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The Impact of Story: One Preschool's Experience using Story Cubes as a Culturally Relevant Oral Language Strategy

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Abstract

Storytelling is a universal practice which can be traced back to the beginning of human existence. Research on language development indicates that storytelling strategies are beneficial for supporting oral language development in young students (Kennedy, 2016). Story cubes, used as a reflective, culturally relevant instructional strategy, is highly motivating because they encourage students' personal, relevant contributions while addressing the language needs of Dual Language Learners. When acquiring a second language, these students face unique challenges in overall acquisition of literacy skills (Amodei & Strong, 2019). This article describes a study conducted at a trilingual preschool. Four preschool teachers and 60 PreK students ages 3-5 years participated in the study designed to explore the use of story cubes in their classrooms as a culturally responsive and reflective strategy. Accomplished through small and large group engagement with story cubes, researchers collected qualitative and quantitative data using observational field notes, Likert scale questionnaire responses and narrative interview transcript responses.

Keywords: *Storytelling, Early childhood, Oral language, Culturally relevant strategies, ELL/DLL, Story cubes*

Miss Ana takes a colorful object out of the basket and rolls it on the carpet in front of the thirteen preschoolers in her trilingual classroom. They lean forward expectantly, waiting for the cube to stop tumbling so they can see which side faces upward. "Love", Miss Ana whispers softly, crossing her hands over her heart. The children wiggle around and scoot closer to inspect the brightly colored hearts on the top of the cube.

"How can you show someone you love them?" Miss Ana asks, observing the thoughtful gazes and raised hands.

"Give them a million presents!" Emilio shouts.

"Tell them 'I love you,'" Nedra adds.

After a few more children volunteer to share their experiences, Miss Ana rolls the cube again. This time, the upward facing facet depicts a different emotion: "scared".

"What is another word for scared? Was there a time when you felt scared? Can you tell us a story about that?" Miss Ana prompts.

Amir states anxiously, "When I thinked there was a monster in my closet, I said to my dad to come and get it out...".

One by one, students share stories describing their emotions, including "excitement" and "happiness". The teacher ends their sharing time by promising to use the cubes again later, after snack time.

Oral stories, like the ones in the vignette above, have been shared universally across cultures for centuries, regardless of social class, languages spoken, or knowledge and skills of the people. Sharing stories has been essential to the development of humankind as far back as can be traced by historians (Del Negro & Kimball, 2021; Zipes, 2012). Storytelling encourages both receptive language learning (listening and understanding) and expressive language learning (gesture and talk). It provides an opportunity for language learners to develop listening skills prior to production of expressive language, and then offers a low-stress environment in which to practice oral language (Bateman, et al,

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2017). It is well-established that oral language skills in a person's first language (L1) are a significant contributor to the development of second language (L2) knowledge and skills (Tabors, 2009). Young Dual Language Learners (DLL), therefore, face specific challenges when learning a second language because their home language is not yet fully developed. Teachers of young DLL students must possess and implement a variety of instructional tools that are meaningful, engaging, culturally responsive, tactile, and have the capacity to allow students to make personal connections.

Theoretical Framework

Two Theories

The theoretical lenses through which this study is framed include culturally responsive pedagogy (Ladson-Billings, 1994) and transformative learning theory (Mezirow, 2003). According to the literature (Lynch, 2016), culturally responsive pedagogy is a student-centered approach to teaching and learning. This theory aligns with pedagogical approaches which seek to empower students through strategies which include "concepts that are related to the personal interests and experiences of students" (Howard, 2010, p.4). As outlined in the culturally responsive elements of teaching (Howard, 2010), the first principle states that "students are affirmed in their cultural connections" (p. 4). Teachers serve as the "cultural liaison" between students' cultures and the school's culture. Teachers are tasked with building a "communication bridge" by which equitable opportunities are made available to students and fosters development of bicultural citizenship (Howard, 2010). Fusing both the elements and strategies described as culturally responsive pedagogy, the participants (teachers) in this study were able to use storytelling and story cubing strategies to support building that communication and cultural bridge for dual language learners. Teachers and students mutually benefitted from the implementation of these student-centered strategies**.**

The second theoretical framework's central construct includes reflection, a critical component of transformative learning theory (Mezirow, 1990). Though his original work focuses more on adult learning, Mezirow (1990) posits "the most significant learning experiences…involve critical [reflection]—reassessing our own orientation to perceiving, knowing, believing, feeling, and acting" (p. 13, as cited in Taylor, 2017, p. 77). In this study, teachers implemented storytelling and story cubing strategies which targeted these specific opportunities for students. The practical activity of reflecting on their own individual orientations to their cultures, their worlds, their beliefs, and feelings provided outlets of expression, oral communication practice, and connections to their peers and the classroom community. Young dual language learners who faced challenges due to language barriers improved oral language skills embedded in the reflective storytelling and story cubing approaches.

Oral Traditions

Oral traditions exist in every culture around the globe. In many African countries, elders pass along the stories of their ancestors through weekly tribal meetings. Youngsters eagerly anticipate their role in the stories they have become familiar with hearing and look forward to the chance to be included in the performances (Tuwe, 2016). In several Latino communities, students are taught very early the importance of remembering and maintaining the heritage of their people. Through storytelling, families share the rich culture and traditions of historically significant events and triumphs they have faced. These stories are woven into the fabric of their lives (McCabe, 1997). These cultural practices are significant components to the modern, developmentally appropriate, early childhood classroom because they are a natural motivator, and complement a culturally responsive pedagogy. McAdams (1996), explains that "stories create a shared history, linking people in time and event as actors, tellers, and audience" (p. 28). Young DLL students benefit from opportunities to practice oral language, and engaging in *storytelling* activities is one meaningful way to provide this practice.

Second Language Learning

Young students who are learning a language in addition to their native one will develop needed language and literacy skills differently from their peers who are not learning an additional language. Most often, students who are three years of age and older learn a second or additional language through the process of sequential acquisition (Tabors, 2009). Sequential acquisition of a language occurs when a person already has a dominant home language. The process of learning that new language will be different than exposure to a native language from a young age, particularly in the area of vocabulary skills and interpersonal communication (Hammer et al., 2014). The use of storytelling strategies

can be highly effective for learning new vocabulary, understanding new contexts, and according to Isik (2016), help students to feel connected to their social environment. The ability to create stories or narratives plays a significant role in a DLL's language acquisition because they enable those social connections students need in classroom settings (Demir & Goldin Meadow, 2015).

Sorting through the complexity of second language acquisition in the early childhood classroom can be made easier when there is an intentional focus on encouraging young students to practice speaking and listening in both L1 and L2 (Limlingan et al., 2020). When students have opportunities to practice oral language in both their home and emerging languages, they are at a distinct advantage as they progress into elementary school where the cognitive demand is higher as they are expected to read and write with fluency in their acquired language (Tabors, 2009). Research indicates that when young students can create and articulate narratives competently, they are more likely to experience future academic success (Kennedy, 2016). To this end, teachers of young students need strategies that are engaging, meaningful, and flexible to support students in creating and sharing their narratives about a variety of topics and themes.

Story Cubes as an Instructional Strategy

Story cubes offer teachers and students multiple ways to engage in language development that is interactive and meaningful. Storytelling using cubes is highly motivating because the student's contributions are personal and relevant. In the seminal educational work by Montessori with young learners at the turn of the twentieth century (as cited in Stapleton, 2014), the use of hand-held objects allowed them to excel and learn language. Educators who provide their students with such manipulatives and hands-on learning experiences are really helping to reinforce concepts and instruction that is delivered visually and auditorily (Copple & Bredekamp, 2009).

The benefits of story cubes as a storytelling tool are wide-ranging. They are an effective, creative tool used by educators to serve a variety of students and purposes, especially by educators who subscribe to Constructivist learning approaches in early childhood classrooms. From all linguistic and cultural backgrounds, students benefit from the broad possibilities story cubes offer. Al-Hazza and Bucher (2008) believe that story cubes, which are based upon Arab students' literature, can help bridge the gap between cultures. According to Golsteijn and den Hoven (2013), communication can be strengthened by photo cubes, which is a variation of story cubes. Townsend (2011) wrote that Rory's Story Cubes has become one of the most popular games purchased on Amazon. Other products, such as: roll-a-story, foam story starter cubes, wooden blocks, and wipe-off marker/foam blocks are available from multiple sources. Simply searching a few key words online will yield several sources where these items can be accessed or purchased.

Research Questions

Two questions guided the research study:

1. In what ways can story cubes enrich the oral language development of Dual Language Learners (DLLs), ages 3-5 years?
2. How can teachers implement story cube strategies to mediate the relationship between DLLs' social engagement and experiential story telling practice to increase oral language production?

Methodology

Participants

Because the study required a linguistically diverse population, demographic location was a primary consideration for choosing this population to sample. Located in a diverse, urban area, each of the 4 classrooms consisted of approximately 85% Dual Language Learners. Four female teachers, one of whom was bilingual in Spanish and English were the respondents to the study. Four Pre-K classrooms in a trilingual urban preschool were the sites of the study, within which 42 students, ages 3-5 years, engaged with story cubes.

Research Design

This triangulated mixed-methods study was designed by equally weighting both quantitative and qualitative data concurrently (Gay et al., 2006) to determine how preschool teachers at a trilingual early childhood program use story cubes as a language development tool with their DLL students, and to assess the effectiveness of these practices. The quantitative tool used was a five-question survey using a 5-point Likert scale (appendix A). Additionally, qualitative data were collected using three open-ended questions (appendix B), and a template for observational field notes (appendix C) collected by two principal investigators.

Teachers received resources on strategies for using story cubes with their students, and the researchers spent time in their classrooms observing activities that

included using them. Teachers were supplied with materials including cube templates on card stock and booklets with suggested activities and instructions for use of the cubes.

Procedures

Co-investigators conducted a preliminary overview and training with a group of six preschool teachers and the director of the school, four weeks prior to data collection. The training booklet consisted of eight suggested strategies designed by the co-investigators and grounded in research for developmentally appropriate practice with young language learners. Teachers were encouraged to choose a few strategies or feel free to implement their own creative ideas using the story cubes. Site approval for collecting data was obtained prior to visiting and observing the four preschool classrooms. Of the six, four preschool teachers agreed to include the use of story cubes as part of their small and large group activities. Permission was granted in writing by the participating program for the principal investigators to observe and collect photographs and field notes while students engaged in the activities.

On two separate occasions occurring four weeks apart, co-investigators visited the classrooms to observe teachers implementing strategies and preschoolers engaging with the story cubes. Co-investigators collected observational data through field notes as preschool teachers and students interacted with the story cubes and engaged in various storytelling activities. Teachers were given a list of suggested activities for engaging with students in story cubes; however, teachers were also encouraged to be creative and implement original uses. A standardized template served as an observational protocol tool; this was used by each investigator to increase inter-rater reliability.

Following each field observation of data collection, principal investigators conducted in person interviews with preschool teachers. The interviews consisted of 5 Likert scale questions which measured the degree of satisfaction for increasing oral language production using the story cubes. Additionally, three open-ended questions were asked which prompted teachers to provide narrative descriptions of their experiences.

Measures, Data Collection, & Analysis

Familiarization of the data from field notes and narrative interview transcript responses enabled the researchers to code the qualitative data and identify emerging themes to conduct thematic analysis of the data. Quantitative results obtained from the Likert-scale questionnaire were also used to reinforce the relevance of identified themes. Co-investigators tested the hypothesized model in which storytelling cube implementation mediates the relationship between engagement with social and experiential hands-on storytelling practice and oral language production.

Data Analysis

Principal investigators combed through multiple data sources. Familiarization of the data from field notes, and narrative interview transcript responses enabled the researchers to code the qualitative data and identify emerging themes to conduct thematic analysis of the data. Qualtrics was utilized to summarize qualitative data from interviews; additionally, this software was useful in synthesizing quantitative results. Quantitative results obtained from the Likert-scale questionnaire were also used to reinforce the relevance of identified themes.

Findings

The Likert scale results indicated teachers' high regard for the use of the cubes with a range of 3 to 5 on individual statements with 1 being ineffective and 5 being highly effective.

In addition, analysis of open-ended questions resulted in preliminary thematic threads:

1. Increased engagement of students.
2. More complex use of oral language.
3. Heightened social connections among students and teachers.
4. Intentional use of open-ended prompting that enhanced oral language production.

Open-ended interview questions yielded insightful responses from the preschool teachers' experiences. T1 indicated that intentional teacher prompting seemed to encourage an increased amount of oral language production. Specifically, she mentioned that dual language learners who were usually more reluctant to speak had

Table 1. *Likert Scale Responses*

Statement (S)	S1	S2	S3	S4	S5
Teacher A		3	3	5	5
Teacher B	5	4	5	4	5
Teacher C	5	5	5	5	5
Teacher D	4	4	5	3	5

an increase in production when using the Emoji Cubes strategy. Also, more complex use of oral language was linked to teacher prompting with story cubes. T2 described students' resulting oral language use as, "… using more background knowledge when describing", and that they moved beyond "yes or no" answers when viewing pictures on the cubes. Overall, all teachers indicated an increase in the engagement level of the preschoolers, noting that some strategies using the cubes were more "popular" than others. In addition to the strategy highlighting emotions, students told stories about "community helpers" such as firefighters, police officers, doctors, etc. and demonstrated an increase in social connections as a result.

Conclusions and Discussion

Overall, principal investigators observed multiple positive outcomes. Students were engaging in oral language with increased frequency. Students interacted with peers and teachers to share creative stories, built communication bridges, and reflected on the world through their own unique cultural lens. As teachers reflected on the implementation of the culturally responsive strategies, they indicated they enjoyed using the story cubes, and students were highly engaged. Consistent results across data collection methods indicated that students benefited socially from engagement with others as they participated in the story cube activities, and that oral language production was increased as they participated in the reflective storytelling and story cube activities.

While data analysis revealed emerging themes of increased engagement, complex use of oral language, increased social connections and intentional teacher-prompting which resulted in increased oral language production, the researchers believe further investigation is needed that considers language learners of varying ages from infancy through elementary school-aged students, and additionally, utilizes larger sample sizes. Due to limitations of the study, such as small sample size and individual location which contributes to lower generalizability of results, the researchers are confident that a larger sample size at multiple locations could improve validity and reliability of study results. Possible implications for future study include increasing the number of participants, selecting both rural and urban locations for comparison of implementation and outcomes, and developing an observation protocol which measures pre- and post- oral language production as part of the quantitative measurement.

The goals of this study were to learn how the use of story cubes could benefit young dual language learners and how their teachers could implement those culturally responsive strategies. Throughout this project, researchers not only documented benefits of oral language usage, but also gained new insights to the multifaceted ways in which young students in the observed classrooms were able to make enhanced social connections with their peers and teachers. Story cubing strategies show potential for impacts on young students' language development, but also for their social/emotional growth. Based upon the study results, researchers believe that providing young students and their teachers with a variety of story cubing strategies will increase oral language usage and provide opportunities to explore culturally relevant, meaningful, creative, and reflective ways of self-expressive communication.

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Appendix A

Teacher Interview Questions

LIKERT SCALE RESPONSES:

1. On a scale of 1-5, how beneficial was this activity for student's use of oral language with 5 being highly beneficial and 1 being no benefit at all?

   1 2 3 4 5

2. On a scale of 1-5, how effective was this activity for engaging students in storytelling with 5 being highly effective and 1 being ineffective?

   1 2 3 4 5

3. On a scale of 1-5, Dual Language Learners (DLL) students used more expressive oral language during the activity with 5 being significantly more expressive oral language used and 1 being significantly less oral language used.

   1 2 3 4 5

4. On a scale of 1-5, students use of language remained focused on the activity with 5 being always focused on the activity and 1 being never focused on the activity.

   1 2 3 4 5

5. On a scale of 1-5, using story cubes to encourage oral language was a good use of instructional time with 5 being very good use of instructional time and 1 being not useful at all.

   1 2 3 4 5

OPEN-ENDED INTERVIEW QUESTIONS:

1. Share some examples of how students expanded use of oral language with the story cubes.

2. What ideas do you have for using story cubes in your classroom? How would you expand on this activity?

3. Can you describe how this activity supported DLL oral language growth?

Appendix B

Observation Protocol

Date	Class
Time	Observer

Description of Activity	Student Behaviors/Use of Language	Teacher Feedback