the ground”). “So you helped someone?” (Student nodded.) (Child interview-2_1021213). When observing the children and examining their handouts, the researchers observed that in the preliminary discussions the children used brief sentences or simply described scenarios when answering the teacher’s questions. However, after additional discussions, the children clearly described the context and timeline of events. For example, the children stated their desire for something and what occurred afterward.

The children could contemplate their feelings and ideas from the perspectives of different characters.

When discussing the plot of *I’m T-Rex*, the children understood the perspectives and motives of the characters, and were able to express the characters’ feelings or their opinions with the teacher’s guidance. The children’s comprehension of the picture book content was examined through observations and interviews, and the results are presented as follows:

The teacher asked the following questions: “Would you save T-Rex if you were the little pterosaur?” (Student response: “No”). “Why?” (Student response: “Because he’s mean”). “Why won’t you save him because he’s mean?” (Student response: “I’m afraid he’ll eat me”). The teacher then said to the class, “He said he is afraid that T-Rex will eat him, so he would not save T-Rex” (observation 2-1_1021126). The teacher asked the following question: “If you were T-Rex, would you eat the little pterosaur?” (Student response: “Yes”). The teacher then said to the class, “She said yes. Let’s see why,” and addressed the student who answered the question: “But the little pterosaurs just saved you, why would you eat it?” (Student response: “Because I’m hungry”) (Observation 2-2_1021213).

The teacher asked the children questions based on incidents involving the main characters in the story. For example, the teacher asked, “If you were T-Rex, would you eat the little pterosaur?” and “Why won’t you save him because he’s mean?” The teacher asked questions involving the two main characters to enable the children to think from the perspectives of these characters and express their own feelings (e.g., “I’m afraid he’ll eat me,” “because he’s dying,” and “because I’m hungry”).

After three repeated discussions, the children could satisfactorily contemplate incidents that occurred in the story. The researchers and teacher observed that the children’s answers differed in each discussion, indicating that repeated discussions stimulated the children’s thoughts, as explained in the following quote:

“This activity shows that the children do not provide consistent answers. For instance, they might provide a positive answer when first asked the question, but when the same question is asked a third time, their answer may be negative; they alter their thoughts. I think repeatedly using the same picture book is good. When the children answer a question for the first time, they may not even realize it themselves, but when they answer a question for the first time, they might say ‘Yes, I will help him,’ but if asked the same question a second time, they may change their minds and say ‘I don’t think I can help him because he might eat me.’ If asked the same question a third time, they might decide that helping him will not cause any harm, because he didn’t eat the pterosaur.” (Teacher interview-2_1021206).

Based on the aforementioned theories and practical applications, reciprocal teaching is an ideal instructional strategy for enhancing the picture book comprehension of preschool children.

The importance of scaffolding provided by the teacher is revealed in reciprocal teaching. By interacting with preschool children, teachers provide appropriate guidance and scaffolding for children to become familiar with using certain strategies gradually; thus, guiding techniques are essential for teachers. Based on long-term observations, we determined that a teacher's instruction habits and level of recognition for picture book comprehension instruction affect the quality of picture book comprehension strategies that are instructed. Therefore, we recommend enhancing the curriculum design for picture book instruction and establishing systematic professional training for teachers, including demonstration strategies, conversation guiding, assessment strategies, and teachers' self-reflection strategies. By implementing these measures, teachers will be able to determine whether instructional activities comply with the content of reciprocal teaching.

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