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Volume 5
2018**



Connections in the Community
FOSTERING PARTNERSHIPS THROUGH LITERACY

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TEXAS ASSOCIATION FOR LITERACY EDUCATION YEARBOOK

Volume 5: Connections in the Community: Fostering Partnerships through Literacy

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Connections in the Community: Fostering Partnerships through Literacy

On February 23-24, 2018, the Texas Association for Literacy Education (TALE) held its sixth annual conference. It was hosted by West Texas A&M University in Canyon, Texas, and over 500 literacy professionals came together for an amazing professional learning event. The conference theme was: “Connections in the Community: Fostering Partnerships Through Literacy.” The conference included over 100 presentations—research posters, sessions, roundtable presentations, facilitated interactive discussions, workshops, and an author panel—that provided participants with research-based best practices to support effective literacy instruction for all.

This year, there was a special ticketed event called, “City Wide Write & Read Ride-a-Thon, which was a collaborative effort between the Route 66 Writing Project and TALE. Participants boarded a bus and rode through the beautiful Panhandle Plains region where they stopped at various locations to gather, write, and share together in a celebration of literacy professionals as readers and writers. Two of the highlighted spots were Palo Duro Canyon and Cadillac Ranch.

The conference crowd was enlightened and entertained at the opening session on Friday afternoon by guest speakers Dr. Gwynne Ash, Professor of Reading Education at Texas State University, and Dr. Frank Serafini, Professor of Literacy Education and Children’s Literature at Arizona State University.

On Saturday, attendees had the pleasure of hearing from a group of well-known authors in an hour long author panel facilitated by one of our past presidents, Dr. Roberta D. Raymond, who posed questions for the panel. Guest authors included Van Garrett, Kimberly Willis Holt, Dr. Ruth Culham, Dr. Rene Saldaña, Jr., A.G. Howard, and Jon Erikson.

The 2018 TALE Conference was an amazing event from beginning to end, and this yearbook volume showcases many of these presentations. You are encouraged to read, share, and discuss the manuscripts that were selected for publication. Thank you for your continued support of our organization, and we hope you will plan to join us in March 1 and 2, 2019 in Waco, Texas for our next annual conference!

Sincerely,

Brad Womack

TALE Chair, 2018-19

Table of Contents

Ch.1 Influences of Early Childhood Educational Intervention	9
<i>Betty Coneway, Sang Hwang, Leigh Green, Jill Goodrich, Emilee Egbert</i>	
Ch.2 Best Practices in Teaching Culturally and Linguistically Diverse Students: A Case Study	24
<i>Cassandra Furr, Beth Garcia</i>	
Ch.3 Searching for Graphic Novels in Literacy Texts	35
<i>Barbara J. McClanahan, Maribeth Nottingham</i>	
Ch.4 Graphic Options: A Comparison of Stories and Their Graphic Novel Counterparts	45
<i>Lori McLaughlin, Jodi Pilgrim</i>	
Ch.5 The Effects of Two Computer-Based Reading Software Programs on Student Reading Performance	56
<i>Vanessa Zamora, Ramona T. Pittman</i>	
Ch.6 Hey, Can You Find Me a Book? Providing Popular Culture Texts to Students in a Title I Elementary School	63
<i>Melinda S. Butler</i>	
Ch.7 Effective Reading Comprehension Strategies for Students with High-Functioning Autism Spectrum Disorder	68
<i>Alison Wheat</i>	
Ch.8 Changing the Language: Using Social Media and Popular Culture to Teach Traditional Literacy Skills	72
<i>Kamshia Childs</i>	
Ch.9 Using Trauma-Informed Pedagogy to Make Literacy and Learning Relevant and Engaging for Students of Poverty	77
<i>Neva V. Cramer</i>	
Ch.10 Improving Practice of Pre-Service Teachers through Inquiry	84
<i>Freida Golden, Sarah Guthery, Josh Thompson</i>	
Ch.11 Effective Vocabulary Strategies for English Learners in Middle School Classrooms	89
<i>Suhua Huang, Marcie Reynolds</i>	
Ch.12 Using the Six Syllable Types to Teach Word Attack Skills	98
<i>Mary Kay Sherman</i>	
Ch.13 First Words Fast: An Innovative, Compact, and Powerful Early Reading Curriculum	103
<i>Tammie F. Spidell, Jayne Latty</i>	
Ch.14 Connecting Children's Literature and Science Education through Writing	110
<i>Lucinda N. Sohn, Regina Chanel Rodriguez, Lucinda M. Juarez</i>	
Ch.15 Change the Game, Change the Culture: An Approach to Alternative Education	122
<i>Victoria M. Trela</i>	
Ch.16 Ready or Not, Here They Come! Overview of Revised ELAR TEKS	126
<i>Amberly Walker</i>	

Influences of Early Childhood Educational Intervention

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Abstract

This mixed methods research study examined the long-term influences of early educational intervention by surveying former preschool students who attended the Opportunity School in Amarillo, Texas. To examine the lasting impact of this experience through different perspectives, information was also collected from the parents of these previous preschool students. After locating potential participants, 98 surveys were completed and returned (68 from former students, 30 from parents). The quantitative data provided information about the participants' age, race, employment, educational attainment, felony or conviction rates, and the overall impact of the Opportunity School preschool experience. Conclusions drawn from the qualitative data documented the themes of caring teachers, home visits, family connections and support, effective learning environments, engaging school activities, and early literacy experiences. The evidence supported the claim that quality early childhood educational interventions can influence lifelong success for at-risk students and provide an impetus for positive literacy development.

Keywords: *early childhood intervention, poverty, preschool, literacy*

Introduction

Early childhood educational intervention can be an effective means of helping young children succeed, not only in school, but in life.

To investigate the enduring impact of preschool experiences in Amarillo, Texas, researchers (i.e., the authors of this paper) collaborated with the current executive director of the Opportunity School. Together, they designed a study to

discover how preschool experiences influenced the lives of former students who were now adults. Kirp (2009) asserted that “a superb preschool experience can make a lifelong difference” (p. 53), while Schweinhart and Weikart (1997) contended that knowledge and dispositions developed in preschool can help individuals avoid future delinquency and that the preschool experience is linked to later success in life. This study sought to discover if these claims held true in Amarillo, Texas.

Preschool experiences provide students with structured educational experiences that can influence their future educational attainment and enhance emergent literacy development. High-quality preschool curricula should include beginning reading, writing, listening, and speaking activities, which all serve as the basis for literacy development. Lonigan, Schatschneider, and Westberg (2008) found that young students’ early literacy experiences set the stage for later reading achievement. Students who attend preschools using high-quality curricula typically develop foundational literacy skills that can enhance school readiness (Lasser & Fite, 2011).

Foundational skills, such as oral language and listening comprehension skills are critical for later literacy achievement (Lonigan et al., 2008). However, researchers have found that children raised in poverty have fewer opportunities to develop these essential oral language skills and may lack important pre-literacy skills at the beginning of kindergarten (Snow, Burns, & Griffin, 1998; Wells, 1986). Research studies have also reported that early educational intervention can be helpful in overcoming some of the disadvantages of poverty (Campbell et al., 2012; Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002). Typical preschool activities, such as Show and Tell, circle time, and learning centers, provide rich language experiences that are beneficial to all young students, but are especially critical for students who may be in danger of achieving academic success (Snow et al., 1998).

Two well-documented early childhood interventions were conducted in the 1960s and 1970s. The High/Scope Perry Preschool Study, beginning in 1961, investigated the impact of preschool intervention among students from poverty in Ypsilanti, Michigan (Kirp, 2009). The Abecedarian Project, which started in 1972, provided child care and preschool experiences to children from disadvantaged backgrounds in Chapel Hill, North Carolina (The Carolina Abecedarian Project, n.d.).

The High/Scope Perry Preschool Study examined the impact of preschool intervention on the lives of 123 African American children living in poverty (Schweinhart, 2000). The children were randomly assigned to either a treatment group that received a high-quality preschool program or a control group that did not attend a preschool program. Data were collected on the two groups annually from ages 3-11, and subsequently at ages 14, 15, 19, 27, 39, and 41. Results from this evidence-based study revealed that high-quality preschool programs improved children’s intellectual performance (Schweinhart & Weikart, 1980) and reduced the need for special education services (Barnett, 1995). Kirp (2009) reported similar positive outcomes and found that children who were a part of the High/Scope Perry Preschool Study scored higher on literacy tests even at age 27.

The Abecedarian Project provided a more intense early childhood intervention program. The children were randomly selected to be a part of the experimental group that received full-time, high-quality educational intervention in a childcare setting from infancy through age five (The Carolina Abecedarian Project, n.d.). Campbell et al. (2002) studied the long-term impact of the Abecedarian Project and reported that out of the 104 participants in the follow-up study, of which 98% were African American, individuals who were part of the preschool treatment group exhibited higher scores on measures of reading and math skills in elementary school and that the positive outcomes persisted into adulthood. These findings have suggested that “high-quality

educational child care can make a dramatic difference in the lives of young African American adults reared in poverty” (p. 52).

Multiple research studies have investigated the influences of preschool intervention programs (e.g., Campbell et al., 2002; Kirp, 2009; Schweinhart, 2000; Schweinhart & Weikart, 1980; The Carolina Abecedarian Project, n.d.). Findings from these national studies are well documented, but no known investigations have been conducted regarding the long-term impact of early childhood educational interventions in the Amarillo, Texas area. This study sought to address this gap and investigate the impact of participation in an early childhood educational intervention offered through a preschool located in Amarillo, Texas among low-income children and their families.

Review of Literature

Helping at-risk preschool students from low socioeconomic households be more successful in school and in life is a weighty endeavor that deserves thoughtful investigation. The American Psychological Association (2018) reported that lower socioeconomic status can negatively influence the lives of young children due to an increase in emotional and behavioral difficulties, decreased educational success, and diminished family stability. A review of literature on this topic revealed several variables to take into consideration. For example, Lee (2014) found that the timing of exposure to poverty could be an indicator of possible educational problems, regardless of race. Researchers have also concurred that the negative impact of exposure to poverty can be extremely detrimental to young children due to their burgeoning cognitive, linguistic, social, and emotional development (Lee, 2014; Magnuson, 2013). Lamy’s (2013) research also found that “preschool can provide the developmentally stimulating experiences that many children growing up in poverty lack” (p. 33).

Preschool attendance has clear benefits for students from all socioeconomic levels,

especially students from low-income households. Mashburn (2008) reported that high-quality early education positively affects students’ academic, language, and literacy skill development. According to Polat and Yavuz (2016), “Preschool education can offer benefits for children, particularly those who do not have advantages at home, including benefits related to academic skills, social-emotional development, and communication” (p. 396). Findings from their study of 308 children revealed that when the duration of preschool education increases, young students experience great benefits across many different domains of learning.

A key factor affecting outcomes of early childhood interventions is the quality of the program. According to the National Association for the Education of Young Children (NAEYC), a direct correlation exists between the quality of the early childhood program and the long-term benefits associated with attendance which include “increased educational attainment, healthier lifestyles, and more successful careers” (NAEYC, 2018, para.1). Currie (2001) reviewed early childhood programs, such as Head Start, and found that high-quality programs provide significant long-term benefits for children and that these effects have a greater influence among children who are considered at-risk students. Currie utilized different scales to evaluate the quality of early childhood programs, which typically assessed classroom processes and structure. Classroom process referred to the qualitative qualities of the program, such as teacher/child interactions, use of developmentally appropriate practices and activities, or the arrangement of classroom materials, while classroom structure referred to the measurable qualities of the program.

While several national research studies have been conducted to examine the influences of quality early childhood interventions, no formal studies were available that examined early childhood interventions in Amarillo, Texas at the time of this study. Therefore, we sought to address this gap and investigate the lasting effects of preschool attendance among former Opportunity School students. The goal of this

study was to add to the literature concerning long-term outcomes of preschool attendance, including its impact on literacy development.

Methodology

Context

Opportunity School was started in February of 1969 by members of a Sunday school class held at First Presbyterian Church in Amarillo, Texas. The Opportunity School began with 15 students, a teacher, and an assistant teacher and has served approximately 4,000 students and their families over the past 50 years (Opportunity School, 2018). Opportunity School serves mostly low-income children, ages six weeks to five years old, and their families residing in Amarillo, Texas.

Sample

The purposeful sample for this investigation was chosen from a database of approximately 2,500 former Opportunity School. The parameters for inclusion in the sample were set at students who attended Opportunity School during the years of 1969 and 2000. This sample was targeted in this manner to ensure that participants included in the study were at least 18 years of age or older.

Data Collection and Analysis

We began designing this research project by looking at the methodology for the High/Scope Perry Preschool Study and the Abecedarian Project longitudinal studies. We noted that these studies tracked former preschool students and reported data concerning educational attainment, employment status, delinquency and crime rates, economic conditions, family formation, and social relations. Therefore, we designed our survey to gather similar demographic data for former Opportunity School students. We also added open-ended items so participants could describe salient memories and perceived long-term benefits of attending Opportunity School. The Opportunity School database contained contact information for parents, rather than the students.

Thus, we had to contact parents in order to obtain current contact information for former Opportunity School students. With this in mind, we decided to also use the survey to collect data from parents of former students.

The researchers contacted former Opportunity School students and their parents and invited to participate in this study. We used undergraduate and graduate research assistants to assist with this aspect of data collection. Contact information provided in the Opportunity School database was up to 48 years old, so most of the phone numbers and addresses were incorrect or no longer in service. Therefore, the researchers and their research assistants had to be very creative in locating potential participants. After a first attempt of utilizing available contact information, we used alternative methods to locate former students and their parents. Alternative methods included word of mouth, email blasts, Facebook messenger, Opportunity School newsletters, websites, Facebook pages, and paid People Search websites.

When a former student or parent was located, they were invited to participate. If they agreed, participants were asked if their responses could be recorded to aid with accurate transcriptions. Survey questions were posed to participants over the phone, and data were entered into the Qualtrics Research Suite. During each phone interview, we documented ideas, questions, and reflective thoughts in the form of field notes.

Data collection took over a year to complete and yielded 98 completed surveys. Of these, 68 surveys were from former Opportunity School students and 30 surveys were from the parents of former Opportunity School students. We used basic statistical analyses to examine quantitative data we collected, which consisted of demographic information. We used open and axial coding techniques to analyze qualitative data we collected and unearth overarching themes (Corbin & Strauss, 2007; Merriam, 2009).

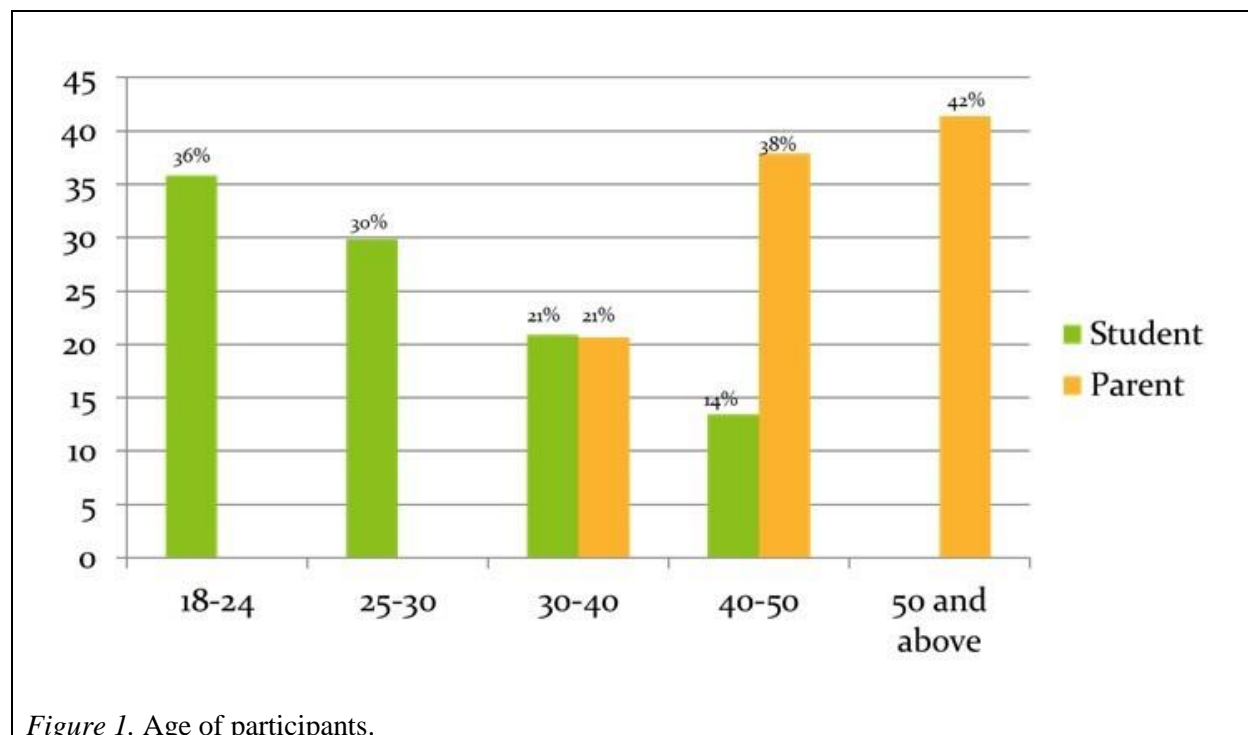
Findings

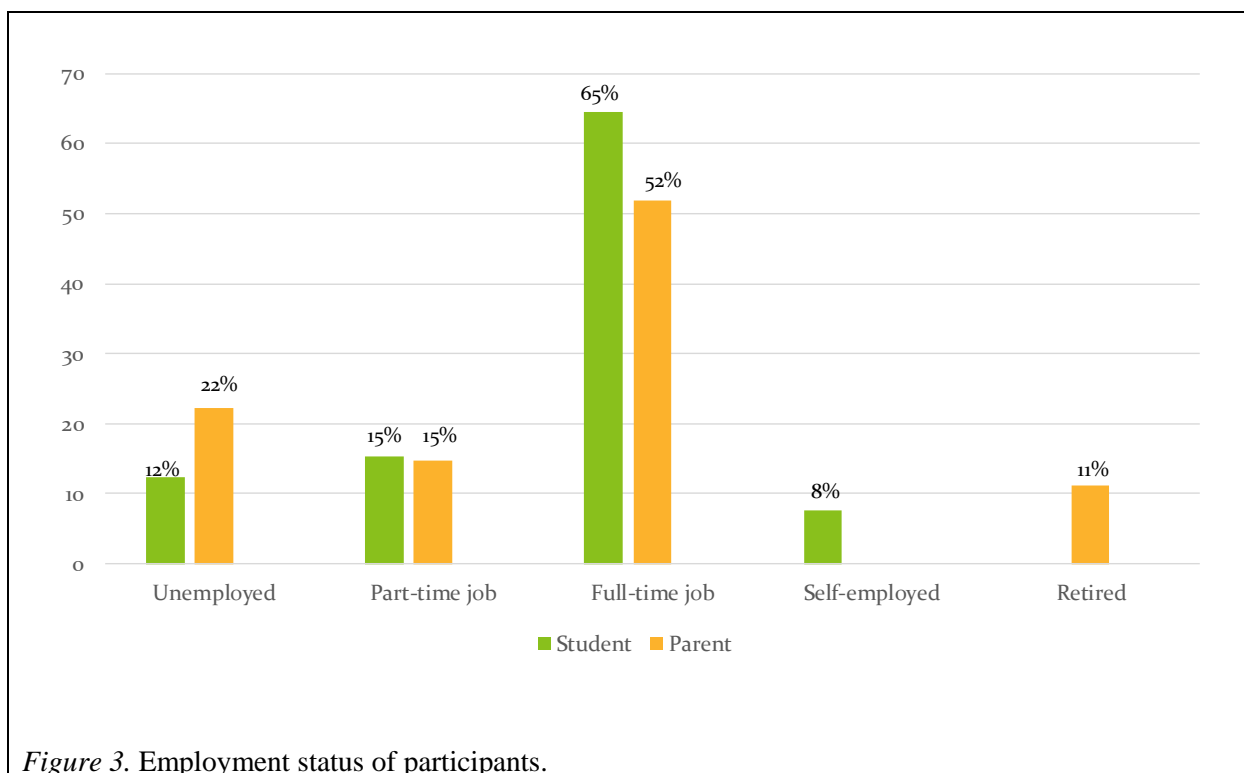
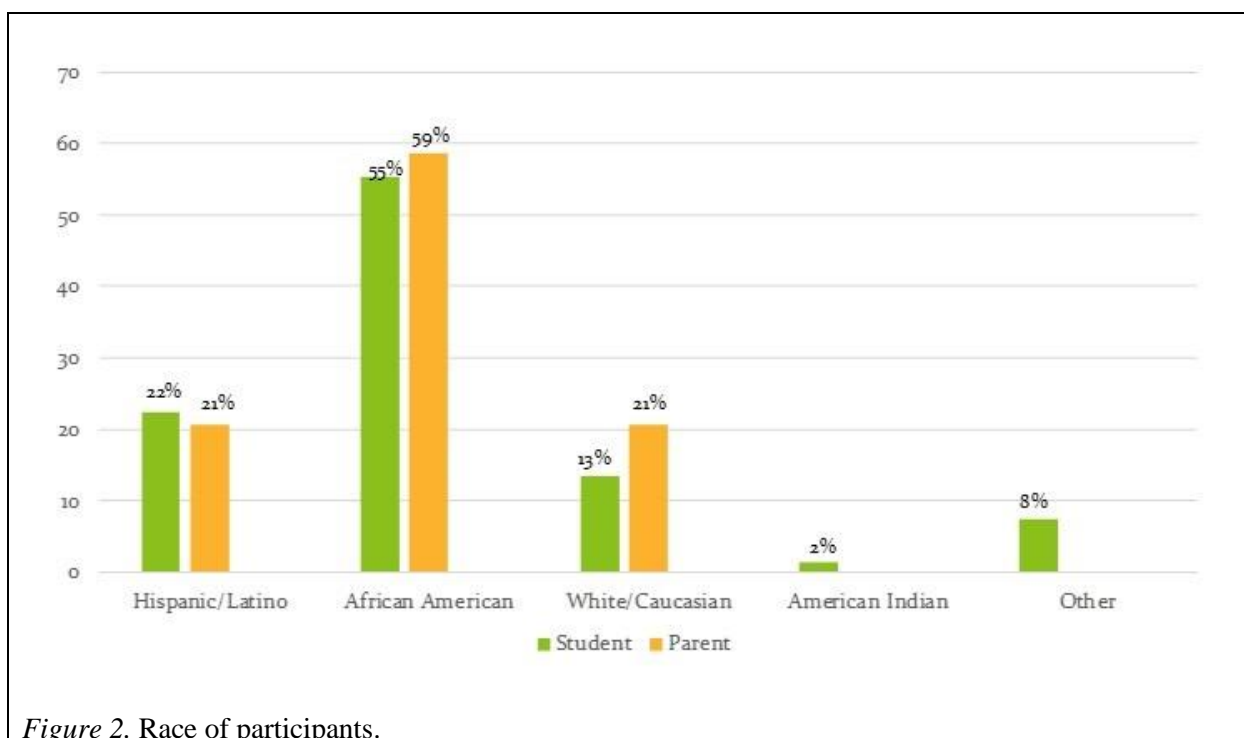
Quantitative Data

Quantitative data provided information about the participants' age, race, employment, educational attainment, and criminal history (see Figures 1-6). Among the participants, 80% of parents were ages 40 and above, and 59% were African-American. On the other hand, 87% of former students were ages 40 and younger, and 55% were African-American. Findings also revealed that 64% of parents and 61% of former students were first-generation postsecondary students, and 72% of parents and 89% of former students had attained some type of post-high

school education. Interestingly, 16% of former students had received one or more master's or doctorate degrees. In addition, 67% of parents and 88% of former students were employed in either full- or part-time jobs. Moreover, 95% of former students reported that they had not ever committed a felony, and 92% indicated that had never been convicted of a crime.

Participants were also asked to rate how influential the Opportunity School was in their lives. 72% of parents and 65% of former students indicated that Opportunity School was Very Influential, while 24% of parents and 22% of former students indicated that it was Somewhat Influential (see Figure 7).





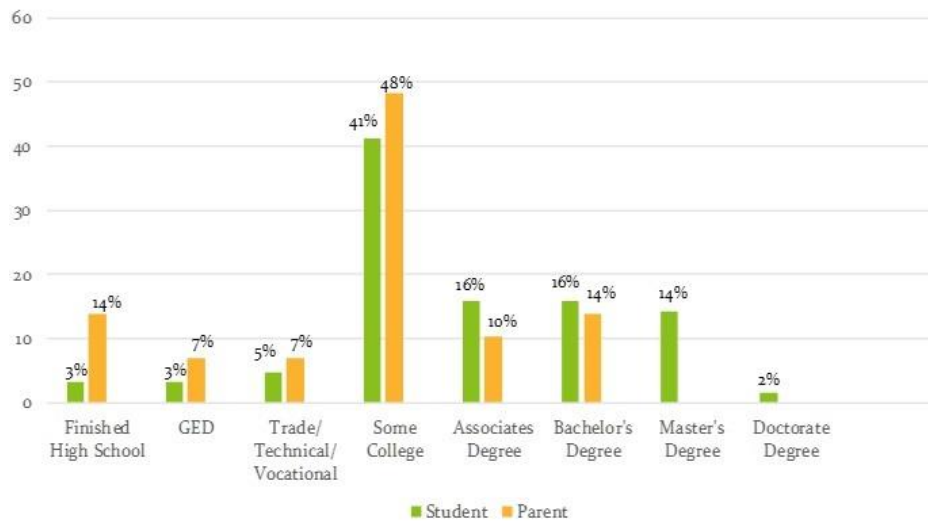


Figure 4. Educational attainment of participants.

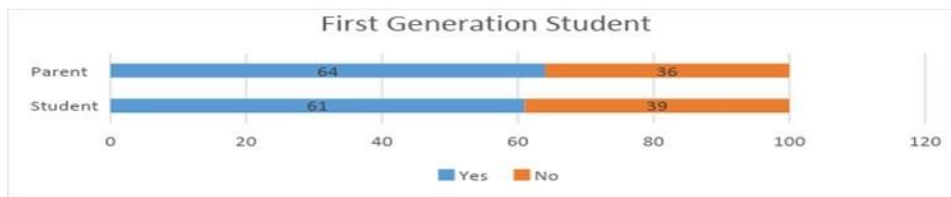


Figure 5. First generation postsecondary student status of participants.

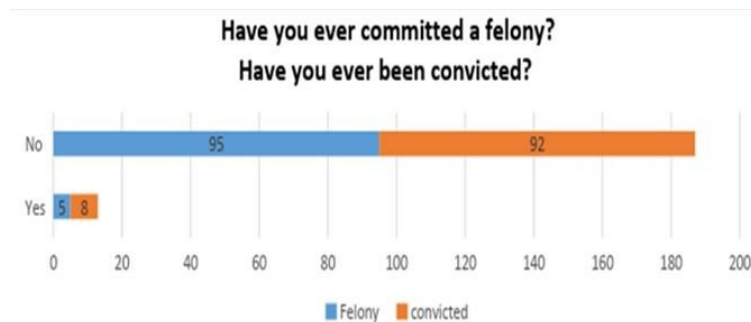


Figure 6. Criminal history of participants.

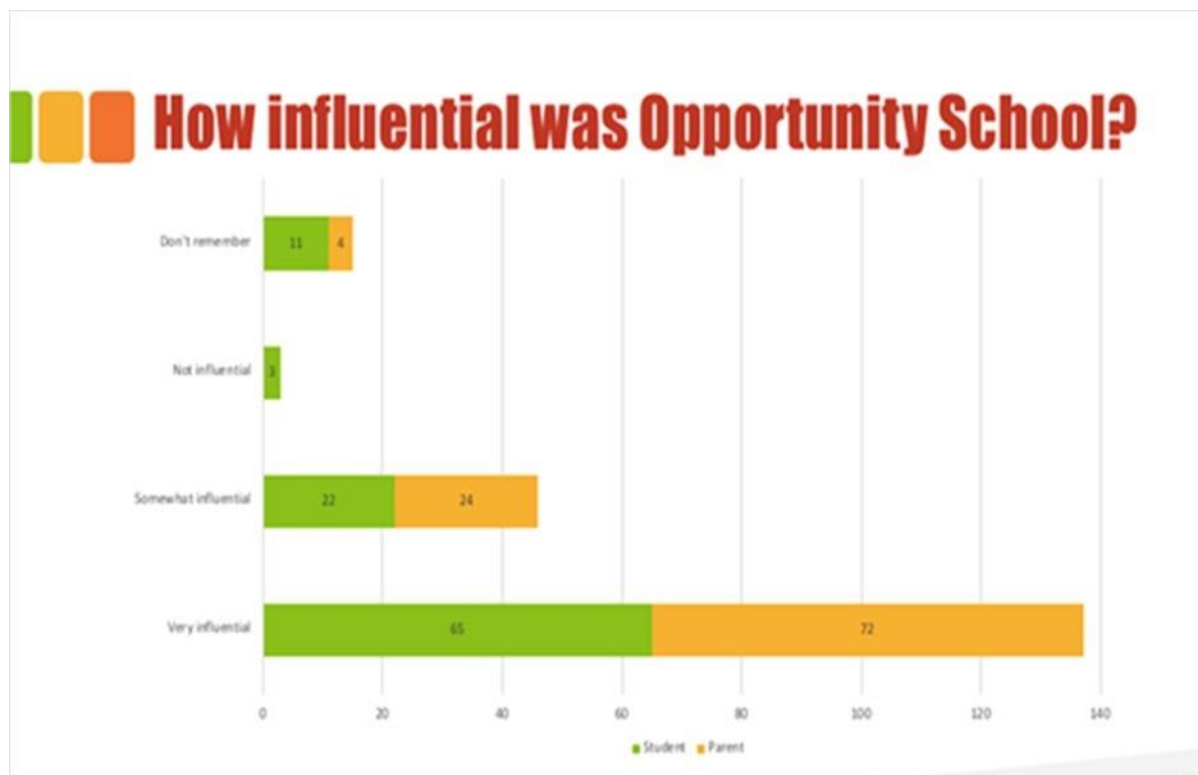


Figure 7. Influence of Opportunity School.

Qualitative Data

Survey respondents frequently cited ways that Opportunity School supported their family (see Figure 8). For instance, 61% of former students said that the preschool provided a safe learning environment and offered childcare services and meals that greatly helped the family. Several parent participants pointed out that Opportunity School teachers were “kind” and “thoughtful,” and some of their most treasured memories were the long-standing relationships with school staff members. Data revealed that some former Opportunity School teachers were still in contact with their former students and families, even after 40 years.

We reviewed the qualitative data a second time to look for preschool experiences that may have influenced the school readiness or emerging literacy development among former students. Several themes emerged after revisiting the qualitative information through a different lens. Identified themes included caring teachers, home visits, family connections and support, effective learning environments, engaging school activities, and early literacy experiences. An overview of each theme is explored below.

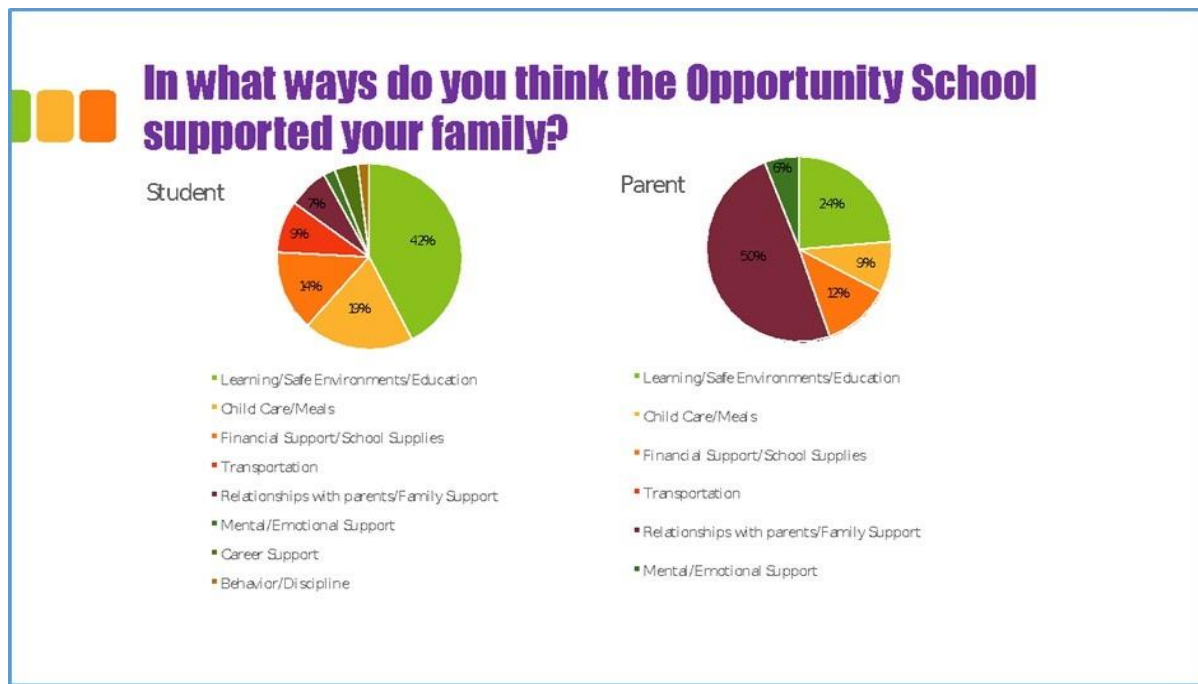


Figure 8. Themes for ways in which attending Opportunity School supported families.

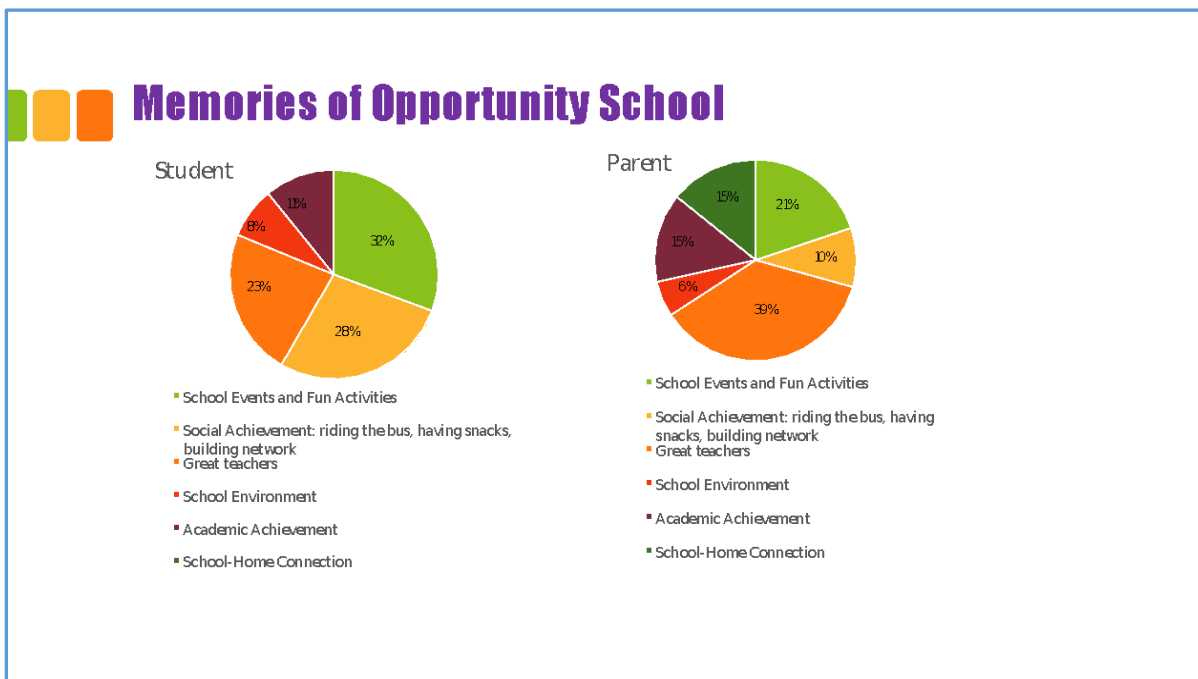


Figure 9. Themes for Memories of Attending Opportunity School.

Caring teachers. Teachers at Opportunity School played a major role in influencing the perceptions of parents towards their children's school attendance, academic preparedness in kindergarten-12th grade, and continued "positive feelings" towards school. When describing their memories of the Opportunity School, Participant 28 stated, "The teacher had the biggest influence. The teachers really stood out to us." Other parent participants used adjectives, such as "awesome," "great," and "excellent" to describe teachers at Opportunity School (Participants 2, 10, and 15). Four parent participants further described how much their children "loved their teacher" (Participants 3 and 6), "thought the teachers were amazing" (Participant 12), and "enjoyed the interaction with the teacher" (Participant 15). Participant 6 suggested that the love of the teacher motivated their child to go to school by explaining that their child "loved to go and see his teacher." Feelings of care and admiration for Opportunity School teacher were also exemplified when Participant 22 stated that her son "loved his teacher and to this day talks about her," and Participant 24 shared, "we still keep in contact with [Opportunity School teachers]." Participant 10 further expressed the lifelong impact that the teachers had on students when they stated, "The teacher was great and helped the students build confidence and excel and get a head start in [my daughter's] learning and the things she needed to do in school."

Home visits. One unique aspect of Opportunity School for both former students and parents were the frequent home visits conducted by the teachers. The home visits not only provided the teachers a chance to reinforce learning experiences among students, but they also honored the culture of the families by learning more about them on a personal level. The home visits eased anxiety and equipped parents with valuable educational information. Participant 28 explained, "It was such a wonderful experience for us, and we were not going to be worried about going to school . . . The teacher was coming to our home and explaining and making suggestions." Similarly, Participant 11 stated, "[Opportunity School

teachers] would come to our house and actually be there to visit with us, and I liked that because you could tell that it was important to them and not judgmental." This parent participant also went on to say:

Community wide, it takes a village to raise a family. I liked that everyone interacted and the teachers could see the food that [mom] prepared for her child and her ethnicity and saw her in her own home. I think it is very important about the home visiting part, and it is very important for us to all get to know each other and relate to one another as people, not teachers and parents, so that everyone can get to know each other and have understanding and not be so judgmental.

Relationships built during these home visits developed trust in the teachers, and this helped the parents be more involved in their child's education. According to Participant 12, the teachers and staff came "to the home once a week and went over how they were doing in school, and [asked] if we thought they needed anything extra."

Family connections and support. Data emphasized the critical role that family connections and school support systems played in the education of former Opportunity School students. One former student clearly stated, "Parent involvement is important (Participant 7). Participant 21 explained how the Opportunity School staff provided meaningful encouragement by stating, "Opportunity School [teachers] supported us very well for educational purposes. They helped us, and whenever I got in trouble, they came to my house and talked to my mom. They included the parents and were very helpful."

Transportation was another way in which former students felt supported at Opportunity School. Participants 2 and 8 fondly remembered riding the "bumpy blue and brown bus" to school. Participant 9 explained, "By providing transportation, my mom talked to them a lot with the teachers coming by the house." Participant 38 stated, "I remember the

bus and [bus driver] picking us up from our house, and she always made it fun.”

Participant 37 explained the significance of Opportunity School’s mission to serve minority, low-income, immigrant, or refugee populations by saying, “It helped in terms of providing a place for me to be when my parents were both working. It was the beginning of my integration to people that lived here—we were immigrants.” Another former student reported, “We were refugees and had problems financially at that time. Opportunity School gave us an opportunity to be exposed to education.”

Participant 17 was a former student whose daughter was currently attending Opportunity School. She shared, “Now that my daughter attends there, they help with food, clothing, and transportation.”

Effective learning environment. A friendly, optimistic, and well-organized learning environment provides students with the structure necessary for them to learn. One parent participant recounted their memories of the positive school culture by recalling, “The students were able to learn in a positive environment, a welcoming environment” (Participant 5). Another parent participant shared, “It is important to be in a learning environment as early as possible, to get that structure” (Participant 43). Parent participants also made several comments regarding the small class sizes. Participant 18 shared, “I think it helps them [students] get an edge by learning the basics with a smaller class and more individualized [instruction].” Participant 36 added, “The teacher-student ratio is really good. One-on-one or some sort of small group [instruction].” Participant 57 further indicated the importance of an effective learning environment for young learners by stating, “I think that this is an awesome set up and environment because your children build positive relationships at an early age.”

Engaging school activities. One of the cornerstone principles of Opportunity School’s educational philosophy is to provide experiences that foster “children’s curiosity, love of learning,

and responsibility” (Opportunity School, 2018, bullet 8). Former student participants exemplified this principle in a variety of ways. A favorite activity that was mentioned frequently involved kitchen activities, such as the beloved “gingerbread man project” (Participant 11). Participant 9 recalled this activity by explaining, “The gingerbread man that they used to bake while we were outside playing...and then we would have to go back inside and find it.” Former students recounted many other kitchen activities, such as “snacks” (Participant 13), “soup” (Participant 4), “birthday cupcakes” (Participant 62), and a “tea party” (Participant 26).

Field trips also exemplified Opportunity School’s educational philosophy. One former student recalled, “I also remember all of our field trips. We had cool experiences including the Amarillo symphony. They took us on a lot of field trips.” Another favorite field trip was the public library. Participant 55 said, “I remember going to the library when I was in Opportunity School. Early access to people who encouraged me to read and learn made all the difference to me. It set me on a strong path.”

Early literacy experiences.

Opportunity School teachers provided many engaging early literacy experiences for former students, which set them up for positive literacy development. Participant 55, who shared that she was now a secondary school teacher, explained, “I think that Opportunity School is probably the biggest impact on that part of my life. I was an early reader and having regular access to books was a big thing for me.” Participant 54 remembered, “I had one-on-one reading sessions with my teacher.”

Additionally, Participant 60 reminisced:

[Opportunity School] was kind of a blessing to my family . . . and was definitely helpful for me and my brother to prepare for kindergarten and first grade. My brother actually wanted to read books, and they brought us 200 books. It was a great experience for us!

Discussion

This study examined the lasting influences of early childhood intervention among a group of former Opportunity School students and their parents. Our findings were similar to those reported in the Abecedarian Project and High/Scope Perry Preschool studies and have demonstrated positive outcomes associated with Opportunity School attendance among former students and their parents. Additionally, Murdock, Cline, Zey, Jeanty, and Perez (2014) reported, “Expanding preschool programs to focus on four-year-olds from poor families have a high potential for increasing school readiness” (p. 9). Since Opportunity School serves mostly low-income children and their families, our findings have suggested a need for providing quality early childhood educational interventions for children and families who live in poverty. Recently, lawmakers in Texas passed legislation that aimed to increase access to prekindergarten programs for young children from low-income families, limited-English-speaking households, foster care, and military families (Svitek, 2015). These programs have the capacity to improve school readiness and provide a strong and healthy start for young children and their families (Texas Early Learning Summit, 2018).

It is widely understood that the teacher sets the tone of the classroom. Teachers who genuinely value and cherish their students can develop positive and trusting cultures of learning in their classrooms (Kerman, Kimball, & Martin, 1980; Zehm & Kottler, 1993). Our findings reinforced this understanding. Participants frequently mentioned ways in which Opportunity School teachers were caring individuals who made students and parents feel welcome at the school. Participants also asserted that the kindness and warmth from Opportunity School teachers extended the doors of the school and followed students to their homes, which permeated the entire community. This kind of caring school community is important for all students; however, Battistich, Solomon, Watson and Schaps (1997) maintained

that a caring school community benefits at-risk populations of students the most.

The influence of caring teachers who conducted frequent home visits was a major theme that emerged from our analyses of data. These positive school-home connections evoked pleasant memories from both former students and their parents. Yaafouri-Kreuzer (2017) described how conducting home visits transformed her interactions with 3rd grade students whose families were new to the United States. She discovered what the Opportunity School teachers knew over 40 years ago—visiting students’ homes creates a positive and meaningful classroom culture. Yaafouri-Kreuzer concluded, “Particularly with immigrant and refugee students, visiting families’ homes connects teachers to students’ histories, needs, and strengths” (p. 21).

Along with home visits, participants cited other ways in which Opportunity School connected their families to the school and addressed their needs. For example, participants specifically indicated the importance of school transportation, childcare, and meals at Opportunity School. According to Maslow’s hierarchy of needs theory, the basic needs of students and their families must be met before significant learning can occur (McLeod, 2017). Consequently, schools must first address the physical, safety, and psychological needs of students. Moreover, researchers have contended that ongoing efforts to involve the entire family in the early education of their children will reap greater benefits (Joo, 2010; Park, 2008; Slaby, Loucks, & Stelwagon, 2005).

Engaging preschool activities, such as cooking in the classroom and taking field trips, enhance the quality of early childhood educational interventions. These types of developmentally appropriate practices are not only memorable, as suggested by participants in this study, but are also vital to young students’ continual growth and learning (Kostelnik, Soderman, Whiren, & Rupiper, 2015). Implementing engaging preschool activities provide fertile ground for the growth and

development of young students and set the stage for continued educational progress (The University of Texas System & Texas Education Agency, 2015).

Early childhood educational interventions can help young children overcome some of the disadvantages of poverty by supporting developing literacy skills (Genishi, 2018; National Institute for Literacy, 2002; Shanahan & Lonigan, 2017). According to Baxter (2014), oral language development is important to emergent literacy skills, as well as social development. Preschool environments and activities can provide multiple and meaningful exposures to language in diverse contexts that influence the development of language skills and later literacy achievement (National Institute for Literacy, 2002). This study documented several approaches that Opportunity School teachers have used to promote literacy development, including enhancing vocabulary development through authentic and meaningful activities, bringing books to students, and modeling good read aloud strategies for parents.

Limitations and Suggestions for Future Research

We experienced great challenges with locating former Opportunity School students and

their parents. Contact information was outdated, so our sample included only former students and parents that we could locate. Another limiting factor was participants in this study self-reported data from their past memories. Since their recollections were far in the past, parents may not have had clear memories of events that occurred long ago, and former students may not have accurate remembrances from early ages. Future research endeavors should include ways to include a control and treatment group to explore additional influences of early childhood educational interventions.

Conclusions

Findings from this study have clearly demonstrated that early childhood educational interventions can provide positive outcomes for students and their parents. Early childhood teachers and leaders can use this research-based information to design meaningful activities and enact transformational practices to support at-risk students and their families. Educator preparation programs can use this knowledge to help their preservice teachers develop the knowledge and skills to be effective early childhood educators. We assert that it takes all stakeholders working together to transform the learning outcomes for our youngest students.

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Best Practices in Teaching Culturally and Linguistically Diverse Students: A Case Study

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Abstract

This paper considered best practices in teaching culturally and linguistically diverse (CLD) students. A case study research design was used to discover specific English as second language (ESL) strategies teachers are using in their classrooms and specific ESL strategies students find engaging and helpful to learn. This study collected data using teacher surveys, student surveys, and observations from two lessons that were created and implemented by the researchers in a 3rd grade classroom comprised of diverse students. One lesson used the Madeline Hunter model and did not incorporate ESL strategies, while the second lesson utilized the Sheltered Instruction Observation Protocol (SIOP) Model and incorporated several ESL strategies. Data were analyzed with the constant comparative method and open coding. Findings showed limitations with knowledge of and use of ESL strategies among teachers and increased levels of engagement and understanding among students during lessons infused with ESL strategies.

Keywords: *English language learners, culturally and linguistically diverse students, English as a second language*

Introduction

In an era of changing demographics and inclusive classrooms, it is important to consider the unique and varying needs of CLD students in schools. Students who are learning English while simultaneously learning content require specialized instructional approaches. In these cases, CLD students benefit from both content and language classroom instruction. Teachers must first take into consideration the varying linguistic levels of each CLD student and then implement developmentally appropriate strategies and techniques, such as sheltered

instruction, scaffolding, hands-on instruction, the use of realia, Total Physical Response, and critical thinking and questioning.

Gibson (2016) explained that the number of CLD learners is expected to continue to increase and stated, “With the rise of ELL and immigrant inhabitants, their success is important to the future of the nation” (p. 134). Teachers have a great responsibility to help CLD students be successful. Although there are multiple and various instructional models available, Gibson found persistent achievement gaps between CLD

students and their native English-speaking counterparts. Gibson reported:

Several studies have displayed a trend of achievement gaps between ELLs and L2 students. The research exhibits a clear pattern that performance gaps pertaining to CLD students are an issue that exist in grades Pre-K through the college and university level of education. (p. 134)

With this in mind, the researchers of this study were motivated to find effective instructional methods to use with CLD students.

Theoretical Framework

The theory guiding this research stems from experts in the field of bilingual and ESL education. Considering the works of Krashen (1987); Echevarria, Vogt, and Short (2014); and Herrera and Murry (2011), three main theories provided direction from data collection through analysis. Krashen's (1987) input hypothesis and comprehensible input theories were the basis of theory concerning ESL pedagogy that ensure CLD students understand messages presented in content area lessons, even while they learn English. Comprehensible input is any type of support that enables students to understand meaning through spoken verbal words and accompanying non-verbal supports. Comprehensible input may include visuals, realia, gestures, videos, simplified or adapted speech or text, and pacing.

The researchers also considered the distinction between the following instructional components with respect to best practices used in inclusive classrooms with CLD students: approach, method, strategy, and technique. Herrera and Murry (2011) emphasized the importance of consistent terminology among teachers and explained the differences between these instructional components:

- Approach - Based upon a particular theory of learning, and teachers must decide which theoretical framework is best suited to instructing their students and meeting their needs. Once an approach to teaching has been established, the teacher then chooses

appropriate methods that fit within that approach.

- Method - Includes a collection of philosophically-grounded and functionally-related techniques to help implement instruction.
- Strategy - Comprises a collection of theory-grounded techniques, which are the specific actions taken to implement the method and put it into practice.
- Technique - Are specific and intentional actions strategically used to achieve a goal.

According to Herrera and Murry, instruction for CLD students should be aligned in a vertical manner and begin with an approach that serves as an umbrella encompassing all instructional components. Instruction should end with carefully selected strategies and techniques that support the learning environment.

Finally, the researchers considered the sheltered instruction method for teaching ELLs content and language simultaneously. This model, known as SIOP, employs sheltered instruction techniques to teach content in a comprehensible manner (Echevarria et al., 2014). By using this model, the content becomes the vehicle for language instruction so that both content and language are learned in conjunction with each other. The goal of this study was to investigate the following research question: What are effective instructional methods for use with students who are learning English as a second language?

Literature Review

According to Barrow and Markman-Pithers (2016), the number of CLD students in the United States who are served within public schools is growing rapidly. For example, Texas served approximately 455,000 public school students in 2014 (Texas Education Agency, 2014). Many researchers agree that teachers must have specialized skills and knowledge to teach all students effectively (Krashen, 1987; Echevarria et al., 2014; Herrera & Murry, 2011). Although there are a great number of instructional models available for use with CLD

students, three of the most commonly used models are Transitional Bilingual Education (TBE), Content-Based Instruction, and the SIOP Model.

The TBE method is by far the most prevalently used model in schools today (Herrera & Murry, 2011; Hinton, 2015; Larsen-Freeman & Anderson, 2016). TBE utilizes a student's native language, along with English. This instructional model is short in duration and lasts for only two to three years before a student transition fully to instruction in English. The underlying premise of TBE is to focus on grade-level academic content at the same time they are learning English. An issue with TBE is that it does not provide students enough time to gain English proficiency before they are moved into an English-only classroom.

Another instructional model used with CLD learners is Content-Based Instruction (Larsen-Freeman & Anderson, 2016). This instructional model gives "priority to communicating, over predetermined linguistic content, teaching through communication rather than for it" (p. 131). The Content-Based Instruction model mixes content and language learning together so that students do not fall behind in either. According to Larsen-Freeman and Anderson, "Teachers must have clear language objectives as well as content learning objectives for their lessons" (p. 134). Thus, teachers focus on improving student knowledge with specific content and language skills in each lesson. Use of Content-Based Instruction requires a significant amount of scaffolding to bridge the gap between background knowledge and new material. For this reason, it is vital that teachers ascertain students' background knowledge and previous experiences. Teachers must also be prepared to design and implement learning activities that support students with limited background knowledge and experiences. Content-Based Instruction also relies heavily on the use of visuals, examples, and repetition.

The SIOP Model is also commonly used among CLD students (Echevarria et al., 2014). Echevarria et al. stated that the SIOP Model was

developed "as an approach for teachers to integrate content and language instruction for students learning through a new language" (p. 17). The SIOP Model is used in lesson planning and incorporates cooperative learning, differentiated instruction, and lesson objectives for both the content and the language learning.

Echevarria et al. (2014) asserted that lessons following the SIOP Model are most effective when the content objective (i.e., the objective that focuses on a specific knowledge and skill within the curricular area) and the language objective (i.e., the objective that considers the current language level of CLD students) "are systematically woven" together (p. 19). Teachers who use the SIOP Model make connections between the academic content and students' prior knowledge with visuals, modeling, graphic organizers, and adapted texts. Teachers also reinforce taught information with supplemental non-verbal materials, such as related texts, illustrations or models, and computer resources, to make content comprehensible. Much like Content-Based Instruction, the SIOP Model teaches content and language simultaneously and requires frequent use of scaffolding. Positive attributes of this model include its adaptability to the teacher's own style, high levels of engagement among students, and the ability to teach all students in an inclusive environment.

Methodology

Research Design

This yearlong qualitative case study was conducted during the 2016-2017 school year and beginning of the 2017-2018 school year with the purpose of identifying effective instructional methods for use with CLD students. Lincoln and Guba (as cited in Erlandson, Harris, Skipper, & Allen, 1993) asserted, "The case study allows for thick description that puts the reader vicariously into the context and allows him or her to interact with the data presented" (p. 40). By employing a case study research design, the researchers provided a platform for

readers to transfer these ideas to other CLD settings.

Research Questions

To achieve the purpose of this study, the following research questions provided guidance:

1. What strategies and techniques do teachers view as effective for CLD learners?
2. What strategies and techniques do CLD students view as effective for themselves?

Participants

The research sample for this study included students and teachers in classrooms that have multiple CLD learners in two different West Texas elementary schools that serve Kindergarten through fifth grades. The Director of Teacher Certification at a university-based teacher preparation program identified these schools as optimal settings for this study. Teachers in the identified schools were surveyed to discover the different ESL strategies and methods they used when working with CLD students. The principal at one of these schools identified a 3rd grade class that consisted of a large number of CLD students. This class included 19 students, all of whom were of Hispanic origin. Among these students, 14 had limited English proficiency, 11 were female, and eight were male.

Data Collection Procedures

The lead researcher (i.e., the first author of this paper) began this study by reviewing standard best practices in the field of ESL instruction to ascertain effective research-based strategies and techniques. The lead researcher compiled a list of ESL strategies and techniques to assist with creating lessons, which would later be taught in a local area school.

Before creating and teaching lesson plans, the lead researcher distributed the teacher survey to all teachers in the two West Texas elementary schools through school email. Due

to an extremely low response rate, the researchers extended the teacher survey to other elementary schools in the Texas Panhandle region who serve large populations of CLD students. The lead researcher compiled data by assigning each returned survey a pseudonym and de-identified all other information.

After the teacher surveys were completed, the researchers created two lesson plans: one lesson plan with ESL strategies and one without. For the lesson plan without ESL strategies, the researchers chose to use the Madeline Hunter format because it is well known, research-based, and considered good pedagogy. For the lesson plan using ESL strategies, the researchers chose to use the SIOP Model because it is known as a good lesson model for CLD students. The researchers chose for the topic of the two lesson plans to be similar, but not the same. During each lesson, both researchers were present, one as the teacher and the other as an observer. Both researchers took field notes to document their thoughts and understandings, as well as the actions, behaviors, and levels of engagement of students.

Lesson plan without ESL strategies.

The first lesson plan addressed plot elements. The first lesson began with an anticipatory set of watching a roller coaster video to capture attention and get students excited to learn. Following the anticipatory set, the lead researcher moved into the input and modeling phase of the Madeline Hunter model. The lead researcher distributed a handout to students that related the different plot elements (i.e., exposition, rising action, climax, falling action, resolution) to a roller coaster ride and described characteristics of each plot element. Next, the lead researcher read a children's book to the class, and students worked with the lead researcher to label plot elements from the story on the whiteboard using a drawing of a roller coaster. Students were placed into small groups, read a different story, and completed the plot elements roller coaster activity with less support. After small group practice, the lead researchers planned an independent practice activity; however, students struggled greatly with this

lesson and failed to comprehend the content. Instead of an independent practice activity, students worked in small groups again with a different book.

Lesson plan with ESL strategies. The second lesson addressed sequencing events in a story. The second lesson began with activation of prior knowledge and building background. The lead researcher made a sandwich out of order (i.e., meat, bread, cheese, bread), which students recognized as incorrect. The researcher connected sequencing used in making a sandwich to sequencing with events in a story. Next, the lead researcher pre-taught essential vocabulary (i.e., sequence, setting, resolution, and plot). To accomplish this, the lead researcher had dual language vocabulary notes for students in Spanish and in English. After reviewing essential vocabulary, the lead researcher performed the teaching component by explaining beginning, middle, and end, along with events that usually occur. The lead researcher then read a children's book to students. After reading the story, students worked with the lead researcher to retell the story events. The lead researcher drew pictures and used realia to represent students' responses. When students struggled to recall story events, the lead researcher helped them to look for the answer in the book. After the whole group activity, students were placed into small groups, and the lead researcher read a different children's book. The lead researcher distributed sentence stems of different story events to each small group, and students worked together to complete the sentence stems and place the story events in order. The last activity of this lesson was an assessment that was completed individually. The lead researcher gave each student a paragraph with pictures. Students were instructed to read the paragraph and identify events that happened at the beginning, middle, and end.

After both lessons were taught, students were asked to complete a survey, which was in pencil-and-paper format. The classroom teacher assisted students by reading and explaining the questions using comprehensible input and

translations as needed. The student survey provided students with the opportunity to provide feedback concerning which ESL strategies helped them understand the content and which lesson they preferred.

Data Analysis

To analyze the data from the teacher and student surveys, the researchers compiled responses into separate Word documents. The researchers used the constant comparative method and open coding as suggested by Glaser and Strauss (1967) to produce grounded theory. Throughout this process, the researchers considered both a priori codes and emergent codes to construct themes from the data. As data were coded, themes began to emerge, and the researchers used these themes to sort and analyze the data (Bogdan & Biklen, 2007). Each time a theme was noted, the researchers used marginal notes to title each theme and then color-code them using highlighters. After data were coded, the researchers refined codes to combine themes, using subthemes as necessary.

To ensure trustworthiness, the researchers addressed credibility, transferability, dependability, and confirmability. To promote credibility, the researchers used prolonged engagement with all participants (Lincoln & Guba, 1985). The researchers designed and implemented two lesson plans and collected survey responses for a period of four months. Triangulating data from diverse data sources also helped to establish credibility (Denzin, 1970). By triangulating different data sources, the researchers were able to provide checks during data analysis and consider tentative emergent themes from varied perspectives. The researchers attended to dependability by creating an audit trail and utilizing member checks to ensure data were reported accurately and could be accessed easily if needed (Lincoln & Guba, 1985). Finally, the researchers focused on transferability by including thick, rich description, "by describing in multiple low-level abstractions the data base from which transferability judgments may be made by potential appliers" (Erlandson, 1993, p. 145).

Findings

Teacher Survey

For this study, the researchers wanted to ascertain which ESL strategies teachers used to teach CLD students. In order to do this, the researchers surveyed teachers who worked with large populations of CLD students in the Texas

Panhandle region. These efforts resulted in the return of 17 surveys. As shown in Table 1, the teaching experiences of teacher participants ranged from two to 34 years. With respect to classroom composition, 10 teacher participants taught in classrooms with 25% or fewer CLD learners, four taught in classrooms with 26-75% CLD learners, and three taught in classrooms with more than 75% CLD learners.

Table 1

Demographic Information for Teacher Participants

Participant	Pseudonym	Gender	Years of Experience	Percentage of CLD Students
1	Mrs. A	Female	5 years	20%
2	Mrs. B	Female	3 years	50%
3	Mrs. C	Female	28 years	4%
4	Mrs. D	Female	19 years	1%
5	Mrs. E	Female	2 years	35%
6	Mrs. F	Female	25 years	0%
7	Mrs. G	Female	34 years	98%
8	Mr. H	Male	10 years	1%
9	Mrs. I	Female	4 years	0%
10	Mrs. J	Female	5 years	0%
11	Mrs. K	Female	29 years	5%
12	Mrs. L	Female	4 years	80%
13	Mrs. M	Female	21 years	78%
14	Mrs. N	Female	30 years	50%
15	Mrs. O	Female	5 years	75%
16	Mrs. P	Female	26 years	12%
17	Mrs. Q	Female	11 years	5%

Despite varying teaching experiences and classroom compositions, teacher participants had several commonalities with their survey responses. Teacher participants were asked to identify the ESL strategies they used in their classrooms to teach CLD students, and they

provided an extensive listing. This listing included visuals, hands-on materials, learning about student cultures, providing individual help, modeling, use of sentence stems, grouping, and clarifying instructions. Two teacher participants identified ESL strategies that

resonated with the researchers as being strong, research-based ESL strategies. For instance, Mrs. K listed, “pre-teaching vocabulary, creating dual language supports including word walls, vocabulary lists, glossaries, and note-taking guides.” Mrs. M indicated, “Concrete works best when available.” Since the ESL strategies of pre-teaching vocabulary, using dual language supports, and use of realia are ESL strategies continually mentioned in pedagogical research, it was surprising that only two teacher participants mentioned these specific ESL strategies.

All of the teacher participants shared that the ESL strategies they used were effective in their classrooms either all of the time or most of the time, with the exception of Mrs. F. Mrs. F said, “I haven’t tried them out, so I’m not sure.” Five teacher participants also mentioned ESL strategies that they tried and were not effective. For example, Mrs. C shared, “Lecture teaching does not work anymore with most all kids, and especially not with the ELLs.” Similarly, Mrs. L noted, “Talking slowly, yelling at them louder, or putting them in time-out does not help if the student doesn’t understand what you are saying.”

While analyzing data, the researchers noticed that some teacher participants indicated specific ESL strategies as effective, while other teacher participants found them ineffective. For example, seven teacher participants explained that student grouping techniques, such as peer interpreters, classroom buddies, or small group activities, were effective. However, Mrs. E expressed concerns with the use of student grouping:

Group work is effective if student groups work together and each student can take part in the project. Some students get frustrated and take control to finish the projects if there is little to no input from the culturally-diverse students.

Likewise, Mrs. M declared, “I have tried things that were not so effective, like just partnering the student with a same language peer, but not implementing any other strategy.” These

statements indicated that the effectiveness of ESL strategies was dependent upon how well a teacher utilized a specific strategy and whether it addressed the specific needs of CLD students.

Teacher participants specified that they determined the effectiveness of ESL strategies by reviewing student assessment scores and observing students’ communication patterns, attitudes, participation, and desire to learn. Mrs. J explained, “I know these strategies are effective by observations. I can see when a student starts to have a ‘light bulb moment’ or if they are still lost in the curriculum and classroom setting.”

When asked where ESL strategies were learned, teacher participants mostly indicated workshops and trainings conducted within their schools, school districts, and regional education service center. Mrs. M shared that she learned most of her strategies from “staff developments within our school mostly. Some through the district, some from our regional service center, some through obtaining my ESL certification, some from just conversations with more experienced teachers.” Mrs. D explained that she learned “mostly from trial and error. What works for some students may not work for others.” Similarly, Mrs. J shared, “A lot of these strategies come from trial and error. One strategy that works wonders for one student may do nothing for another, so it really depends on the child.” A few teacher participants stated that they learned ESL strategies from college classes, independent research they conducted using online sources, and professional conferences. Mrs. K disclosed, “I learned most of my strategies at Math for English Language Learners (MELL) conferences organized by the Texas State University System.”

Teaching CLD students can come with some challenges, as well. Most of the teacher participants described challenges that they encounter, such as language barriers, parent communication, and cultural differences. For example, Mrs. B shared:

If you are not aware of different beliefs, it can be difficult to understand why a

student feels or reacts a certain way. For instance, not wanting to look you in the eye may seem disrespectful to some, but in various cultures, making eye contact is disrespectful or even inappropriate.

Other challenges teacher participants described were handling a class with students on different levels, students who were afraid to ask for help, students who give up, student behavior issues, lack of understanding of how school works, no previous schooling, and working with students in the silent period. For instance, Mrs. L shared, “Some students come from other countries and do not understand why their parents are leaving them at school all day long...it takes different amounts of time for each student to get used to being at school.”

With regard to overcoming challenges, teacher participants reported using translators, such as another student or an adult; determining students’ linguistic levels, using appropriate pacing, learning about students, and engaging students through their interests. Mrs. A explained:

I think it’s most important to determine what level of education the student is on and try to work from there. Rather than trying to force all students to be on the same level, it is necessary to work much slower with these students.

Other responses included using illustrations, technology, group work, and district resources. Furthermore, Mrs. I advised, “Look at each situation individually and take it head on. Remember that it is our responsibility to find a way to reach every student and never stop trying to find a solution. Utilize every resource that you can find.” Some teacher participants expressed the importance of having patience with students and correcting any mistakes gently. Mrs. O emphasized the importance of “not embarrassing a student or shaming them for the way they speak, but very simply repeating back to them what they said, just in the correct form and without making a big deal about it.”

The last survey question asked teacher participants to describe how they handled students with various linguistic proficiency levels. The most common response concerned the use of specific grouping and differentiated instruction. Seven teacher participants also included peer tutoring, modifying assignments, giving extra time for assignments, and providing instruction that is more specialized. Mrs. O shared that she handled varying linguistic proficiency levels with “differentiated instruction, partner work/help, and one-on-one instruction or conferences.” Mrs. C described techniques she used to modify assignments appropriately:

They all do the same work, but sometimes I shorten assignments and many times just give the student more time to do the assignment. I constantly monitor students to make sure they are understanding and catch them early if they need extra help on an assignment.

Three teacher participants responded to varying linguistic proficiency levels with backup lesson plans, acquiring special resources, and careful monitoring of students. Mrs. J explained the value of back-up lesson plans by stating, “I always have accommodations and back up plans in case I observe students struggling or needing the curriculum to be scaffolded.”

Correspondingly, Mrs. Q recalled a time that she acquired special resources for a student:

I once had a student that was very bright but struggled with English since he spoke Spanish. We were able to order a Spanish version of the textbook. He was able to understand what I said in class, but this way he could focus on the math concepts in class rather than translating.

Student Survey

In the student survey, students were asked to identify the most helpful element in the lessons. More than half of the student participants shared that the use of realia in Lesson Two was most helpful (see Table 2). Four students provided comments that they liked

specific parts of one of the stories. However, these comments did not address this survey question and indicated that while students learned from the story, they did not understand what helped them learn. Quinton commented on the helpfulness of children's books in the lesson by stating, "She was make it more intisting (interesting) with the books." Four students provided responses that did not make sense or used spellings that the researchers were unable to decipher.

After the lessons were taught, students were asked to self-report their engagement levels (see Table 2). Students responded to this survey question with possible answers of: 1 = Very Engaged the Whole Time, 2 = Very

Engaged Most of the Lesson, 3 = Engaged Half of the Time, and 4 = Not Engaged at All. Out of the nineteen student participants, 14 reported that they were very engaged the whole time, and the other five reported that they were very engaged most of the lesson.

Student participants were also asked to compare the first lesson to the second lesson and indicated the lesson that they liked best. As a majority, student participants liked the second lesson better, which was the lesson with ESL strategies. Fourteen student participants cited that Lesson Two was more fun. The five student participants who preferred Lesson One indicated that they liked the roller coaster references.

Table 2

Helpfulness of Strategies and Engagement Levels among Student Participants

Participant	Pseudonym	Hands-On Activities	Realia	Children's Books	Unclear Answer	Engagement Level
1	Ann	X	X			1
2	Bill		X			1
3	Cindy	X	X			2
4	Dan			X		2
5	Elaine			X		1
6	Fred				X	2
7	Gale				X	1
8	Henry			X		1
9	Isabel				X	2
10	Jack		X			1
11	Kate		X			1
12	Lane		X			1
13	Mona			X		2
14	Nate		X			1
15	Olivia				X	1
16	Pete	X	X			1
17	Quinton			X		1
18	Rhett			X		1
19	Stacy				X	1

Note. Engagement levels included 1 = Very Engaged the Whole Time, 2 = Very Engaged Most of the Lesson, 3 = Engaged Half of the Time, and 4 = Not Engaged at All.

Discussion

The aims in this study were to ascertain which ESL strategies teachers are using in their classrooms and what ESL strategies students find engaging and helpful to learn. To achieve this, the researchers determined best practices as outlined by the research, utilized these strategies to develop two model lesson plans, and discover ESL strategies in use among teachers who serve large populations of CLD students. Through their research and with Lesson Two, the researchers found that specific ESL strategies (i.e., realia, visuals, hands-on activities, sentence stems, grouping, pre-teaching vocabulary, dual language notes, providing extra support to CLD students as necessary) were effective. Students demonstrated greater levels of understanding and higher levels of engagement. However, analyses of teacher survey data revealed limited understandings with ESL strategies among teacher participants. While many teacher participants described effective ESL strategies, they each listed only one or two strategies. In addition, the researchers were surprised that some of the ESL strategies described on the teacher survey were not reflective of good pedagogy for CLD students.

In comparing both lessons, the researchers noted that Lesson Two took longer to create and prepare than Lesson One. The researchers also noted that teaching Lesson One seemed to drag on. Students needed concepts explained multiple times, and even after multiple explanations, they still seemed to struggle with understanding the content. On the other hand, teaching Lesson Two went more smoothly. Students transitioned between activities at an appropriate pace demonstrated satisfactory levels of engagement throughout the lesson. With the inclusion of ESL strategies, students demonstrated understandings of the content more quickly. Although the researchers determined that both lessons were beneficial and used sound pedagogy, Lesson Two was more fun and easier to teach. The extra time needed

to prepare this lesson saved class time because the pacing was more efficient.

An implication from these findings is the need for more and better teacher training. Teachers who work with CLD students must have comprehensive understandings of a wide variety of ESL strategies, including how to implement them based upon each student's linguistic proficiency level. As noted in the findings, student participants indicated that the lesson with ESL strategies was preferred because it was engaging. Although some students indicated that Lesson One was preferred, their reasoning was due to the roller coaster references in the video clip used as an anticipatory set. This activity could easily be integrated in a SIOP lesson because it is engaging, visual, and helps students connect learning to something concrete. With high-quality training, teachers may be able to identify effective ESL strategies, as well as adapt and modify traditional teaching practices to accommodate CLD students instead of using the trial-and-error approach as indicated by several of the teacher participants in this study.

Limitations

There were a few limitations with the methods employed in this study that affected generalizability of findings. First, the number of student participants was small and may not universally represent the demographics of every classroom. Second, the low number of teacher participants from the two originally identified West Texas elementary schools was a limitation. Because the researchers expanded the participant base to include teachers who work with CLD students in the Texas Panhandle, they were unable to relate reported data to specific school campus and district initiatives.

Conclusion

Public schools in the United States have increasing numbers of CLD students, and teachers must know effective ways to teach these students. In this study, the researchers

examined ESL strategies currently in use, as well as how lessons that use ESL strategies influence teaching and learning. The researchers found students to be more engaged during a lesson that included ESL strategies, and students indicated greater understandings with content presented in this lesson. Although teachers reported knowledge and use of specific ESL

strategies, it is evident that more attention with professional learning was needed. Teachers who serve CLD students require continuous opportunities to learn about and practice using ESL strategies. Appropriate use of ESL strategies directly influences learning experiences among all students, especially CLD students.

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Searching for Graphic Novels in Literacy Texts

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Abstract

Two literacy teacher educators charged with teaching literacy to preservice elementary teachers discovered the potential of graphic novels for supporting multimodal comprehension and Internet navigation among students. Reviewing their adopted texts, they found almost nothing about graphic novels and questioned whether this was the case in other texts. They conducted a review of a semi-random collection of literacy texts published since 2000 to determine how graphic novels are treated in those texts. Results indicated that 73% of the texts made no mention of graphic novels, and only two suggested specific strategies for use with graphic novels. This paper discussed the plan of action the researchers implemented to include graphic novels in their curriculum, as well as implications of their findings.

Keywords: *graphic novels, literacy texts, multimodal reading, visual strategies, synthesizing strategies*

Introduction

When my copy of Shaun Tan's (2007) *The Arrival* came in the mail, I (Barbara, the first author) quickly sat down to read it. I first learned about the book while reading an article published in *The Reading Teacher*. The article strongly suggested that graphic novels (GNs) could be useful in helping students learn to negotiate our multimodal world, especially reading on the Internet (Dallacqua, Kersten, & Rhoads, 2015). I already had an interest in this topic and was well aware of Leu et al.'s (2015) research, which showed that adolescents were not at all skilled with determining how to negotiate the multimodal World Wide Web. "If GNs will help," I thought, "I need to learn more about them."

Sitting down with *The Arrival*, I was unprepared for what I found. I paged through the book, completely lost. The book had no words at all; it was a story completely told in sepia-toned paintings. I read it once with very little understanding of what was happening in the book. I realized I had no idea how to make sense of a complicated text with no words. Then, I read it a second time, and I slowly began to understand how to read this GN so that it made sense. I studied each image carefully, metacognitively connected it to the preceding and subsequent images, and made inferences within and across images. It occurred to me that if I, an expert reader, struggled with reading a GN, it was likely a challenge among preservice elementary teachers. I took my copy of *The Arrival* into my adolescent literacy class, and as

I expected, the students found it difficult to comprehend.

My experiences with *The Arrival*, coupled with Dallacqua et al.'s (2015) suggestion to use GNs as tools to scaffold the reading of multimodal text and Serafini's (2014) concept of "multimodal ensembles" (pp. 12-13), sparked more questions and led me to complete two tasks. First, I read everything I could find on GNs. Second, I contacted Maribeth (the second author), a colleague who taught in the same teacher preparation program and had similar interests regarding technology integration and media literacy. Maribeth also began reading GN literature, and we shared insights in face-to-face and email conversations over a period of months. During this time, Maribeth confided that her granddaughter professed to hate GNs and could not explain exactly why.

Through our study, we learned that GNs were used to support reading comprehension among struggling readers (Hughes, King, Perkins, & Fuke, 2011; Matthews, 2011; Smetana, 2010) and English language learners (Danzak, 2011; Park, 2016). GNs were also used as tools to assist with teaching difficult concepts in science, math, and social studies (Brozo, 2012, 2013; Matthews, 2011). Furthermore, we discovered that librarians (Galley, 2004; Mooney, 2002; Williams & Peterson, 2009) and English teachers (Carter, 2007; Cook, 2017) had been promoting and using GNs for a number of years.

In light of these revelations, we essentially looked at each other and said, "We're reading 'experts!' How could we not know about graphic novels?" We both completed the same master's and doctoral degree programs that had a reading focus and could not recall any readings or learning activities about GNs in either of these graduate programs. We also reviewed the textbooks we used in the reading courses we taught among preservice elementary teachers and realized that none of them offered more than a mention of GNs. None of these textbooks provided strategies regarding how to

read or use GNs in the classroom. We were convinced that students needed more support with how to make sense of GNs (Monnin, 2010; Serafini, 2014). Barbara's struggle with *The Arrival*, Maribeth's concern that her granddaughter hated reading GNs, and the lack of attention to GNs in reading textbooks ultimately became the impetus for this study.

Literature Review

Comics and GNs became hugely popular among many young people long before they gained serious attention within the education community (Galley, 2004; Williams & Peterson, 2009). From 1940-1960, a campaign was waged against comics, citing them as morally corrupt (McCloud, 1994; Novak, 2014; Sabeti, 2013). GNs, which evolved from comics, have been perceived as simple texts with no literary value (Galley, 2004), thus engendering an attitude of dismissal by many educators and researchers (Clark, 2013; Jimenez & Meyer, 2016). Additionally, the predominance of GN use to lessen the vocabulary load for struggling readers and English Language Learners has led many educators to believe that GNs were just simplistic versions of real literature (Galley, 2004).

Clark (2013) introduced preservice teachers to GNs as legitimate literary works and found that preservice teachers personally enjoyed GNs and saw a use for them in the classroom. Despite this finding, most preservice teachers in the study indicated that they would not be inclined to use them in their classrooms because they feared losing credibility with their colleagues, administrators, and community members. Several other researchers (e.g., Clark & Camica, 2014; Matthews, 2011; Schwarz, 2009) discussed similar attempts to introduce preservice teachers to GNs that failed to develop significant positive responses. These findings indicated that preservice teachers had already taken notice of the dismissive and negative attitudes towards GNs.

At first, we thought perhaps other teacher preparation programs or reading textbooks might be addressing GNs, even though ours were not. After reflecting on our school visits and student teacher observations conducted during the past ten years, we realized that neither of us have seen any indication that GNs were commonly used as classroom texts. With this in mind, we questioned, “Do teachers receive any type of training regarding use of GNs? As teacher educators, were we the only ones not addressing GNs during teacher preparation, or was this a systemic omission?” From these questions, we designed this study to provide insights concerning how GNs were addressed within common reading textbooks used during teacher preparation.

Rationale for Design of Study

We designed this study with the concepts that underlie action research. Action research has long been a staple of professional development for teachers trying to understand their own practice at all levels (Noffke, 1997). Ferrance (2000) offered a summarizing description of action research:

Educators are working in their own environment, with their own students, on problems that affect them directly. They are at the place where research and practice intersect and real change can occur. Results of their actions can be seen first-hand, and they can build on this information. (p. 29)

Mills (2000) further clarified that action research was “any system of inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about the ways that their particular schools operate, how they teach, and how well their students learn” (p. 6). Mills categorized two types of action research: critical action research and practical action research. Critical action research investigates previously unchallenged assumptions with a postmodernist view, while practical action research entails a

self-examination of professional practice with the purpose of continuous improvement. As researchers, we felt our study had a strong foothold in both approaches. It was with this understanding and concern for our own teacher preparation practices, multimodal literacies, and GNs that we developed the following research question: To what extent does a semi-random collection of recently published textbooks for reading instruction in teacher preparation programs treat or discuss the use of GNs in K-12 classrooms?

Method

Selection of Texts

The teacher preparation program at the university where we work requires successful completion of five literacy/reading courses and two language arts courses (see Appendix A). As a result, we had shelves full of reading textbooks, including texts currently being used, previous editions of those texts, and texts received from publishers to review for adoption. To achieve the purpose of our study, we decided to review each of these texts for material related to GNs. In order to ensure relevance with our findings, we limited our sample to include the most recent editions of texts published from the year 2000 forward. As shown in Appendix B, our sample consisted of 26 reading textbooks.

Data Collection and Analysis

We reviewed reading textbooks individually and recorded our independent analyses in a single table. The table organized the textbooks in individual rows with the following columns: Grade/Age Level, GN Mentioned, Other Nontraditional Genres, GN Discussion, and Specific GN Strategies and Lesson Ideas. The review process for each textbook began by first checking the index to see if GNs were listed. If there were entries in the index, the indicated pages were reviewed to determine specifically how GNs were discussed. The textbooks were then added to the table, and we recorded notes in the appropriate columns. The table was shared electronically during this

review process to eliminate duplicates and resolve any differences with our analyses. Once we completed the table, we organized the textbooks into four groups: GNs not mentioned, GNs only mentioned, GNs discussed in multiple paragraphs or text excerpts, and GN strategies offered. We determined that the column labeled Other Nontraditional Genres did not add important information to achieve the purpose for this study, so it was not included in our analyses. For the three groups of textbooks that addresses GN (i.e., GNs only mentioned, GNs discussed in multiple paragraphs or text excerpts, and GN strategies offered), we conducted additional analyses to compare references to GNs among

textbooks. We conferred frequently to discuss and resolve any discrepancies in our analyses.

Findings

The quantitative results of our reading textbook review are shown in Figure 1. Of the 26 textbooks reviewed, 19 (73%) did not mention GNs at all. Three textbooks (12%) simply mentioned GNs as useful in some capacity, and two textbooks (8%) discussed GNs in multiple paragraphs or contexts. Two textbooks (8%) offered a single strategy for teaching with GNs.

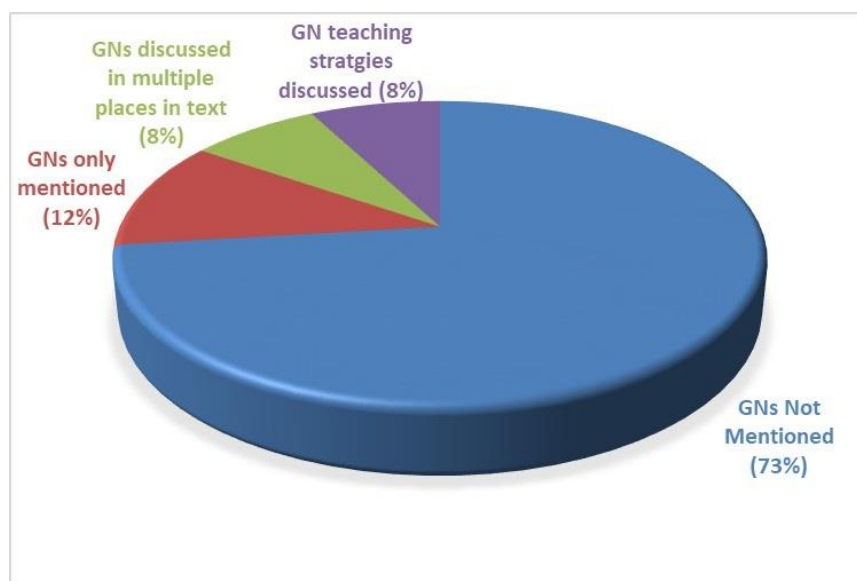


Figure 1. Results of analyses for GN discussion in 26 reading textbooks.

In-depth analyses of textbooks that did address GNs in some manner yielded important results. Among the three textbooks in which GNs were only mentioned, two textbooks commented that GNs represented a type of nontraditional children's literature. The third textbook pointed out that GNs were multimodal

texts and helpful for supporting comprehension among ELLs.

Regarding textbooks that offered more extended comments on GNs, one textbook mentioned GNs were useful for teaching disciplinary content and provided a two-sentence discussion explaining how GNs can help

struggling readers learn to make inferences. The second textbook in this category briefly discussed GNs with regard to New Literacies and visual literacy. This textbook also mentioned GNs in four other sections as (a) prompts for creating comics; (b) examples of trade books for young readers, (c) acceptable options for all readers, including English language learners, reluctant readers, and gifted learners; and (d) promising formats for disciplinary content.

The final category represented two textbooks that offered at least one specific strategy for teaching students how to read GNs. One of these textbooks provided a three-page discussion of GNs, including an explanation of the characteristics and functions of gutters and clear directions on how to implement a synthesizing strategy. The synthesizing strategy involved how to model a think-aloud and use cloze sentences to promote inferencing about what is happening between panels across the gutter. The second textbook offered extended discussions regarding (a) how GNs provide context clues for English language learners; (b) how GNs cultivate motivation and engagement among all readers, particularly reluctant readers; and (c) the literary value of GNs. This textbook also included an example of how a teacher used a think-aloud to help English language learners discern visual cues to understand that the sequential images in a GN contained the literary characteristics of characters, setting, and plot.

Discussion

Our analyses of data provided a clear answer to our research question regarding the extent to which GNs were addressed within the pages of the 26 textbooks we reviewed. It was evident that GNs did not occupy an important place in most of the textbooks we reviewed. The two textbooks that did include specific strategies for using GNs were published in 2013 and 2014. However, six of the textbooks were published in 2014 or afterwards and contained little or no information for GNs. Additionally, the two textbooks that addressed GNs more explicitly provided instructional strategies that

addressed different purposes. Therefore, the textbooks we reviewed did not attend to GNs comprehensively or systematically. As teacher educators, we concluded that we would not be able to rely on any of these reading textbooks to supply what is necessary to teach preservice elementary teachers with and about GNs. We realized that we needed to find materials or develop our own to help preservice elementary teachers gain a thorough understanding of GNs. As a result of our efforts, we created the following action plan.

Action Plan for GN Use among Preservice Elementary Teachers

We shared several GNs with preservice elementary teachers in our teacher preparation program and began explicitly teaching how to read GNs. We felt no single strategy would be enough to support our students, so we developed a systematic approach to teach three specific concepts associated with GNs: (1) how to read the images, (2) how to understand the conventions and vocabulary, and (3) how to synthesize words and images from panel to panel across gutters.

We began with how to read the images. We utilized Visual Thinking Strategies to help preservice elementary teachers learn to read visual images (Cappello & Walker, 2016). This strategy involved displaying an image from a GN and asking three questions: (1) What is happening in this picture? (2) What do you see that makes you think that? (3) What else do you see? After providing time for preservice elementary teachers to think about these questions independently, we facilitate related discussions.

We used Monnin's (2013) *Teaching Reading Comprehension with Graphic Texts* to teach preservice elementary teachers how to understand the conventions and vocabulary of GNs. We used examples from actual GNs to highlight specific vocabulary terms and other affordances. Knowing preservice elementary teachers needed more practice with this GN concept, Barbara also utilized the Lansdown's

(1991) Word Card strategy, which involved using folded cards to write the vocabulary word, provide a definition, and draw a corresponding picture. Preservice elementary teachers created their word cards copying image examples from GNs and then practiced using the word cards as an instructional tool.

To teach preservice elementary teachers how to synthesize words and images from panel to panel across gutters, we developed a strategy called Double Entry Journal-Jigsaw. First, we selected two pages from a children's GN that contained eight panels. Next, we blacked out all of the images on one page and all of the words on the second page and made several photocopies of each. Then, we divided the class into small groups and gave half of the small groups the photocopies of the image-less page and the other half of the small groups the photocopies of the word-less pages. Each small group also received copies of a one-page, two-column journal. We instructed preservice elementary teachers to record observations about their page in the left column and to reflect on each observation in the right column. After preservice elementary teachers completed this task, we provided each small group with photocopies of the opposing page in order to demonstrate the equal importance of images and words to synthesize meaning within GNs.

Besides using these strategies in our classes with preservice elementary teachers, we twice shared them in professional conference settings. The responses we have received from these presentations has been encouraging. Additionally, Barbara administered a brief survey among preservice elementary teachers at the conclusion of one course. Preservice elementary teachers indicated that these three strategies were very helpful in developing their ability to read and comprehend GNs.

Limitations

This study was limited to a review of textbooks to which we had immediate access. Although the number of textbooks we reviewed was small, we determined that they were

representative of the reading textbooks available for teacher preparation. However, we recommend that future studies employ comparative analyses of other reading textbooks used to prepare preservice elementary teachers.

Conclusion

While sharing our findings among colleagues, we were made aware that GNs are covered in some teacher preparation programs. However, we were concerned that if the textbook does not address GNs thoroughly and effectively, the likelihood of the teacher educator doing so is not high, particularly if their instruction closely follows textbook chapters. If preservice elementary teachers do not learn about GNs in their coursework, they may not learn about them at all.

Two factors are important here. First, it has become apparent that GNs are more difficult to read than generally thought and require explicit strategic instruction and support (Cook, 2017; Monnin, 2010, 2013; Serafini, 2014). This means that students, preservice teachers, and practicing teachers require a greater level of comfort with GNs (Lapp, Wolsey, Fisher, & Frey, 2012; Serafini, 2014). A concerted effort to inject the teaching of explicit reading strategies for GNs into K-12 literacy classrooms is clearly in order.

Second, researchers have intimated that GNs provide scaffolding for multimodal reading, especially on the Internet (Brozo, Moorman, & Meyer, 2014; Cook, 2017; Dallacqua et al., 2015; Hall, 2011; Monnin, 2010, 2013; Serafini, 2014). With this in mind, teachers cannot afford to let such a valuable tool go to waste. Literacy teacher educators must develop a body of knowledge about GNs by reading these texts themselves and learning, at the very least, how to read images in GNs, how to understand the conventions and vocabulary used in GNs, and how to synthesize words and images from panel to panel across gutters. Literacy teacher educators must then incorporate these concepts associated with GNs into coursework, so that preservice elementary

teachers leave their teacher preparation programs with essential understandings of how to teach about and with GNs.

Beyond these factors, authors of reading textbooks must offer adequate space and attention to thorough discussions of GNs. These discussions should highlight the usefulness of

GNs and include a system of specific instructional strategies that promote the reading and comprehending of GNs. This will be a critical component in making sure that GNs are addressed in teacher preparation programs so that future teachers are prepared to address GNs in K-12 classrooms.

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Appendix A

Reading/Literacy and Language Arts Courses in a Teacher Preparation Program for Preservice Elementary Teachers

Course Number	Course Title and Targeted Grade Levels	University Catalog Course Description
ELED 3513	Emerging and Developing Literacy (Pre-K & K)	Designed specifically for the undergraduate elementary, early childhood, and special education teacher candidate. The focus for this course is emergent and developing literacy in Pre-K and kindergarten classrooms.
ELED 3523	Literacy in the Primary Grades (1 st -3 rd)	Designed specifically for the undergraduate elementary, early childhood, and special education teacher candidate. The focus for this course is literacy in the primary grades. Prerequisite: ELED 3513 with grade of C or better
ELED 3533	Literacy in the Intermediate Grades (4 th -6 th)	Designed specifically for the undergraduate elementary, early childhood, and special education teacher candidate. The focus for this course is literacy in the intermediate grades. Prerequisite: ELED 3523 with grade of C or better
ELED 3543	Adolescent Literacy (7 th -8 th)	Designed specifically for the undergraduate elementary, early childhood, and special education teacher candidate. The focus for this course is adolescent literacy. Prerequisite: ELED 3533 with grade of C or better
ELED 4444	Diagnosis and Remediation of Reading at Elementary Level	Includes assessment procedures, class profiles, referral techniques, as well as development of instructional programs using instructional objectives, and diagnosis and tutoring of struggling readers. Prerequisites: ELED3423 and ELED 3433 with a grade of C or better
ELED 4513	Language Arts I (Pre-K-3 rd)	Designed specifically for the undergraduate elementary and early childhood teacher candidate. This course includes listening, speaking, reading, writing, viewing, and visual representation. Integration of grammar, spelling, vocabulary, handwriting, and word processing instruction into the writing process is included. This course focuses on emergent and developing learners in Pre-K, kindergarten, and primary grades.
ELED 4533	Language Arts II (4 th -8 th)	Designed specifically for the undergraduate elementary teacher candidate. This course includes listening, speaking, reading, writing, viewing, and visual representation. Integration of grammar, spelling, vocabulary, handwriting, and word processing instruction into the writing process is included. This course focuses on learners in intermediate grades and middle grades.

Appendix B

Literacy Texts Reviewed in Chronological Order by Publication Date

- 2000 - *Teaching Children to Read: Putting the Pieces Together* (3rd ed.) by Reutzel & Cooter
- 2006 - *Reading to Learn in the Content Areas* (6th ed.) by Richards, Morgan, & Fleener
- 2007 - *Reading Problems: Assessment and Teaching Strategies* (6th ed.) by Rubin & Optiz
- 2008 - *Literacy Assessment Intervention for K-6 Classrooms* by DeVries
- 2008 - *Understanding Reading Problems* (7th ed.) by Gillet, Temple, & Crawford
- 2008 - *Best Practices in Adolescent Literacy Instruction* by Hinchman & Sheridan-Thomas
- 2008 - *Teaching Content Reading & Writing* (5th ed.) by Ruddell
- 2008 - *Integrating the Language Arts* (4th ed.) by Yellin, Jones, & DeVries
- 2009 - *Literacy Development in the Early Years: Helping Children Read and Write* (6th ed.) by Morrow
- 2009 - *Teaching Reading in Today's Elementary Schools* (10th ed.) by Roe, Smith, & Burns
- 2010 - *Assessing and Correcting Reading and Writing Difficulties* (4th ed.) by Gunning
- 2010 - *Reading Problems: Assessment and Teaching Strategies* (6th ed.) by Jennings, Caldwell, & Lerner
- 2010 - *Literacy in the Middle Grades: Teaching Reading and Writing to Fourth through Eighth Graders* (2nd ed.) by Tompkins
- 2011 - *Literacy in the Early Grades* (3rd ed.) by Tompkins
- 2012 - *Understanding Reading Problems* (8th ed.) by Gillet, Temple, Temple, & Crawford
- 2012 - *Literacy Development in the Early Years: Helping Children Read and Write* (7th ed.) by Morrow
- 2012 - *Teaching Reading in Today's Elementary Schools* (11th ed.) by Roe & Smith
- 2013* - *Forward Thinking: Teaching Language Arts in Today's Classrooms* by Dobler, Johnson, & Wolsey
- 2014 - *Early Childhood Language Arts* (6th ed.) by Jalongo
- 2014* - *Content Area Reading: Literacy and Learning Across the Curriculum* (11th ed.) by Vacca, Vacca, & Mraz
- 2015 - *40 Strategies for Middle and Secondary Classrooms: Developing Content Area Literacy* by Antonacci, O'Callaghan, & Berbowitz
- 2015 - *Literacy in the Early Grades* (4th ed.) by Tompkins
- 2015 - *Essentials of Integrating the Language Arts* by Yellin & DeVries
- 2018 - *All Children Read: Teaching Literacy in Today's Diverse Classrooms* (5th ed.) by Temple, Ogle, Crawford, & Temple
- 2018 - *Reading and Learning to Read* by Vacca, Vacca, Gove, Burkey, Lenhard, & McKeon
- 2018 - *Literacy: Helping Students Construct Meaning* (10th ed.) by Cooper, Kiger, Robinson, & Slansky

*Text containing at least one strategy for teaching GNs.

Graphic Options: A Comparison of Stories and Their Graphic Novel Counterparts

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Abstract

Literacy experts herald the educational benefits of using graphic novels across the curriculum and with different types of students. This study involved an analysis of the graphic novel format compared to the traditional text format for a variety of stories. A comparison of five books and their graphic novel counterparts provided insight into significant likenesses and differences among literary elements, which have implications for classroom teachers. Literacy elements of focus included plot, theme, setting, character development, and conflict found in the two formats. Findings revealed differences between the two formats that need to be addressed in the classroom to enhance students' understanding of graphic novels.

Keywords: graphic novels, multimodal, literary elements

Introduction

Graphic novels (GNs) are a phenomenon of modern literature. Avid fans span across genders, age levels, and cultures. Both GNs and comic books have been popular reading formats as evidenced in the sales, which have steadily risen and culminated to \$1.085 billion in 2016 (Miller, 2017). This number shows a \$55 million increase from 2015. These publications are one of the highest growth categories in the trade book marketplace (The NPD Group, Inc., 2017). GNs for children and young adults are the fastest growing segment (Maughan, 2016). Librarians across the country reported that GNs are frequently chosen by

patrons and improve overall circulation numbers (Gavigan, 2014; Rednour, 2017).

The popularity of GNs offers an opportunity for K-12 educators to increase reading engagement among students. In addition, this literature format accommodates aspects of visual literacy that are prominent in the lives of 21st century learners. Visual images play a central part in communication, education, and entertainment (Yildirim, 2013). State standards are also reflecting the emphasis on multimodal instruction, as seen in Texas' new English language arts and reading standards (Texas Education Agency, 2017).

How do GNs differ from traditional novels? In many ways, the answer to this question is obvious. Traditional books use words, while GNs rely equally on text and visuals. The differences, however, are far more complex. In order to investigate specific ways GNs differ, the authors of the present study studied five books and their GN counterparts to compare literary elements.

Graphic Novels

GNs differ from comics in that comics are typically published as magazines, and GNs appear in book format. Schwarz (2006) defined GNs as “a longer and more artful version of the comic book bound as a ‘real’ book” (p. 58). GNs have also been described as “an original book-length story, either fiction or nonfiction, published in comic book style” (Gorman, 2003, p. xii). Regardless of the slight variations in description, GNs are considered a format, not a genre (Weiner, 2010). Within the GN format, readers can find a variety of genres (Schwarz, 2006).

Classroom Benefits

GNs can be powerful teaching tools. Not only is this popular format motivational for readers, but they also build critical thinking skills (Boerman-Cornell, 2016; Schwarz, 2006); provide opportunities to develop multimodal literacies (Watts, 2015); and support both struggling readers (Carter, 2009; Richardson, 2017) and gifted students (Carter, 2009). Bakis (2012) listed many other advantages to using GNs in the classroom based on her experiences and research. The benefits included the facilitation of rich discussion, application of problem-solving skills, building of social meaning, development of confidence, promotion of personal and intellectual growth, and exposure to the constructive nature of reading.

Educators have documented success with GNs. Jennings, Rule, and Zanden (2014) studied the efficacy of using GNs with students in comparison to traditional novels and heavily illustrated novels. The researchers examined

students’ perceptions of the three types of novels, as well as how each type influenced comprehension and reading enjoyment. Jennings et al. (2014) reported the students in this study described higher levels of pleasure and interest in relation to GNs compared to the other formats. They described greater understanding with both GNs and heavily illustrated novels, which supports the complementary use of text and visuals. Additionally, using GNs sparked more discussion and increased comprehension according to formal assessments.

A Different Kind of Reading

Although GNs present a valuable format for classroom learning, they require a different type of reading (Brozo, Moorman, & Meyer, 2014; Pagliaro, 2014; Schwartz, 2006). GNs can provide scaffolding to more text-intense books, but readers often report that they are more difficult to analyze than a traditional story because they require a great deal of visual analysis and inferencing (Miller, 2015). Literary elements in GNs, such as setting, theme, plot, and characters, are portrayed differently (Watts, 2015). In traditional books, the pictures that are included support the text; however, the pictures in a GN “*are* the text” (Pagliaro, 2014, p. 33).

The text features and other visual components used in GNs require skills beyond understanding literary elements. Readers must decipher visual features, such as color, shading, panel layout, perspective, and lettering style to interpret the full meaning of the story (Schwarz, 2006). GNs use pictures to tell their stories, which require substantial inference (Watts, 2015). The details of the illustrations “help readers infer the emotions and motivations of characters as well as more fully understand the twists and turns within the plot” (Richardson, 2017, p. 24).

Generally, GNs place art inside panels, which are individual boxes separated by blank area called gutters. Readers must give detailed attention to the artistic elements and “infer what has happened during the transition from one

panel to the next” (Watts, 2015, p. 39), which is called closure (McCloud, 1993; Watts, 2015). McCloud (1993) explained that “panels fracture both time and space, offering a jagged staccato rhythm of unconnected moments. But closure allows us to connect these moments and mentally construct a continuous, unified reality” (p. 67). The reader must also determine the order of the panels and text features. Typically, the panels and text are read from left to right, top to bottom. However, the arrangement can be complex and befuddle experienced readers.

The words chosen by the illustrator, which may be in or out of voice balloons, often

represent sound (McCloud, 1993). Font shows variations in tone of voice, volume, and emotion. The words “have the power to completely describe the invisible realm of senses and emotions” (McCloud, 1993, p. 135). Colors and hues are used by illustrators to express and symbolize elements, such as mood, depth, and emotion. Specific terms related to GNs are presented in Table 1. Teachers and students who possess knowledge of the vocabulary associated with GNs are empowered to improve their understanding, as well as participate in meaningful discussions (Brozo et al., 2014).

Table 1

Specific Terms Related to GNs

Term	Meaning
Panel	An individual frame of content that tells part of the story. A panel may contain images, text, or both.
Gutter	The space between panels.
Hue	The shade (hue) of color to communicate meaning to the story.
Sound effects	Images or text, usually onomatopoeia, that portray sound in the story.
Motion lines	Lines that depict movement in pictures (also called zip-ribbons).
Closure	The “phenomenon of observing the parts but perceiving the whole” (McCloud, 1993, p. 63). Readers of GNs use closure to connect the action in panels.
Icon	An image that represents a person, place, thing, or idea.
Frame	The border around a panel.
Speech balloons	A graphic tool depicting words spoken by a character.
Thought balloons	A graphic tool depicting thoughts of a character.
Caption	A narrative that cannot be shown through art, speech, or thought.
Bleed	Art that “runs off of the page instead of being contained by a border” (Brozo et al., 2014, p. 15).
Sound effects	Text that highlights sounds in the form of onomatopoeia or images.

GNs require “special attention to be given to its unique visual and word arrangement” (Schwarz, 2006, p. 59). Readers must slow down when reading GNs and attend to the text and a variety of elements, such as images, color, font, and visual perspective (Brozo et al., 2014). Because the combinations of words and pictures used in GNs are limitless

(McCloud, 1993), GNs may present challenges to students unfamiliar with multimodal forms of storytelling. They require critical thinking skills in order to gain meaning from new innovative features of text. Therefore, readers benefit from explicit instruction related to the characteristics of GNs.

Theoretical Perspective

The present study was grounded in the idea that GNs are a different kind of reading. Experts agree that reading involves more than just decoding text (Connors, 2015; Jennings et al., 2014; Serafini, 2014). It includes “a complex set of cognitive skills and social practices that involve people’s use of one or more modes (e.g., print, image, music, color) to make meaning” (Connors, 2015, p. 6). Multiliteracies reflect multiple ways of communicating and making meaning through various modes, such as visual, audio, spatial, behavioral, and gestural (New London Group, 1996). The technology-driven world reflects multimodal information, which includes text and visual media (Jennings et al., 2014). Serafini (2014) used the term “multimodal ensemble” to describe “text composed of more than one mode” (p. 12) and stated that multimodal ensembles contain textual elements, visual images, and design elements. Students continually use visual images to “construct their knowledge and meaning” (Gavigan, 2014, p. 98), and they encounter multimodal information more often than stand-alone written text

(Serafini, 2014). GNs present multimodal ensembles, which support the development of students’ multiliteracies. Studying a GN can bring media literacy into the curriculum as students examine artistic conventions, such as how color represents emotions, how pictures reinforces stereotypes, how a variety of angles establish setting and perception, and how word bubbles represent dialogue.

Method

Classic stories and popular modern novels have been rewritten in graphic form (Maughan, 2016; Pilgrim & Trotti, 2012), which offers choices for classroom teachers. The present study used literary analysis to compare five original novels to their GN counterpart (see Table 2). The use of a simple rubric created by the researchers enabled a systematic analysis of the following literacy elements: setting, characterization, plot, point of view (POV), imagery, dialogue, and sensory language. The researchers took notes while reading each text. After the researchers completed their independent reviews, they met to compare and discuss their findings.

Table 2

Original Novels and Their Graphic Novel Counterpart

Original Novel	Graphic Novel Counterpart
<i>A Wrinkle in Time</i> (1962) Author: Madeleine L’Engle	<i>A Wrinkle in Time: The Graphic Novel</i> (2015) Adapted Author & Illustrator: Hope Larson
<i>The City of Ember</i> (2003) Author: Jeanne DuPrau	<i>The City of Ember: The Graphic Novel</i> (2012) Adapted Author: Dallas Middaugh Illustrator: Niklas Asker
<i>Coraline</i> (2002) Author: Neil Gaiman	<i>Coraline: The Graphic Novel</i> (2009) Illustrator: P. Craig Russell
<i>The Lightning Thief</i> (2005) Author: Rick Riordan	<i>The Lightning Thief: The Graphic Novel</i> (2010) Adapted Author: Robert Vinditti Illustrator: Attila Futaki, José Villarrubia
<i>Twilight</i> (2005) Author: Stephanie Meyers	<i>Twilight: The Graphic Novel, Volume I</i> (2010) Illustrator: Young Kim

Findings

The present study revealed the variances between each original novel and their GN counterparts. The content of the novel pairings was similar, and many of the GNs included some of the same literary elements presented in the original novels. However, features such as setting, imagery, sensory language, and characterization relied heavily or exclusively on pictures in the GNs. A comparison of these story elements provided insight into ways authors depict meaning using words, visuals, and other modes of representation.

Setting

The original novels used robust narration with sensory language to describe scenes and the setting in detail. In contrast, the GNs, as expected, portrayed time and place using visuals. Visuals included pictures and other multimodal elements typically used by GN illustrators to depict meaning. The use of shading and color choice also depicted mood and reflected aspects of setting. For example, the GN *A Wrinkle in Time* showed the flashbacks of the character Meg with shading (see Figure 1).



Figure 1. Panels from GN *A Wrinkle in Time*, p. 14.

GNs include narration, which provides insight into setting. However, the narrative is minimal, especially when compared to the in-depth descriptions found in the original novels. Some of the graphics were obvious in depicting the author's vision; however, many of the rich details of the written work became subtleties in the illustrated version of a novel. In Riordan's original novel, *Lightning Thief* (2005), the introduction consists of five pages of text that described Percy Jackson's museum trip for school. However, in the GN, this event is captured on the first page. Similarly, the fight scene between Mrs. Dodd and Percy takes place

over the span of three full pages in the original novel, while the altercation is depicted on one page of panel illustrations in the GN counterpart. To describe the setting in the original novel, Riordan (2005) wrote "thunder shook the building" (p. 12), but in the GN, the reader lacks this insight.

Some GN illustrators depicted sounds and setting with both text and visual features. For example, the graphic version of *A Wrinkle in Time* incorporated lines and onomatopoeia to portray the stormy setting that begins the novel. Therefore, the reader can use visual clues from the first and second page of the GN to

understand that the weather is stormy and ominous. Onomatopoeia, like *rattle* and *hwoooo*, indicated the violent storm is near (see Figure 1).

Characterization

Authors of the reviewed original novels devoted large sections of text to develop characters. In contrast, the images in the GNs required readers to make inferences about the characters' feelings, mood, and personalities. As seen in the depiction of story setting, coloring and shading used in GNs also exposed details about the characters. Additionally, facial expression, body depiction, and other illustrated components in the GNs portrayed feelings, mood, personality, dialog, thoughts, actions, and interactions. Collectively, these features give the reader a sense of the character's personality and feelings.

The illustrator may have also provided other clues for characterization by showing reactions between them with others. For example, the GN *A Wrinkle in Time*, showed the people around Meg whispering in the first panel of Figure 1. She appeared to react negatively to them, thinking they are gossiping about her father. Figure 2 presents another example of characterization with a panel from the graphic version of the *The Lightning Thief*. Percy Jackson is seen tossing a book over his shoulder. This image depicts a frustrated Percy, which provides insight into his struggles with school. There are no words on the panel to explain Percy's frustration. In contrast, the event from the original text version is narrated in detail to provide in-depth characterization using words instead of pictures.

Dialogue

Readers gain insight into a character through the inclusion of dialogue. Although the wording of character dialogue was similar between each original novel and their GN counterparts, the manner in which dialogue was

presented was vastly different. The GNs often borrowed dialogue directly from the original novels using word bubbles. In order to depict character tone and mood, GNs used techniques, such as varied sizes and shapes of word bubbles. For example, Mrs. Which in the GN *A Wrinkle in Time* was an odd character with a kind of stutter. Therefore, her speech bubbles were jagged to reflect the way she spoke (see Figure 3).

Plot

Plot reflects events and action, which were found to be similar in both formats. While the plot sequence in the corresponding texts remained the same, the representation of action differed significantly. In the original novels, authors described events in detail. In contrast, following the plot of a GN story required attention to panels, detailed images, and verbiage. The sequence of events did not differ significantly, even though details may have been omitted in the GN version. The illustrator used lines and slanted panels to depict action in GNs. These text features provided the reader with guidance where extensive wording was lacking.

Point of View

POV refers to the narrator of a story. In first person POV, a character uses pronouns, such as *I* and *me*, to recount a story. Third-person objective POV is a detached observer and uses pronouns, such as *he* and *she*. In third-person limited omniscient POV, the narrator tells the story from the viewpoint of one character so the reader can tell what that character thinks, sees, and knows. Finally, in third-person omniscient POV, the narrator has unlimited knowledge and describes the thoughts and behaviors of every character. In the present study, POV found in the original novel significantly changed and was more challenging to identify in its GN counterpart (see Table 3).



Figure 2. Panel from GN *The Lightning Thief*, p. 6.



Figure 3. Mrs. Which's jagged speech bubble, p. 100.

Table 3

POV Across Novels

Title	POV in Original Novel	POV in GN Counterpart
<i>A Wrinkle in Time</i>	Third person limited omniscient	Third person
<i>City of Ember</i>	Third person limited omniscient	Third person
<i>Coraline</i>	Third person limited omniscient	Third person limited
<i>The Lightning Thief</i>	First person	Third person
<i>Twilight</i>	First person	First person

Imagery and Sensory Language

Imagery and sensory language often pull readers into the story as they experience the setting, characters, and action through their senses. According to Bakis (2012):

In order for readers to connect to a person, place, event, or intangible ideas, a good writer uses his or her tools to paint pictures, and these details are the same details that exist in the graphic art within the panels of graphic texts (p. 83).

Sensory language often takes the form of sound effects in GNs. In Figure 1, the two panels include this feature. The whispers of the people, the rattling of the window, and the howling of the wind all portrayed the sounds of the story. Illustrators used the narrative from the original novel to create a parallel image. Figure 4 showed a paragraph from the original novel *A Wrinkle in Time* and the corresponding panel from its GN counterpart. Imagery was frequently revealed through iconic illustrations. In Figure 5, Meg's characterization was greatly enhanced with the images of the look daggers.



Calvin led Meg across the lawn. The shadow of the trees were long and twisted and there was a heavy, sweet, autumnal smell to the air. Meg stumbled as the land sloped suddenly downhill, but Calvin's strong hand steadied her.

Figure 4. Panel from GN *A Wrinkle in Time* and text from its original novel counterpart, p. 88.



Figure 5. Panels from GN *A Wrinkle in Time*, p. 41.

Discussion and Implications

Five stories in their original and GN forms were analyzed and compared regarding setting, characterization, plot, POV, imagery, dialogue, and sensory language. These comparative findings indicated that the essence of a story may remain the same regardless of format. However, readers must use different literacy skills for each to gain meaning. Reading GNs requires knowledge about their unique features. Readers must also continually apply inference skills to follow the story depicted by visuals. GN illustrations use multimodal cues, which are uncharacteristic of traditional texts. Just as traditional reading skills are explicitly taught, interpretation of multimodal features must also be modeled and explained clearly and purposefully.

Research shows that the use of GNs reaps educational benefits (Gavigan, 2014; Jennings et al., 2014; Maughan, 2016). GNs are excellent texts with which to engage and motivate readers (Schwarz, 2006). The values of using GNs span across curricula and reading

abilities (Gavigan, 2014; Maughan, 2016; Pilgrim & Trotti, 2012). The visual features of these books support comprehension for struggling students (Pagliaro, 2014), and foster the development of higher-level reading skills, such as inferring meaning from both pictures and text (Pagliaro, 2014; Schwarz, 2006). GNs can also ease students through complex ideas and information (Jennings et al., 2014). Readers must attend to how the text and visuals function simultaneously to create meaning. The visual aspects of GNs require inferencing skills (Watts, 2015). Students must use their background knowledge, along with the images, to deduce meaning. Readers may overlook story details if they are not careful to examine each picture thoroughly. The differences between original novels and GNs are substantial enough to warrant teacher instruction.

Teaching students to attend to the fine points of GNs enables them to comprehend and enjoy the story. However, teaching GN elements can be challenging (Miller, 2015). The first step is for teachers to familiarize themselves with the GN format and the vast number of

publications that are available. Additionally, educators should avoid the assumption that all students have experience with GNs or can naturally gauge the structure and layout. Bakis (2012) recommended that teachers explore students' understanding through non-threatening questioning and personal sharing. Reading GNs requires complex skills and an understanding of

the differences between different book formats (Watts, 2015). Educators using GNs should guide students to be attentive to "how the images and words work together" (Boerman-Cornell, 2016, p. 333). In other words, students must critically read every element within a GN to understand the author's message.

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The Effects of Two Computer-Based Reading Software Programs on Student Reading Performance

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Abstract

Reading below grade level at the elementary level continues to be an ongoing nationwide trend in many schools. With an increasing amount of struggling readers and the rising use of educational technology, it is important for school systems to understand the effectiveness of various types of available technology applications to support student reading performance among struggling readers. With this in mind, school systems must know how to determine which technology applications are more effective for increasing student performance with reading. This study focused on two computer-based reading software programs that claim to aid in improving student reading performance, ABCmouse and Starfall. Participants included 20 second grade students who were randomly assigned to two comparison groups. Data from this technology-based intervention was collected and analyzed to determine which reading software programs had the greatest impact on student performance with reading.

Keywords: *technology, Starfall, ABCmouse, reading, software programs*

Introduction

Recent reports for student performance with reading in the United States have shown minimal gains among 4th and 8th grade students, as well as persistent gaps between high- and low-performing students (U. S. Department of Education, 2017). This report also revealed that over 60% of fourth graders were not reading at a basic level of proficiency. In order to provide effective interventions to support reading instruction, teachers must assess the types of reading problems that are prevalent among

students. Identifying effective reading interventions for students is a critical step during this reading-to-learn phase of learning (Chall, 1983).

It is vital for teachers to understand the complexity of challenges associated with low reading performance. Spear-Swerling (2015) described three common profiles for struggling readers: specific word-reading difficulties, specific reading comprehension difficulties, and mixed reading difficulties. Students who experience specific word-reading difficulties

have problems related directly to reading words. Students who experience specific reading comprehension difficulties have poor reading comprehension with at least average word-reading skills. Students who have mixed reading difficulties have a combination of weaknesses with both word-reading skills and core comprehension areas.

Reading skills are generally acquired during the early elementary years (Chall, 1983). Vernon-Feagans et al. (2010) contended that many instructional reading programs used to foster the development of early reading skills were ineffective. Vernon-Feagans et al. described two groups of early elementary children who failed to profit from instructional reading programs adopted by schools. The first group included students who entered elementary school with adequate oral language skills but had trouble with the relationship between oral language and printed words. The second group entered elementary school with problems in oral language skills, vocabulary, and print-related phonological knowledge. The second group of students was larger than the first group and composed of mostly of low-income children. Similarly, Cheung and Slavin (2013) explained that some early elementary students struggle to learn to read because they are unable to use automaticity when decoding words. Automaticity is an important skill because it promotes fluent and effortless word pronunciations (Nageldinger & Rasinski, 2016). Furthermore, some students are proficient with decoding words effortlessly, but they may not comprehend words or sentences because they lack accurate understandings of word meanings.

Review of Literature

Students who have trouble with reading during the early elementary years are at a greater risk of low-reading performance in future grade levels (Lesnick, Goerge, Smithgall, & Gwynne, 2010). Beyond high school, falling behind in school has more serious consequences and long-term life effects. Adults with lower levels of literacy and education are more likely to be

unemployed or earn an income that falls below the poverty level.

Teachers are able to improve student performance with reading using well-planned interventions. Cheung and Slavin (2013) asserted that a great number of reading interventions have been proposed and utilized with low-performing readers. These interventions include improvements with the initial teaching of reading, one-on-one tutoring, small-group tutoring, comprehensive school reform, and the use of technology applications. Among these interventions, the use of technology applications has become one of the most popular and flexible intervention tools to accommodate the diverse needs of students within different settings. Pindiprolu and Forbush (2009) emphasized that challenges associated with the development of early reading skills are best addressed with computer-based reading software programs. Computer-based reading software programs should provide students with systematic and explicit instruction as needed with the five early reading skills area of phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000).

Two Computer-Based Reading Software Programs

One of the many advantages of computer-based reading software programs is that the technology application may be offered in both school and home settings. This provides students with additional time to practice reading skills independently. Pindiprolu and Forbush (2009) explained that many parents do not have the knowledge and skills required to teach reading in an explicit and systematic manner. However, computer-based reading software programs can help to overcome this barrier and enable parents to assist with the reading needs of their children. Computer-based reading software programs also allow for differentiation among all students, as each program is equipped with lessons ranging from easy to challenging levels. Some programs may even adapt instruction automatically according to the

students' reading level. Additionally, computer-based reading software programs capture the attention of students through appealing sensory engagement, kid-friendly modalities, interesting graphics, and innovative activities that provide feedback to reinforce the acquisition of essential reading skills (Karchmer-Klein & Shinas, 2012). With respect to the reinforcement of essential reading skills, Karemaker, Pitchford, and O'Malley (2008) noted that computer-based reading software programs offer features that support the development of word recognition skills, such as highlighting words as they are read and providing sound for the expression of unfamiliar words.

ABCmouse

Various studies have explored the use of computer-based reading software programs and their effect on students reading performance. Early education experts, commissioned by Age of Learning (2016), conducted three large-scale experimental studies to examine the effectiveness of ABCmouse with respect to student reading performance. The first study was conducted among 320 students from 11 different schools located in Southern Florida. Findings showed that students who used ABCmouse accelerated their reading skills after the first eight weeks, whereas students in the control group took an average of 16 to 24 weeks to make the same progress. The second study was conducted among 1,900 students from multiple school districts in South Central Texas. Findings revealed significant gains among students who used ABCmouse in the areas of phonics, phonemic awareness, vocabulary, and letter knowledge. The third study was conducted among 4,500 students throughout the nation who used home subscriptions for ABCmouse. Findings demonstrated increases in reading scores by more than 50% for letter identification, phonemic awareness, and sight word recognition.

Lozano and Ponciano (2016) conducted a comprehensive assessment of school readiness that examined how increased use of ABCmouse affected kindergarten preparation. Based on

their findings, Lozano and Ponciano reported that on average, for every additional 100 ABCmouse learning activities completed, there was a 3.6% boost in school readiness scores. Similarly, Thai and Ponciano (2016) investigated the effect of ABCmouse usage among students who were identified as at-risk for school failure. In this study, prekindergarten teachers integrated ABCmouse into their instruction without specific requirements for amount of usage. The results indicated that the more ABCmouse learning activities completed by a prekindergarten student, the greater their kindergarten readiness scores at the end of the school year.

Starfall

Starfall was developed as a free website for children who are in preschool through 2nd grade (Chase, 2007). Starfall reinforces language development and is appropriate for all students, including English language learners (ELLs) and students with special needs. Starfall offers a variety of reading activities on four different reading levels that promote the development of reading skills through repetition, graphics, and interactive opportunities games, activities, songs, and stories.

Metis Associates (2014) assessed the implementation and overall impact of Starfall usage among 431 kindergarten students enrolled in a school with Title I status on student reading proficiency. Among this sample, 267 students received Starfall instruction and 164 did not. Findings indicated that a significantly larger proportion of kindergarten students who used Starfall reached proficiency or higher during the spring administration of the Developmental Reading Assessment (2nd ed.).

Although ABCmouse and Starfall reading software programs are widely used in elementary classrooms, a gap in the literature exists regarding the effectiveness of each program. This study sought to determine which reading software program had the greatest impact on the reading performance of elementary students.

Method

Participants

Participants were 20 monolingual English-speaking 2nd grade students enrolled at an elementary school located in South Central Texas during the 2017-2018 school year. At the time of this study, the school was classified as a Title I school campus and served a large number of English language learners.

Data Collection and Analysis

Participants were first administered a pretest in October to determine their reading level. The pretest was a school-district adopted reading benchmark tool to identify instructional and independent reading levels for students (Fountas & Pinnell, 2016). Student reading levels were categorized as Below Average (i.e., reading levels A-J), Average (i.e., reading levels K-M), or Above-Average (i.e., reading level N or higher).

After the pretest was administered, participants completed activities delivered by two computer-based reading software programs (i.e., ABCmouse, Starfall) for five weeks. Participants were randomly divided into two equal groups, and each group completed

learning activities with their designated reading software program for 15-minutes a day, three times a week. After the fifth week, participants completed a post-test using the same school district adopted reading benchmark tool (Fountas & Pinnell, 2016). Comparisons were made between the pre- and post-test results to identify any changes with reading levels.

Results

ABCMouse Results

The pretest and posttest findings for the 10 participants who used ABCmouse are shown in Table 1. Data analyses revealed improved reading levels for the five ABCmouse participants who were categorized as Below Average with the pre-test reading benchmark tool (i.e., Anna, Cassandra, Rebekah, Chris, Megan). Anna, Cassandra, Rebekah, Chris each demonstrated an increase of two reading levels. Of these four participants, Anna and Cassandra advanced to the Average category. Although Megan did not demonstrate any reading level increases, she did show improvement with fluency by increasing the number of words she read correctly per minute, as well as improvement with comprehension by the number of questions she answered correctly.

Table 1

Pretest and Posttest Scores for ABCmouse Participants

Participant	Pretest Reading Category	Posttest Reading Category
Anna	Below Average	Average
Kassandra	Below Average	Average
Rebekah	Below Average	Below Average
Chris	Below Average	Below Average
Megan	Below Average	Below Average
Melissa	Average	Above Average
Beto	Average	Average
Sam	Average	Average
Michael	Above Average	Above Average
Juan	Above Average	Above Average

Data analysis also revealed improved reading levels for the three ABCmouse participants who were categorized as Average with the pre-test reading benchmark tool (i.e., Melissa, Beto, Sam). Melissa demonstrated an increase of two reading levels, which advanced her to the Above Average category. Beto also demonstrated an increase of two reading levels, but he remained in the Average category. Although Sam did not demonstrate any reading level increases, he did show improvement with fluency by increasing the number of words he read correctly per minute, as well as improvement with comprehension by the number of questions he answered correctly.

Lastly, data showed improvements for the two ABCmouse participants who were categorized as Above Average with the pre-test reading benchmark tool (i.e., Michael, Juan).

Michael demonstrated an increase of three reading levels, and Juan demonstrated an increase of two reading levels.

Starfall Results

The pretest and posttest findings for the 10 participants who used Starfall are shown in Table 2. Data analysis revealed improved reading levels for the three Starfall participants who were categorized as Below Average with the pre-test reading benchmark tool (i.e., Randy, Mark, Rosa). Randy demonstrated an increase of two reading levels, and Mark and Rosa each demonstrated an increase of one reading level. However Randy, Mark, and Rosa were still considered Below Average as the reading level increases were not enough to advance them to a higher category.

Table 2

Pretest and Posttest Scores for Starfall Participants

Participant	Pretest Reading Category	Posttest Reading Category
Randy	Below Average	Below Average
Mark	Below Average	Below Average
Rosa	Below Average	Below Average
Esperanza	Average	Above Average
Tameka	Average	Above Average
Cindy	Average	Above Average
Aaron	Average	Average
Carlos	Above Average	Above Average
Jennifer	Above Average	Above Average
Jules	Above Average	Above Average

Data also showed improvements among three of the four Starfall participants who were categorized as Average with the pre-test reading benchmark tool (i.e., Esperanza, Tameka, Cindy). Esperanza and Tameka demonstrated an increase of three reading levels, thus advancing both of them into the Above Average category. Cindy demonstrated an increase of one reading

level, but she was still categorized as Average. Although Aaron did not demonstrate any reading level increases, he did show improvement with fluency by increasing the number of words he read correctly per minute, as well as improvement with comprehension by the number of questions he answered correctly.

Lastly, data showed improvements among the three Starfall participants who were categorized as Above Average with the pre-test reading benchmark tool (i.e., Jules, Jennifer, Carlos). Each of these three participants demonstrated increases with their reading levels. Carlos demonstrated an increase of three reading levels, Jennifer demonstrated an increase of two reading levels, and Jules demonstrated an increase of one reading level.

Comparison of Starfall and ABCmouse

When comparing the two computer-based reading software programs used in this study, the number of participants who were categorized as Below Average with the pre-test reading benchmark tool and demonstrated an increase of one or more reading levels was 40% among ABCmouse users and 30% among Starfall users. For participants who were categorized as Average with the pre-test reading benchmark tool and demonstrated an increase of one or more reading levels was 20% among ABCmouse users and 30% among Starfall users. For participants who were categorized as Above Average with the pre-test reading benchmark tool and demonstrated an increase of one or more reading levels was 20% among ABCmouse users and 30% among Starfall users.

Discussion

This study presented findings that resulted from the use of two computer-based reading software programs, ABCmouse and Starfall, among students in a 2nd grade class at a school classified as Title I. Student reading performance was determined using a school-district adopted reading benchmark tool to identify instructional and independent reading levels for students (Fountas & Pinnell, 2016). In this study, students were randomly assigned to complete learning activities associated with their designated reading software program for 45-minutes a week for five weeks. Findings revealed reading level increases with 85% of participants, which aligned with previous

research that examined use of these two reading software programs (Age of Learning, 2016; Lozano & Ponciano, 2016; Metis Associates, 2014; Thai & Ponciano, 2016). Reasons for reading level increases may be attributed to the targeted practice that participants received with each of the five essential components of reading as identified by the National Reading Panel (2016). ABCmouse and Starfall included opportunities for participants to develop their reading skills for phonemic awareness, phonics, fluency, vocabulary, and comprehension.

The results of this study can be used to inform school districts of the benefits associated with computer-based reading software programs for student reading performance. Based on these findings, a school campus or school district should consider utilizing technology resources to promote reading success among all students. We encourage teachers and administrators to equip all classrooms with appropriate technology supports, such as providing students in the early elementary grades with subscriptions to ABCmouse and Starfall. By doing so, teachers may use these programs to provide students with engaging opportunities to develop essential literacy skills both in school and away from school. Applying these proactive measures during the early elementary years may help to remove barriers that prevent students from experiencing success with reading. Future research should also be conducted to determine the impact of continuous use of reading software programs on student reading performance.

There were a few limitations to this study that may impact generalizability of reported findings. First, there was a small number of participants. Although students were randomly assigned to reading software programs, the total sample size consisted of only 20 participants. Another limitation was that there was no control group. Using a control group would have helped determine if reading level increases were attributed to reading software program usage versus regular classroom instruction.

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Hey, Can You Find Me a Book? Providing Popular Culture Texts to Students in a Title I Elementary School

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Abstract

Popular culture texts, such as texts based on movies, television, sports, and video games are widely desired by elementary students. However, these texts are not always available for students due to limited funding, lack of teacher appreciation for such texts, and sparse quantities of popular culture texts found in classroom and school libraries. Moreover, students who live in low socioeconomic (SES) areas do not have access to many texts in their homes and neighborhoods. Teachers and administrators can bring popular culture texts to low SES elementary campuses by using federal and state funds to purchase texts, writing grants, utilizing community resources, and providing professional development support for teachers about the importance of popular culture.

Keywords: popular culture, professional development, reluctant readers

Introduction

It was the middle of April and a beautiful, cool, spring afternoon. As the announcements twanged through the speaker, Ted and Mark rushed up to my desk on the way to the car rider line. “Mrs. Butler, Mrs. Butler,” Mark gasped. “Can you get us *Dragon Ball Z* books? We can’t find any, and you’ve got to help us!”

“I’ll see what I can find for you,” I promised. After school was dismissed, I visited the local bookstore and purchased several *Dragon Ball Z* books. Mark and Ted were overjoyed. In fact, several weeks later, Ahmed also asked for *Dragon Ball Z* books. All through April, May, and the beginning of June,

the three fifth-grade boys devoured *Dragon Ball Z*.

I served students and teachers as an instructional reading coach in a Title I elementary school on the northeast side of a school district located in a large urban district in Southeast Texas. Many students who lived in the area around the school owned few or no books of their own. Consequently, it was imperative that students were provided with engaging texts to read at school. With this in mind, I questioned, “What are the reading materials that the students are most interested in reading?” Through observing their reading interests, I discovered that the students sought to read popular culture texts, such as *Diary of a*

Wimpy Kid, *Dog Man*, *Amulet*, and *Minecraft*. Students wanted to read popular culture texts.

Popular culture texts are texts that are desired by many people and include texts based on movies, television, videogames, or sports (Buckingham, 2002; Storey, 2001). According to Hagood, Alvermann, and Heron-Hruby (2010), popular culture texts are “production-in use” digital and/or print texts (p. 14). Simply put, production-in-use texts can be defined as produced texts that provide meaning to the user or consumer of the text. Among the students on our elementary campus, students craved texts, such as the *DogMan* series by Dav Pilkey, *Minecraft*, *Spiderman*, and *Lego-Ninjago*.

Providing Access to Popular Culture Texts

Students who live in poverty have less access to books than students from more affluent families/households (Krashen, 2004; Smith, Constantino, & Krashen, 1997). Duke (2000) investigated the literacy levels of first-grade students from low and high SES households and determined that students from high SES households had greater access to books and magazines in classroom libraries, increased opportunities to choose texts and topics for writing, and more time engaged in writing for real purposes. In a more recent study, researchers revealed the vast differences in the availability of children’s literature in poor and rich urban communities (Neuman & Celano, 2006). To illustrate, the researchers identified 11 bookstores or stores with children’s literature in the affluent community and only four such locations in the impoverished communities (Neuman, 2013; Neuman & Celano, 2006).

Similar disparities also exist between school library and classroom library collections. Students who attend high poverty schools typically have less access to materials and to librarians within their school libraries (Pribash, Gavigan, & Dickinson, 2011). In fact, Pribash, Gavigan and Dickinson determined that in schools where a majority of students receive free and reduced-price lunches, school libraries contained fewer texts, were closed more often

due to testing schedules and other events, and offered less checkout time than school libraries in more affluent communities. Additionally, Worthy (1996) and Worthy, Moorman, and Turner (1999) reported that middle school students were unable to check out the most popular texts from school libraries and classroom libraries due in part to text popularity, limited numbers of available texts, and lack of funds to purchase additional texts. With this in mind, it became my goal to provide students with access to the types of texts that they wished to read.

Popular Culture Texts in Classroom Libraries

As a literacy coach on my school campus, I added many popular culture texts to our classroom library inventories. Classroom libraries are an integral component of a literacy classroom and should include a significant number of texts from various genres that accommodate student interests (Allington, 2001; Allington & Gabriel, 2012; Krashen, 2004, Miller & Moss, 2013; Routman, 2003). Routman (2003) contended, “It really doesn’t matter what kids read as long as they read and enjoy what they are reading” (p. 65). Therefore, my goal was to build the quantity and quality of each classroom library on my school campus each time funding became available. I also strived to incorporate student requests into classroom libraries, such as those made for popular culture texts. When possible, I purchased these texts and placed them in the classroom libraries.

When funds were not available to purchase popular culture texts for school and classroom libraries, I devised other means to place texts in the hands of students. One way I achieved this was through resourcing efforts. For example, upon a student request, I searched my personal classroom library first. If I did not have the text, I checked the school library next. If the text was unavailable in the school library, I looked for it at the public library. If the text was available in the public library, I checked the title out in my name and made it available for

students. In cases where the text searches proved fruitless, I purchased the text myself at local bookstores, library book sales, or thrift stores.

I also wrote a number of grants to secure more popular culture texts for students. For instance, one grant provided six e-readers for every fifth-grade classroom. Reluctant readers in these classrooms were able to select texts to upload to the e-readers, which were mostly popular culture texts. Another grant I secured garnered fifth-grade students a field trip to a local bookstore. Funding from this grant also enabled each student to select two books to keep and read over the summer.

Additionally, community volunteer organizations provided students with many new popular culture texts. For example, volunteers from a local hospital visited students every month, read a story, and then distributed brand-new books to every student in the classroom. Many of the books the volunteers brought to our campus were popular culture texts. Although students on our campus did not have the same access to texts as schools in more affluent communities, I pursued multiple ways to overcome this discrepancy.

Professional Development for Popular Culture Texts

As an instructional reading coach, I provided professional development for teachers on our campus. In our district, all instructional coaches met with teachers in Professional Learning Communities (PLC). At the beginning of every PLC meeting, I modeled book talks, which are brief book commercials designed to entice students and teachers to try new texts (Kittle, 2013; Miller, 2009). Through book talks, I introduced new popular culture texts to teachers and modeled how they might use similar book talks for the same texts with their students. During PLC meetings, I also focused on other ways for teachers to support the use of popular culture texts, such as providing time, choice, and multiple ways of responding to reading.

Another way I supported teacher growth with understanding the importance of popular culture texts was through summer book clubs for teachers. When funding became available, I purchased current professional books focused on topics, such as reading/writing workshop, reading aloud, and student choice and voice with selecting text. For example, fifth-grade teachers enrolled in a summer book club for *The Book Whisperer* (Miller, 2009). As teachers read and discussed this text, they developed a common goal of providing students with more time and choice during daily independent reading.

In a similar manner, teachers read and responded to graphic novels in another book club. Each teacher who enrolled in this book club acquired a new respect for graphic novels. One teacher shared, “Reading the book was an eye opener. I should have read a graphic novel sooner on behalf of my students. I’m looking forward to reading the sequels.” Indeed, summer book clubs provided teachers with enriching opportunities for professional development and reflection.

Popular Culture Text Discoveries

Sometimes, popular culture text discoveries occurred fortuitously. For example, I met after school and during lunch with several fourth-grade boys who were reluctant readers. One day, these boys mentioned their love for professional wrestling. This sparked a discussion about wrestling, specifically about a professional wrestler named Undertaker. As the students talked, I noticed they were engaged, excited, and possessed a plethora of background knowledge. I knew nothing about wrestling, and they were excited to teach the teacher! The students also taught me about Undertaker’s *kayfabe*, his fictional backstory (Oliva & Calleja, 2009), and his notorious finishing moves, such as the Tombstone Piledriver. Although I was thrilled that these boys knew so much about wrestling, I was disheartened to think that this knowledge was probably not valued in the classroom.

My discussion with the four boys about wrestling inspired me to capitalize on their extensive knowledge with popular culture texts. First, I purchased several wrestling biographies for well-known wrestlers, such as John Cena, The Rock, and Sheamus. I then incorporated these popular culture texts into subsequent meetings with this group of boys. During one of our after school sessions, the boys decided to compose their own popular culture text, which included aspects of the informational text, biography, poetry, and rap genres. After the boys completed their popular culture text, they shared it with their parents and classroom teacher. They also began to read the wrestling biographies I acquired during independent reading. Before long, fellow classmates noticed that these boys were voraciously reading these texts and expressed an interest in reading them, as well. Fortunately, we were able to add more

wrestling biographies and informational texts about wrestling to classroom libraries.

Closing Thoughts

Elementary students from all backgrounds love to read popular culture texts, and all students deserve the opportunity to access such texts on a regular basis. The purpose of this paper was to provide ways in which teachers can provide popular culture texts for students in their classrooms. In this paper, various strategies and ideas to provide popular culture texts among low SES students were described, and I demonstrated how teachers and administrators can make a difference in students' literate lives. Providing students with books they love is like Neverland—never easy, never inexpensive, and never ending. However, these efforts are definitely worth the investment.

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Effective Reading Comprehension Strategies for Students with High-Functioning Autism Spectrum Disorder

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Abstract

Autism Spectrum Disorders are a pressing issue in education. One of the proven areas of difficulty for students on the spectrum lies in the area of reading comprehension. This difficulty stems from several areas, including lack of understanding regarding common comprehension difficulties in the population as well as needs for increased support within existing instruction. By increasing educator awareness of common comprehension issues in this population and providing a number of visual and organizational supports in the classroom, teachers can increase the chances for student success.

Keywords: *autism spectrum, comprehension, differentiation*

Introduction

Students with autism spectrum disorder (ASD) are becoming more and more prevalent in American public schools. As of 2012, one in 88 children had ASD (Williamson, Carnahan & Jacobs, 2012). According to the Center for Disease Control and Prevention (2018), the number of children with ASD had risen to 1 in 59 by 2014. Not unlike any other learning impairment, autism is a disorder that manifests itself in many ways. The literature clearly shows that the majority of the ASD population experiences difficulty in the area of reading comprehension and often experiences hyperlexia, an above average ability to decode words without previous instruction (Huemer & Mann, 2010; Lucas & Norbury, 2014; Nation, Clarke, Wright & Williams, 2006). Though these learners have well-developed decoding,

often with no explicit training, they have trouble understanding many facets of text.

ASD and Reading Comprehension

A number of studies show that high-functioning ASD students commonly have above average decoding but exhibit far below average reading comprehension when compared with their peers of the same age (Carnahan, Williamson & Hayden, 2003; Newman et al, 2006). For instance, in a study led by Huemer and Mann (2009) of almost 400 ASD participants across nine different standardized reading tests, there was a pervasive confirmation of previous research determining a disconnection between the highly developed decoding of this population and their below normal comprehension. This included participants with autism, Asperger's, and

Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS). Similar studies have been conducted which confirm these results (Lucas & Norbury, 2014; Nation et al., 2006). Though autism and hyperlexia may not always be connected, the disorder is commonly associated with unusually low levels of comprehension in comparison to decoding skills (Newman et al., 2007).

It is important to note that students with the disorder compromise a large population and are quite diverse. As an example, Williamson et al. (2012) conducted a study in which they observed autistic students for three months and interviewed their parents about the students' reading habits. They found three main types of autistic readers:

- (1) Students who were successful with using a variety of strategies with which to comprehend all types of texts.
- (2) Students who were successful with explicit comprehension tasks.
- (3) Students who relied on visual supports to comprehend text.

This variance in comprehension closely resembles the typically functioning population of students in the classroom. In a similar study, researchers concluded that some ASD students also have decoding concerns that interfere with their comprehension (Nation et al., 2006).

Some of the characteristics associated with autism can interfere with a student's ability to analyze and respond to comprehension questions. Ricketts, Jones, Happé, and Charman (2012) conducted a study with a large and diverse population of ASD, Asperger's, and PDD-NOS learners who were given reading comprehension, social behavior, and cognition tests. As the researchers hypothesized, social behavior and cognition scores predicted comprehension concerns. Thus, adaptive behavior and oral language also has a large effect on the ability of the student to comprehend text (Arciuli, Stevens, Trembath & Simpson, 2013). With this in mind, many ASD learners have oral language impairments that can

make it difficult for them to comprehend text, as well as convey their understanding of a text.

Greatest Areas of Comprehension Difficulty

It may be helpful for teachers to know comprehension strategies that generally pose challenges for ASD learners. Lucas and Norbury (2014) noted that many ASD learners have appropriate comprehension at the sentence level, but not at passage level. They attributed part of this problem to the student's ability to understand and access the meaning of vocabulary. It has been shown that autistic readers often have an impaired working memory and an inability to use metacognitive monitoring when reading. Consequently, the student may know the meaning of a vocabulary word, but it may be difficult for them to put that meaning to work in the act of constructing meaning while reading (Oakhill, Cain & Bryant, 2003).

Many researchers have also noted that an inability on the part of ASD learners concerns a struggle with activating their background knowledge while reading (Adams & Jarrold, 2009; Carnahan et al., 2009; Wahlberg & Magliano, 2004). This impairment impedes the reader's ability to visualize and interpret a scene occurring in narrative text. For example, it is very difficult for a reader to comprehend a story that takes place at a birthday party if they are not actively checking the content of the story against what they already know about birthday parties in the present. This is especially true in the case of a text that is in any way ambiguous and does not explicitly state the actions and feelings of characters. According to Wahlberg and Magliano (2004), when ambiguity is present, ASD learners often come up with unusual answers to comprehension questions posed by the teacher.

Similar to their non-ASD peers, ASD learners tend to have less trouble with explicit rather than implicit comprehension questions. Several studies have shown that the autistic population performs far better with literal

comprehension questions versus questions that require an inference (Carnahan et al., 2009; Elangovan & Chia, 2013; Saldaña & Frith, 2007). In Diehl, Bennetto, and Young's (2006) study of story recall in high functioning autistic students, they observed this in the practice of retelling a story. These researchers, along with Elangovan and Chia (2013), discovered that ASD learners possess a recency bias that emphasizes events that occur towards the end of a story. This phenomenon makes self-monitoring during story reading a difficult task for ASD learners and often limits story retelling to a mere listing of events. Furthermore, the social impairment of ASD learners affect their ability to comprehend in two ways. First, the reader often has a difficult time understanding the motivations, actions, and feelings of a character in a narrative story (Elangovan & Chia, 2013). Second, when recalling a story or answering questions orally, the student often misunderstands what a reader would need to know about the story, including describing the emotional state of a character or the motivation for their actions (Diehl et al., 2006).

Comprehension Supports for ASD Learners

When thinking about ways to help ASD students with their reading comprehension, it is important to remember some of the common characteristics of the autistic learner. It is also worth noting that many strategies appropriate for the ASD population are best practices for all students. In general, ASD students are very literal in their thinking and may have difficulty with narrative text, as opposed to expository text, in terms of their understanding (Carnahan et al., 2009). Therefore, providing visual supports can make narrative texts more accessible to ASD learners (Kana, 2006). For example, picture books help ASD learners

process content and maintain a frame of reference, which support them with overcoming recency biases (Armstrong & Hughes, 2012). Graphic organizers are another excellent way for ASD learners to internalize information about a story (O'Connor & Klein, 2004).

Additional strategies that facilitate comprehension among ASD learners involve the use of technology. A computer-animated tutoring program can be used by high-functioning ASD students and increases retention of content when paired with 1-to-1 instruction (Massaro, Bosseler, & Light, 2003). Computer versions of storybooks, manipulated by autistic learners by a click to turn the page, also helps ASD learners (Armstrong & Hughes, 2012). The use of technology also enables ASD learners to apply appropriate pacing in a lesson and address possible social constraints, such as peer interactions. Furthermore, technology tools are excellent visual aids to make text more comprehensible for ASD learners.

Conclusion

Autism is a complex neurological condition that requires special attention during comprehension-based instruction. Although each ASD learner possesses individual differences, many ASD learners experience the most difficulty with implicit meaning in text. ASD students are capable of reading comprehension comparable with the non-ASD population given the proper supports. For these students, time spent reading high-quality texts and discussing their understanding with the use of visual aids, graphic organizers, and technology will yield the greatest results. Teachers must ensure that all students receive the supports they need to access the full range of comprehension of texts.

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Changing the Language: Using Social Media and Popular Culture to Teach Traditional Literacy Skills

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Abstract

Many of today's students are left disengaged by the direction of their literacy journey once they reach the middle grades, or at times, before they ever leave elementary school. The once enjoyable process of becoming literate becomes a past memory. Students are expected to take their literacy journey into an academic world that often lacks ways of showing them how to translate the skills they learned in the past to extend their knowledge. Although students often understand and use concepts they were taught, it is the selection of the language and the way teachers approach instruction that often causes a disconnect. By changing the language, teachers can address academic slumps beginning as early as 3rd and 4th grade and cultivate stronger student interest in reading and literacy. This purpose of this paper was to describe ways teachers may change the language with a deeper integration of technology.

Keywords: literacy, technology, social media, popular culture, student engagement

Introduction

It is urgent that some effort be made to address instructional materials, as well as teaching and learning strategies for middle grades learners. Students are succumbing to the academic slump that often occurs before they enter the middle grades (Chall, 1983, 1996). Once students become comfortable or fluent with their literacy skills, they are often not pushed to strengthen them. Many students are bored, and this is not because this generation of students has changed or is different. Rather, it is because teachers have failed to change and update their teaching practices.

Walsh (2010) stated, "Educational policy and curriculum documents have not yet adapted to changes that have occurred with the

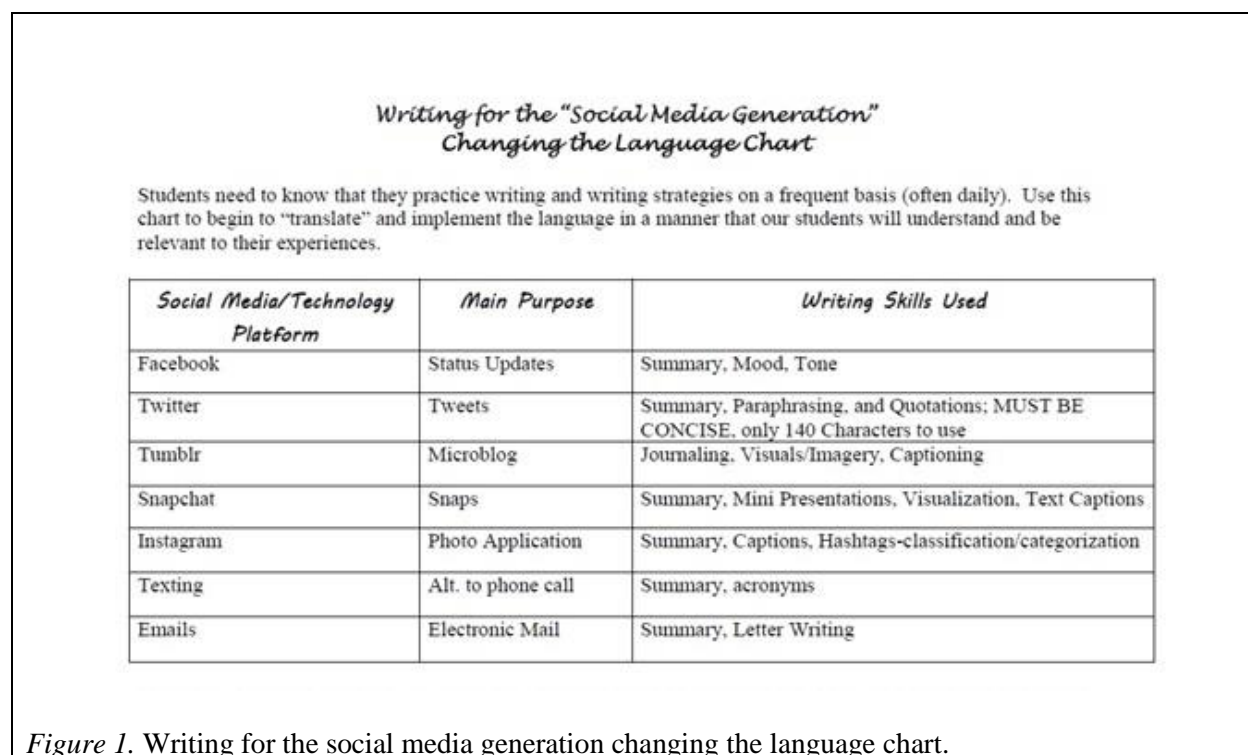
range of digital media that are becoming embedded in people's lives" (p. 212). With such a wide variety of social media and other popular technology trends available for students, teachers must learn how to incorporate rich and interactive technology experiences in the classroom. Many classrooms continue to address literacy with a traditional pedagogy that entails learning basic reading and writing skills using materials associated with a basal reading program. Basal reading program materials expose students to print and digital sources that are designed to strengthen literacy skills and provide a more challenging curriculum as students progress through each grade level. Although basal reading programs provide acceptable resources to support the development, teachers must address literacy from all aspects—listening, speaking, reading,

visuals, and writing. By doing so, students will be exposed to multiliteracies every day.

Multimodal Approaches for Students in a Tech-Savvy Generation

The lack of technology in classrooms requires teachers to be creative and resourceful in their approaches with students. In addition, teachers serve a generation of students who would rather play video games than play outside. As a result, teachers should use multimodal approaches in the classroom to teach

students how to bridge learned skills with technology. For instance, teachers must make an effort to show students that they are reading digitally whether they use a computer, tablet, or smartphone. Similarly, students need to understand that they are writing for different purposes when texting, sending an email, or using social media. Often, students know how to use technology, but they are unable to use it as a learning tool. Thus, teachers must create learning experiences that use several modes of learning and demonstrate how academic and social languages are connected (see Figure 1).



In many classroom settings, teachers encounter a generation of students in which a vast majority have never used a chalkboard or blackboard and have only used interactive whiteboards in the classrooms. Likewise, tablets are often the first book that students read. Students are immersed in technology in their daily lives, so teachers must welcome the

technology culture into their classrooms. For example, teachers may deliver some learning experiences with tablets instead of books, present digital word walls instead of physical ones, and reinforce traditional academic knowledge with terminology that is familiar to students who are of a digital age.

Connecting Academic Language to Popular Social Media Platforms

As of recently, social media and popular culture are often focused on associated negative aspects of communication technologies, such as cyberbullying, the sharing of false information, and online predators. With respect to education, social media and popular culture are forgotten languages and are not used to their full potential. There is a plethora of creative ways to use social media and popular culture to encourage expression through the use many of the literacy skills. With social media platforms, students can follow trending topics, such as social and political movements. Students may then engage in authentic literacy and communication experiences by honing traditional skills, like summarizing, paraphrasing, comparing, contrasting, inferencing, and classification, with the assistance of a technology device.

Due to the popularity of smartphones, approximately 25% of teens are online almost constantly (Lenhart, 2015). The smartphone applications most frequently used by teens between ages 13 to 17 include Facebook, Instagram, Snapchat, and Twitter. With so many students connected, teachers must work to change their language and find ways to implement the technology culture of their students during classroom instruction.

Facebook

Facebook provides a myriad of ways for students to use literacy skills. Facebook is a social media platform that mixes a mash up of visual and communication tools with a traditional blog. Composing a status update on Facebook provides an individual's followers a summary of their action, thoughts, or emotions. With respect to comprehension instruction, teachers can use Facebook status update to teach students how to identify setting, infer tone, understand pictures, and read captions. These literary elements are frequently used on Facebook, but students may have not yet made

connections between literacy knowledge and skills and Facebook.

Instagram

Another popular social media platform among students is Instagram. Instagram allows users to share photos and video so they may document memories. Instagram is perhaps the simplest technology application that students use because they can solely make a statement by posting a photo online. Captions created on Instagram also provide a means for users to be expressive. Instagram users may also create hashtags to categorize, classify, or link posted photos to topics or genres.

Twitter

Twitter is a social media platform used by approximately 33% of young people (Lenhart, 2015). Originally, Twitter limited users to expressing their thoughts with 140 characters or less in a single tweet. As with many technology and social media tools, Twitter has evolved over the years and increased its allowed character count per tweet and allows users to post photos, link to videos and websites, and create interactive polls. Tweets are dated and time stamped, and users often create hashtags, which are used to categorize tweet. This social media platform draws heavily on the literacy skills of summarizing and paraphrasing, provides immediate access to news, and creates global networks for trending topics.

Snapchat

Snapchat is a social media platform that is targeted towards individuals who want to capture a moment through photos and videos. Snapchat provides users with easy access to quick information because each post is deleted within twenty-four hours. The way in which users can share and engage their audience with Snapchat is captivating. Creative filters, such as touch ups, animals/characters, and facial recognition tools, can be used to modify photos or video. A location feature also gives users

awareness of other cultures and locations near and far. Although Snapchat is meant to primarily communicate using photos and videos, there is the option to communicate by chatting if one so chooses.

Instructional Considerations: How to Change the Language

Common current technology terms need to be brought into the classroom for learning purposes. For example, users may select a mood when updating their status on Facebook. When teaching mood or characterization in the classroom, a teacher could say, “If (insert book character name) were to write a Facebook status update, what would (insert book character name) say? What would their mood be?” Teachers should allow students to see that creating a Facebook status update uses similar concepts and skills for character analysis. Simplifying and merging traditional classroom language with a technology-based language could be just the spark students need to make a connection.

When using Instagram, the goal is to post an attention-grabbing photo with a clever caption. Similarly, students are taught to read by examining the illustrations in a book before learning how sounds, words, and language are connected. Students need to understand that they are writing creatively when they compose Instagram captions using Instagram, as well as concisely. This requires students to play with and manipulate language with acronyms, abbreviations, invented words, and slang. Teachers should provide frequent opportunities for students to practice inferencing and questioning skills associated with captions with both physical texts and Instagram. Teachers should challenge students to read for details when they encounter a caption and determine its importance.

The interactivity that occurs when reading and responding to tweets on Twitter is an ideal way to boost communication skills. Twitter causes even the greatest and most

concise writers to stop and think about what they can squeeze into the limited character count. A tweet must be brief, yet still address all intended points. This restriction often takes a user through a process in which characters and words must be eliminated. For educational purposes, Twitter can be used to teach summarizing, paraphrasing, editing, and inferencing. Twitter also serves as an excellent networking communication tool with which parents, teachers, and students may interact with one another. Twitter’s hashtag feature is a great way to sort tweets by topic and find desired areas of interest. The hashtag feature is also another way for teachers to change the language in the classroom setting, as it could be used to explain genres, themes, and classifications.

Snapchat tells a visual story. This social media platform can be incorporated into classrooms in several ways, particularly as a tool to support the retelling, recalling, or recreating of events that are read or shared with students. Snapchat provides brief text and appealing pictures and video, so it can also be used to illustrate new vocabulary terms or concepts.

Conclusion

Incorporating popular culture into classroom instruction shows students that teachers are able to connect and engage them through preferred methods of learning. It is important to note that changing the language in the classroom is not limited solely to technology and social media platforms. This is only a small portion of how teachers can make learning connections with students. Crawford and Wanless (2016) contended, “Showing children that we see and value all aspects of them—including attributes related to race and culture—is a critical step in helping them feel welcome and connected to their teachers and peers” (p. 9). Individuals who use technology and social media are a part of a shared culture, which is often a culture that is overlooked by teachers but highly valued by students.

Incorporating technology does not mean relying solely on the use technology with students so that all challenges will disappear. Creating a social media account, using associated terminology, and then expecting students to automatically flourish and understand every academic standard is not the intent of changing the language. The traditional aspects of literacy learning are not to be forgotten or devalued. Technology is just one tool that, if used and integrated effectively, can be an instrumental way for teachers to connect with students. Traditional literacy terms and skills should be intertwined with technology-based lessons that integrate and demonstrate the language the students speak today.

Literacy educators will experience success if they can create an environment that

understands and respects the culture of their students in a setting where addressing relevant topics through technology is the norm, not a reward on special occasions. Although there are many negative aspects associated with popular culture, teachers must meet students halfway and learn to transcend and extend learning beyond the walls of the classroom. Changing the language involves a true understanding of who the students are. Teachers must learn what students value and what they need so they may implement strategies that appeal to the diverse learning needs of all students. Educators must learn to modify their language to reflect the culture of their ever-changing student population of students, and this starts with the ability to connect and evolve despite unfamiliarity. As teachers, we must change our language, in order to change their language.

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Using Trauma-Informed Pedagogy to Make Literacy and Learning Relevant and Engaging for Students of Poverty

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Abstract

Many students in American schools are facing educational limitations due to the effects of poverty and homelessness. Educator preparation programs must address the needs of this special population of poverty by providing training in trauma-informed pedagogy. The goal is to make teachers more aware of the effects of poverty and provide additional tools to reach and successfully teach students by developing relationships and creating safe learning environments that acknowledge and address the emotional states of students who face chronic stress from poverty. The use of aesthetic strategies for literacy and learning will also make school more meaningful and relevant for students with learned hopelessness. This article addressed trauma-informed pedagogy for literacy and learning through action steps and examples designed by pre-service teachers in training.

Keywords: literacy, the arts, poverty, trauma-informed pedagogy

Introduction

While it is true that students live in a global society with unlimited opportunities for learning and access to information, there is a population of students who are educationally limited by the consequences of an ever-increasing state of poverty. Eric Jenson (2009) offered an excellent foundation for understanding the new role of education and our future teachers in his book *Teaching with Poverty in Mind*. Educator preparation programs must address the needs of this special population of poverty by providing pre-service teachers with training in trauma-informed pedagogy. By doing so, future teachers will be prepared for the changing role of professional

educators and have new ways to engage students who have been impacted by the effects of chronic stress from poverty.

According to Dr. Vicky Dill (2015), there are “new ways to teach and grow [and] whole-school professional development in gentle teaching and in pedagogical approaches informed by insights on trauma” (p 46). Through research available from The National Alliance to End Homelessness (2012), Dr. Dill (2015) made the case that students dealing with poverty and/or homelessness likely experience post-traumatic stress due to traumatic events, such as eviction, foreclosure, domestic violence, unstable living environments, or the incarceration of a parent or other family

member. Dr. Dill served for years as the senior program coordinator for the Texas Homeless Education Office located at the Charles A. Dana Center at the University of Texas at Austin. She personally trained many of the students involved in this project by providing yearly seminars on the rights of the homeless which was expanded into a pre-service teacher candidate project using trauma-informed pedagogy to create a framework for enhancing literacy and learning at schools with high poverty student populations throughout the involvement of faculty, students, families, and community members. The purpose of this project was to raise awareness for the effects of homelessness and poverty on student performance and provide training to prepare pre-service teachers to use the following approaches as part of a trauma-informed pedagogy:

- Develop relationships, trust, and safe learning environments;
- Acknowledge and address the emotional states of students who face chronic stress from poverty to avoid labeling inappropriate school behaviors;
- Increase engagement by using the arts as a familiar and safe medium to build academic confidence and critical and creative thinking skills necessary for academic success in learning (Cramer, 2014); and
- Use aesthetic strategies for literacy and learning that make school more meaningful and relevant for students with learned hopelessness (Cramer, Ortlieb, & Cheek, 2008).

Teachers are the single greatest difference makers in student success. Implementing a trauma-informed pedagogy has the potential to change resistant student mindsets about school and learning. Teachers often encounter concerns with students that require trauma-informed pedagogy training based on the foundational work of Eric Jensen (2009) and the research of Dr. Vicky Dill (2015). The purpose of this paper was to describe common concerns that teachers face and provide suggested action steps. Example activities from trauma-informed

pedagogy training held among current pre-service teachers were also provided.

Safe Learning Environments and Personal Mentoring Relationship with Teachers

Homeless students need a personal mentoring relationship with educators to develop the self-regulation all students need to succeed. A teacher or mentor who provides appropriate guidance sees the need for order and calm in the classroom, predictable routines and fair rules, the provision of basic needs, and an understanding ear. These are universal needs of students under stress. (Dill, 2015, p. 47)

In order to teach students who have experienced poverty-related trauma, teachers must know how to recognize trauma-related behaviors, such as depression, anger, inappropriate responses, and difficulty managing emotions or realizing the consequences of behavior (McInnes, Diamond, & Whittington, 2014). Without the benefit of growing up with strong and secure relationships, students of poverty develop methods of defense to deal with school frustration. These students often do not know how to collaborate and exchange information. Jensen (2009) explained why teachers who lack a trauma-informed pedagogy may misunderstand undesirable student behaviors:

Some teachers may interpret students' emotional and social deficits as a lack of respect or manners, but it is more accurate and helpful to understand that the students come to school with a narrower range of appropriate emotional responses than we expect. The truth is that many children simply don't have the repertoire of necessary responses. It is as though their brains' emotional keyboards play only a few notes. (p.18)

Suggested Action Step

Teachers can develop trust and relationships early on in their classrooms by allowing time for students to share information about themselves through the same methods they would use in social media, such as visuals and music. As an introduction, students would choose an image that represents them. Convenient resources include calendars, internet images, and art cards from bookstores. Students could also choose a stanza from a favorite song that they feel represents their life, a personal experience, or their personality. This is easily resourced from music videos and lyrics online. Eisner (2002) claimed that the arts help us create our lives by “expanding our consciousness, shaping our dispositions, satisfying our quest for meaning, establishing contact with others, and sharing a culture” (p. 4). Teaching appropriate responses can begin with modeling how to greet students when they enter the classroom. Appropriate responses can also be taught through role-playing procedures, school routines, or confrontational situations and having students act out the appropriate response.

Example Activity

During trauma-informed pedagogy training, pre-service teachers first created an awareness checklist. The awareness checklist was based on Souers’ (2018) six recommendations of ways to recognize the emotional needs of students and avoid judgment based on student responses who are experiencing ongoing trauma:

1. Identify what need a behavior is expressing.
2. See the worth in each student and build from his or her strengths.
3. Remember, kids can’t learn if they don’t feel safe.
4. Work from a team perspective.
5. Consider whether a basic need isn’t being met.
6. Give students grace. (pp.33-35)

Next, pre-service teachers learned an activity that helps develop relationships with their students: the Art Card Representation. For this activity, pre-service teachers chose their own art card that somehow represented them in their own way (see Figure 1). For example, one pre-service teacher said that the wind blowing the leaves away represented “me being free on my own.” The Art Card Representation activity provides students with the opportunity to express themselves through art and creates connections among students as they share.

Cognitive Lags and Lack of Engagement Due to Chronic Stress

Are children from poverty more likely to struggle with engagement in school? The answer is yes. Seven differences between middle-class and low-income students show up at school. By understanding those differences and how to address them, teachers can help mitigate some of the negative effects of poverty. (Jensen, 2013, p. 24)

According to Gottfried, Gottfried, Bathurst, Guerin, & Parramore (2003), chronic stress, which is situationally associated with poverty, can create symptoms of lower cognitive ability and performance with memory, retention, and literacy. In order to enhance engagement for students who may be struggling to concentrate due to chronic stress, teachers must focus on developing thinking and study skills to help students feel more confident. This process requires much encouragement, creativity, and the ability to make thinking seem relevant and natural. Jensen (2013) noted that problem solving skills, working memory skills, and limitations with vocabulary can be deterrents for students. In order to teach basic skills that promote cognitive skill development and lead to higher order thinking, teachers can use the arts as a covert action strategy. In the current social media culture, students are familiar with and comfortable using images, video, and music as a means of communication.



Figure 1. Example of an art card representation.

Suggested Action Step

As students think aloud, mediate ideas and interpretations of images, share explanations, and perform their understandings, thinking becomes visible. For a term or concept to be meaningful, students must form a personal image or icon for that term. Once the image is in the imagination, it can be recalled and imaginatively manipulated (Eisner, 1991). Perhaps the best explanation of the beneficial relationship between literacy and the arts comes from Perkins (1994) who explored looking at works of arts as a means of learning to think. The thinking skills addressed through this action step come from The Framework for 21st Century Learning, which was developed as a school/community effort to define and illustrate the skills and knowledge students need to succeed in work, life, and citizenship (Trilling & Fadel, 2012). These skills include:

- Critical Thinking – Use art to spur students into real-world situation solving.

- Communication – Words are not our first language. Art can help us communicate in new and exciting ways.
- Collaboration – Students have many unique artistic abilities that have the potential to mesh wonderfully.
- Creativity and Innovation – Everything we see and understand, we experience through the lens of experiences. Through art, we can layer all these experiences and understandings together to create one beautiful masterpiece of learning.

Using thinking routines developed by Wolberg and Goff (2012), students can use the visual arts as a catalyst for covertly learning to think in a nonthreatening format. Introducing new texts and concepts with visual images, followed by a negotiation of meaning through discussion, leads to stronger personal connections to the learning experience (Rowse, McLean, & Hamilton, 2012). Jensen (2001) asserted “the arts enhance the process of learning by nourishing the sensory, attentional,

cognitive, emotional, and motor capabilities systems connected to learning” (p. 2).

Example Activity

During trauma-informed pedagogy training, pre-service teachers selected a piece of artwork or an image and created a journal entry describing what they see, think, and wonder

about (Project Zero, n.d.). Through these actions, students make their own detailed observations and develop their own interpretations. This activity also encourages curiosity as students ask questions and wonder. Figure 2 shows an example from a pre-service teacher’s journal of their observations and interpretations of an image portraying Times Square in New York City, New York.

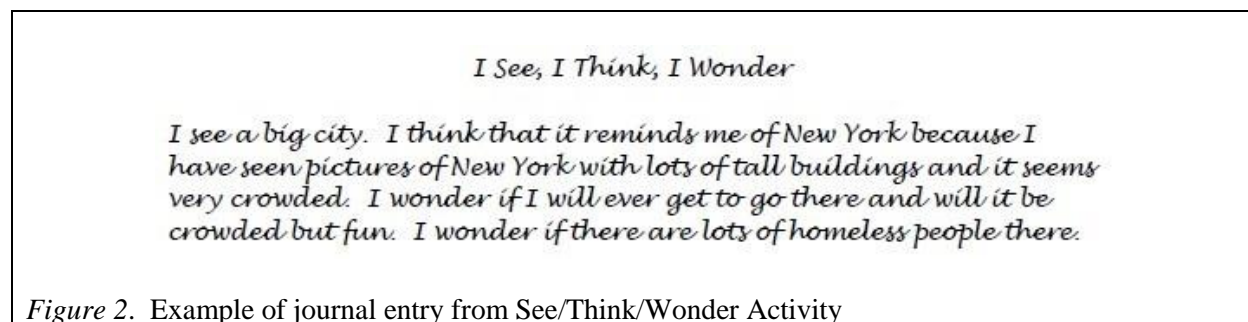


Figure 2. Example of journal entry from See/Think/Wonder Activity

Create Family, School, and Community Collaboration for Success

[Educators and family] can find ways to come together and collectively address the challenges. We need to support one another in creating and sustaining a positive mindset, a belief that our students can achieve success regardless of what they’re experiencing in and out of school. (Souers, 2017, p. 33)

It is of utmost importance that teachers involve parents and community members to help students of poverty succeed in school. Milne and Plourde (as cited in Jensen, 2009) studied six 2nd grade students who lived in poverty and experiencing high levels of student success. Milne and Plourde discovered that the parents of these students “provided educational materials, implemented and engaged in structured reading and study time, limited television viewing, and emphasized the importance of education” (p.39). However, schools must be more creative and positive in their methods used to communicate

with families and community members. Kraft (2017) recommended using more technology-based communication, as well as personal communication that includes positive feedback with a plan for student success. Creating a collaborative plan involving students, faculty, parents, and community members will make collaboration a priority and offer a variety of strategies that distribute responsibility instead of overloading and overwhelming the teacher with sole responsibility for the success of the students.

Suggested Action Step

The National Network of Partnership Schools developed the Six Keys to Success framework that applies research-based approaches to organize and sustain excellent programs of family and community involvement to increase student success (Sanders & Epstein, 2000). The key areas are parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. Schools should design an action

plan with strategies for each key area with the intent of involving teachers, families, and community members in a collaborative effort to enhance literacy skills among students who live in poverty.

Example Activity

During trauma-informed pedagogy training, pre-service teachers were provided with class e-newsletters. These newsletters were available in English, as well as other languages that may be represented in their future classroom. Within the newsletters were examples of questions for current classroom reading selections to boost reading comprehension and family involvement. Moreover, the newsletters provided an example of one way to establish effective communication between teacher and parents.

Conclusion

Using a trauma-informed pedagogy has the potential to transform learning and help students who are at-risk and live in poverty. Through these action steps and example activities, this paper demonstrated how teachers might develop 21st century thinking dispositions among all students by making literacy and learning interactive and relevant. In order to enhance learning among all students, teachers must be training in how to implement a trauma-informed pedagogy to develop relationships, trust, and create safe learning environments. By using arts-related strategies to enhance critical and creative thinking among students, teachers also remove potential barriers for cultural and experiential differences.

Helpful Websites

1. Artful Thinking:
<http://www.pzartfulthinking.org/index.php>

The goal of the Artful Thinking program is to help students develop thinking dispositions that support thoughtful learning in the arts, and across school subjects. The program is one of

several programs at Project Zero linked by the theme “Visible Thinking.” Artful Thinking has six interrelated components: The Artful Thinking Palette (the six thinking dispositions at the heart of the program), thinking routines, works of art, curricular connections, visible thinking, and teacher study groups.

2. Crayola for Educators:
<http://www.crayola.com/education/index>

Crayola opens a world of imagination, inspiration, and ideas for educators to support creative teaching and learning. This website offers information for lesson plans, grant programs, and new professional learning opportunities.

3. Kennedy Center for the Arts:
<http://artsedge.kennedy-center.org/educators.aspx>

The Kennedy Center instituted ARTSEdge as a way to support arts-based student learning. Information on this website includes ways to implement innovative teaching with the arts, including creative uses of technology in the classroom.

4. National Network of Partnership Schools:
<http://nnps.jhucos.com/>

The National Network of Partnership Schools offers a collaborative platform for governmental bodies, organizations, and school entities. Resources include research-based approaches to develop and sustain exceptional partnership programs to increase student success in school.

5. Partnership for 21st Century Learning (P21):
<http://www.p21.org/>

P21’s mission is to support 21st century learning in the classroom through collaborative partnerships. This website offers a framework for 21st century teaching and learning, as well as a multitude of resources to support 21st century readiness.

6. Jensen Learning:
<http://www.jensenlearning.com/>

Jensen Learning integrates neuroscience with practical classroom strategies. Information

on this website supports school personnel with overcoming common challenges, such as cognitive lags, poverty, student misbehaviors, teacher attrition, and weak school cultures.

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Improving Practice of Pre-Service Teachers through Inquiry

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Abstract

This paper describes the implementation of a teacher inquiry project among university-based pre-service teachers. All participating pre-service teachers designed an inquiry project, which included an original question, a literature review, a planned course of action, and conclusions for improving instruction. The details of the yearlong teacher inquiry project provided insights and reflections concerning how pre-service teachers used inquiry to improve instruction and student outcomes.

Keywords: *teacher inquiry, teacher action research, new teacher training, pre-service teacher training*

Introduction

Today's teachers face many challenges in their classrooms, such as various learning differences, diverse cultures, and unique family and economic situations. Teachers must balance prescribed state and federal mandates for student performance with individual student needs. In order to prepare teachers for these challenges and other realities associated with teaching, teacher education programs strive to use innovative practices to shape thoughtful practitioners. This paper described a yearlong training partnership between pre-service teachers, one teacher preparation program, and cooperating schools. The pre-service teachers participated in a field-based program that included classroom

observations, teaching experiences, and research activities. The objective was to transform the pre-service teachers into skilled teacher-researchers to improve practice.

Teacher Inquiry Background

Teacher inquiry trains teachers to think about the classroom like a researcher. It is important to note that each school presents a unique context, and the issues that teachers identify should arise from their individual authentic situations. In a literature review of previous teacher inquiry models, Gallimore, Ermeling, Saunders, and Goldenberg (2009) identified the contextualization of inquiry questions as a key theme in successful teacher

inquiry projects. With this in mind, teacher inquiry offers pre-service and current teachers an effective tool for meaningful improvement of their teaching practices (Ermeling, 2010). As professionals, teachers have a duty to engage in continuous growth that improves their instructional practices (Efron, 2005). Teachers who do so are better equipped to be adaptable and flexible in a change-oriented profession. Teacher inquiry is a multi-step process in which the teachers identify a recurring issue in their classroom and discover a possible research-based course of action through the consultation of professional resources. Armed with new understandings, teachers then develop solutions that address the identified issue.

No matter the difficulties of the classroom, teacher inquiry empowers teachers. Teaching involves complex factors, and research that is done by teachers can help improve the practice (Cochran-Smith & Lytle, 1999). While traditional literature may not view the teacher as a researcher, the daily interactions between teachers, students, parents, and colleagues yield many opportunities for research. Data in a classroom and school is a researcher's dream (MacLean & Mohr, 1999). Teacher inquiry gives teachers the ability to look at problems in a more orderly fashion, while analyzing current practices and traditions. Teachers must critically observe their own practices, as well as how students respond and learn (Mertler, 2006). Teacher inquiry improves classroom practices to the benefit of students and, in turn, the classroom teacher. It is meant to be reflective, encourage further questions, and allow repetition of the study. A teacher who maintains their original passion about the profession will find novel and unexpected situations each day that are suitable for the teacher inquiry method (Korczak, 1967).

Conducting teacher inquiry during teacher preparation encourages pre-service teachers to engage in critical reflection, develop a questioning stance, understand school culture, and modify instruction to meet students' needs (Cochran-Smith, Barnatt, Friedman, & Pine, 2009). Teacher

inquiry creates a community for pre-service teachers to come together to think, discuss, write, read, collaborate, and explore relationships in the classroom (MacLean & Mohr, 1999). Furthermore, teacher inquiry scaffolds pre-service teachers to move beyond logistics to analysis.

Teacher Inquiry Project Overview

We are teacher educators affiliated with a university-based teacher preparation program. We implemented a teacher inquiry project among pre-service teachers during a yearlong field-based experience. Our teacher inquiry project was based on the book *Digging Deeper into Action Research a Teacher Inquirer's Field Guide* (Dana, 2013). Dana defined teacher inquiry as the "intentional study of one's profession" (p. 2). Teacher inquiry includes the process of looking at questions, data, and reading literature related to a question under investigation. Teacher inquiry does not resolve every classroom problem, but rather those problems the teacher finds curious or wonders about. Thus, teacher inquiry creates a self-improving partnership between a teacher and their school campus. Additionally, Mertler (2006) noted that the purpose of teacher inquiry was "to improve one's own professional judgment and to give insight into better, more effective means of achieving desirable educational outcomes" (p. 10). Teachers who engage in inquiry need a collaborative community where they feel safe to learn from each other, discuss early attempts at improvement, bring questions, and express their point of view (MacLean & Mohr, 1999).

Teacher Inquiry Project Observation and Question Development

Early in our teacher preparation program, pre-service teachers complete field experiences that require the observation of classroom performance. Pre-service teachers are assigned to specific mentor teachers, who are classroom teachers affiliated with schools in surrounding school districts, and observe their teaching practices. After completing observations, pre-service teachers reflect on what they notice during

these field experiences in an observation journal. Then, pre-service teachers engage in discussions concerning the ways in which the practice of teaching could be improved. It was from these observation journals that potential research questions emerged and reflected a pre-service teacher's individual interests and challenges. Assigned or pre-determined questions are not as meaningful for teacher inquiry because the pre-service teacher must begin from a place of observation and wonder that leads to authentic research interests. The ideal outcome of our teacher inquiry project was for pre-service teachers enrolled in our teacher preparation program to understand how to engage with

teacher inquiry so that they may continue this important practice when they begin teaching.

Choosing a guiding question is central to a successful teacher inquiry project. We devoted much time during several class meetings to discussions of pre-service teachers' school observations and their initial ideas for a guiding question. We also divided pre-service teachers into small groups so that pre-service teachers could share their guiding question and receive peer feedback from their small group members. Classroom discussion and feedback received during small group interactions helped pre-service teachers refine their guiding question.

Table 1

Examples of Inquiry Questions

Brittney	<i>The same students struggle to learn their sight-words every week. Is there something I can do?</i>
Max	<i>I noticed the students who sit at the back of the class do not participate as much. What can I do to engage them?</i>
Maria	<i>When I teach small reading group, the lowest readers seem to be the least motivated. Is there a way to incentivize them?</i>

Note. All names are pseudonyms.

Teacher Inquiry Project Design

Once pre-service teachers determined their guiding question, the next phase was the literature review. It was crucial for pre-service teachers to understand that other teachers and researchers have attempted to solve similar problems. While we did share a few articles in the beginning, we built a research community by asking pre-service teachers to find and share relevant literature. The goal of the literature review was to identify articles where other researchers had identified similar problems and attempted to improve teaching practices. We wanted to frame this part of the inquiry project with a scholarly approach and illustrate that even

seasoned researchers reported varying degrees of success.

Building on the research methodology presented in selected articles for their literature review, each pre-service teacher determined their own course of action. Pre-service teachers determined how they would establish a baseline and measure impact for their prescribed solution. Next, each pre-service teacher identified data that would best meet their research needs, such as student work, checklists, informal student or classroom observations, or assessment results. Pre-service teachers then implemented their individual course of action and collected the respective data.

Table 2

Designed Course of Action

Brittney	Designed tactile sight-word cards for students to trace as they said the words aloud
Max	Moved desks from rows to a U and taught from the center of the classroom
Maria	Created a reward system for reading groups who were attentive

Note. All names are pseudonyms.

Teacher Inquiry Project Conclusion

At the end of the yearlong field-based experience, each pre-service teacher wrote a paper that described their individual inquiry project and created an accompanying research poster. Pre-service teachers presented their inquiry projects in a public forum where mentor teachers, principals, and other teacher educators in our teacher education program attended. Pre-service teachers concluded their inquiry project by identifying possible next steps. We wanted pre-service teachers to realize that every inquiry project could be improved and that the next steps they identified could be the beginning of another inquiry project.

Reflections and Gained Insights

Through our own observations and reflective journal entries, we continue to notice the positive impact of the teacher inquiry project on the teaching practices of our pre-service teachers. For example, a pre-service teacher shared during one of our class discussions that their mentor teacher made a comment that the teachable moment in the classroom had disappeared because of requirements for standards testing. This pre-service teacher responded, “The teachable moment hasn’t disappeared. It is just a matter of whether or not you are going to use it.” Moreover, two pre-service teachers indicated that their mentor teachers planned to implement findings from their teacher inquiry projects into their classrooms.

As pre-service teachers worked through the process of teacher inquiry, recorded observations, and wrote up results from their research, we began to see a different perspective in how they looked at their teaching practices. One principal told us that she wished all of her teachers would think like a researcher because they would no longer view classroom challenges as problems. Pre-service teachers were proud of their work and eager to share how they found answers to their guiding questions. One pre-service teacher explained that she planned to maintain an observation journal once she began teaching because it would make her more aware of how to address the needs of her students.

We also noticed a systemic effect in the schools where our pre-service teachers conducted their teacher inquiry projects. We heard many positive comments from mentor teachers about how they have been inspired to question aspects of their own teaching practices. The teacher inquiry project not only transformed pre-service teachers into teacher-researchers, it also inspired in-service teachers to refresh their own practices. Some of our most impactful outcomes have been when a mentor teacher observes a pre-service teacher addressing a persistent problem, rather than passively adopting a “you can’t save everyone” mentality.

During the past school year, nine of our former pre-service teachers were chosen by their respective schools districts as either teacher of the year or rookie of the year. The teacher inquiry project has transformed our pre-service teachers into powerful agents of change within

schools. Moreover, the teacher inquiry project has empowered future teachers to tackle a variety of problems in the classroom that were

previously viewed as naturally occurring phenomena.

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Effective Vocabulary Strategies for English Learners in Middle School Classrooms

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Abstract

A significant amount of research indicates that vocabulary plays a critical role for English Learners (ELs) in developing reading skills. This paper provides a variety of vocabulary strategies that classroom teachers can use on a daily basis. Effective strategies, such as student-created videos, literacy circle groups, teacher read-alouds, word sorting games, and word play are applicable for ELs across different content areas.

Keywords: *vocabulary, English learners, middle school*

Introduction

From 2003 to 2013, the number of ELs in U.S. public schools grew from 4.1 million students to 4.4 million students (National Center for Education Statistics, 2015a). According to recent data, approximately 5 million public school students in the United States participate in school-based English as Second Language (ESL) programs (Kids Count Data Center, 2015; Sanchez, 2017). Of this group, 2.8 million students have insufficient spoken English skills (National Clearinghouse for English Language Acquisitions, 2010). Currently, nearly 70% of ELs read at below basic proficiency levels (National Assessment of Educational Progress, 2011) and perform 20% to 50% below native English speakers on standardized assessments for reading (Menken, 2010; National Center for Education Statistics, 2015b). Exploring which reading strategies are most effective in working with ELs is highly warranted.

Research illustrates that vocabulary knowledge places a particular burden on ELs' reading comprehension and is a significant predictor for the acquisition of writing skills (Calderon et al., 2005). Limitations with vocabulary presents a major obstacle for ELs with learning the English language (Hart & Risley, 2003; Snow, Barners, Chandler, Goodman, & Hemphill, 2000). Given ELs' critical need for vocabulary development in support of academic literacy, the goal of this paper is to describe engaging and effective ways to promote word study across different content areas.

Strategies Across Disciplinary Areas

Oral Language Practices

Oral expression and word knowledge is enhanced when teachers give middle school ELs the opportunity to use new words or practice

talking about words they have learned. Engaging in oral language practice activities moves beyond traditional instructional practices, such as rote definition and memorization. Instead, students are actively engaged in the learning process, increasing their vocabulary knowledge, oral skills development, and confidence levels. Suggested oral language practices for middle school ELs include student-created I-movie videos, show-and-tell, and author's chair.

Student-created I-movie videos.

Technology applications are excellent tools to support oral English language skills and vocabulary usage in different contexts (Peregoy & Boyle, 2017; Tompkins, 2018). Technology and collaboration strategies can be easily combined when students work in small groups to create a short 15-20 minute video. First, the teacher divides the class into small groups of three to five students. Then, the teacher gives each small group several academic vocabulary words from different content areas. Next, small group members use these words to create a storyboard for their movie. Using their completed storyboard as a guide, students compose a draft of a movie script. After small group members revise and edit their movie scripts according to teacher or peer-group feedback, they may then create their video using a moviemaker technology application, such as I-Movie or Windows Movie Maker. An overview and example of a student-created I-Movie is provided below.

A small group of middle school ELs created a television commercial advertisement entitled "Revolution." The small group employed a wide range of vocabulary, such as *blemish*, *glow*, *damage*, *crease*, *contours* and *firm*, and *hydrate*:

I am a super model. I am very famous in the USA. You can find me on many cover pages of well-known woman magazines. I am often being asked, "Why your skins looked like a baby? Why does your facial skin look so

glow?" I use a revolution cream to improve the damaged and blemished skin. The cream can reduce your deep crease lines on the forehead overnight. It will contour and firm your skin and fight for gravity fitness. If you are interested in the incredible skill care product, please call the toll number 1-888-8888.

Student-created I- movie videos projects improve oral language skills with a variety of academic words and create a positive collaborative learning environment.

Show-and-tell. For show-and-tell, the teacher selects about 25 words across content areas. There should be enough variety so that each student selects a different word. For example, a word list might include *mean*, *repeating decimal*, *complex fraction*, *condensation*, *economics*, *reprimand*, and *trivial*. The teacher writes the selected words on index cards and places them in a vocabulary jar. The teacher then selects five students to choose a word from the vocabulary jar. Either at the front of the room or at their desks, each student explains the meaning of their word, while the rest of class attempts to guess the word. For example, a student might explain the meaning of the word *mean* in the following manner:

The word has four letters. The word starts with the letter "m." The word can mean "equal" in math. But, the word can have a negative connotation when it describes someone as not nice or polite. What do you think the word will be?

The teacher should repeat this activity throughout the day or week until each student has had a turn. Show-and-tell could occur before transitions, after transitions, or as a daily warm-up activity.

Alternatively, the teacher divides the class into small groups of three to five students. The teacher provides each small group with their own vocabulary jar that contains about 10 words across content areas. Working in their small groups, students take turns selecting a word and

explaining the meaning while the other small group members try to guess the word. After students use all 10 words, small group members work together to rank the words from easiest to most difficult. Lastly, each small group shares and explains their word ranking to the class.

Author’s chair. Author’s chair is a popular activity used to support classroom literacy among younger learners (Cunningham & Allington, 2003) and can be adapted to support oral language proficiency among middle school ELs. First, the teacher displays a list of vocabulary words that are connected with different content areas, such as *proportion*, *evaporation*, *condensation*, and *expedition*. Students then take turns sitting in an author’s chair and describing the meaning of one word on the list either verbally or nonverbally. For example, a student might explain the meaning of the word *evaporation* as follows:

The word has 11 letters and starts with the letter “e.” The word describes the process of turning a liquid into vapor. We often see the dew on the grass in the morning. But, the dew will be gone when the sun comes out. What word I am?

After the student describes the meaning of their selected word, the rest of the class tries to

identify the correct word. The teacher should continue this activity throughout different subject areas each day and provide each student with a turn in the author’s chair.

Teacher Read-Alouds

Informational books contain many infrequent and rarely used words, almost twice as many as occur in everyday conversations among adults (Hickman, Pollard-Durodola & Vaughn, 2004). Thus, it is essential that middle school ELs learn to use context clues as a way to help decipher unknown word meanings while reading. To support the development of academic vocabulary, the teacher should consider using children’s literature that supports instruction across different content areas, such as the following texts for math and science instruction: *Math Curse* by Jon Scieszka and Lane Smith, *Science Verse* by Jon Scieszka, and *One Grain of Rice* by Demi. Within selected texts, the teacher should identify words that are important and useful for students (see Table 1). Important words are those that appear frequently on literacy tests, and useful words are those that occur more often in casual speech (Beck, McKeown, & Kucan, 2002).

Table 1

Children’s Literature for Math Instruction and Examples of Important and Useful Words

Book Title and Author	Important Words	Useful Words
<i>Math Curse</i> Jon Scieszka & Lane Smith	carbonate, evaluation, nucleus, ration	electric appliance, water cycle, calories
<i>Science Verse</i> Jon Scieszka	lunatic, estimate	fractions, division
<i>One Grain of Rice</i> Demi	ratio	doubles

For example, the book *Math Curse* includes math vocabulary terms, such as *ratio*, *fraction*, and *division*. Prior to reading the book aloud, the teacher should display these words for the students and instruct students to snap their fingers when they hear the words during the teacher read-aloud. During the teacher read-aloud, the teacher stops reading when students snap their fingers. The teacher then leads a discussion regarding how to decipher the meaning of the word with context clues. In order to promote retention and applicability of the word under discussion, the teacher leads students to discuss how they could use the words in real life experiences.


Visualizing Activities

Teachers can use visualizing activities with middle school ELs for vocabulary

acquisition and comprehension. First, the teacher reads a text aloud to students without showing any illustrations. Following the reading, the teacher asks students to select three key words from the text. The teacher then works with students to create a graphic organizer that helps them visualize the vocabulary words (see Table 2). On the top third of a blank sheet of paper, students write the three words they selected from the text and include a definition for each word. On the remaining two-thirds of the paper, students create a visual illustration for each word using information from the text. Once students complete their graphic organizer, they share them with the class. The visualizing activity provides interaction among middle school ELs with various learning experiences and promotes their understanding and recalling of text.

Table 2

Example of Visualizing Activity from The Boy Who Loved Words by Roni Schotter (2006)

Words	Definitions	Visual Illustration
Scrupulous	Describes a person who is diligent and meticulous to do something.	1 ►►►►►►►►►► 10
Stunning	Describes a person or thing that is extremely impressive or attractive.	Word Puzzle
Spacious	To have ample space.	 A 1000-foot swimming pool

Literacy Circle Groups

A literacy circle group promotes reading widely among middle school ELs. The teacher creates a reading list by selecting supplemental reading materials, such as *The Lightning Thief* by Rick Riordan (2005), *The Outsiders* by S.E. Hinton (1967), and *Speak* by Laurie Halse

Anderson (1999). Students select a book from the reading list and form small groups based on their selections. Each small group should consist of no more than six students. Within small groups, each student fulfills a different role, such as summarizer, discussion director, connector, illustrator, travel tracer, and vocabulary enricher. Students read in their

books daily, and the teacher allots 15-20 minutes each week for small groups to meet and discuss their book. Once students finish reading and discussing their book, each small group creates a poster to illustrate vocabulary words and aspects of the story. For example, a small group that read *Speak* by Laurie Halse Anderson (1999) might highlight the words *abysmal* and *blathers* on their poster in the following character description:

Heather is from a small town in Ohio and is a new student in Texas. She wants to join a book club that meets every Friday after school. She wants to be part of her new community. But, she is finding it very difficult to break in to the new social scene. These students have been friends since childhood. She feels lonely and *abysmal* since she is not able to join the book club. She began *blathering* on some nonsense topics.

As middle school ELs read and write with their peers through authentic literacy circle experiences, their vocabulary knowledge and word consciousness increases.

Words for the Day

Each school day can begin with Words for the Day. The teacher asks students to select learned words from different content areas and display them on a word wall. Example words may be *exponent*, *insulator*, *satire*, and *diplomacy*. Students then take turns choosing a word and explaining why they selected it, what they think it means, and how they use the word. For example, a student might offer the following explanation for the word *exponent*:

The word *exponent* has multiple meanings in different content areas. It means advocate, supporter, and proponent. But, it the meaning is different in math. It looks like a small, raised number connected to a whole number in an expression. The word *exponent* is important when making math calculations.

After a student completes their explanation, the teacher reviews meanings associated with the selected word and makes connections across content areas. For example, the teacher can point out that the word *exponent* can be used to measure miles around the globe or the distance to Mars.

Word Sorts

Using word sorts with middle school ELs across different content areas is beneficial for effective development of word knowledge. For example, the teacher can provide students with a list of prefixes (e.g., *dis-*, *mis-*, *un-*) and suffixes (e.g., *-able*, *-ible*, *-ful*). The teacher explains the meanings of each prefix and suffix, along with several examples. Studying prefixes and suffixes is important for ELs and helps them explore word patterns and meanings. To extend word sorting knowledge, the teacher can create a word sort game using different colors. For example, the color green can represent prefixes, and the color orange can represent base words.

Word sorts may also be used as small group activities. The teacher divides students into small groups of no more six students and gives each group the following materials:

- Several index cards labeled with different word categories.
- Several small slips of paper labeled with corresponding words for each category.

Small group members then work together to place categorize the individual words correctly (see Tables 3 & 4). With word sorts, the teacher could also scramble important terms from different content areas for small group members to categorize and alphabetize (see Table 5).

Newspaper Game

Teachers can use a newspaper game to improve the acquisition and development of English among with middle school ELs. The teacher first divides the whole class into several small groups of four students and gives each

small group a newspaper and a list of academic words. Within their small group, students unfold the newspaper, set it on the ground, and place one foot onto the newspaper. Students then take turns being the vocabulary leader. During each turn, the vocabulary leader selects a word from the vocabulary list and explains the meaning of the word. Small group members then have three seconds to make a sentence using the selected word. If the small group does not make a sentence using the word within three seconds, the newspaper is folded in half. This process continues until small group members cannot fit their feet onto the newspaper.

Finding a Partner

Homonyms, homophones and homographs can cause confusion among middle

school ELs. Creating game-like activities for students to explore homophones (i.e., words with the same sound and different spellings) and homographs (i.e., words with the same spelling and different sounds) can be used to reinforce correct word meanings, spellings, and pronunciations (Ganske, 2008). First, the teacher writes different homophone and homograph words onto index cards and uses these words to write sample sentences on separate index cards. The teacher then divides the whole class into two groups. The teacher gives one group the individual word cards and the other group the sentence cards. Within each group, students distribute the index cards among themselves and then move around the classroom to match up words with sentences.

Table 3

Word Sorts – Home Words

Bedroom Words	Bathroom Words	Kitchen Words
bedspread	bathtub	cabinets
bedtime	bathrobe	can opener
dresser	shower curtain	countertop
headboard	shower rod	freezer
nightstand	sink	refrigerator

Table 4

Words Sorts – Parts of Speech

Noun Words	Adjective Words	Verb Words
behemoth	astute	circumvent
equilibrium	detrimental	germinate
metamorphosis	fraudulent	snoop
operative	inoperable	vanquish
pinnacle	operative	waive

Table 5

Word Sorts – Weather Words

Altitude	Nimbostratus
Breeze	Obscuration
Circulation	Prevailing westerlies
Density Altitude	QPF: Quantitative Precipitation Forecast
Earth's tilt	River Food Warning
Freeze	Sleet
Gust	Tornado
Hail	Upslope Flow
Ice Crystals	Vapor Pressure
Jet Stream	Wall Cloud
Kinetic Energy	Xlokk
Leeward	Yellow Wind
Meteorologist	Zodiac

Teaching Suggestions

It is crucial for teachers to provide middle school ELs with a variety of effective vocabulary instruction strategies so all students are able to identify words and their meanings inside and outside of classrooms. Classrooms should be places to cultivate ideas, stimulate questions, act out human curiosity, and provide an intellectually challenging reading and learning environment. Below are additional teaching suggestions to help teachers create a language-rich environment for middle school ELs:

- Provide literacy-rich learning environments - Teachers should provide students with access to a wide variety of fiction and non-fiction texts. When students read widely, their vocabulary knowledge, reading comprehension, and writing skills are strengthened.
- Assign reading partners - Teachers can provide opportunities for ELs to share their interests with peers and allot time for them to practice reading aloud together. Students' reading skills and

confidence levels will improve when they engage in positive interactions with others. Working with reading partners also enhances self-concepts towards reading among students (Guthrie, Klauda, & Morrison 2012).

- Integrate technology during instruction – In addition to making videos, teachers can integrate technology during instruction with virtual scavenger hunts, webquests, and blogs. For example, webquest sites are available that offer more than 2,500 different lessons designed for a variety of ages and grade levels.
- Incorporate hands-on activities - Hands-on activities provide tangible connections for ELs to build valuable background knowledge that supports content area instruction and literacy skill development.
- Design inquiry-based projects – Teachers should encourage students to generate questions based on their interests and curiosities about different topics or texts (Guthrie et al., 2012).

Once students generate a list of questions, they may participate in inquiry learning experiences to find potential solutions.

- Use daily informal assessments - Teachers need to use a variety of

informal assessment tools for different content areas every day, such as observations, teacher-student conferences, and peer collaborative projects. Teachers should review assessment results and adjust their instruction accordingly.

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Using the Six Syllable Types to Teach Word Attack Skills

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Abstract

Reading fluency is one of several components of an effective reading program. One way to increase a student's reading fluency is teaching word attack skills as a way to break words down into smaller parts. Strategies, such as direct teaching of word attack skills, can make it easier for students to read unknown words. Understanding and applying the six syllable types to unfamiliar words can help readers successfully decode unknown words. Fluent reading leads to better comprehension of the text. The purpose of this paper was to define the six syllable types, identify common syllable patterns, and provide tips and suggestions for incorporating this information into an existing curriculum.

Keywords: dyslexia, reading, fluency, syllable types, syllable patterns, word attack skills

Introduction

Being able to comprehend what is being read is the goal of reading (Texas Education Agency, 2018). Reading fluency is defined as accurate, quick, and smooth reading for the purpose of understanding (Shaywitz, 2003). Fluency can have a direct impact on reading comprehension. For some who are struggling to learn to read, fluency can be hard to obtain, especially if the reader relies on sounding out words that are not familiar to them. Many times, beginning readers or students who are struggling to learn to read may stop when they come to a word they do not know. These readers may employ several techniques while trying to figure out the word. A reader may try to sound it out or look for clues in pictures. Guessing or waiting for the teacher to provide a hint or say the word are also ways that readers use to identify words they do not know.

The National Reading Panel (2000) reported that reading fluency and comprehension were two areas necessary for effective reading instruction. Since then, additional research has supported their conclusions and indicated the need for explicit and direction instruction. Teachers should not assume that students automatically know the sounds that letters make (Torgesen, 2009). Shaywitz (2003) contended that teachers should address phonological awareness and phonemic awareness throughout the reading curriculum. Moats and Sedita (2006) also stressed the importance of recognizing patterns and understanding syllable types as a way to break a word into smaller, more manageable parts in order to comprehend it. With this in mind, teachers should provide students who struggle with reading acquisition explicit and direct instruction for the six syllable types (Knight-McKenna, 2008; Torgesen, 2009).

Six Syllable Types

Some words cannot be sounded out. These words, often known as sight words, are not decodable because the sounds do not predictably correspond with the letters in the word (Light & McNaughton, 2012). Sight words, such as *said*, *who*, *come*, *does*, need to be memorized because they cannot be sounded out. However, most English language words can be broken down into smaller parts, making these words easier to read. There are six syllable types that make this possible: closed, open, silent e, vowel pair, r-controlled, and final stable syllable.

Every word has at least one vowel. Single-letter words, such as *I* and *a*, are vowel-only words. Every syllable has one vowel sound. Single-syllable words, like *clump*, *she*, and *fine*, each have one vowel sound. Therefore, words with multiple syllables will have one vowel sound for each syllable. Examples of multisyllabic words are *define*, *program*, *children*. One vowel sound is heard in each syllable. Each syllable type is related to the sound the vowel will make. Words with more than one syllable may have the same syllable type, such as in the word *napkin*, or more than one syllable type, such as in the word *complete*. By determining the vowel sound in each syllable type, the reader can use this knowledge to decode unknown words.

The alphabet consists of 26 letters, five of which are always vowels: *a*, *e*, *i*, *o*, and *u*. All vowel sounds are made with the mouth open. With an open mouth, the sound is not blocked or cut off in any way (Neuhaus, 2016a). A syllable is a word or a word part that makes the mouth open and contains one vowel sound (Moats & Sedita, 2006; Neuhaus, 2016a).

A closed vowel has a short vowel sound. There is a consonant after the vowel. Students can learn the following author-created chant: “A consonant after a vowel make the vowel short.” While teaching this chant, the teacher should

hold up two fingers in the shape of a *v*. Then, the teacher should bring their hand down while saying the word *short*. Examples of words that have a closed syllable are *hat*, *stomp*, *in*, and *plant*.

An open vowel syllable type has a long vowel sound. These words have only one vowel in the word and no other letters after the vowel to stop the sound. Students can learn this author-created chant: “An open vowel is long because it has nothing to stop it.” While teaching this chant, the teacher should hold up two fingers in the shape of a *v*. Then, the teacher should move their hand to the left while saying the word *long*. Examples of words that have an open syllable are *so*, *me*, *hi*, and *she*.

A silent e syllable type has a soundless *e* at the end of the word that makes the first vowel long and creates a vowel-consonant-*e* spelling pattern. Teachers often refer to this syllable type as “magic *e*” or “sneaky *e*” since the final *e* gives its voice to the other vowel (Moats & Sedita, 2006). Examples of words that have a silent e syllable type are *game*, *hope*, *ripe*, and *stale*.

A vowel pair syllable type, also referred to as a vowel team or a vowel diagraph, has two vowels next to each other in a word (Carreker, 2005). Usually, the vowels combine to make one sound, such as in the words *team*, *week*, *pail*, and *goat*. A common instructional phrase for teaching vowel pairs is, “When two vowels go walking, the first does the talking.” Although that may be true in some instances, it is not correct with every word. Examples of words that have a vowel pair syllable type that make two separate sounds are *diet*, *poem*, and *oasis*.

With the R-controlled syllable type, the vowel sound is neither long nor short. This syllable type is difficult for some students. The letter *r* makes the vowel sound distorted or bends the sound when it immediately follows a vowel (Carreker, 2005). There are three instances when the vowel sound is the same: *er*,

ir, and *ur*. Although the spelling is different, each spelling sound is pronounced by making the sound /r/, such as in the words *her*, *bird*, and *turn*. Words containing *ar*, such as in *start*, *far*, and *arm*, have the vowel sound /ar/. Words containing *or*, such as *fork*, *storm*, and *born*, have the vowel sound /or/.

The sixth syllable type is final stable syllable. Teaching what each of these three words mean can help in remembering this syllable type (Carreker, 2005). The word *final* means last, so it will always be the last syllable

in a base word or a word with no suffixes. The word *stable* means unchanging, so it will always be the same. The word *syllable* means a word or a word part with one vowel sound. Final stable syllable include these endings: *-ble*, *-fle*, *-gle*, *-dle*, *-ple*, and other word endings. Examples of final stable syllable words are *stumble*, *ruffle*, *giggle*, *candle*, and *sample*. Similar to the r-controlled syllable type, words with a final stable syllable do not have a true vowel sound. Table 1 shows each of the six syllable types, along with examples.

Table 1

Six Syllable Types

Closed	Open	Silent e	Vowel Pair	R- Controlled	Final Stable Syllable
vc	v->	vce	vv	vr	-le
gal	go	rope	meet	clerk	ramble
help	she	slate	peak	bird	dazzle
stamp	hi	theme	steak	yarn	dimple
rock	so	tide	bread	whirl	handle
bill	be	tube	toast	stork	sniffle
tug		while	claim	perch	battle
fish		home	stray	burn	jungle
glass		spade	toe	firm	ankle

Syllable Patterns

Once students are comfortable with determining syllable types in one-syllable words, recognizing syllable patterns in multisyllabic words is the next step. In multisyllabic words, the most common syllable patterns are vc|cv, v|cv, vc|v, and v|v (Carreker, 2005). There are also vc|ccv or vcc|cv syllable patterns; however, these are not as common.

Teachers can instruct students to identify syllable patterns with the following steps:

1. Find the vowels in the word.
2. Underneath each vowel, place a dot or a small v.
3. Identify the syllable pattern.

For instance, the word *tarnish* has two syllables. It is a vc|cv pattern since there are two consonants (i.e., *r*, *n*) between the two vowels

(i.e., *a*, *i*): tar|nish. The first syllable type is r-controlled and the second syllable type is closed. Table 2 shows the most common syllable types, along with examples. Teachers must also

remind students that when dividing words with consonant blends or consonant digraphs, they must keep them together and not separate them into different syllables.

Table 2

Syllable Division Patterns

vc cv*	v cv	vc v	v v	vcccv
jumbo	Polish	polish	poet	district
problem	bogus	cabin	diet	complex
pilgrim	raven	comic	oasis	orphan
cascade	humid	lemon	museum	dolphin
garnet	pilot	denim	duet	constant
trombone	hotel	radish	neon	explain
rabbit	omit	seven	fluid	farther
reptile	oval	blemish	riot	monster
harpoon	baby	finish	video	pilgrim
orbit	music	wagon	violin	complain

*The vc|cvc|cv pattern is an extension of the vc|cv pattern. Examples are *palmetto*, *Atlantic*, *fantastic*, *compensate*, and *insistent*.

Conclusion

Being a fluent reader means reading smoothly, accurately, and quickly to gain meaning from a text (Shaywitz, 2003). Students who are struggling to read may need direct teaching of word attack strategies. One way to help students become independent readers is to teach syllable types and syllable division patterns (Carreker, 2005; Shaywitz, 2003). When given these techniques and skills, students can tackle longer or more intimidating words. Word attack strategies may give students a

feeling of confidence to break words apart, determine the vowel sounds, blend syllables back together, and read the word. Teaching students techniques to determine the meaning of unknown words will help build their confidence and make them more self-reliant, which in turn promotes improved reading comprehension. Determining syllable types and syllable division patterns for multisyllabic words are strategies that teachers can incorporate into any existing curriculum. By doing so, students are more likely to become independent readers and learn to love reading (Neuhaus, 2016b).

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First Words Fast: An Innovative, Compact, and Powerful Early Reading Curriculum

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Show Us Your Ways

Jayne Latty
First Words Fast

Abstract

In a test-driven educational environment, teachers see a great need for more engaging resources that produce the literacy results needed for students to thrive academically. In 2015, The National Assessment of Educational Progress reported that only 36% of fourth graders scored at or above the Proficient level of reading. This statistic was concerning because reading is an essential skill and has been shown to correlate with overall academic success. First Words Fast (FWF), an innovative reading program for beginning readers, provides a research-based curriculum that teaches sounds and sight words systematically and joyfully. The purpose of this paper was to provide an overview of FWF, which aims to provide a solid foundation of early reading skills among students in pre-kindergarten, kindergarten, and first grade.

Keywords: *early reading, literacy, phonics, sight words*

Introduction

FWF is an innovative reading program for pre-kindergarten, kindergarten, and first grade that is compact, fun, and fast. FWF serves as a platform for the accelerated teaching and reinforcing of fundamental reading skills with a specific focus on phonics and sight words. FWF functions as a powerful supplement to an existing curriculum or as a timely intervention for students who are not reading on grade level as they focus upon developing the necessary early reading skills that lead to independent reading success. Implementing the FWF

program takes about 30 minutes a day and includes an optional writing component.

FWF supplies teachers with effective, engaging materials and compelling, interactive methods (see Figure 1). By the end of 1st grade, FWF will have creatively introduced and taught the 26 letters of the alphabet, all 44 English language sounds and their common spellings, and an updated list of the most common sight words and other strategic words, The Latty List, which is comprised of 209 words in all. FWF's materials and methods fully equip teachers and motivate students as they focus upon developing

the necessary early reading skills that lead to independent reading success.

Jayne Latty, the creator of FWF, developed this system for teaching early reading skills while serving as a reading intervention teacher in an inner-city public school in Dallas, Texas. Drawing upon the dynamic energy of children and their connections with their

teachers, FWF uses an interactive system of teaching sounds and sight words that holds children's attention with picturesque sound cards, colorful word cards, reinforcement posters, and a cute mouse mascot. Moreover, the serious academic function of these engaging materials provides teachers with an invaluable instructional and intervention resource.

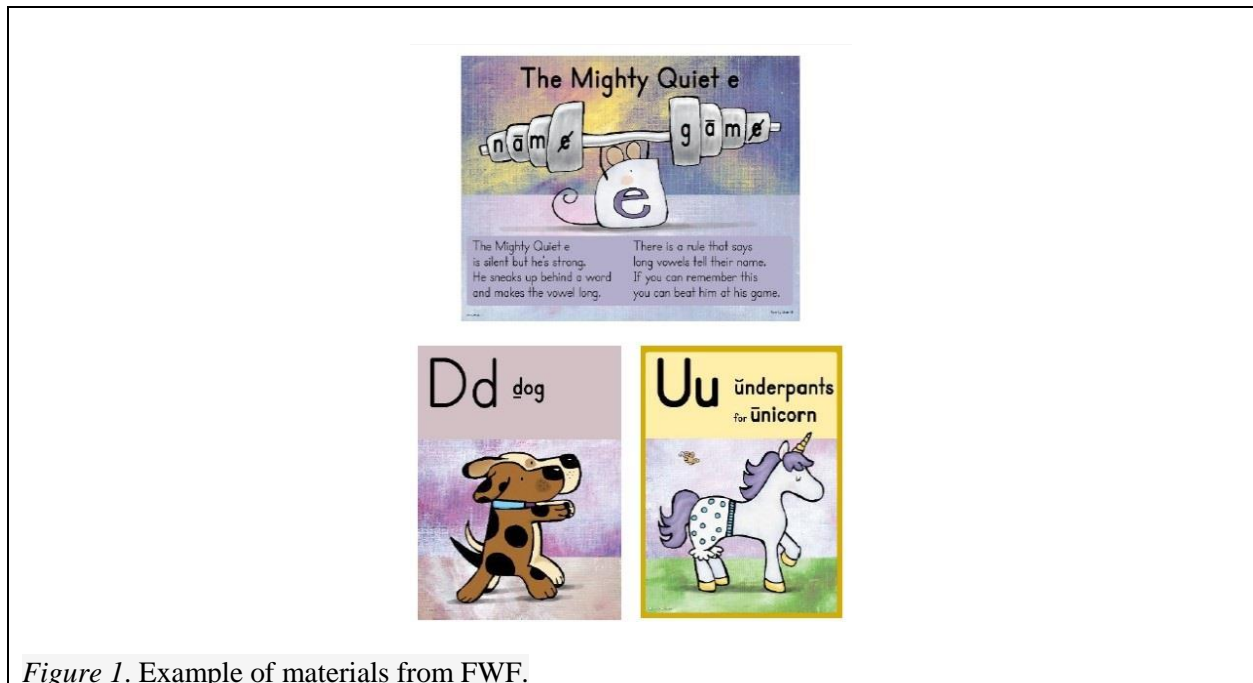


Figure 1. Example of materials from FWF.

Does FWF Work?

Pilot studies of FWF have been conducted in four Jamaican schools and produced favorable results. During the 2017-2018 school year, teachers in these schools participated in a comparative study that looked at students who received instruction using FWF and students who received instruction using a different, commonly used early reading curriculum. Students receiving the FWF curriculum were introduced more sight words, learned significantly more sight words, and outperformed students using the other curriculum, at every level.

What Makes FWF Successful?

Rooted in practical classroom experience and strong educational research, FWF has unlocked an innovative path to reading success. Decoding and sight word recognition skills are closely associated and reinforce each other. In FWF, teachers and students move easily from one interactive activity to another as children work with reading skills and concepts with both the teacher and their peers. FWF materials and methods foster a joyful environment, making learning more relevant and motivating to the children (Frymier & Schulman, 1995; Martin & Dowson, 2009).

Introductory activities stir children's curiosity and engagement. Mastery activities painlessly broaden and deepen the children's knowledge and commit sounds, words, and language concepts to permanent memory.

FWF's approach to teaching decoding skills and sight word recognition accelerates learning and provides a solid foundation for students to move towards independent reading. The National Reading Panel's (2000) findings determined that reading competence depends upon the skill of breaking words into sound units and the ability to combine sounds. Additionally, students who fail to move beyond decoding to instant word recognition remain poor readers who place so much energy into decoding that they struggle with comprehension (Gaskins et al., 1988). FWF's design provides innovative and interactive approaches that support development of these early reading skills among students.

The 3-Key Formula

FWF's 3-key formula provides the structure for its innovative approach to developing literacy. These keys focus on phonics, word families, and word associations.

Key 1 - Phonics

In FWF, each of the 44 sounds of the English language is represented by an image and color on a sound card that corresponds with the sound's spellings. As shown in Figure 2, these same images appear under the letters of the word cards, enabling children to visualize the sounds that the letters produce. Teachers participating in the pilot reported that this coding system provides children with more support for learning and blending sounds than other programs they have used. Children are even able to decode traditionally non-decodable words. These word cards are delineated by an icon that alerts them to the exception of established spelling patterns. Research has shown that all students, including students with phonological difficulties, learn better with a simple, less intensive system

(Shapiro & Solity, 2008). Tailored around the research, FWF's simple phonics system easily teaches only the most common alternate sound spellings, using the charming Copycats and Silent Partners.

Key 2 – Word Families

Teaching similar words together, like *cat*, *hat* and *sat*, makes learning words easier for children (Johnston, 1999). FWF applies this same logical strategy to teaching sight words. Sight words are introduced and grouped on an interactive word wall according to similarities. The interactive word wall serves as a graphic organizer that creates learning connections by underscoring similarities through the visual impact of physically aligning the shared letter sounds of words with their shared colors and picture cues (Ellis & Howard, 2007). Through a word's specific placement on the interactive word wall, children can explore similarities and reach mastery by meaningfully interacting with the material.

Key 3 - Word Associations

With the help of the interactive word wall, FWF features associations among words to reinforce learning (see Figure 3). For example, when the relatively simple words of *no*, *go*, and *so* are introduced with *know* at the same time, learning the more difficult word *know* becomes easier. The simpler word *no* is a mnemonic cue which further supports learning the more difficult homonym (Ehri, 2005). Along with grouping words according to sound on the interactive word wall, FWF creates meaningful text connections among them by strategically placing them near each other. For example, the word *ask* is positioned in front of the word *know*. Making such meaningful connections facilitates the process of learning (Brod, Werkle-Bergner, & Shing, 2013; Underwood & Weinstein, 2014). Moreover, creating meaningful text connections is a precursor to writing.

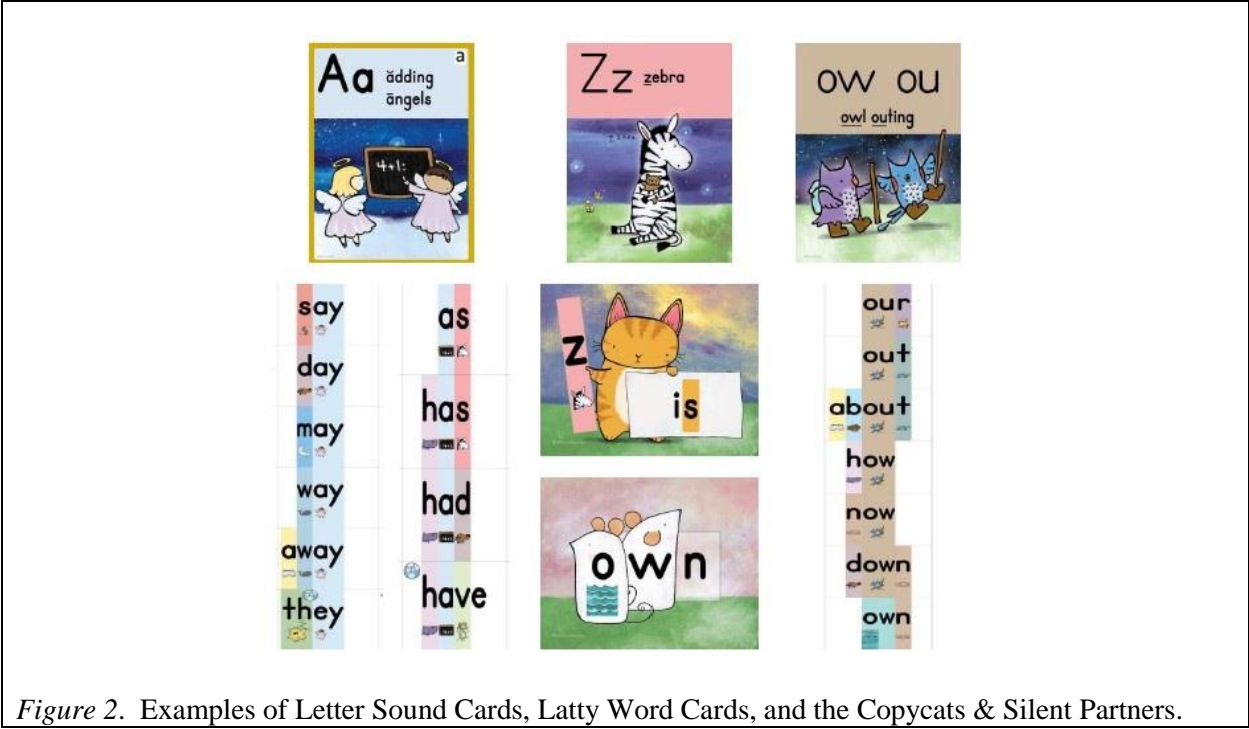


Figure 2. Examples of Letter Sound Cards, Latty Word Cards, and the Copycats & Silent Partners.

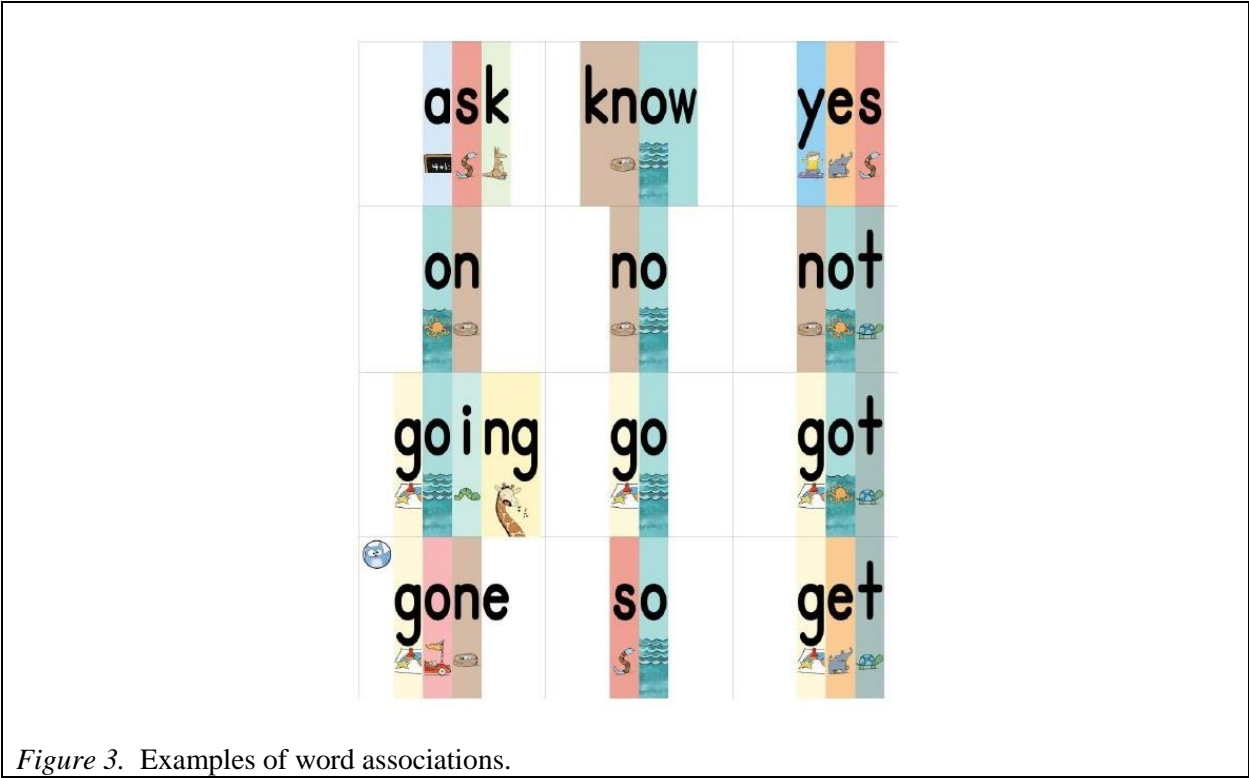


Figure 3. Examples of word associations.

The Latty Word List

Learning to recognize the most commonly used words, along with knowing basic sound spellings, equips children to read 90% of the words they will encounter while reading (Castles, 2016; Solity & Vousden 2009). Unfortunately, the commonly relied upon Dolch and Fry word lists are decades old. Language changes over time, and these word lists do not reflect current word frequencies.

Moreover, the Latty List combines the approaches of both Dolch and Fry by including the most common words specifically found in beginning readers and the most common words in general, respectively. The Latty List serves as the backbone of FWF, providing the core content for integrating both word and sound knowledge. FWF teaches the 25 most common words in the first six units, the majority of the words which make up the pre-kindergarten curriculum, and then repeated in kindergarten and 1st grade, accelerating the pace at each level. The kindergarten curriculum teaches a total of 71 words, and the 1st grade curriculum includes all 209 words. Committing these words to memory and learning the sound spellings that the Latty Word List contains puts children well on their way to reading independently.

Implementing FWF

Through its detailed lesson plans, FWF offers dynamic teaching strategies for each stage of teaching the concepts and skills that move children toward joyful, independent reading. All FWF lessons are designed around systematic progression, interactive learning, and discovering associations.

Systematic Progression

FWF's teaching objectives are broken down into eighteen units called Family Units. Each Family Unit focuses around groups of sounds and the sound spellings, words, and concepts connected to those sounds. The Family Units include detailed lessons that begin with

introducing the unit's letters, sounds, sound spellings, words, skills, concepts, and materials related to the unit objectives. The introduction phase is followed by lessons that move toward mastery of objectives. Eventually, the materials related to each unit are integrated into a permanent position on the interactive word wall.

Interactive Learning

FWF materials and methods provide teachers the resources for easily generating energetic interactivity among the teacher, peers, the materials, and unit objectives. FWF's interactivity encourages children to attentively engage with lesson objectives, thereby circumventing their tendency to check out mentally and emotionally. Setting the stage for classroom connectivity, teachers invite children to gather seated in front FWF's interactive word wall displays. Then, teachers focus the children on a lesson's objectives by using the materials and prompts to encourage children to make meaningful observations, identify associations, and practice their blending and reading skills.

For example, when introducing sound cards, teachers ask children questions that prompt them to fully explore the connections between the sounds and the pictures and activities represented on the cards. When introducing word cards, teachers ask questions that prompt the children to connect each sound spelling in the word with the helpful pictures that accompany the spelling. With the help of the pointer wand and Shara Story, FWF's mouse mascot, perched at the tip of it, teachers lead children to blending sounds and reading words.

Discovering Associations

FWF's materials and methods are specifically designed to help teachers guide children in forming associations between sounds and pictures, sounds and sound spellings, sound spellings and words, as well as associations among words. The design of each Letter Sound Card and Word Card, along with specific placement of the Words Cards on wall charts,

facilitate children's ability to identify connections.

Specifically, a process called Align and Combine uses wall chart placement and alignment of similar colors and images to help children see simple similarities among words and then to build on the recognition of the simple similarities to incorporate associations with more challenging words. Align and Combine is used not only in introductory stages, but as a method of engagement and review to help children develop instant recognition of sight words. The sound awareness honed through Align and Combine provides the basis from which children practice their blending skills.

Conclusion

A high quality, innovative reading program for teaching sounds and sight words to students in prekindergarten, kindergarten, and first grade is indispensable. FWF provides that innovation and quality with its systematic comprehensive approach and engaging materials and methods. Children become independent readers when equipped with foundational knowledge of phonics and the most basic sight words (Castles, 2016; Solity and Vousden, 2009). Additionally, when children acquire early reading skills, they are more likely to experience future competence with reading (National Reading Panel, 2000). As described in this paper, FWF provides a high-quality, innovative reading program that is needed in today's classrooms.

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Connecting Children's Literature and Science Education through Writing

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Abstract

K-8 teachers who do not consider themselves as scientists may have difficulty connecting literacy development to science standards. However, with effective tools and experience, teachers can integrate literacy skills with scientific inquiry fostering dynamic learning for students. The implications can be a deepening of students' competence with communicating science concepts, while cultivating curiosity about the world around them. The purposes of this paper were to emphasize the importance of children's literature that connects nature to scientific processes; highlight the accessibility of informal science education providers in the community; and offer ideas for extended writing activities that integrate nature and science with students' personal experiences.

Keywords: writing, reading, STEM, inquiry, outdoor education

Introduction

Scientific inquiry is not easily described apart from the context of particular investigations. There simply is no fixed set of steps that scientists always follow, no one path that leads them unerringly to scientific knowledge. There are however, certain features of science that give it a distinctive character as a mode of inquiry. (Rutherford & Ahlgren, 1990, p. 5)

Teachers often act as the gateway for knowledge through curriculum and instruction, bringing their own experiences and understandings of the world to lessons. According to Wilson (2013), teachers are challenged with implementing a science curriculum that calls for more emphasis on inquiry and exploration. Teachers often work with limited resources and grapple with adjusting their instructional practices and mindsets concerning how to teach science. However, when robust professional

development is provided for emerging science teachers, students have demonstrated high levels of success and achievement with science learning (Luft et al., 2011). The same also holds true for veteran teachers if they are given access to student-oriented scientific literature and effective writing tools that help them teach science concepts.

According to the National Research Council (NRC, 2012), science should not be reduced to a rigid set of experimental steps, but is instead a “set of practices” (p. 43). Science is a process and includes a set of practices that incorporate ways to observe, gather data, and process information in order to share findings. By writing scientifically, one is able to use a set of standards to collect information and then use sound scientific principles to discuss, interpret, or present information. Using a dynamic blend of scientific processes with reading and writing, teachers can connect students to the natural world in creative and authentic ways that facilitate meaningful interactions. Teachers can implement this process simply by providing learners with experiences to interact with nature, such as through a hands-on science lesson or a school-sponsored field trip to an informal education provider (Hammerman, Hammerman, & Hammerman, 2001).

One should not assume that creativity is minimized when writing or reading through the lens of science. Instead, teachers should be encouraged to infuse writing and reading in science with a sense of wonder and enthusiasm. There are many ways to engage with writing in science by incorporating effective writing strategies. Processes of natural phenomena are understood best and better explained through experience. Thus, integrating interactions with nature into classroom lessons with writing activities can deepen science content understandings among students.

Students who use methods of inquiry are also better able to understand and use new information to enrich their lives and be better

informed about the world around them (Luft, Bell, & Gess-Newsome, 2008). Learning through experience involves discrete elements of inquiry, such as exploration, observation, investigation, research, and experimentation. Goals of this paper were to describe a variety of effective writing strategies, provide children’s literature recommendations, and illustrate how informal science education providers enhance science inquiry learning for students.

Science Learning and Standards

Outdoor education provides teachers with the opportunity to engage students in active learning while guiding them through a process of inquiry that uses scientific processes, such as exploring and investigating, to transcend into all areas of learning (Lieberman, 2013). In addition, students can gain new knowledge from active learning experiences, such as developing an appreciation for nature through a walk in the woods, capturing observations through drawings and words in a nature journal, or having an opportunity to touch and learn about artifacts brought by a visiting science presenter (Hammerman et al., 2001). In other words, connecting with nature can be an exciting experience that leads to rich, lifelong learning.

A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas was developed as an in-depth resource for education policy makers and science educators (NRC, 2012). This framework was instrumental in the development of the *Next Generation in Science Standards (NGSS)*, which delineated specific performance expectations aligned to science, technology, engineering, and mathematics (STEM) content (NRC, 2013). In the NGSS framework, the topic of life science was divided into four major sections: From Molecules to Organisms, Ecosystems, Heredity, and Biological Evolution. In the Ecosystems section, there are a number of life science concepts that can be addressed through writing using nature studies.

To understand the value of the NGSS framework better, one can look at how a teacher might plan a science lesson using state education standards, such as the Texas Essential Knowledge and Skills (TEKS). The TEKS establish a broad framework to guide instruction and curriculum in Texas classrooms. A teacher

who is teaching a science concept, such as interdependent relationships in ecosystems, can incorporate nature journal writing as a writing activity. For a Texas teacher, the learning expectations of the writing activity are clearly aligned with both state and national standards (see Table 1).

Table 1

State and National Performance Expectation for Science Journal Activity: Grade 3

National Standards: NGSS	State Standards: TEKS
3-LS4-3	§112.14. B. 9A-C
Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	Organisms and environments. The student knows that organisms have characteristics that help them survive and can describe patterns, cycles, systems, and relationships within the environments.
[<i>Clarification Statement:</i> Examples of evidence could include the needs and characteristics of the organisms and habitats involved. The organisms and their habitats make up a system in which the parts depend on each other.]	
Science and Engineering Practices: From text and drawings, analyze and interpret data in order to engage in argument from evidence (3-LS4-1).	The student is expected to: (A) observe and describe the physical characteristics of environments and how they support populations and communities within an ecosystem;
Disciplinary Core Ideas: LS2.C: Ecosystem Dynamics, Functioning, and Resilience; when the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others, move into the transformed environment, and some die (3-LS2-1).	(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field; and (C) describe environmental changes such as floods and droughts where some organisms thrive, and others perish or move to new locations.
Crosscutting Concept: Cause and Effect; Knowledge and experience will provide the student opportunity to address the cause and effect relationships routinely identified and used to explain change (3-LS2-1).	

The NGSS framework provides useful details that give teachers a guide for improving planning and instruction, authentic assessments, and promoting deeper understanding of science content with students. A teacher in any state with specific content standards is able to follow the strategy demonstrated above to address learning expectations with their own students. Once the state science standards have been identified, then the teacher aligns performance expectations from the NGSS framework.

Accessing Nature Sites

Learning through the outdoors provides an opportunity to explore more deeply the relationships between living organisms (Hammerman et al., 2001). Outdoor education can be achieved in every community in places like the school playground, the classroom, or a field trip to a park or nature center. Teachers can use many resources with their science curriculum. Organizations such as Project WILD and Leopold Education Project share creative ways that teachers may address science content through nature. Project WILD includes a suite of activities that are developmentally appropriate for K-8 grades (Association of Fish and Wildlife Agencies, n.d.). For example, *Growing Up WILD* is a guide filled with activities that incorporate music, art, science, and math to teach science concepts using early childhood education methods.

The Leopold Education Project curriculum guide was inspired from the scientific writings of Aldo Leopold, a land management scientist who wrote a series of essays in *The Sand County Almanac* and other well-known works (Aldo Leopold Foundation, 2018). Students use methods of scientific writing to collect information from qualitative and quantitative modes of observation. Writing activities from the Leopold Education Project curriculum guide are designed to coincide with the essays in *The Sand County Almanac*, which take students on a journey through the seasons of the year. (Refer to Appendices A & B for a

list of suggested community organizations within Texas that provide support for teachers to connect reading and writing with science standards through nature and a list of suggested classroom texts that connect K-12 students to the natural world.)

Extended Writing Activities

Science can serve as an inspiration for writing in a variety of modes and genres, including descriptive texts, procedural texts, character descriptions, and letters. In teaching science concepts, a learning environment that includes authentic experience in the natural world contributes to a deeper understanding of the complex nature of science and authentic writing tasks (NRC, 2012). Science encompasses patterns, models, investigations, explorations, arguments, evidence, and interpretations. Learning these aspects of science can be done through writing (Zissner, 1993). Below are four ways that nature may spur authentic writing in the K-12 classroom.

Learning Park Etiquette

A motto used by outdoor enthusiasts to protect natural environments so future generations can enjoy them is: Take only pictures, leave only footprints. Texas' English Language Arts state standards require K-12 students to read and write expository texts that share specific ideas to specific audiences for specific purposes. Combining these standards with outdoor exploration of natural spaces creates real-life scenarios for the composition of authentic expository texts. When visiting natural spaces, such as conservation areas, state parks, local parks, and national recreation areas, students can analyze the impact that their visit has on the ecosystems of the natural world, a theme present in the Earth and Space strand of Texas' state standards for science. As students venture through outdoor spaces, encourage them to consider the following:

- What tools does the park service use to encourage people to remain in specific areas?
- Why does the park do this?
- How is trash collected inside the natural area? What responsibilities do park-goers have in regard to their trash?
- Are any activities forbidden in the park? Why do you suppose this is so?
- How do the actions of one person, such as picking a flower, impact the environment when multiple people echo the same act?

After returning to the classroom, students can collaborate to compose a Park Etiquette Guide, which is similar to the Texas Parks & Wildlife's *Park Rules* website, for future nature-goers. Students can also discuss ways in which parks can improve the communication and enforcement of park etiquette so the beauty of natural spaces remain intact for years to come.

Nature Journaling

Nature journaling is the process of keeping place-based, personal records of events, observations, and experiences in the outdoors

(Scarce, n.d.). Students can use nature journaling to document changes in the environment over time, generate ideas for creative writing and scientific investigations, and draw connections between academics and nature. The U. S. Fish and Wildlife Service (n.d.) provided resources for introducing nature journaling to students in K-6th grade and detailed which topics to cover on various field excursions. Table 2 is an excerpt from this resource with added science TEKS connections for kindergarten.

After the field excursion, students can then take excerpts from their nature journals through the writing process to turn those excerpts into detailed descriptions about the flora and fauna they encountered or provide an analysis of environmental problems such as plant damage, drought, or invasive species. Students may also draw a diagram of the life cycle of a creature they observed. By connecting data collection in the outdoors to writing topics, students can engage in yet another authentic writing experience where they write like real-life scientists.

Table 2

Excerpt from the U. S. Fish and Wildlife Service's Nature Journaling Lesson Plan

Topic	Field Activity	Materials	Kindergarten TEKS
Invertebrate organisms	Collect, measure, examine, describe, measure, sketch, and release prairie or wetland bugs	Nets, hand lenses, bug boxes, colored pencils, keys/cards	(A) ask questions about organisms, objects, and events observed in the natural world; (B) plan and conduct simple descriptive investigations such as ways objects move; (C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools; (D) record and organize data and observations using pictures, numbers, and words; and (E) communicate observations with others about simple descriptive investigations.

Developing Characters with Inspiration from a Natural Space

Prior to visiting a chosen natural environment, invite students to: (1) research why the space was created and for whom it was created, (2) investigate who or what once used the land and who currently uses the land, and (3) explore significant events that took place in the

natural setting. Using these prompts as a guide, invite students to create character descriptions, utilizing their imagination and author's craft to fill in the blanks. Students can choose to write about real or imagined people, take the perspective of flora and fauna, or even become omniscient narrators telling the tale of the land (see Figure 1).

I live my life in cycles. My body continuously plumped and shrunk, fed by the falling and then evaporating rain. Sometimes, I serve as a haven to sojourning waterfowl, offering them a place to rest and quench their thirst. During harsh winters, however, I give no refuge. My sea of droplets frozen by the cold, hurricane-force winter winds. I am a *playa*. A disappearing lake, gulped in the ground by water-starved soil.

Figure 1. An original composition from the point of view of a Panhandle playa lake. Facts used to compose this text were pulled from the Texas Parks and Wildlife's (n.d.) web page on Panhandle Playa Lakes.

Writing Elected Officials

Advocacy is a reflective exercise in self-efficacy (Bandura, 2010). As knowledge and understanding through experience evolve, individuals promote change by taking action to protect and preserve wellbeing of the community and environment. Each generation encounters challenges to the efficacy of scientific principles through shifts in the public perception and understanding of current events. Cultivating a greater understanding of the world promotes a deeper appreciation of the personal connection between an individual and the environment. In other words, one can appreciate a healthy interdependence that can exist between humans and the natural world.

Teachers should encourage students to explore changes or recommended changes in policy or legislation that have recently occurred, as well as how implementing these changes would locally and globally affect the

environment (Schunk & Zimmerman, 2006). Example topics include how actions by the government expand or reduce the current size of national parks, protect the water supply, and promote alternative energy technologies. Using facts from research conducted, students can write letters to their local, state, or federal government officials, persuading them to stick with current legislation, go back to the way things were before, or revise existing laws.

Conclusion

To think scientifically and make decisions using scientific reasoning, one must come from a place of science (Kuhn, 2012). Tools and information about science are available through many avenues for teachers, beginning with their own knowledge and experiences. Teachers are members of a wider network that includes organizations in the community who provide science resources and literature to deepen learning experiences for

students. This network includes local organizations, such as museums, zoos, and libraries; governmental agencies; and informal science education providers. With the support of this network, teachers can continue to improve learning outcomes while fostering a greater relationship for their students with science through nature using effective reading and writing practices.

The science classroom is a dynamic space that goes beyond the physical room to include the outdoors, thus enhancing learning experiences for students through engagement

with the natural world. Teachers and students together have the ability to bridge curriculum with natural spaces, thereby fostering rich and authentic experiences with which to build scientific inquiry skills. By fusing writing activities and appropriate literature with scientific exploration in natural spaces, teachers can create an environment ripe with authentic writing experiences. Learning that occurs in one's own backyard fosters a greater appreciation and long-lasting relationship with nature, all while building literacy and inquiry skills that can be used throughout K-12 education and beyond.

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Appendix A

Science Curriculum Resources

Resource	Source	Description
Project WILD	https://www.projectwild.org	A suite of curriculum guides that address water and terrestrial biota.
The Leopold Education Project Curriculum Guide	https://www.aldoleopold.org	A series of 20 activities aligned with the essays from <i>The Sand County Almanac</i> .
Texas Parks and Wildlife Department: Outdoor Education	https://tpwd.texas.gov/	A series of service programs designed for diverse groups, such as Texas Aquatic Science.
Texas Wildlife Association: Conservation Legacy	https://www.texas-wildlife.org/program-areas/category/conservation-legacy	The Conservation Legacy lineup of programs empower and educate Texans with knowledge of fundamental, science-based ecological principles, foster a connection to the land, and facilitate natural resource literacy by creating tangible relationships with the outdoors.
Texas Project Learning Tree	https://www.plt.org/network/texas/	Project Learning Tree uses trees and forests as windows on the world to increase students' understanding of the environment and actions they can take to conserve it.
Informal Science Education Association of Texas	https://texasinformalscience.org	Connection to regional informal education providers and information related to state and national initiatives in K-12 STEM education.

Appendix B

Suggested Book List for Encouraging Science Writing in K-12

Science Concepts	Title/Year	Author (A) & Illustrator (I)	Description	Ages
Solving environmental problems; How environment influences culture	<i>The Water Princess</i> (2017)	A: Susan Verde I: Peter H. Reynolds	This book provides a beautiful backdrop to model Georgie Badiel's life without water and the shortage of water in her village in South Africa.	5 to 8
Reusing and recycling materials	<i>Recycled Science</i> (2017)	A: Tammy Enz A: Jodi Lyn Wheeler-Toppen	This fun and engaging book show how to have fun making things while recycling in innovative ways.	9 to 15
Intrinsic value of nature; Highlighting nature in our communities	<i>Maybe Something Beautiful</i> (2016)	A: F. Isabel Compoy A: Theresa Howell I: Rafael López	This book looks at the beauty of art and nature as a young girl begins to create mosaic borders around trees to change nature.	5 to 7
Explore processes in the water cycle as connected to weather; Identify the importance of weather conditions on clothing and transportation activities	<i>Extreme Weather</i> (2017)	A: Teacher Created Materials	Weird trivia and unbelievable facts test the reader's knowledge about storms, climate, meteorology and more.	6 to 8
Scientists investigate things in the natural world	<i>Shark Lady</i> (2017)	A: Jess Keating I: Margaret Alvarez Miguens	The true story of how Eugenie Clark became the ocean's most fearless scientist.	4 to 8

Science Concepts	Title/Year	Author (A) & Illustrator (I)	Description	Ages
Using scientific instruments; Characteristics of solar bodies	<i>50 Things to See with a Telescope-- Kids and Parents Too</i> (2017)	A: John A. Reed	This book gets families involved in the great outdoor exploration of the night sky.	5 to 8
Organisms and environments	<i>National Geographic Kids: Weird but True 4</i> (2016)	A: National Geographic Kids	This book described a variety of natural facts phenomena.	8 to 12
Scientific inquiry; Problem solving	<i>What Do You Do with a Problem?</i> (2014)	A: Kobi Yamada I: Mae Besom	This book investigates problem solving and nature.	5 to 8
Identify the importance of weather in making choices in clothing, transportation, and activities	<i>Sunshine and Snowballs</i> (2013)	A: Margaret Wise Brown	Two characters take the reader through the four seasons of the year.	4 to 5
Flow of energy in a food cycle; Observe the way organisms live	<i>Pond Walk</i> (2011)	A: Nancy Elizabeth Wallace	A small bear and his mother explore all the great life found in a pond.	3 to 6
Organisms and environment	<i>The Great Outdoors: A User's Guide</i> (2017)	A: Brendan Leonard	This book helps make exploratory outdoors fun, safe, and practical.	12 to 18
Structure of insects	<i>My Awesome Summer by P. Mantis</i> (2017)	A: Paul Meisel	This book takes the reader on a journey to discover important facts about the praying mantis.	4 to 8
Characteristics of solar bodies; Effect of moon on ocean	<i>If You Were the Moon</i> (2017).	A: Laura Puride Salas I: Jamie Kim	Amazing illustrations provide insights for all the ways the moon affects the earth.	5 to 8

Science Concepts	Title/Year	Author (A) & Illustrator (I)	Description	Ages
Scientific investigation and reasoning	<i>Outdoor Science Lab for Kids: 52 Family-Friendly Experiments for the Yard, Garden, Playground, and Park</i> (2016)	A: Liz Lee Heinecke,	This book provides ways to explore science in new and fascinating ways.	7 to 10
How humans use nature for enjoyment	<i>Microadventures: Local Discoveries for Great Escapes</i> (2015)	A: Alastair Humphries	Picture landscapes filled with rivers, hills, trees, and campsites mixed in with a great outdoor escapade.	12 to 18
The writing process; Revising thoughts; Using failure to improve; The scientific process	<i>The Most Magnificent Thing</i> (2014)	A: Ashley Spires	A young girl and her dog, get outside to find creativity can come from outdoor inspirational walking.	5 to 7
Intrinsic value of nature	<i>Sky Color</i> (2012)	A: Peter H. Reynolds	In this book, Marisol searches for the perfect color and goes to nature to find it.	4 to 7
Adaptations of animals to environment	<i>Birds Art Life</i> (2017)	A: Kylo Maclear	This book describes how to look at birds and make a life of art from outdoor excursions.	12 to 18
Humans responsibilities to the environment	<i>The Gold Leaf</i> (2017)	A: Kirsten Hall A: Matthew Forsythe	This book is a story about animals in the forest and living and learning about the futility in trying to own a piece of nature.	4 to 8
Structures of organisms	<i>For the Love of Insects</i> (2003)	A: Thomas Eisner	This text provides fascinating facts and great photographs about how insects live in the world.	12 to 18

Change the Game, Change the Culture: An Approach to Alternative Education

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Abstract

This paper explored the nature of alternative education in Texas public schools. Within these learning environments addressing both academic and social literacy is of utmost importance and can be achieved through individualized instruction and attention to goal-setting. The recommendations of this paper were specific to the experiences of an English language arts and reading teacher who served 11th and 12th grade at-risk students within an alternative high school in the Texas Panhandle. The purpose of this paper was to indicate how attending to these aspects of alternative education helps encourage student success that leads to graduation.

Keywords: *alternative education, individualized learning, goal-setting*

Introduction

According to P. David Pearson, “No Child Left Behind has done a credible job of helping educators make...all students have basic literacy skills, [but] it hasn’t given us the type of thoughtful and critical readers and writers we need” (as cited in Strauss, 2012). As Pearson pointed out, the main law for K-12 public education was ineffective in creating students who are literate academically. Moreover, lack of attention to social literacy has resulted in a great number of students experiencing difficulty with achieving academic success during the school years, particularly the high school years.

Social literacy skills are defined as soft skills that an individual uses to communicate with a diverse population in varied situations effectively. Social literacy involves the connection and exchange of ideas through

interactions with others. Grafwallner (2016) emphasized the need for teachers to address social literacy during instruction by stating, “Creating lesson plans where the skills are rooted in prereading, during reading and after reading strategies is no longer just a good idea. Rather, helping students navigate confidently in the world has become essential.” Without social literacy, a student may be unable to function within the context of a simple work environment. Teachers must help their students learn how to communicate their needs by building relationships with them. In doing so, schools cultivate learning environments that promote both academic and social literacy among all students.

Literature Review

As with any customer service industry, knowledge of a school’s customer base, or

clientele, in the classroom is essential. Before teachers plan and implement instruction, they must have a foundational understanding of their clientele. The Public Education Information Management System (PEIMS) available through the Texas Education Agency maintains a wide range of student data, including information regarding personal health and socioeconomic status (Texas Education Agency, 2018). Within PEIMS, a classification of “at-risk” results for varied reasons, including failing grades, pregnancy, drug/crime-related issues, mental health diagnoses, homelessness, and/or foster care. Schools strive to address specific needs among students who are at-risk so that they become high school graduates rather than high school dropouts. These efforts require effective communication skills as students and teachers work together to bridge academic and social gaps.

Adverse Childhood Experiences (ACEs) describe traumatic events that an individual has experienced, such as abuse (Centers for Disease Control and Prevention, 2016). Felitti et al. (1998) recognized that exposure to ACEs has a powerful effect on an individual that may lead to dysfunction, obesity, and even death. Teachers can employ practices to help students develop resiliency. Students are less affected by an ACE when they have well-developed resiliency, which includes protective factors. This is especially important among students who are categorized as at-risk within PEIMS. For these students, school may be the only place that fosters resiliency.

Other factors, such as substance abuse and antisocial peer influences, affect social and academic literacy among students. Patte, Quain, and Leatherdale (2017) noted adolescents who affiliate with peer groups that engage in “an anti-conventional lifestyle,” such as binge drinking, are more likely to have poor academic engagement and performance (p. 311). Many teachers who serve students placed in alternative education have found that the student population in these classrooms are largely represented by

students affiliated with unconventional peer groups. With this in mind, alternative education teachers must understand the importance of student connectivity with curricular content, as well as student-teacher relationships.

Two Effective Techniques

I have three years of experience as an alternative education teacher at a high school in the Texas Panhandle. The high school functions as an at-pace/student-directed learning environment for 11th and 12th grade at-risk students. When I began teaching at this school, I quickly discovered that students did not care what a teacher knows until they knew that the teacher cared. Therefore, I individualized the curriculum in my English classroom to address the learning needs of each student and promoted goal-setting among my students. In my experiences, these alternative education techniques have been highly effective.

Individualized Instruction

Individualized instruction creates a helpful class environment (Conner & Lagares, 2008). The practice of individualized instruction requires thorough knowledge about each student and their individual learning needs. By employing a variety of individualized techniques, teachers are able to reinforce student engagement and accommodate learners during content learning.

According to Taylor (2015), teachers must first develop thorough understandings about their students and learning needs. Taylor highlighted specific instructional strategies for English classrooms that support individualized instruction, such as Role, Format, Audience, and Topic (RAFT). RAFT is a choice-based strategy that helps students organize their thoughts for writing. For example, a student may choose to take the perspective of a news anchor to compose text for a conservative news website. RAFT empowers students to learn how to write for specific audiences and adhere to specific writing formats.

Because aspects of reading and writing can often be challenging for my students, I regularly encourage student ownership. Ways I have encouraged student ownership include providing opportunities to select reading materials, writing topics, and analytical foci, as long as they adhere to given criteria. As an example, Mason was an at-risk student who entered my English classroom covered in negative and off-putting tattoos (i.e., profane language and drug-related themes/designs). He announced, “I got these for free. My uncle learned how to tattoo in prison.” I adapted this potentially negative situation by using it as an opportunity to individualize and differentiate an upcoming lesson to incorporate the industry of tattooing and artwork. During this lesson, students read about graffiti, the relationship between tagging and city law, and the Berlin Wall history. By building a learning environment of acceptance and care, Mason was able to read content about topics that already interested him.

The ultimate goal of my English class was to enable students to earn a passing score as a re-tester on the English I and English II State of Texas Assessments of Academic Readiness End of Course (STAAR EOC) exams, which are state mandated assessments in Texas required for graduation. My students had failed these assessments multiple times, and at this juncture in their education, most of them were convinced that they could not pass them. In order to overcome this mindset and prepare my students for these high-stakes assessments, I administered an interest survey at the beginning of the semester. Throughout the semester, I used survey data to design instruction on topics that they were interested in, develop understandings about challenges they encounter while reading and writing, as well as learn about their preferred learning styles. Thus, the initial focus of instruction was individualized to my students, rather than state assessment frameworks. Later during the semester, I provided my students with opportunities to apply learned concepts to simulated assessment contexts. These efforts

translated to success among several of my students. For example, at the end of the fall semester of 2017, approximately 71% of my students earned a passing score on the English I STAAR EOC assessment, and approximately 43% earned a passing score on the English II STAAR EOC assessment (Trela, 2018).

Goal-Setting

Gunn, Chorney, and Pulsen (2009) stated:

Poor relationships with teachers, feelings of isolation, behavioral disorders, and achievement-related factors [were] strong contributors to early school leaving . . . and dropout rates [were] diminished where there [was] a strong school-based commitment to address specific student needs categorized under the headings of home, community, peers, and school. (p. 18)

When students experience positive relationships with their teachers, teachers become invested in their students, and students have a stronger commitment to graduate.

My high school instituted a Student Goals program in 2017 that incorporated strategies to help students discover and communicate attainable classroom goals. Through this program, each teacher met with each student once every three weeks to review student-created goals. Together, a student and their teachers discussed whether the student was on track or required improvements towards achieving their self-created goals. These meetings also gave teachers the opportunity to catch up on each student’s personal life. By participating in these meetings as active stakeholders, students developed their interpersonal communication skills and enhanced their academic and social literacy. The Student Goals program created and sustained valuable relationships between students and teachers, promoted academic

progress, and endorsed student advocacy for personal success.

Prior to the inception of the Student Goals program, our high school reported that students had completed a total number of 146 core class credits during the fall semester of 2016 (Trela, 2018). After the Student Goals program was implemented, our students had completed a total number of 160 core class credits during the fall semester of 2017. This improvement was a noteworthy accomplishment, and our most recent graduation ceremony included our largest graduating class.

Conclusion

Teaching with students' individual interests in mind and involving students with goal-setting should be commonplace. Teachers must build sustained and invested relationships with their students that focus on developing their academic and social literacy skills. With a strong student-teacher relationship, students develop requisite communication skills and become comfortable enough to express their needs. Teachers who embrace individualized instruction and goal-setting among students create learning environments that help students realize their full potential.

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Ready or Not, Here They Come! Overview of Revised ELAR TEKS

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Abstract

This paper provided a synopsis of a presentation given at the Texas Association of Literacy Education annual conference in February 2018. During this presentation, several members of the English Language Arts and Reading (ELAR) and Spanish Language Arts and Reading (SLAR) review committees described the Texas Essential Knowledge and Skills (TEKS) review and revision process, as well as changes made within these state standards.

Keywords: *Texas Essential Knowledge and Skills, state standards, English Language Arts and Reading*

Introduction

In the spring of 2015, approximately 100 educators from across Texas arrived in Austin as invited volunteers to work on the State Board of Education's (SBOE) review committee to revise the ELAR and SLAR TEKS. As a review committee member, I was honored to represent a voice for Texas teachers and students. Prior to the first meeting in the fall of 2015, a change in the ELAR TEKS framework was proposed by eight Texas-based professional literacy organizations, including Texas Association for Literacy Educators. As a result of this framework, significant revisions were proposed for the ELAR TEKS, which in turn, drove proposed revisions for the SLAR TEKS. The purpose of this paper was to provide an overview of the revised ELAR TEKS, which are scheduled for full implementation during the 2019-2020 school year for Kindergarten–Grades

8 and during the 2020-2021 school year for Grades 9-12.

Task

Representatives from the Texas Education Agency (TEA) met with all review committee members to explain the primary focus of the task, which extended beyond refreshing outdated language. We were asked to keep in mind that we could not prescribe certain “methodology to be used by a teacher” or “designate the time spent by a teacher or a student on a particular task or subject” (TEA, 2015). SBOE representatives also reminded review committee members to carefully consider the “time typically allotted for the subject” and to make sure that students had sufficient time for mastery of student expectations. The review process encompassed revisions to the overall ELAR TEKS framework and required several meetings among review committee members.

These meetings focused on vertical alignment of standards among grade levels for common concepts and themes addressed in the TEKS. After the review committee meetings ended, the proposed revisions were subject to input from expert reviewers and the public.

Revised ELAR Standards

In all subject areas and grade levels, the TEKS include an introduction section, strands, and student expectations. With the revised ELAR TEKS, there were significant revisions to the introduction section and strands. Though many concepts connected to student expectations did not change, many were integrated, streamlined, reorganized, reworded, or modernized.

Introduction Section of the ELAR TEKS

The introduction section for each grade level describes the layout of the ELAR TEKS and the recursive nature of best practices in literacy and language arts. The introduction section may be the most overlooked aspect of the TEKS, though it provides a descriptive overview of the subject area and grade-level knowledge and skills students must master. The introduction section for the revised ELAR TEKS was rewritten to be identical for each grade level. This revision was proposed and accepted in order to promote a unified, horizontal, and cohesive set of state standards.

Strand Overview of the ELAR TEKS

In the revised ELAR TEKS, seven strands across grade levels were identified. As opposed to the former ELAR TEKS, which delineated a specific domain of language to focus upon for each knowledge and skill, the revised ELAR TEKS encourage recursive language practices. The introduction section now specifies, “The ELAR TEKS embody the interconnected nature of listening, speaking, reading, writing, and thinking through the seven integrated strands of developing and sustaining foundational language skills; comprehension;

response; multiple genres; author’s purpose and craft; composition; and inquiry and research” (19 TAC Chapter 110).

Foundational Language Skills. The Foundational Language Skills strand of the revised ELAR TEKS encompasses most of the early literacy knowledge and skills in Kindergarten–Grade 5. This strand focuses on oral language skill development by emphasizing listening, speaking, discussing, and thinking with the understanding that beginning literacy skills are built through phonological awareness, print concepts, phonics, and morphology. Also included in this strand is a focus on word parts, using resources and context to develop vocabulary knowledge, presentation skills, and working collaboratively. The following is a new addition to this strand: Students will “self-select texts and read independently for a sustained period of time” (19 TAC Chapter 110).

Comprehension Skills. The Comprehension Skills strand of the revised ELAR TEKS solidifies the idea that students will develop comprehension skills throughout Kindergarten–Grade 12. Concepts in this strand are similar throughout each grade level and consider grade-appropriate text complexity to develop and deepen comprehension skills. Comprehension skills are of critical importance, so consistency throughout this strand was of utmost importance. Requisite knowledge and skills for Grades 2–12 are almost identical horizontally. In Kindergarten–Grade 1, scaffolding was emphasized with the words “with adult assistance” to ensure efforts are being made to promote developmental appropriateness (19 TAC Chapter 110).

Response Skills. The Response Skills strand of the revised ELAR TEKS addresses critical skills, such as responding using text evidence to justify an answer, retelling and summarizing, and generating written responses that compare genres. In the early grade levels, this strand focuses on story retelling and providing a response to text orally, pictorially, or

in writing. In later grade levels, this strand emphasizes annotating, freewriting, and illustrating as a viable way to respond to text. Arguably, the most important vein throughout this strand is the emphasis on using text evidence to support a point.

Multiple Genres. The Multiple Genres strand of the revised ELAR TEKS encompasses recognizing and analyzing literary elements, text features, and genre-specific characteristics. This strand addresses exploration of poetry, drama, and informational texts. This strand also expanded on the historical significance of texts in relation to the plot, theme, or characters.

Author's Purpose and Craft. The Author's Purpose and Craft strand of the revised ELAR TEKS aims to teach students to write like writers and read like readers. Multiple techniques and devices are studied through various texts, rather than specific genres. The idea that students will use mentor texts to "analyze and apply the author's craft purposefully in order to develop his/her own products and performance" is an underlying tenet in this strand (19 TAC Chapter 110). This strand also addresses point of view, figurative language, and the development of metacognitive analysis skills to understand how language use shapes the perception of a reader.

Composition. The Composition strand of the revised ELAR TEKS is based on concepts that underlie the writing process and writing for multiple genres. A significant focus of this strand is the concept of using the writing process recursively to compose multiple types of texts. "Compose a friendly letter" from the former ELAR TEKS was replaced with "compose

correspondence" in the revised ELAR TEKS in order to allow freedom with exploring other writing formats, such as those that use technology (19 TAC Chapter 110).

Inquiry and Research. The Inquiry and Research strand of the revised ELAR TEKS undergirds the thinking and evaluative processes involved in a continuous practice of generating questions, developing and following a research plan, gathering and examining sources, identifying plagiarism and paraphrasing, and presenting research findings. This strand views inquiry and research as an ongoing venture. In order to promote the development of contemporary knowledge and skills, this strand added a focus on the use of multimodal platforms for research presentations, as well as the research skills of sourcing, reasoning, validity, reliability, and omission.

Conclusion

Although the ELAR TEKS review and revision process presented political, logistical, and technological challenges, those who were involved worked diligently for the students of Texas. These volunteers spent hours immersed in the review and revision process, with the common goal of producing a high-quality set of state standards to prepare students for academic success. The newly revised ELAR TEKS provide a strong framework for literacy teachers in Texas to employ rigorous instruction through a variety of effective, research-based standards. So, ready or not, here they come!

Note: The revised ELAR TEKS are available on TEA's website at:
<http://ritter.tea.state.tx.us/rules/tac/chapter110/index.html>

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