# Building Bridges With and Through Literacy

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FOR A WORLD OF LITERACY

ALER

Association of Literacy
Educators & Researchers

# Building Bridges With and Through Literacy



## Association of Literacy Educators and Researchers Yearbook, Volume 42

### Editors

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# Acknowledgements

# INTRODUCTION

The theme for the 63rd annual conference of the Association of Literacy Educators and Researchers Building Bridges with and for Literacy. The first section of the Yearbook begins with Connie Briggs Presidential address, titled Lessons Learned from Marie Clay: What is Possible? In her address, she highlights Marie Clay's work as an eminent scholar and innovator, highlighting her contributions to the field of literacy. This is followed by the Betty Sturtevant Award recipients Aimee Morewood, Susan Taylor, Allison Swan Dagen, Julie W. Ankrum, and Christina Glance. Their article, titled Online instruction: An Innovative Environment Bridging Literacy and Leadership Learning explores the conversations that took place between those seeking reading specialist certification and the sense of community that developed. Next, Kristal Elaine Vallie shared out the findings from her dissertation research titled Middle School Librarians' Perceptions and Promotion of Lesbian, Gay, Bisexual, transgender, and Questioning (LGBTQ) Books. In it, she reports out the difficulty librarians had in finding LGBTQ-related books. Following this is the Masters Research Award Winner. Kate Sheridan's work titled Can a Picture Elicit a Thousand Words? Using Photography to Foster Early Writing Development shares how students work with meaningful photographs, those selected or taken by them demonstrated growth in the quality of writing and attitudes about writing. Robin D. Johnson's work, titled Barrio Writers: Sharing Our Voice and Experience Through Creative Writing is the Spotlight article for the Judy Richardson Literacy as a Living Legacy Award. In it, she highlights the work done with Barrio Writers. Winning the Living Legacy Award in 2018, this article is an extension of that research as it shares out creative writing from teens who participated in the Barrio Writers' project. This section is concluded with the work of Stephanie Grote-Garcia, Evan Ortlieb, Bethanie Pletcher, Micharl Manderino, Vassiliki Zygouris-Coe, Juan Araujo, and Alexandra Babino titled Building Bridges Between Research and Practice: Reflecting Upon the Results of the 2019 What's Hot in Literacy

Survey. In it, the authors share the three "hottest" topics in literacy from 2019; digital literacy, disciplinary literacy, and English learners.

In section two, titled Building Bridges with English Language Learners and Families, articles focus on ways to connect literacy with English language learners and their families. Katie Walker introduces the section by exploring how a high school English teacher drew upon her prior experiences and knowledge in an ESL classroom. This is followed by Daibo Guo, Eun Hye Son, and Katherine Landau Wright's article which focuses on supporting English Language Learners through multimodal text. Next, Larkin Page explores her work on home-based literacy practices in comparison to school literacy expectations.

Section three focuses on connections between literacy, content, and Online learning. This section includes work by Caroline M. Crawford, Janice Newman, and Elaine Hendrix incorporating reading into science, technology, engineering, and mathematics (STEAM). This section is concluded by Kayy N. Tracy, Roya Q. Scales, and W. David Scales' work on an online pedagogy course.

Section four focuses on making connections about diversity through literacy. This section includes work by Melanie Loewenstein and David Brown; Chelsea Herndon; and Abby Pierece, Erin K. Washburn, Chyllis E. Scott, and Carly Waters, whose articles focuses on the connection of literacy and identity. Additionally, Ashley E. Pennell and Connie Green report their work with discussions about adolescent and young adult literature with genderqueer characters. Finally, section five focuses on learning with and for literacy. This work looks at writing in professional learning communities, classroom literacy instruction, and tutoring programs.

After a peer-review process for conference acceptance, the ensuing articles underwent an additional round of double blind peer review for acceptance in the Yearbook. The articles reflect the conference theme, Building Bridges Through Literacy, and expand upon it to explore ways to connect literacy through technology, with families, for English language learners, and diverse groups.

—NC, JA, AB, & RJ

# PRESIDENTIAL ADDRESS

## Lessons Learned from Marie Clay: What is Possible?

**Connie Briggs**

Texas Woman's University, Emeritus

*When Briggs interviewed for her first teaching job in 1978 she had the option of teaching first or fifth grade. Thinking she would never be able to teach young children to read she took the fifth-grade position. Little did she know at that time her future self would earn a Ph.D. In Reading Education and a post -doctoral certification in an early literacy intervention that would inform her teaching, learning, theoretical orientation and educational philosophy for the rest of her 42 year career. Working as a literacy professor and Reading Recovery Trainer, Briggs' research interests include early literacy intervention, assessment, teacher education and professional learning, children's literature, and systems learning.*

*Briggs has presented research and professional development for academics and teachers in Australia, Canada, England, New Zealand, South Korea, and across the United States. She has received teaching awards for Outstanding Collaboration, Outstanding Research Mentor, Professional Service, Research, and the ALER Albert Mazurkiewicz*

*Career Award. Her research has been published in numerous professional book chapters and journals. Briggs has served as president of the Kansas Reading Association, North American Reading Recovery Trainers Group, Reading Recovery Council of North America, and the Association of Literacy Education and Researchers, as well as the U.S. representative to the International Reading Recovery Trainer's Organization Board of Directors.*

Thank you for the opportunity to serve as the President of the Association of Literacy Educators and Researchers (ALER) organization this year. This is most meaningful to me as this year serves as a bookend to my career. I began teaching in higher education at Southeastern Oklahoma State University in 1990 and was introduced to ALER by my department chair and mentor, Dovie Walker. ALER was the first professional organization I joined as a new professor and since 1990 I have considered it my professional home. After a 42 year career in education I am retiring soon thus the bookend metaphor.

The experience most impactful to my professional career, and that has allowed me the opportunity to make the greatest difference in the lives of teachers and children, is my work in Reading Recovery over the past 22 years. In 1998, I trained as a Reading Recovery trainer and had the privilege of knowing and working with Dame Marie Clay until her death in 2007. Prior to this training, I had earned two master's degrees, and a Ph.D. in Reading. I held Reading Specialist Certificates in two states, but the year-long post-doctoral training in Reading Recovery I received was a professional gift that enabled me to truly understand socio-cognitive constructivist theory and how to apply it to teaching literacy learners who found learning to read and write most difficult. This article is a tribute to a scholar and educator whose work, I believe, was and still is ahead of its time. I hope, through this article, to give you some insight into what kind of person Marie Clay was and how groundbreaking and important her research and subsequent work was at the time and still is today. I am a better researcher from having studied Marie Clays' research and a better person for knowing her personally.

Marie Clay was an amazing scholar, an astute researcher, a systems thinker, and an exceptional educator and human being. The contributions she made to early literacy research and learning are immense, but just as notable is the way she went about the research and the work with integrity, tentativeness, and commitment. I would like to think that all educators can learn from these lessons. To try to include all of Marie Clay's accomplishments within one speech that will allow listeners to understand the nature of her contributions and know a little about her as a person has been a daunting task, for Marie Clay's research was extensive

and her contributions are many. I am choosing to address three areas of her life: Eminent Scholar, Visionary Innovator, and Person, Mentor, and Friend.

## Marie Clay- Eminent Scholar

At age 3, Marie and her mother were in a strong earthquake in Wellington, NZ. Her mother screamed out to Marie who didn't respond. When asked why she didn't reply Marie said, "I was watching the doll's pram go 'round and 'round all by itself. How Amazing! What else is possible?" (Clay, 2009, p. 12). This precocious child grew up to be an educator and researcher who continued to ask 'what is possible?' which would guide her life's work and change the trajectory of progress for children worldwide as well the lives of the teachers who taught them.

Marie Clay wrote, "I live in a perpetual state of inquiry, finding new questions to ask, then moving on, I do not have a 'position' or a safe haven where what is 'right' exists. Pragmatism precludes idealism, I search for questions which need answers. What exists in the real world? And how do our theories explain what exists" (Clay, 2015, p. 3).

Let me provide some context about the educational system in New Zealand prior to Clay's groundbreaking dissertation research. In the 40's education in New Zealand focused on equal opportunity rather than equal outcomes. It was believed children were born with a 'fixed set' limitation so some children would learn and some would fail. During the 50's there was a tremendous opposition to the idea of clinical help for struggling children. This "complacency and unconcern about reading difficulties continued throughout the 60's; clinical services for children who struggled with literacy learning remained scarce and there was no specialist training for remedial teachers" (Watson & Askew,2009, p. 21). Clay was critical of these practices based on her education and experience working with children.

Like a lot of us, Marie had to balance being a mother to small children, working, and teaching. In the 50s, while working on her Masters of Arts degree in Special Education, she tutored children at home at her kitchen table. Despite low IQ, the children learned to read. She said her whole thinking was challenged by that experience. The textbooks didn't explain why the children learned to read and no information was available about the early stages of reading. From this experience and further investigation, Clay concluded that instruction for special class children should be individualized and the focus should be on prevention, as well as success and motivation, rather than remediation (Watson & Askew, 2009).

In her master's thesis, Clay wrote, "It is desirable to use student's mental energy as economically as possible and not to divert it into efforts which are nonproductive . . . Reading instruction should follow the methods most suited to his psychological nature and the earlier such teaching is begun the less effort will be wasted by relearning" (Irwin, 1948, p. 52).

After completing her Master's degree, Clay secured a Fulbright Scholarship at the University of Minnesota. When she got there, she found the Special Education program in which she planned to enroll was no longer available . . . so instead she studied developmental psychology and clinical child development. This happenstance would not only change Marie's career path but would inform the lens from which she conducted her life's work.

In 1963, at the University of Auckland, when Clay began her dissertation research, there were no studies of literacy acquisition, nor any credible theories of literacy development grounded in close observation over time. Clay was particularly interested in the developmental paths of children with reading difficulties, but she thought the difficulties would have to be viewed in relation to how accelerated children of the same age progressed. Her question at that time was, "was it possible to detect when the process began to fail?" (Gaffney & Askew, 2009, p. 264).

Clay's background in special education, developmental psychology and child development, and her choice of using a different methodology (observing on-task behaviors across time), provided an a theoretical stance in order to carefully and systematically observe and record exactly what happened as children learned to read and write. Her research included mixed methods and qualitative research was not valued at that time. There were no tools sensitive enough to measure the incremental development and change over time for 5 year olds; so she developed and refined research instruments some of which would later become *The Observation Survey of Early Literacy Achievement* (Clay, 1993) and the *Record of Oral Language (*Clay, Gill, Glynn, McNaughton & Salmon, 1976*)*. These tools enabled Clay to examine acts of literacy processing through an unusual lens from which she would inductively derive a grounded theory of literacy processing.

Her research met rigorous standards as she collected rich data, systematically and weekly for 100 students in her initial year of research. "She used reliable and standardized methods of observing and recording, developed new concepts on the basis of observed patterns and used these concepts to enrich further data collection" (Jones & Smith-Burke, 1999, p. 264). Observation guided her development of a theory of learning that influenced teaching.

In the first year of her doctoral dissertation, following the progress of 100 English speaking children over a period of a year, Clay concluded that a

"quartile group of children with reading problems was created in the first year of school more by failure to start than by handicapping methods of instruction or inappropriate reading behavior. She recommended closer observation, more attention, and re-teaching as the appropriate response to children who were making slow progress" (Clay, 1968, p. 59).

Clay wondered if differences in oral language skills might contribute to success or failure in reading so during the next two years, she studied four language groups of 360 Maori and Pacific Island children weekly. From this longitudinal study she found that: "[1] visual perception of print [was] highly correlated with reading progress in all four language groups after 1 year of instruction . . . and [2] Language variables played a greater part in distinguishing among the groups in the second year. This study also reinforced the earlier finding that children's progress at 6 years of age was highly predictive of later achievement" (Watson and Askew, p. 19). Results from the analysis of patterns in literacy behaviors from the multi-year longitudinal dissertation research led to what she called 'a literacy processing theory', a theory of assembling perceptual and cognitive working systems needed to complete increasingly complex tasks (Clay 2001). Clay described the complex theory in this way:

> In a complex model of interacting competencies in reading and writing, the reader can potentially draw from all his or her current understanding, and all his or her language competencies, and visual information, and phonological information, and knowledge of print conventions, in ways which *extend both the searching and linking processes as well as the item knowledge repertoires.* Learners pull together necessary information from print in simple ways at first . . . but as opportunities to read and write accumulate over time the learner becomes able to quickly and momentarily construct a somewhat complex operating system which might solve the problem. There is no simplified way to engage in the complex activities, but teachers and the public are typically presented with patently untrue simplifications in new commercial instruction kits (Clay 2001, p. 224).

Clay knew that her research findings were significant and began to write papers and present at national conferences while continuing to advocate for children who needed extra support in learning to read and write in New Zealand schools. Ever aware of the scant resources and services for children in New Zealand who were struggling to acquire emergent literacy, in a 1976 presentation for the 6th New Zealand Conference on Reading, Clay stated, "When you leave a gaping

need in society without a source of informed opinion, 'fools rush in'—with earnest, well-meaning attempts to meet the need. But training and planned solutions are needed rather than backyard industry in an activity as complex as remedial reading" (Clay, 1976, p. 103).

From 1976 until 1981 Marie Clay worked on a development project to explore the extent to which it was possible to change the trajectory of failure for beginning readers and writers in an educational system. The research question for all these studies was a familiar one, *What is possible?*

The studies focused on detailed observation and record keeping and trial teaching procedures. Clay said, "A large number of techniques were piloted, observed, discussed, argued over, related to theory, analyzed, written up, modified, and tried out in various ways, and most important, many were discarded" (Watson & Askew, 2009, p. 37). Research continued with field trials, follow-up and replication studies, and national implementation monitoring. The end- result was Reading Recovery, a short-term, early literacy intervention that fulfilled the promise of accelerative progress for the lowest achieving literacy learners in a grade 1 cohort. The goal of the intervention was to dramatically reduce the number of children who have difficulty learning to read and write. Without intervention, these children become a continual burden on educational systems. In addition, Clay and her colleagues demonstrated that the instructional procedures for this intervention could be successfully taught to teachers and they could successfully provide contingent teaching and support to students to become active, engaged, independent, problem-solving readers and writers who would continue to learn from their own efforts with the support of a classroom teacher. Today, Reading Recovery is implemented in 5 English- speaking countries and has served over 3 million children.

Reading Recovery professionals around the world share a theory of literacy processing based on the research of Marie Clay. Key understandings that guide the work of Reading Recovery professionals internationally include:

- Literacy learning is a complex problem-solving process
- Children construct their own understandings-Teachers set the conditions and teach for strategic activity
- Children's oral language is a resource and a beneficiary of literacy learning
- Children begin literacy learning with diverse knowledge
- Children take different paths to literacy learning

- Reading and writing are interrelated processes-they draw upon the same knowledge sources and almost the same perceptual and cognitive processing networks
- Literacy acquisition is fueled by several kinds of perceptual and cognitive systems that are critical for extending literacy processing power
- Literacy acquisition is about reading and writing continuous texts-working systems cannot be developed unless the readers is engaged in reading and writing continuous texts
- Literacy learning is a continuous process of change over time (Clay 2001; Watson & Askew, 2009)

In *Stirring the Waters: The Influence of Marie Clay* (1999), Noel Jones and Trika Smith-Burke wrote:

> Both the scope and the quality of Clay's work firmly establish her reputation as a major contributor to the field of education. Throughout her work, there is a remarkable coherence and an inter-connectedness not only of ideals, but also of values. Three strong value commitments are apparent in all of Clay's work: (1) a commitment to rationality and scientific methodology in addressing issues both of knowledge construction and of practical action; (2) a developmental perspective from which she views educational issues in terms of learning, growth, and change over time, and which is grounded in a belief that all children have the potential and the right to become successful learners; and (3) a belief in the necessity of a reciprocal relationship between theory and educational practice and genuine respect for the contribution of educational practitioners and researchers (p. 262).

Marie was tentative and open to other research from many disciplines to inform her theory and Reading Recovery practices. She spent a lot of time at Texas Woman's University (TWU) and loved the library. Every morning when she was at TWU she went early to the library and came back to the office with a stack of books and articles to peruse. At the end of each day these went back to the library and the next day she was there again to select another stack of reading which she scanned, read, and shared with others she thought might benefit. We called it casting a wide net.

## Lessons Learned from Marie Clay the Scholar include

1. Close observation and analysis of patterns is an important task of teaching, but especially for children whose successes must be measured in smaller increments of progress.

2. Literacy learning is a complex, perceptual and cognitive process that involves active engagement on the part of the reader and writer. It is only through reading and writing continuous texts that a child is able to build a working system that is self-extending.

3. Keep asking what is possible? A quote from Pearl S. Buck reads, "All things are possible until they are proved impossible—an even the impossible may only be so as of now" (Buck, 1962).

## Marie Clay- Visionary Innovator

My colleague, Eva Konstantellou wrote, "Marie Clay probably would not even think of herself as a visionary. She would probably prefer to be seen as a pragmatist, who firmly rooted in the real world searched for questions that needed answers" (2007, p. 7). But innovator she was.

Marie Clay designed a Response to Intervention (RTI) Model before response to intervention was cool. Her groundbreaking article, *Learning to be Learning Disabled*, was first published in 1987. In this article, Clay discussed the term learning disability as an ill-defined category that lacked scientific validation and called into question the reliability and validation of the instruments used to measure such factors. Clay states, "Until educational and scientific psychology produce evidence of treatments that work, educators should be wary of advice from research which recommends one treatment when the research was not designed to answer treatment questions" (Clay, 1987, p. 170).

She was also clear that classroom programs, meant for group instruction, are not geared toward responding to poor readers, who each have their own idiosyncratic confusions that will become more tangled and knotted without tightly controlled, individually designed and contingently delivered instruction. I believe that not much has changed over the years and that a re-read of this article within the present context will provide much fodder for thought in today's educational climate.

Frank Velluntino (2010) wrote, "It must be acknowledged that Marie Clay was actually the first reading researcher to use RTI to identify children who might be afflicted by organically based reading difficulties, although Reading

Recovery, as originally conceived, was not designed for this purpose. Thus, her contribution to the RTI movement was seminal and certainly set the stage for subsequent intervention research that served to give this movement even greater momentum" (pg. 6).

## A Systems Approach to Implementation

Marie Clay was a pioneer in a large-scale education system design. Kenneth Wilson and Constance Barsky (2007), Nobel Prize winning authors, wrote that "Marie Clay had a unique ability to be aware of Reading Recovery as both a large-scale system and a program with specific design details" (pg. 111).

Many educational innovations have failed because they did not have a system in place for replication, self-study, or improvement through data collection and analysis. Marie Clay put into place three systems to sustain Reading Recovery both internationally and within North America. As you read, think about how a systems view might fit into other educational contexts and projects.

Marie Clay's implementation model supported implementation of Reading Recovery in different cultures and different governmental structures while ensuring the integrity and quality of the intervention as it expanded to Australia, Europe, and North America. Clay gave each country the trademark for Reading Recovery and each country follows written Standards and Guidelines written for each particular educational context.

Drawing on systems theory, Clay realized the limitations of developing only an instructional framework and a teacher training model (Clay 1987). The challenge was to create a design that could disseminate Reading Recovery, ensure the integrity and quality of the intervention, and allow for change and improvement without losing the essential quality or effectiveness. Clay knew that in order to expand Reading Recovery she would need to nurture and develop leadership that would be responsible for working with administrators, educators, policymakers and others in establishing, monitoring, problem-solving, and extending Reading Recovery in their respective contexts.

> From 1976 onward Reading Recovery [has] developed infrastructure, different in different education systems, to ensure the training of teachers, the delivery of instruction, and the outcomes within these different education systems, have operated according to guidelines which ensure a high level of success. A large body of research has been accumulated, and new information becomes available regularly. Every child's entry and exit performance is documented in

monitoring studies in each country. A system for disseminating the intervention has been developed and protocols designed to ensure that both quality and effectiveness of the research-based teaching and training procedures are assured wherever Reading Recovery is introduced (Clay, 2016, p. 4).

Marie Clay designed the Reading Recovery intervention with four interacting components:

- The first component at the center of the program is short-term, supplemental, daily, individualized instruction by highly trained teachers for the lowest achieving first grade children. Teachers trained in Reading Recovery teach a minimum of 4 RR individual children daily and work with 4 times as many children the rest of their day in small groups or shared classrooms.
- The second component is Teacher Leaders. Teacher leaders work in sites that may include one or more school systems. Teacher leaders are required to hold master's degrees in education; have experience as teachers of early literacy; have good interpersonal, organizational, and communication skills.

Teacher leaders train RR teachers at the district level and are seen as the re-directing system for whatever cannot be compromised in the interest of outstanding results.

Teacher Leaders are responsible for communication with administrators and successful implementation at the school levels. Teacher leaders teach 2 Reading Recovery children daily, provide initial training and ongoing professional learning to teachers; consult with RR teachers about the hardest-to-teach children; oversee the collection, analysis and reporting of data. They use school and district data to resolve instructional and implementation issues.

- The third component is Trainers. Trainers of teacher leaders in the United States hold doctorates, work in university settings in the United States and hold faculty appointments. They fulfill all the duties required of Teacher Leaders just at a different level. They support and monitor teacher training sites and provide ongoing professional learning for teacher leaders. Additionally, they are

responsible for keeping abreast of the latest research related to RR, conducting research, and contribute to the International and national trainers groups (Gaffney & Askew, 1999).

Trainers, teacher leaders, and teachers in Reading Recovery continue to engage in teaching students and ongoing professional development for as long as they work in Reading Recovery.

- The fourth component of the model is ongoing data collection and analysis. Data are collected on every child at the beginning of the year, at the end of their series of lessons or 20 weeks, and at the end of the year. In addition, data are collected on random sample students to serve as an annual comparison group. Data are reported on students and teachers at the national, university, district, and school levels annually.

These four components are replicated in each of the five nations where Reading Recovery is implemented.

Marie Clay planned for the future by developing a larger system that would guide the international implementation, research, and training when she was no longer able to do so herself. In the mid-1990's Marie Clay initiated The Marie Clay Literacy Trust to ensure the ongoing relevance of her work. She gave the Trust authority and responsibility related to her copyrights, her trademarks in New Zealand and Australia, and the continuation of her work internationally.

She also appointed Mary Anne Doyle, Professor Emeritus of the Neag School of Education at the University of Connecticut, as Consulting Editor of future Reading Recovery publications and tasked her with selecting assistance from informed academics in various countries from time to time to act on particular publications.

Marie Clay also established the International Reading Recovery Trainer's Organization (IRRTO). The mission of the International Reading Recovery Trainers Organization is to maintain the quality, uphold the integrity, improve the efficiency and effectiveness, and support change and growth in Reading Recovery through international collaboration, research, and resource development.

IRRTO members, the international set of trainers, are responsible for ensuring that trademark Reading Recovery sustains its effectiveness and continues to evolve in response to new research and developments in measured, thoughtful ways. This international collaboration of trainers is responsible for

the ongoing quality, integrity, fidelity, research that will inform programmatic changes into the future.

The Reading Recovery Council of North America (RRCNA) was established by the U.S. Trainers to support the work of the intervention and has become the face of Reading Recovery in North America. The International Data Evaluation Center IDEC), housed at The Ohio State University, collects and processes evaluation research data for all Reading Recovery programs in the US. It also supports several research initiatives, provides data sets, and publishes annual reports at the national, UTC, state, and district levels. With more than 30 years of data, Reading Recovery is the world's most widely studied early intervention. Reading Recovery was ranked with the highest evidence, based on effectiveness by the What Works Clearinghouse, by the USDE Institute of Educational Sciences. The intervention has been recognized by the National Center on Intensive Intervention (NCII) for its evidence-proven effectiveness. Most recently, The Consortium for Policy Research in Education (CPRE) conducted a 4- year, federally funded, independent study showing that Reading Recovery was highly successful. This scale-up study was lauded as one of the most ambitious and well-documented expansions of an instructional program in US history (May, Sirinides, Gray & Goldsworthy, 2016). Because this was a mixed methods study, the 23 case studies provided a wealth of data that illustrated what was working well and what could be improved.

To approach a system of improvement, the North American Trainers and other Reading Recovery stakeholders partnered with the Carnegie Foundation to engage in a study of improvement science. Improvement science will help our networked communities learn from variation in order to redesign both the intervention and the system. Through the methodology of 'Plan, Do, Study, Act' on small- scale studies (Bryk, Sirinides, Gray, & Goldsworthy, 2016) we can apply outcomes that work to scale. Because of Clay's systems approach we will be able to learn systematically, accumulate, and disseminate the practical knowledge needed for the improvement of teaching and learning.

This is what Marie Clay envisioned for Reading Recovery—a constant focus on improvement at all levels of the system. In 1994, Clay said,

> How can a program like Reading Recovery prepare itself to change as required (a) to adapt to conditions in other educational systems and (b) to take aboard new theoretical insights as they emerge in the literature, so that 'black holes' in current rationales for aspects of the program can be filled by new information after it has been

tried and tested on the population for which Reading Recovery was designed" (p. 136).

I think improvement science might be the answer to this question.

Marie Clay was practicing a gradual release of responsibility model as she put together systems in place for Reading Recovery trainers across five nations to become more self-sufficient and collaborative in being responsible for Reading Recovery into the future. She was preparing us to be decision-makers, researchers, and innovators for Reading Recovery around the world in her absence.

## Lessons Learned from Marie Clay the Innovator

1. Complexity is complex, whether we are talking about learning or implementation. It is not for the faint of heart.

2. In order for any innovation to be sustained there must be a self-renewal system in place that allows for different contexts, shared ownership, and a feed-back loop for self-improvement.

3. Collaboration, shared knowledge, and ownership among stakeholders are necessary for any successful innovation.

4. Remain flexible and tentative in your knowledge and understandings. There is always more to learn. Those that think they know everything are certainly delusional.

## Marie Clay, the Person, Mentor and Friend

Julie Douetil, Trainer emeritus from the University of London wrote, "What made Marie so extraordinary was that she was in so many ways, so very ordinary, so human. She was a towering figure in the academic world, a giant among her peers, yet when she visited, she was one of the family" (Douetil, 2009, p. 115). Marie Clay was passionately interested in children and their well-being. The work she did throughout her life was for the benefit of students. She advocated for all students, but particularly those who were in need of more support than could be found in the classroom. Marie Clay is recognized by the Maori people for her research and interest in working with Pacific Island and Maori children to provide them an equal opportunity to learn to read and write. The Reading Recovery intervention has been reconstructed from English to French and Spanish. First Nations children in Canada, Australia, and South Dakota and children in Malta, Jersey Guernsey, Cayman Islands, and Anguilla all benefit from Reading Recovery.

Marie Clay had deep respect for teachers and their ability to learn from and with each other to become expert teachers. After watching the first teaching groups during the development of Reading Recovery Marie said, "They are helping each other, challenging each other, lifting each other to better understandings—and you [teacher leader] are becoming redundant. That's good" (Clay, 2009, p. 84).

Susan O' Leary, Reading Recovery teacher and author, said, "Marie taught teachers the reciprocity of being with children. That they teach us while we are teaching them. That if we listen to them as Marie taught, they change us, while we give them possibility. Once you come to understand this significance—that you don't know all you can about a child—you learn a new humility, and there is a groundedness that can come into your teaching. Marie Clay taught me to see a child's dignity, and to learn how to teach, each day fresh, to that dignity" (O'Leary, 2007, p. 15).

Marie believed that investment in the expertise of teachers, rather than inflexible commercial programs, is key in addressing the needs of students who find learning to read and write most difficult. If we could not find Marie during a conference you often found her in a corner talking to a group of teachers about how their teaching was going, asking for teaching examples and input on the clarity of the teaching procedures.

## Tentative

Marie was always open to new research and new ideas that would inform practice; she believed theories could co-exist. She "deliberately sought out alternative views to explore the limits of her own theories" (Johnston, 2007, p. 150). She would always tell us, "What I say is tentative until I put it in writing".

## Frugal

Marie did not waste money. I remember once when we were in London at an international meeting. Trainers stayed in a designated hotel. Marie stayed with 'Friends', a Quaker bed and breakfast where she walked up and down 5 flights of stairs to her room each day. At that same meeting, we had a planned dinner excursion on a boat on the Thames River. Everyone else took a cab to the river, but Marie chose to walk the 2 or so miles and a couple of colleagues and I walked with her. This walk through the London neighborhoods talking with Marie about mundane things is one of my treasured memories.

## Pragmatic

Marie was an eminent scholar and an ethical researcher, but she was also insistent that the research has to become useable. She was able to translate her research and the research of others into sound practice. Marie was always open and willing to share her expertise and advice with others who asked. Once a question was asked, you might get a reply back like, "Why would you want to know that?" It was not that she was being judgmental. She really wanted to know the reasoning behind the question.

## Curious and Interested in Everything

Carol Lyons, Professor Emeritus at The Ohio State University said that Marie Clay was the most curious, and enquiring person she ever met (Lyons, 2007, p. 175). Marie loved the opera, theater, and symphony and had a beautiful soprano voice. She sketched and designed costumes for a whole children's play while engaged in her Fulbright Scholarship in Minnesota. She said it was an interest not allowed to flourish. She collected miniature books. She studied history.

On one of her visits to the states, one of the RR trainers took Marie on a bus tour of a Civil War battle ground. Marie commented that the Civil War took place about the same time as the Maori Wars in New Zealand. Before the tour was over Marie was drawing comparisons between the two wars and sharing details about the Civil War that were unknown to the others.

## Humble

Marie never sought recognition or awards. Tormented by recognition, honors were only accepted because they furthered Reading Recovery and what it could do for children. At her memorial service Marie's brother told a story illustrating this point. Marie's son drove her to the post office and waited in the car while Marie got her mail. When she came out she appeared to be mad but did not share why at the time. Later, her son learned that she had received a letter from the Queen of England inviting her to be knighted as a Dame of the British Empire. She was going to refuse the recognition, but others convinced her she must go because of the recognition it would give Reading Recovery. After the ceremony, the print and television journalists were looking to interview her, but she could not be found. Her son told the reporters that she had taken a short holiday with a friend and was staying at a motel in an unknown location.

## Ethical and had integrity

Peter Johnston (2009) shared a story about Clay's ethics, "When asked by a basal reader company whether she would like a lot of money to help them develop better literacy instructional materials she said yes. . . but you can't use my name, which she hypothesized would be a deal-breaker, and an object lesson. Like most of her hypotheses, it was confirmed" (p. 150).

But my favorite story illustrating Marie's ethics was when she and Clifford Johnson, then president of Reading Recovery Council of North America, were invited to the Whitehouse in 2001. They met with Bush's Department of Education and Reid Lyon representing the National Institute of Health. The representatives had questions about Reading Recovery and Reading Recovery teachers but were not too interested in Maries' theoretical perspectives, extensive study, or research evidence. They asked her to add more phonics instruction in Reading Recovery, to which she replied that she would only do that based on research that showed it would produce better outcomes for children. They asked why Reading Recovery teachers were so committed to the intervention once they were trained and Cliff replied that teachers trained in Reading Recovery were seeing progress with children they previously could not teach to read and write (personal communication with Clifford Johnson, 2001).

The White House was interested in seeking Marie's support of their plans for beginning reading instruction with No Child Left Behind. Marie knew immediately that collaboration would not be possible, but she listened intently and responded graciously. Then it was Marie's turn to ask questions that targeted the apparent differences in their perspectives. She asked:

- "What instructional attention have you planned regarding the development of early writing proficiency?
- What instructional recommendations have you planned for children for whom English is a second language?
- What research informs your decisions and discussion of how to teach the essential skills identified as important by the National Reading Panel report? And
- What research supports the use of 'decodable texts' for beginning readers?"

(Doyle, 2009, p. 237).

It was apparent that Marie Clay would be unwavering in her commitment to her convictions and important research-based theory and evidence. After the

meeting, Cliff thought the points of agreement they did have about early reading would ensure that Reading Recovery would not be excluded from federal funding. However, he was mistaken—and that is a story for another time.

## Adventurous

Marie loved traveling and it was good that she did. Anne Ballantyne, a RR trainer from New Zealand, said, "She crossed boundaries with apparent ease and worked brilliantly with new ideas and new people in new territories, both literally and figuratively" (Ballantyne, 2007, p. 49). Whenever I have to fly long distances I think about Marie and how often she boarded an international flight, always in coach, to fly from country to country without ever complaining.

# Lessons Learned from Marie Clay the Person, Mentor, and Friend

1. Be humble; let your actions speak for themselves. Humble people know their self-worth. As a result, they don't have to elevate themselves to show how much they know.

2. Enjoy multiple interests and be adventurous.

3. Have the courage to say no. Do the right thing because it is right. This is living your life with integrity.

4. Live your truth.

# Closing

It is rare that an educational intervention lasts 30 or more years—even more rare that it exists in multiple countries around the world with the same fidelity, integrity, teacher expertise, and positive outcomes for children who are identified as the lowest literacy performers in their grade cohorts. This is only possible because one purposeful and disciplined woman asked, "What is possible?"

Marie Clay was well respected and well-loved. In 2003, she was recognized by her peers through the National Reading Conference, as the most influential researcher over the past 30 years. However, when a Canadian newspaper reporter told Marie that she must be proud of her accomplishments she said, "It's a start, but not enough. There are still so many children that need our support" (Stuart, 2009, p. 182).

Marie Clay was an extraordinary woman in the most common sense of the word. The legacy of person and research she left behind are worthy of emulating.

Most ALER members are mentors to young, promising, educators and researchers, or you are doctoral students and early career faculty that can benefit from the lessons learned from Marie Clay. Marie Clay was wicked smart and so are some of you. She was an impeccable and ethical researcher who was not afraid to ask, what is possible and consider research and methodologies outside her discipline to find answers. The results of her research documented the complexity of literacy learning and proved that all children take different paths to literacy, but even more so those in need of specialist help. Clay helped us to understand that by intervening early we can change the trajectory of learning for the majority of students who are having difficulty learning to read and write by focusing on their strengths rather than their deficits. And that neural networking systems are only engaged and extended when children read and write continuous texts.

Marie Clay sought out collaboration and valued teachers whose knowledge was closer to the teaching of the children. She designed effective and embedded professional development that linked theory to practice. She embraced a systems approach to implementation of an innovation designed to be the safety net of a larger comprehensive literacy approach. She had the integrity to do what is right for children and not compromise her beliefs based on the promise of money or recognition.

Maya Angelou said when you know better you do better. . . but we don't.

Literacy education continues to be mandated by policymakers and administrators who are heavily influenced by those who profit—rather than by research or evidence-based practices that have been proven to help ALL children learn to read and write.

Marie Clay answered some questions but left us with so many more to explore and maybe apply to other areas of learning. We can use the lessons learned from Marie Clay to enact the possible to ensure that ALL children become literate if we just have the commitment and the will to make it so.

 Norman Cousins said, "If something comes to life in others because of you, then you have made an approach to immortality" (https://www.brainyquote.com/authors/norman-cousins-quotes) Marie Clay left an indelible mark on early literacy education and intervention and through her work has changed the life of thousands of teachers and students.

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# Betty Sturtevant Award

# Online instruction: An innovative environment bridging literacy and leadership learning

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**Abstract**

*Literacy leadership is an important part of reading specialist preparation programs. Innovative methods of providing access to those seeking reading specialist certification include the use of synchronous videoconferencing. The conversations that occur during the review of these instructional videos provide a sense of social community by providing opportunities to interact with the course instructor and peers within the course. This sense of community is imperative for effective online instruction. This paper provides an example of how multiple theoretical frameworks were used to make*

*programmatic decisions in order to scaffold literacy leaders' learning via instructional video analysis.*

*Keywords:* online instruction, literacy leadership, clinical practicum,

## Introduction

Reading specialists (RS) are taking on the role of literacy leaders in our schools and this is an area of interest for most educational stakeholders, as they work towards building bridges with and for literacy in their schools and communities. The traditional role of RS has morphed into one that now includes literacy leadership. In fact, the International Literacy Association (ILA) (2015) defines three distinct roles of literacy leadership (RS/literacy specialist, literacy coach, and literacy coordinator/supervisor). A RS takes on multiple roles in their schools so that their teachers, from novice to experienced, have resources and access to professionals who have the knowledge and pedagogical expertise to impact teachers' instruction and student learning. The relationship between the RS and the teachers is a starting point in establishing a collaborative community culture. Within this collaborative culture, RS may serve as literacy leaders to advocate for effective literacy practices within our schools. Further, the field needs RS to be the conduit of information between literacy researchers and practicing teachers.

Universities work to prepare RS for literacy leadership in a variety of ways. These leadership experiences often include engaging in explicit coursework and readings, shadowing a literacy leader within their school, reflecting on their own leadership skills, and providing opportunities for collaboration. Collaborative work may include critically reviewing and sharing literacy materials, lessons, and resources. In addition to these traditional university requirements for those enrolled in a RS certification program, there are also innovative methods for supporting literacy leadership integrated into some of these programs.

Alternative methods of content delivery are one type of innovation that is currently being examined in the field of literacy leadership preparation. For example, online instruction is one way that RS certification programs provide learning opportunities to those who are not geographically near a physical campus. The online format allows practicing teachers access to professional learning, advanced degrees, and certifications that otherwise may not be available to them. All teachers need access to effective professional learning opportunities. According to ILA (2020), 58% of the respondents on a recent survey indicated a need for increasing professional learning opportunities for teachers (p. 6). Further, 39% of the respondents stated that providing more professional learning

opportunities for practicing teachers was a critical topic for literacy education (ILA, p. 6). In fact, this topic was listed as one of the top five most critical issues for literacy education. Survey results such as this demonstrate the necessity of providing all teachers with access to high quality learning opportunities.

While there are many preconceived notions about online instruction and learning (e.g., it does not hold the same rigor of traditional brick and mortar coursework), these notions may be grounded in recent media covered events involving for-profit online institutions. However, for others (especially those whom we work with that are geographically bound or in very rural locations) online coursework may serve as their link to continued learning. Here we provide an example of how those seeking RS certification in the Literacy Education program at West Virginia University engage in effective online clinical/intervention coursework that is focused on working with struggling readers and developing literacy leaders. While we have engaged in many positive online teaching experiences, in this manuscript we specifically discuss how synchronous conversations (e.g., videoconferencing) allow for those in the LE program to participate in literacy leadership throughout a required clinical experience. Our example of how to scaffold literacy leaders' learning through instructional video analysis using the Gradual Release of Responsibility Model (GRR model) (Pearson, & Gallagher, 1983) is provided. Further, we discuss how active learning through social presence (Garrison et al., 2000; Morewood et al. 2017, 2019) is supported in an online, synchronous learning environment and led to a distributed leadership model for the LE candidates (Spillane, 2005).

## Literature Review
### Teacher Education and Clinical Practice

It is an interesting time in educator preparation programs (EPP) as many programs currently face challenges that are impacting the entire country. Programs across the United Stated are forced to cope with decreased enrollment in teacher education, even with teacher shortages across the nation (Aragon, 2016). Aragon states that these shortages are often linked to state policies that impact teacher education, specific content/subject areas, and schools that have similar characteristics such as large class sizes or low pay. Geographic location also plays a large role in determining where a teacher shortage may occur. For example, Player (2015) highlights the specific challenges of rural communities to attract and retain highly qualified teachers. According to the American Association of State Colleges and Universities (AASCU) (2017), additional roadblocks that teacher education programs may face while recruiting prospective teachers include,

increasing educational costs for education students, recruiting issues in high-needs fields, shrinking institutional budgets, and difficulties recruiting and retaining diverse populations into the field of teaching.

Amidst all of these hurdles, many organizations (e.g., AASCU, American Association of Colleges for Teacher Education [AACTE] and ILA), have initiated conversations regarding the necessity of effective teacher education, specifically in the area of clinical/fieldwork. For example, in its executive summary for higher education institutions on teacher education AASCU's first recommendation states that university administrators should, "help educator preparation programs bolster clinical experiences for teacher candidates" (p. 2). AACTE organized the Clinical Practice Commission, who wrote and published the *Essential Proclamations and Tenets of Highly Effective Clinical Educator Preparation* (2018). The central proclamation of the ten points is, "Clinical practice is central to high-quality teacher preparation" (p. 3). These two documents from leading teacher education organizations signify the need for effective clinical practice opportunities within teacher education.

ILA has echoed the finding that high-quality clinical experiences are essential to the effective preparation of literacy professionals by specifically addressing practicum/clinical experiences for RS in Standard 7 (*Standards for the Preparation of Literacy Professionals 2017* (2018). This standard states, "Candidates complete supervised, integrated, extended practica/clinical experiences that include intervention work with students and working with their peers and experienced colleagues; practica include ongoing experiences in school-based settings(s); supervision includes observation and ongoing feedback by qualified supervisors" (p. 41). This standard highlights the importance of clinical opportunities to positively impact our candidate's literacy leadership experiences.

## Literacy Leadership

Over the past several decades, a trend has emerged where RS, Literacy Coaches, and classroom reading teachers have assumed responsibilities of literacy leaders in the schools where they work. Literacy leadership is woven throughout each of the seven standards published recently by ILA (2018). Standard 6 specifically addresses professional learning and leadership. It states, "Candidates demonstrate the ability to be reflective literacy professionals, who apply their knowledge of adult learning to work collaboratively with colleagues; demonstrate their leadership and facilitation skills; advocate on behalf of teachers, students, families, and communities" (ILA, 2018, p. 40). Our schools deserve literacy leaders who have a deep understanding of content, pedagogy, curriculum, equity, student

development, digital literacies, and adult learning theory. Preparation of specialized literacy professionals (ILA, 2015), who function as literacy leaders, should include opportunities to engage in modeled, scaffolded, and independent practice of providing feedback about literacy instruction to their peers. Synchronous tools provide opportunities for participation in this type of practice and allow literacy education candidates to experience a leadership role in a supportive environment. This approach to educator preparation aligns well with the GRR model (Pearson & Gallagher, 1983).

## Online Instruction and Learning

Online learning is a critical element in higher education institutions. The Online Learning Consortium (OLC) (2016) reports that "25% of US students in higher education are enrolled in at least one online course" (p. 1). OLC also reports that over 60% of higher education institutions offered 100% online degree programs and nonprofit institutions offer 70% of the available online offerings (p. 1). Further, according to OLC's *2016 Higher Education Online Learning Landscape*, over "70% of institutional leaders rate online learning outcomes the same or superior to face-to-face" (p. 1). Based on this information, it is not surprising that Seaman, Allen, & Seaman (2018) report that for 14 straight years, distance higher education enrollments have increased. It is clear that online learning opportunities are a part of mainstream education and are recognized as a viable option to provide equitable access to higher education.

Teacher learning can be enhanced through online opportunities. The learning that takes place in online courses is a growing area of research. Findings from this research indicate that there is no difference in student learning outcomes for those in online environments (both content and lab courses) when compared to those in traditional face-to-face contexts (Fishman et al., 2013; Miller, Carver, & Roy, 2018). In fact, some research suggests that students enrolled in online courses out-perform those in traditional face-to-face courses (Means, Toyama, Murphy, & Baki's, 2013). An additional benefit to online learning is the expansion of course boundaries. According to Colwell & Hutchinson (2018), students who engaged with Twitter during the course were able to extend course-based conversations beyond course boundaries to include content area experts. The opportunity to engage with experts outside of the course enables enhanced learning. Providing teachers with opportunities to expand their own knowledge is important, but deeper impact occurs when teachers change their instruction and P-12 student learning increases. This is supported by research that indicates when teachers actively engage in online

learning opportunities, their students' achievement increases (Fishman et al., 2013; Shaha & Ellsworth, 2013).

Research on effective professional learning opportunities (PLOs) for teachers demonstrates that PLOs are effective when they align with student learning objectives, are supported by leadership, involve research-based practices, guide teacher learning through collaborative practices, are applicable to teachers' instruction, are grounded in student data, and occur over time (Bean & Morewood, 2010; Desimone, 2009; Dillon et al., 2011; Duffy, 2004; Penuel et al., 2007; Taylor et al., 2011; Ward Parsons et al., 2016). These research-based components of effective PLOs align with the theoretical underpinnings of this LE program.

## Theoretical Underpinnings

Social constructivists posit that learning is accomplished through interactions with others. Traditional, face-to-face instruction provides instructors with clear opportunities to facilitate social interactions among course participants because they are physically present in a classroom. However, in online courses, the instructor must facilitate social interactions in a way that creates accountability and support for a collaborative experience. Videoconferencing is one tool that allows teachers to engage in conversations directly and simultaneously about their pedagogy. Through the use of video, teachers may return to a specific moment in their instruction, which allows them opportunities to observe and discuss intricacies of their instruction that they may have missed while teaching (Mosley et al., 2016). It is the social interactions among peers and with the course instructor (both in face-to-face and online courses) that aligns with a social constructivist approach to learning.

Instructional design of an online course is important; structure matters. One theoretical framework associated with distance education is the Community of Inquiry (CoI) framework (Garrison et al., 2000). This framework is centered on three presences: social, cognitive, and teaching. Social presence is used to describe how participants relate to one another in the online community. Cognitive presence is the building of knowledge through conversations and reflective practices. Finally, teaching presence focuses on the design and facilitation of the course.

Using the conceptual framework of Desimone's (2009) characteristics of effective professional development and Garrison, et al.'s (2000) CoI supported our online course development. Morewood et al. (2017, 2019) created a conceptual model to guide program development and merged Desimone's characteristics with the characteristic of CoI to better understand the interplay between adult

learning and online course design (Figure 1). We found that four of Desimone's characteristics (duration, collective participation, content focus, and coherence) primarily aligned with a single CoI presence; however, the *active learning* characteristic emerged as a feature within all three of the CoI presences. Given that active learning was a part of all three presences for online instruction, we began referring to our conceptual model as the A3 design. Those developing and facilitating online learning for teachers must understand the necessity of active learning when thinking through a social constructive lens. Active learning across the three presences develops a sense of community within the course and negates the notion of working in isolation (McBrien et al., 2009). The figure below demonstrates how active learning spans the three presences in the A3 model.

The GRR model (Pearson & Gallagher, 1983) aligns well with the positioning of active learning in online coursework. It is important to recognize that this model can be applied to all learners, regardless of age or skill level, and can be used through various tools and modalities. This model suggests that the expert (i.e., teacher educator) assumes most of the responsibility for a task when he/she models for the learner (i.e., literacy education candidate). As the candidates gain understanding, they accept more responsibility for the task. The expert slowly releases additional responsibility of the task to the learners, while guiding them through the task. As the learners assume more responsibility, they become increasingly independent. Active engagement is a natural piece of the
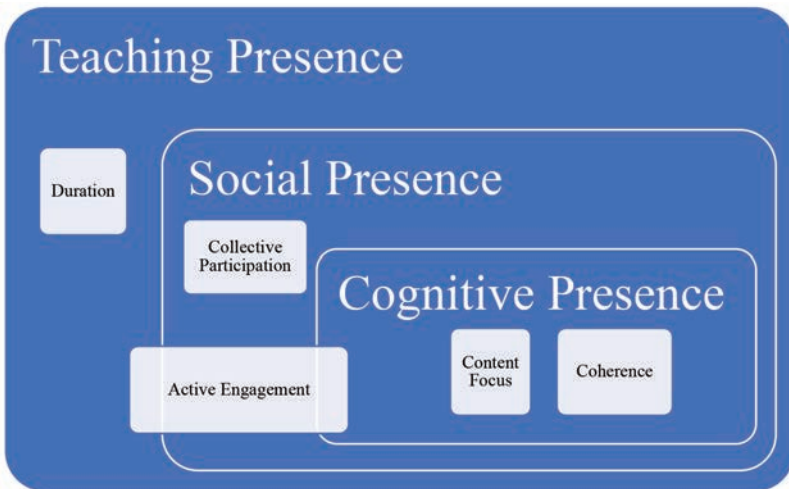


**Figure 1.** Aligning effective PL characteristics and CoI framework

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GRR model given that communication between the expert and the learner is essential for success and is situated well within the A3 model.

# Context
## West Virginia University's Literacy Education (LE) Program

West Virginia University is the land-grant institution in the state. Given its mission, this institution works to meet the needs of the state's rural population through outreach and innovative practices. The LE program provides a 100% online Reading Specialist certification and 30-credit master's degree program, with a distance-based supervised practicum. The LE program has two tenured faculty members and often has the support of a graduate assistant.

Traditionally, the candidates in this program align with national trends in that the majority in this program are West Virginia residents and practicing teachers in the areas of elementary, secondary (specifically English Language Arts teachers), and special education. The curriculum of this program prepares RS candidates for the variety of roles associated with this position in many schools (e.g., RS, literacy coach, literacy coordinator). And in 2019, this program was the first fully online RS program in the country to be awarded *ILA's National Recognition with Distinction.*

## Course Description: Literacy Intervention II

Our LE program requires candidates to enroll in a 16-week capstone course, *Literacy Intervention II*. This course is the third in a sequence of program courses. The first course, *Knowledge of Literacy Instruction*, builds the candidates' background content knowledge on effective literacy instruction. Specifically, this course attends to understanding the developmental continuum of literacy learning and instruction. The second course in this sequence, *Literacy Intervention I* focuses on aspects of readers who struggle. In this course, students work with an individual student who is struggling in one or more areas of literacy, in order to better understand how different instructional moves impact student learning. Finally, *Literacy Intervention II* provides the LE candidates an opportunity to work with small groups of readers who struggle with literacy tasks. The small group instruction required as part of the final supervised practicum involves working with intervention groups of K-adult participants. In addition to their work with small group instruction, the LE candidates attend whole group, synchronous class meetings, peer-coaching sessions (both synchronous and asynchronous),

and are involved in individual feedback sessions on their literacy instruction. This sequence of learning allows the LE candidates to apply previously learned theoretical models to practical teaching environments in a supported context.

## Collaborative Course Engagement Process
### Weekly Intervention Sessions

The *Literacy Intervention II* course integrates content and assignments designed to support the LE candidates' development in literacy leadership. The focus of this work is one specific course assignment: synchronous video analysis. Program candidates are required to videotape their weekly intervention sessions. Next, each LE candidate selects two different three-minute video clips to share with their peers during a live weekly class session, which is conducted through an online videoconferencing platform (i.e., GoToTraining, Blackboard Collaborate Ultra, etc.). This assignment requires candidates to reflectively consider each intervention session, determine a portion of the video to share and edit their video into small clips. From the two videotaped segments, each LE candidate selects one to share during the live class and then both are housed in an online portfolio (e.g., LiveText). The video selection process is sometimes guided by the instructor and based on a content topic, teaching celebration, or LE candidate need. Other times throughout the semester, candidates are given a free choice regarding what they share with the group during the synchronous class meeting time. Regardless of the topic of the shared video segment, each LE candidate adheres to a video reflection framework while describing her/his instruction. This entire process aligns with the A3 model (Morewood et al., 2019).

### Video Reflection Framework

At the beginning of the semester, the *Literacy Intervention II* course instructor provides instruction on different levels of reflective practice. These levels of reflective practice are derived from the work of Shanahan, et al. (2013) and include descriptive, comparative, and critical reflection. Since this research originated from reading clinics, it was deemed appropriate for this context as it supports students in online courses and aligns with ILA Standard 7.2. This component states, guides this work as the candidates "reflect on, and study their own and others' teaching practice" (ILA, 2018, p. 42)**.** Descriptive reflection occurs when the LE candidate shares the sequence and events of the lesson from his/her perspective. Comparative reflection occurs when the LE candidate begins to think more about how to improve the lesson and incorporates additional research or

perspectives that support the instructional approaches. Finally, the LE candidate engages in critical reflection as they begin to create and discuss a plan for future instruction. The presentation takes a two-prong approach by providing LE candidates with opportunities to (1) reflect on their own instruction when presenting their weekly videos to the group and (2) scaffold their peers' thinking in this course and when they work with colleagues in their schools. This assignment, as do others throughout our program, supports LE candidates by providing them with tools to use when working with practicing teachers so that they can be effective literacy leaders. As we collaboratively discuss the videos using online tools and platforms, the reflective practice framework is used and the GRR model (Pearson & Gallagher, 1983) is employed so that the LE candidates are supported as they build their competency as leaders.

## Video Analysis and the GRR Model

Using synchronous learning tools to view videos of literacy instruction allows LE candidates to engage in reflective conversations and receive feedback on their instruction through a scaffolded approach. This approach aligns with ILA's Standard 7, in that the candidates receive feedback from a qualified supervisor (course instructor) and work with their peers around intervention work during the reflective process. At first, the course instructor assumes full responsibility (i.e, GRR model) for providing feedback on each LE candidate's instruction. This highly supportive first step is conducted to model the expectations of the feedback sessions for the LE candidates in a supportive environment. For example, the course instructor leads each LE candidate through the three levels of the reflective framework. This process helps candidates to discuss each level and to recognize the different levels of reflection while reflecting on their instruction. Working through this process, with the support of the instructor, helps the candidates practice systematic reflection about their instruction and this helps support and facilitate reflection when working with peers.

After a few weeks, the instructor pairs with the candidates in the course to provide feedback to each LE candidate. The LE candidates are paired in advance so that they are prepared to view their peers' videos and provide substantive feedback on their instruction. This is when the LE candidates engage in the guided practice portion of the GRR model with the course instructor; LE candidates are given an opportunity to provide feedback alongside the course instructor. The peers providing this instruction are simultaneously scaffolded as literacy leaders.

Finally, near the end of the intervention sessions, the course instructor steps back and only the LE candidates provide feedback on the instructional

videos. The LE candidates lead their peers through the levels of reflection and provide collaborative feedback that will influence their literacy instruction.

## Observations and Perspectives

An unanticipated consequence we noticed was that throughout this process the LE candidates shifted their thoughts and actions to a distributed leadership perspective (Spillane, 2005). The distributed leadership model focuses not only on the products of a leader but also highlights the interactions of leadership. Spillane defines distributed leadership as, "a product of the interactions of school leaders, followers, and their situation" (p. 144). The feedback we received from the official course evaluations on the structure of this course included elements of two of the theoretical frameworks integrated into the course: GRR model and active learning. Below we provide LE candidate comments that demonstrate where we saw evidence of the GRR model (Pearson & Gallagher, 1983) and active learning (Desimone, 2009; Morewood, et al. 2017, 2019) (Figure 2). The specific wording that was associated with each of these topics is italicized in Figure 2.

When reflecting on the GRR model framework, the instructor (i.e., the content area expert) is the one who initially provided all of the guidance and support for learning through feedback. In this specific course, the instructor guided the LE candidate's through the levels of reflection (Shanahan et al., 2013) during the conversation. As the instructor facilitated these conversations using prompts associated with the three levels of reflection, the instructor provided feedback that scaffolded the LE candidates' pedagogical thinking around effective literacy instruction. The candidate comments provided here highlight how the instructor of this course provided (1) *specific feedback, (2) discussed different aspects of student learning within her feedback*, and (3) provided *precise information* that resonated with the LE candidates. This demonstrates how the instructor facilitated the conversations and provided the LE candidates with additional information that supported their content knowledge and pedagogical actions when working with a small group of struggling readers.

As part of the GRR model framework the more knowledgeable participant gradually reduces the quantity of support as the learner becomes more knowledgeable. Here, as the instructor released her support and facilitation of the feedback on the teaching videos, the LE candidates were able to assume the feedback role. The LE candidate comments in Figure 2 illustrated the progression of how they *gained confidence* throughout the course by *giving their peers feedback*. They specifically discussed how they perceived their *content knowledge expanding over time* and *drawing on their own instructional experiences* when providing

**FIGURE 2**
**Student Comments and GRR model**

| Type of Feedback | LE Candidate Comments |
| --- | --- |
| Instructor Feedback on Instruction | The *specific feedback* was very helpful. The course instructor not only provided feedback on the lesson, but [she] gave suggestions on what next steps to take and look for with students. |
| | I learned how to look at *different aspects of student learning*, and how to adjust different instructional strategies, such as the types of probing questions to ask students. |
| | I loved *listening to her feedback* because I know she is experienced at doing this. Her feedback was more precise where she would say "you should do this because of this..." |
| Providing Peer Feedback on Instruction | Toward the end of the course I felt *more knowledgeable and confident*. I felt I had a lot of new ideas to share and extend lessons. |
| | I was able to look at the videos and *use my experiences to provide feedback*. I realized that I had more experience and knowledge than I thought! |
| Receiving Peer Feedback on Instruction | My *peers gave specific feedback* on ways to improve the lesson. They also commented on my strengths, which I hadn't thought about previously. |
| | I was *receptive and not defensive* about their comments and suggestions. I looked forward to the critique. It gave me a chance to be in the shoes of my teachers when I am coaching them. |
| Perception of Literacy Leadership Skills | I have *more experience and knowledge of resources than I realized* that could be helpful to a peer. |
| | I learned how to be more *confident, encouraging*, think of how to ask questions in a way that seemed to be supportive. |

pedagogical suggestions. Throughout this process, the LE candidates realized that they did have the expertise to provide substantive feedback to their peers around effective literacy instruction. These comments could be associated with the LE candidate's thought processes that were related to the various levels of reflection (Shanahan, et al., 2013).

The LE candidates were familiar with receiving feedback from course instructors throughout the program. As the course instructor began to release the responsibility of feedback facilitation to the LE candidates, they were responsible for providing their peers with informative comments, but they also

became the recipients of peer feedback. Peer feedback can be delivered and received differently than instructor feedback. In this intervention course, the LE candidates discussed that their peers also provided *specific feedback* and brought *pedagogical strengths* into the conversations that were previously overlooked. This matches findings in recent research on the benefits of using video analysis (Mosley et al., 2016).

The second LE candidate comment in this section of Figure 2, demonstrates the aesthetic perspective of receiving peer feedback. LE candidate discussed how she was *open to peer feedback*, *welcomed the critique of her work*, and *really found herself being able to associate with the teachers she worked with* when she was the one providing the feedback to them; this experience opened up a new perspective for this LE candidate.

Finally, as the LE candidates assumed increasing responsibility for the facilitation and leadership of the videotaped lesson conversations, they recognized developing areas in their leadership skills. For example, one candidate explained that they had *more experience and knowledge of resources than [she] realized*. Again, this candidate's statement demonstrates different characteristics associated with the three levels of reflection. These comments could be associated with the LE candidate's thought processes that were related to the levels of reflection Shanahan et al. (2013). In addition to gaining more content and pedagogical knowledge, one LE candidate also described *how her confidence grew* and how *she became more aware of the language she used with her peers* during these conversations. (Figure 2). It was comments such as this from LE candidates that highlighted how the distributed leadership model became integrated into this course. This course was designed to facilitate the leadership opportunities for the LE candidates in supportive environment (Morewood, et al, 2017, 2019). The system allowed for the LE candidates to progress into the role of literacy leadership through structured interactions (Spillane, 2005).

## Implications and Future Research Areas

Our work in the *Literacy Intervention II* course prompted us to reflect on the impact beyond the boundaries of this specific course. These theoretical frameworks were applied to a clinical/intervention course in an advanced degree program that was content specific (i.e., a Master of Arts Reading Specialist certification program). Three areas that require further exploration with how these constructs can be applied to courses and teacher development outside of this context are teacher education planning, specifically in online instruction, and literacy leadership.

## Teacher Education Planning

Teacher education programs must have a solid theoretical base guiding program decision making. We strategically intended to explore how the theoretical constructs that supported our LE program impacted the candidate's learning. Using several different concepts (e.g., GRR model, effective characteristics of professional development, CoI, and *Standards 2017*) we were able to ground the instructional design and facilitation of this program work into our A3 model for effective instruction. These conceptual pieces guided our planning for online course development and kept the focus of this course on-point. For example, as this course was developed, we often revisited the different frameworks to make sure our instructional design and facilitation of the course aligned with these underpinnings using an innovative approach. This generated deep discussion among faculty, which enhanced our understanding of the direction and outcomes our fully online program.

In addition to the aforementioned frameworks, we also included one additional theoretical concept in this course that was specific to reflective practice. This decision was made because we noticed that in many other courses, we required the LE candidates to reflect on their practice but did not provide much guidance on how to do to this in an effective way. Shanahan et al's (2013) levels of reflection provided a practical model for the LE candidates to use as they reviewed their instructional videos. At first, the LE candidates relied heavily on these levels when reasoning through their videos. Then, as time went on the candidates were less explicit about naming the level of reflection they were speaking to, but still included the content of each level. The GRR model (Pearson & Gallagher, 1983) can be seen in their use of the levels of reflection when talking through their videos, suggesting that those working in teacher education must provide explicit theoretical models for teacher education candidates and practicing teachers to use in their learning.

In this course, the feedback cycle was driven by both the instructor and the LE candidates' peers, justifying that active engagement in th course was an absolute necessity in this online environment. The feedback cycle and the active learning by the LE candidates generated a variety of synchronous interactions for each LE candidate. These varied interactions allowed for social capital to prosper- even in an online environment (McBrien et al., 2009; Morewood, et al. 2017, 2019). The instructional design of this course was grounded in different frameworks that aligned to the social constructive perspective and supported LE candidate's learning and leadership through different social interactions while releasing the responsibility of feedback facilitation to them (i.e., GRR model) (Pearson & Gallagher, 1983). Using the theoretical A3 model of Morewood et al. (2017,

2019) demonstrated how the characteristics of effective professional development (Desimone, 2009) and the three presences within the CoI (Garrison et al., 2000) supported the LE candidates' opportunities for literacy leadership.

As teacher educators, we must continue to research how theoretical constructs and perspectives influence our instructional planning and course design. Additional research is needed demonstrating what theoretical models are being used, how these theoretical constructs are being implemented, candidate learning in response to these theoretical underpinnings, and how LE candidates transfer program/course experiences to their RS roles. Literacy educators must continue to conduct research in these areas so that we can effectively prepare RS.

## Literacy Leadership

Throughout the *Literacy Intervention II* course, the LE candidates were supported when building their content knowledge, reflecting on their pedagogy, and implementing different literacy leadership skills. The guiding frameworks of the GRR model (Pearson & Gallagher, 1983), the CoI (Garrison, Anderson, & Archer, 2000), and the distributed leadership model (Spillane, 2005) provided the LE candidates with opportunities to experience literacy leadership through a supportive online environment. The comments provided by the LE candidates suggest that they were able to further their literacy expertise and became more confident in their leadership skills throughout the course. The LE candidates also indicate that they implemented their literacy expertise and leadership skills into their schools when taking on the role of a RS.

Research in the area of literacy leadership needs to continue so that literacy educators can continue to adapt their instruction to meet the ever-changing role of literacy leaders. We need literacy leaders in our schools and communities to build the bridges to and for literacy by informing others of best practices and advocate for effective literacy learning opportunities for all students. Research must be conducted on the topics and challenges that literacy leaders engage in and how they navigate the ebb and flow of the literacy education landscape.

Our work as a RS preparation program interested us in how the theoretical models of the GRR model and A3 model supported the interactions for active learning across the three presences the CoI in this online environment (Garrison et al., 2000; Morewood, et al. 2017, 2019; Pearson & Gallagher, 1983) impacted the learning experience of our clinical/intervention course. We were able to make some observations throughout the course and align what we noticed with aspects of different learning concepts, theories, and frameworks. This is what led us to more questions, which we intend to pursue as next steps.

The next logical step seems to be to conduct research to explore how these frameworks impact the practices of literacy leaders across a variety of contexts. We also see a need to continue to develop the literature around effective online instructional practices by researching and comparing video-analysis procedures used in face-to-face instruction with those used in online contexts. Finally, as a research team we plan to extend the use of our A3 model to online courses that are not practica/field-based, but rather focus on literacy content knowledge. We feel it would be interesting and important work to align the A3 model to courses that focused on building content knowledge, as well as, application courses. We are hopeful tha the research paths provided here will engage other researchers in the areas of effective online instruction, literacy leadership through the use of video analysis.

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# DISSERTATION RESEARCH AWARD

# Middle School Librarians' Perceptions and Promotion of Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Books

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**Abstract**

*This study was a sequential explanatory mixed methods study. The quantitative data were collected first showing the school library databases of lesbian, gay, bisexual, transgender, and questioning (LGBTQ) book holdings. The qualitative data, which were collected second, came from interviews with middle school librarians in the same school district. Librarians were interviewed regarding their years of service, perceptions on the LGBTQ book holdings available in their campus libraries, purchasing of LGBTQ books, professional development opportunities, cataloging, promotion of LGBTQ books, and strategies that can be used to improve access to LGBTQ books for young adults in school libraries. Two instruments were used, which included an LGBTQ book list and interview responses from school librarians. The findings support those of previous research indicating that there is an overall difficulty in finding LGBTQ-related books that students can identify with (Jennings, 2006; Kosciw, Greytak, Zongrone, Clark, & Truong, 2018; Linville, 2004; Whelan, 2006).*

## Introduction

Nine million Americans, approximately 3.5%, identify themselves as being lesbian, gay, bisexual, or transgender (Gates, 2011). Three million gay, lesbian, and bisexual youth are coming out as early as middle school, and 20% of all adolescents have some degree of same-sex orientation (Savin-Williams, 2006; Whelan, 2006). Given the statistics regarding lesbian, gay, bisexual, transgender, and questioning (LGBTQ) individuals, the LGBTQ topic impacts millions of Americans.

According to the Gay, Lesbian, and Straight Education Network's (GLSEN) executive director, Eliza Byard, LGBTQ adolescents have continued to experience on-going homophobic and transphobic harassment in schools (Kosciw, Greytak, Giga, Villenas, & Danischewski, 2016), and some LGBTQ adolescents experience rejection, depression, suicide, and prejudice (Blackburn & McCready, 2009; Kosciw et al., 2018; Wilson, 1984). In a national study conducted by GLSEN in 2017, found that 70.1% of students reported being verbally harassed because of their sexual orientation, 28.9% were physically harassed, and 59.5% of LGBTQ students felt unsafe at school because of their sexual orientation. Almost 60% of LGBTQ youth did not feel safe in schools (Kosciw et al., 2018).

Middle school LGBTQ students continue to experience higher rates of victimization, and they are less likely to have access to LGBTQ-related resources and supports (Kosciw et al., 2018). Kosciw and colleagues (2018) added that students from schools in the South, Midwest, and rural areas were least likely to have access to LGBTQ-related resources and more likely to have negative school experiences than students in the Northeast and West.

Researchers have suggested ways to create supportive educational environments for LGBTQ adolescents (Black & Underwood, 1998; Elze, 2003; Kosciw et al., 2018; Treadway & Yoakum, 1992). LGBTQ students report better school experiences and academic success when they have LGBTQ-related school resources (Kosciw et al., 2018) like fiction that reflects the experiences of gay and lesbian youth and posters and brochures that offer positive images of gay, lesbian, and bisexual adolescents (Elze, 2003).

LGBTQ students, or those with loved ones who are LGBTQ, have a difficult time finding relatable books (Jennings, 2006; Kosciw et al., 2016; Linville, 2004; Whelan, 2006). One way to create a safe and affirming learning environment, especially those students who live in the South and Midwest, is to increase access to LGBTQ-related resources in school libraries (Kosciw et al., 2018).

This study has the potential to help school librarians and district administration recognize the current state of LGBTQ-themed books within their school libraries and what they can do to encourage a climate of tolerance and acceptance within their schools (Garry, 2015; Whelan, 2006). If school librarians improve book selections of LGBTQ literature, LGBTQ students could thrive and excel in safe, nurturing environments (L. B. Alexander & Miselis, 2007; Kosciw et al., 2016; Rauch, 2011).

# Theoretical Framework

The researcher used three main theories to examine the availability of LGBTQ books in middle school libraries and middle school librarians' perceptions and promotion of LGBTQ books.

## Critical Theory

Critical theory is a multi-layered theory with diverse themes and approaches that focus on "interpretation and meaning; and a concern with domination and power, as a precursor to critique and social change" (Kent, 1999, p. 67). Today, individuals use critical theory to give voice to marginalized populations to empower them and expose biased structures and socialized texts (D. R. Alexander, 2009). The researcher used a critical theory lens and examined who has the power when it comes to LGBTQ-themed books in public school libraries and if there is a domination of power between students and librarians and a domination of power between librarians and school districts. Individuals could use the results from this study to help marginalized populations, like LGBTQ students, expose the biased structures found within the public school library system if any are present. Librarians can also tell their stories and voice their concerns, if any, regarding LGBTQ-themed literature.

## Maslow's Hierarchy of Needs

Maslow (1943) believed that human actions are unified by direction toward goal attainment. Most human actions represent the striving to satisfy needs, which he believed to be hierarchical. Lower needs like food, air, water, and safety must be adequately satisfied before higher-order needs like belonging, esteem, and self-actualization can be fulfilled. It is the belief in the self, or lack thereof, that makes a difference in how competent adolescents feel. Teachers need to create a safe, non-threatening learning community in that students feel comfortable participating and develop confidence that they can learn to achieve high academic

standards (Sturtevant, Boyd, Brozo, Hinchman, Moore, & Alvermann, 2006). One way that educators can achieve this is by providing books that represent the students who are enrolled within the schools they serve. The present study looked to see if the needs of LGBTQ students were being met. In the interviews, each librarian was provided the opportunity to describe her library, its books, and resources that could bring a sense of belonging and self-esteem to LGBTQ students.

## Caring Theory

Caring, nurturing relationships are as critical to the learning experience as aspects of human growth and development (Beck, 1994; Noddings, 2013). Noddings (1995) stressed that care must be taken seriously as a major purpose of schools; that is, educators must recognize that caring for students is fundamental in teaching and that developing people with a strong desire to care is a major objective of responsible education.

School districts can use the current study to recognize whether their libraries are adequately caring for LGBTQ students. By looking through a caring theory lens, the present researcher hopes to bring light to the needs of LGBTQ youth and recognize that by placing their needs first, the district will show them they are not alone.

# Methodology

Two research questions were used to guide this study. Research Question #1: How many LGBTQ-themed books do middle school libraries have available for students to check out? Research Question #2: What are middle school librarians' perceptions on the LGBTQ book holdings of their libraries and how do these librarians promote LGBTQ books to students?

This study was conducted in a public school district located in northeastern Texas. Approximately 56,000 students attended, with 12,700 students attending middle school as sixth-, seventh-, and eighth-graders across the district. The school district was purposefully chosen as it is one of the largest within the state of Texas, which would have enough numbers for capturing a clearer picture of the phenomenon. A purposeful sampling method was used. Six of the 12 middle-school librarians working within this school district agreed to be interviewed. Basic information, such as years of library experience, library certification credentials, and years in their current libraries, was collected at the beginning of the interview.

**TABLE 1**
**Demographic Profiles of Participants**

| Participant | Gender | Years as Librarian | Certified? | Year Certified | Years at Current Library |
|:---:|---|:---:|:---:|:---:|:---:|
| 1 | Female | 34 | Yes | 1984 | 30 |
| 2 | Female | 11 | Yes | 2008 | 1 |
| 3 | Female | 22 | Yes | 1996 | 22 |
| 4 | Female | 25 | Yes | 1993 | 11 |
| 5 | Female | 3 | Yes | 2011 | 3 |
| 6 | Female | 11 | Yes | 2007 | 5 |

The quantitative data were used to answer Research Question 1 and were obtained from an online web search of LGBTQ-themed young-adult books from 12 middle school libraries located in one public school district in northeastern Texas. The researcher used the qualitative data to answer Research Question 2. These data were from the in-depth interviews with six of the 12 middle-school librarians in this district. The interviewer allowed for in-depth responses and gave these school librarians a voice (Creswell, 2012).

Two instruments were used for this study. They included the LGBTQ book list to answer Research Question 1, which provided the quantitative data. The interview questions were used to interview six school librarians to answer Research Question 2, which provided the qualitative data.

For this study, a modified version of an LGBTQ book list created by Garry (2015) was used to determine LGBTQ library holdings. The modified book list contained 28 LGBTQ books. The modified list contained 24 top-scoring books from Garry's book list as well as four books from the Lambda Literary Award-winning books under the category of LGBT Children's and Young-Adult from 2014, 2015, and 2016, which were added. Modifications were done at the suggestion of Garry, who created the original list of books. Regarding data analysis, each library was given a unique identifier of an assigned letter. Each book title was searched in each database. Then a spreadsheet was used to show that LGBTQ books from the book list were found in each library using a simple tally. The tally marks were used to show a total number of holdings of LGBTQ books.

Ten interview questions were created by the researcher using the literature review research. The researcher used the first three questions to gather much needed demographic information about the participant librarians. The next seven questions were open-ended questions that were used to answer Research

Question 2. The interview comments were uploaded to research software MAXQDA and examined for commonalities and grouped into like ideas and the ideas developed into themes.

## Interview Questions

Demographic Information

1. How many years have you been a librarian?

2. Are you a certified librarian? When did you become certified?

3. How long have you worked at this school library?

4. Interview Questions to Answer Research Question 2

5. A list of 28 high-quality, LGBTQ-themed books was searched for in your library catalog. Per the results, (insert number of books) of the 28 LGBTQ-themed books were found. Are you aware that these books exist in your library? If so, can you tell me more about these books and if you have other books that are geared toward LGBTQ students?

6. Were you the purchaser of these books and if so, can you tell me more about the purchasing of these books?

7. In what ways do librarians have opportunities to explore and discuss LGBTQ books as part of their professional development?

8. How are LGBTQ books catalogued in your school library and how does the cataloging affect access to them?

9. How do you promote these books?

10. How do students who might want books on this topic find them?

11. What strategies can be used to improve access to LGBTQ books for young adults in school libraries?

## Findings

The first phase consisted of examining the district databases of all 12 middle school libraries and comparing the results to the LGBTQ book list. Frequencies of total holdings for each book from the modified LGBTQ young-adult book list are in Table 2. It also has the number of times a title appeared in each of the online school library databases. As seen in Table 2, there were few LGBTQ books found in these public middle school libraries for students to check out.

**TABLE 2**
**Frequencies of Total Holdings for Each Book from the Modified LGBTQ Young-Adult Book List**

| Book Title | | | | | | Public School Libraries | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | Total |
| I am J | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Beauty Queens | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| The Perks of Being a Wallflower | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Naomi and Eli's No Kiss List | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Athletic Shorts | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| Five, Six, Seven, Nate!* | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 5 |
| Eight Seconds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| If You Could Be Mine* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Annie On My Mind | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Fancy White Trash | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| George* | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| King of the Screw-Ups | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 |
| Will Grayson, Will Grayson | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| The Geography Club | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jack | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Tricks | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Becoming Chloe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Love is the Higher Law | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Two Boys Kissing* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ash | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 5 |
| Shine | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Luna | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| What Happened to Lani Garver? | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Love Rules | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rainbow Boys | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| One of Those Hideous Books Where the Mother Dies | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 8 |
| Parrotfish | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 13 | 2 | 4 | 1 | 2 | 6 | 3 | 7 | 0 | 1 | 3 | 42 |

*Note.* The book titles with an asterisk were added and replaced the lowest scoring books from Garry's 2015 LGBTQ Book list.

The second phase consisted of examining the data from an embedded interview question that could address the results of the database search. This was added because previous researchers suggested that further research would be beneficial by talking to school librarians and allowing them to tell more of a detailed story than just an analysis of the holdings alone (Coley, 2002; Hughes-Hassel, Overberg, & Harris, 2013). Thus, the following question was asked:

> A list of 28 high-quality, LGBTQ-themed books were searched for in your library catalog. Per the results, (insert the number of books) of the 28 LGBTQ-themed books were found. Are you aware that these books exist in your library? If so, can you tell me more about these books and if you have other books that are geared toward LGBTQ students?

Participant 1 and 3, she made it very clear that the books on the LGBTQ book list were for high school level students and would not fit the criteria for middle schools in this school district. Thus, the search of the database using the book list of the 28 high-quality books was still referenced in subsequent interviews, but more emphasis was placed on part two of that question, "What other books do you have geared toward LGBTQ students?"

After Participant 1 walked over to the database and typed in the search term "gay," 15 books were found. The researcher did a further search with the words "lesbian," "bisexual," and "transgender." Three books were found with the search of "lesbian," zero books were found with the search of "bisexual," and one was found in the search for "transgender." Thus, the researcher went back to the online databases before the next interview and searched the holdings for books under the same categories that Participant 1 had searched. This was done because the researcher wanted to show a more accurate representation of LGBTQ-themed books in these databases. Table 3 shows the frequencies of

total holdings for books in each library database using the LGBT categories and shows that more books were found. The researcher found this information significant because it gave a better representation of books found in the middle school libraries.

After reviewing all interview transcripts and the database searches for keywords, the category "homosexual" was added in a second search because of the frequency count of the word found online. According to GLAAD's media reference guide regarding terms to avoid, individuals are urged to avoid the term "homosexual" based upon its clinical history of being used to aggressively describe people attracted to members of the same sex as diseased or psychologically and emotionally disordered (GLAAD, n.d.). Although the term "homosexual" is offensive and should be avoided in writing and conversation, the present researcher used the search term to show that this category is still being used within library databases to categorize books.

The researcher decided to add all 12 libraries to the search list to give a more accurate result of book holdings. Table 4 shows the frequencies of total holdings of books searched by using categories lesbian, gay, bisexual, transgender, and homosexual in all 12 libraries after interviews were completed.

**Final findings.**   Four months passed between the first online search using LGBT categories and the second search using LGBTH categories. It was surprising to note that all six libraries whose catalogs were searched grew in their LGBTQ-themed book holdings after interviews took place. After the librarian interviews took place, more LGBTQ-themed books were added districtwide.

**TABLE 3**
**Frequencies of Total Holdings for Books Searched by Using LGBT Categories During the Six Interviews**

| Category | A | B | D | F | G | I |
|---|---|---|---|---|---|---|
| Lesbian (L) | 3 | 9 | 0 | 1 | 14 | 6 |
| Gay (G) | 15 | 31 | 7 | 4 | 18 | 15 |
| Bisexual (B) | 0 | 0 | 0 | 0 | 0 | 0 |
| Transgender (T) | 1 | 6 | 0 | 1 | 1 | 3 |
| Homosexual (H) | | | | | | |
| Total | 19 | 46 | 7 | 6 | 23 | 24 |

*Note.* Homosexual (H) was not searched for during the initial search using LGBT categories. It was added in the second search.

**TABLE 4**
**Frequencies of Total Holdings of Books Searched by Using LGBTH Categories in All 12 Libraries After Interviews Were Completed**

| Category | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lesbian (L) | 10 | 15 | 8 | 7 | 11 | 8 | 11 | 7 | 14 | 7 | 12 | 13 |
| Gay (G) | 39 | 49 | 27 | 22 | 30 | 23 | 20 | 25 | 37 | 21 | 35 | 37 |
| Bisexual (B) | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 5 | 3 | 3 | 3 | 4 |
| Transgender (T) | 4 | 9 | 5 | 3 | 5 | 4 | 4 | 4 | 6 | 4 | 5 | 5 |
| Homosexual (H) | 10 | 27 | 16 | 10 | 16 | 13 | 16 | 15 | 19 | 9 | 14 | 12 |
| Total | 66 | 103 | 59 | 45 | 65 | 51 | 55 | 56 | 79 | 44 | 69 | 71 |

## Research Question 2

Research Question 2 asked what are middle school librarians' perceptions on the LGBTQ book holdings of their libraries and how do these librarians promote LGBTQ books to students. The responses to the last six interview questions were used. The researcher found two critical themes: (a) librarians' perceptions and reactions to students' needs and (b) librarians' perceptions and reactions regarding silence within the district. Within the first theme, there were four subthemes: (a) know and listen to the students; (b) be open-minded and gently lead them to the books; (c) be a risk-taker; and (d) organize books by genre. Within the second theme, there were three subthemes: (a) silence within the district and professional development, (b) "be careful" with parents, and (c) breaking the silence.

**Theme 1: Librarians' Perceptions and Reactions to Students' Needs.**   Four of the six librarians gave common suggestions for when approached about LGBTQ young-adult books. All of the librarians interviewed talked about what students experience while in middle school, especially with this LGBTQ topic. Participant 5 stated, "Students are struggling socially and emotionally," and "they don't want to vocalize it." Participants 1, 2, and 6 added that middle school students would feel embarrassed and scared to bring attention to themselves if they were looking for an LGBTQ book. Participants 2 and 5 added that "students are trying to find someone like themselves, someone they can relate to in the library." The librarians described their reactions to students who come to the library looking for LGBTQ resources. Participant 2 stated that she builds good relationships with the students so that they will feel comfortable asking for LGBTQ books. When describing some of the veteran librarians, Participant 5 stated, "You have some librarians that are out of touch with the kids today and that happens to the best of us."

**Subtheme 1: Be Open-Minded and Gently Lead Students to the Books.** Participant 2 talked about how librarians need to be open-minded when dealing with such a sensitive topic. Two of the librarians used the term "gentle" in their responses. They stated that it was important to be gentle with the students who come to the library and search. They went on to add that students sometimes need someone to lead them to the books. Participants 2, 4, and 5 all stated that librarians should gently "steer," "guide," and "lead" students to LGBTQ books.

**Subtheme 2: Be a Risk-Taker.** Two participants stated that they do not promote LGBTQ books in their library, two librarians were neutral, and two librarians were very vocal about this part of their role as school librarians. Even though they are silent at district meetings and do not advertise their LGBTQ risk-taking stance, they are ready to be risk-takers if they need to be. Participant 2 stated, "I have every right to give them suggestions," and "I will fight for that right." Participant 5 echoed this sentiment saying that she was okay "pushing the envelope" and "slipping books under the radar if needed." She continued to say that she pushes the envelope as far as she can without getting in trouble.

**Subtheme 3: Organize Books by Genre.** Some of the librarians recommended organizing the library by genres to help students who search for LGBTQ-related resources. Some of the librarians have started to shelve books in their library according to genre and feel this would increase the promotion of LGBTQ-themed books. Unfortunately, other librarians disagree. According to Participant 3, "People are starting to genrefy, which I have not done yet. There is really no good way other than having it in the catalog." Participant 1 had the same thought, stating, "You will find other librarians doing it, but I steer away from it because I am the old lady."

**Theme 2: Librarians' Perceptions and Reactions Regarding Silence within the District.** This theme was developed around questions five and six of the interview questions. Four sub-themes were found.

**Subtheme 1: Silence within the District and Professional Development.** When participants were asked in what ways do librarians have opportunities to explore and discuss LGBTQ books as part of their professional development all six librarians indicated that these opportunities do not exist in the district. Participant 2 added, "It's a conversation that is undercurrent. Along with abortion and teen pregnancy, it is not something they want to talk about, and it is controversial, and it is unfortunate." Her reaction to the lack of discourse joins suit with other librarians in the district. They are staying silent

as well. Two librarians go so far as not to promote the books at all. Participant 6 was confident when she added that if they brought the LGBTQ topic up with the director, the director would be willing to add some sort of professional development, but only a small group would probably attend, and some would not be interested at all. She was correct, as only four of the six librarians said they were willing to attend staff development on the issue. Participant 5 said, "Do I think we need to do a little bit more for it, yes." Participant 4 agreed. "No, I have never seen any, but I would be willing to listen. Quite honestly, this is a very conservative patronage

**Subtheme 2: "Be careful" with Parents.**    A common theme discussed by the librarians interviewed was the interactions they have with parents. Participant 5 stated that, students change but parents change too. In sixth-grade, they try to protect them a whole lot, and they are hoverers, and they are starting to let them go a little bit more by the time they hit eighth-grade. Parents still see their kids as babies, and some of them are not super accepting. Participant 2 echoed the reaction from parents when she said, "I just buy them and don't make a big fuss about it in my building because you know when you are working in a suburban school district, you will have parents that will complain if they hear about it." Because she had such a negative experience with a parent, Participant 3 decided not to promote LGBTQ resources and stay silent.

**Subtheme 3: Breaking the Silence.**    During the interviews, the researcher noticed that four of the librarians were very apprehensive about the LGBTQ topic and there were several awkward silences during the interview while the six questions were being discussed. However, two of the librarians were very open and spoke candidly about the practices within their library regarding LGBTQ-themed books. Others were very careful to mention district policy, especially choosing books that were peer-reviewed.

One thing that the researcher did not expect was the librarians also told stories about LGBTQ students who used to be patrons in their libraries. Participant 1 talked about a boy named Jose (pseudonym) and Participant 3 talked about two library aides who were transgender and how it was easier for them to buy their own books instead of checking out in the school libraries. The participants showed an openness to talk about past students, and two even commented on a willingness to do things differently if they had the chance.

## Recommended LGBTQ Material

During the study, an additional question was added after the first interview, because the researcher found that the LGBTQ books suggestions on the modified

**TABLE 5**
**Recommended Books, Authors, and Other Suggestions for Middle School Libraries by Interviewed Librarians**

| Recommended Books | Authors | Other Suggestions |
|---|---|---|
| Best Man | Richard Peck | Destiny Quest |
| Beyond Magenta: Transgender Teens Speak Out | Susan Kuklin | Novelist |
| Dairy Queen | Catherine Gilbert Murdock | Tidal Wave |
| Evolution, Me, and Other Freaks of Nature | Robin Brande | |
| I Am Jazz | Jessica Herthel | |
| Leah on the Offbeat | Becky Albertalli | |
| Lily and Dunkin | Donna Gephart | |
| Proxy | Alex London | |
| Ramona Blue | Julie Murphy | |
| Simon vs. The Homo Sapians Agenda | Becky Albertalli | |
| The Fight | Elizabeth Karre | |
| The Shadowhunter Chronicles | Cassandra Clare | |
| The Perks of Being a Wallflower | Stephen Chbosky | |
| Will Grayson, Will Grayson | John Green, David Levithan | |

book list from Garry (2015) were geared more toward high school students. The librarians were asked if they had any LGBTQ book recommendations for middle school students and other middle school librarians. Table 5 lists the 15 books that were suggested with authors.

## Discussion

The findings revealed that the middle school libraries had very few of the books that were listed on the modified LGBTQ book list. Furthermore, the findings of this study are supported by previous research indicating that there is an overall difficulty in finding LGBTQ-related books that relate to students' lives (Jennings, 2006; Kosciw et al., 2018; Linville, 2004; Whelan, 2006).

While exploring previous research, the researcher revealed little in the way of publications focusing on the perceptions and reactions of school librarians to students' LGBTQ-themed book needs. The researcher revealed a need for

librarians to know and listen to the students they serve within their libraries. Librarians must take the time to talk to students and form relationships.

There needs to be more professional development when dealing with the topic of LGBTQ-themed books and with parents. The researcher showed the need to break the silence regarding LGBTQ-themed books within the schools and the district. It was silence among the librarians that was most prevalent. The lack of LGBTQ-themed books within the libraries plus the lack of professional development and discourse within the district showed how seriously the LGBTQ topic had been neglected.

LGBTQ students need comfort and encouragement, and by providing LGBTQ-themed books and promoting them, a climate of tolerance and acceptance could start to form (L. B. Alexander & Miselis, 2007; Kosciw et al., 2018; Martin, 2006; Rauch, 2011). Information found in this study could also be used to create fact sheets containing statistical information offering a foundation of communication for teachers, administrators, and district personnel (Wallace & Clark, 2006).

It is also anticipated that this study could be referenced by other secondary librarians regarding the suggested books, authors, and other recommendations in Table 5. Five of the six librarians suggested books that would pass this district's guidelines for school libraries. The librarians from this study could give other librarians a starting point for building a supportive library with LGBTQ-themed books.

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# Keynote Speaker, College Literacy Division

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# Building Bridges: Connecting Children's Literature with Mathematics and Science Instruction

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## Abstract

*Elementary teachers struggle to maximize instructional time, devoting most of the day to language arts literacy and mathematics, since these are the two areas that must be assessed in grades 3-8, as mandated by Every Student Succeeds Act of 2015. Consequently, science often takes a back seat. In this article, the importance of student learning through making connections between disciplines is discussed. Suggestions are made on how to use children's literature to enhance both science and mathematics instruction, while also addressing important language arts skills, many of which are identified by the Common Core Standards.*

*Keywords*: maximizing instructional time, children's literature, science and math instruction

## Introduction

The National Center for Educational Statistics has published reports documenting how many minutes are spent on each subject in grades 3 and 8. The report acknowledges that Grade 3 is considered to be a milestone year, as students often

begin to take mandated accountability assessment tests (May, Perez-Johnson, Haimson, Sattar, & Gleason, 2009). On average, third-graders in both public and private schools spent a greater amount and a larger percentage of time on instruction in English, followed by mathematics, than on any other subject (Hoyer & Sparks, 2017). In Table 1, details are given as to how many minutes are spent on each subject. This makes sense, because the Every Child Succeeds Act (ESEA) requires that, in order to receive federal funding, state agencies must implement statewide assessments in English Language Arts and mathematics every year from third to eighth grade (Economics Commission of the States, n.d.). However, it leaves elementary teachers with a dilemma- how to maximize instructional time. Twenty states have adopted the *Next Generation Science Standards* which require students to explore and discover science, rather than just memorize vocabulary words and read about it. So how does a teacher find time to teach science and reinforce mathematical concepts?

Using children's literature to engage students while addressing multiple learning styles is the answer. Some children enjoy reading, and dislike science or math. Others enjoy hands-on science and using manipulatives to learn math, but dislike reading. Using a book that may reinforce or introduce a concept in science or math is a win-win situation. "When we read to a child, we're sending a pleasure message to the child's brain. You could even call it a commercial, conditioning the child to associate books and print with pleasure" (Trelease, 2013, p. 6). Today, neuroscientists have evidence that reading is one of the experiences that actually influences the way young brains develop- that is, the way the brain's circuitry is "wired" (Shore, 1997, p. ix).

Students connect what they learn to what they already know, interpreting incoming information, and even sensory perception, through the lens of their existing knowledge, beliefs, and assumptions (Vygotsky, 1978). In fact,

**TABLE 1**
**Average Number of Minutes per Day Spent Teaching Each Subject in Self-contained Classes by Grade Levels**

| Subject | Number of Minutes Grades K-3 | Number of Minutes Grades 4-6 |
|---|---|---|
| Reading/Language Arts | 89 | 83 |
| Mathematics | 54 | 61 |
| Science | 19 | 24 |
| Social Studies | 16 | 21 |

*Note.* (Banilower, Smith, et. al, 2013)

there is widespread agreement among researchers that students must connect new knowledge to previous knowledge in order to learn (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010). However, the extent to which students are able to draw on prior knowledge to effectively construct new knowledge depends on the nature of their prior knowledge, as well as the instructor's ability to harness it (Ambrose et. al., 2010). That is why it is so important for teachers to help students make these connections. "The brain's need to constantly connect new knowledge and find new patterns can be facilitated by teachers introducing activities where students have to seek deep meaning- to compare, contrast, and classify" (Clarke & Pittaway, 2014, p. 248).

Figure 1 illustrates the concept of making connections. Cooper (2016) reiterates that knowledge alone is not useful unless we can make connections between what we know. He states, "Aside from physical connectivity in the brain, being able to make connections between <u>ideas and knowledge we hold in our memories</u> can help us to think more creatively and produce higher quality work (Cooper, 2016).

Interdisciplinarity has its roots in constructivism. (Foss & Pinchback, 1998). It is attuned to the way that people actually think, perceive, and learn new information in the real world (Foss & Pinchback, 1998). Learning occurs best
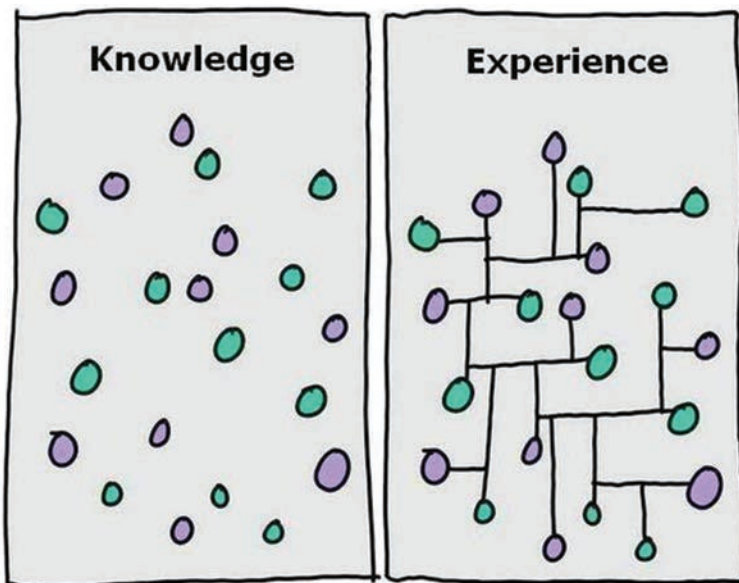


**Figure 1**  Making Connections (Hugh Macleod, 2014, cited in Cooper, (n.d).

when students make connections between their previous knowledge and current learning, when students are actively engaged in learning processes, and when students work together with their peers and teachers (Brooks & Brooks, 1993).

## Children's Books and Mathematics

Using children's books to teach math can "provide a meaningful context for mathematical content, promote the development of number sense, promote critical thinking, build problem solving skills, and increase the level of interest" (Cox, J., n.d). Seeing a math term or a science vocabulary word in print makes the word more meaningful.

For example, *The Greedy Triangle*, written by Marilyn Burns, is an entertaining book about a triangle who visits the shapeshifter and becomes many other shapes with more sides and angles. What a great way to introduce polygons, angles, and geometry! The book explores how we see polygons in many areas of life. As we know, life is not made up of time blocks divided into math content, social studies, English, reading, or science. Making connections between the disciplines makes more sense and provides coherence. "When students are engaged in learning, whether they are taking part in the arts or role playing in a micro society, they do well in seemingly unconnected academic arenas" (Drake & Burns, 2004, p. 7). Interdisciplinary teaching helps students make connections, gain deep understandings, generate meaning, and apply knowledge, skills, and experiences in real life.

Integrating curriculum means making connections. "Making connections among the various areas of the school curriculum will help students see the interrelationships among them and strengthen learning in each. Students learn more quickly and retain learning longer when they see how new information and/or experiences relate to what they know and how the parts of learning relate to a broader context-in this case-the total school curriculum" (Met, 1998, p. 138).

In public schools in Asheville and Buncombe, North Carolina, teachers deliver the core curriculum through the arts, an approach based upon the research report *Champions of Change: The Impact of the Arts on Learning* (Fiske, 1999). Students learn math skills and explore the solar system through clog dancing and modern dance. This report offers clear evidence that sustained involvement in particular art forms—music and theater—is highly correlated with success in mathematics and reading (Fiske, 1999). In another school in New Haven Connecticut, students participate in an after-school program modeling a micro society, where they hold jobs, are accountable for paying taxes, run businesses, and create and uphold laws. As a result, the school raised its average test scores two and a half levels in math and one and a half levels in reading (Drake & Burns,

2004). The examples highlight the potential of integrated curriculum to act as a bridge to increased student achievement and engaging, relevant curriculum.

For science, the pedagogical justification of the inclusion of the arts in the science curriculum lies in the possibilities that the arts offer for engagement through multiple intelligences and learning styles, immersion, prolonged creativity, cognitive skills such as observation and classification, brain growth, and change of perception (Stivaktakis & Krevetzakis, 2018).

One thing a teacher never wants to hear is a student saying, "Why do we need to know this?" By using an interdisciplinary approach, such as reading and art to teach math, students may realize that math is everywhere. Jon Scieska (1995) brings this concept to life in his book *Math Curse.* The main character in the book discovers this when just figuring out what to wear, or what time to get ready for the school bus, becomes a math problem. What a creative way to have students appreciate that math, is indeed, everywhere.

Other benefits of using children's books to teach math is that students can see math vocabulary in print, and not just orally or on the board when teachers discuss a problem. Students who don't enjoy reading but like math may find reading more fun if the book is about math. Finally, students who love to read but do not like math can be exposed to concepts in the format they enjoy more. Children's literature can make mathematics more interesting, engaging and applicable to real-life situations. Children's books can pose a problem, prepare for, explain, or reinforce a math concept or skill. Books such as *Quack and Count* (Baker, 1999), *Ten Black Dots* (Crews, 1986), and *Dinner at the Panda Palace* (Calmenson, 1995) are just a few colorful, amusing books that involve counting and number sense, and often, these books rhyme which helps children experience the rhythm of language (Geiger, 2016).

Rhyming is an important precursor to reading. Children learn that common sounds often have common letters, which helps them with both reading, spelling, and writing. Rhyming is fun, and makes reading more fun as well! Preschool children can often "read" a book by just knowing the words that rhyme and can anticipate what word comes next. This is an important reading skillbeing able to make predictions. Rhyming also helps prepare children to eventually read with expression (Geiger, 2016).

Using a book can also provide a context or model for an activity. In *Spaghetti and Meatballs for All* by Marilyn Burns, the concepts of area and perimeter are shown in a cute story about a family reunion and finding enough room for all at the table. The book visually shows how different configurations of the tables either reduce or maximize the perimeter where people can place their chairs. It's a book that students can relate to because it demonstrates a real-world application

of the concepts. It is also a great way to introduce mathematical terms within the reading of the book, which makes these words less abstract.

> The practice of mathematics is not merely plugging numbers into an algorithm or a calculator to find a solution, nor is it just a subject in school or a set of rules to memorize. Mathematics is thinking and reasoning, solving problems, making connections, and being able to communicate ideas mathematically (Hellwig, Monroe, & Jacobs, 2000, p. 1).

The English Language Arts Core Curriculum Standards require critical thinking, problem solving, and analysis, which not surprisingly, are also mathematical skills needed.

> The Common Core asks students to read stories and literature, as well as more complex texts that provide facts and background knowledge in areas such as science and social studies. Students will be challenged and asked questions that push them to refer back to what they've read. This stresses critical-thinking, problem-solving, and analytical skills that are required for success in college, career, and life (Common Core Standards, 2020).

Communication skills are embedded in the English Language Arts standards within the listening, speaking, reading, and writing strands. In fact, there are many skill areas where the mathematical standards, English Language Arts, and Science Standards overlap. In Figure 2, it is obvious how they overlap, and in Table 2, we see a graphic form of the overlap.

Teachers, especially elementary teachers, can maximize instructional time and increase their efficacy by realizing how one concept or skill being taught encompasses several standards in these major disciplines.

## Children's Literacy Skills and Science

Just as in mathematics instruction, there are many ways literacy skills are used in science. Among them are being able to read and follow directions, read and understand text related to science themes or topics, develop analytical skills, listen to understand/interpret information given orally, participate orally in cooperative learning groups, communicate results as in writing reports and in science journals, and being able to assess understanding of science.
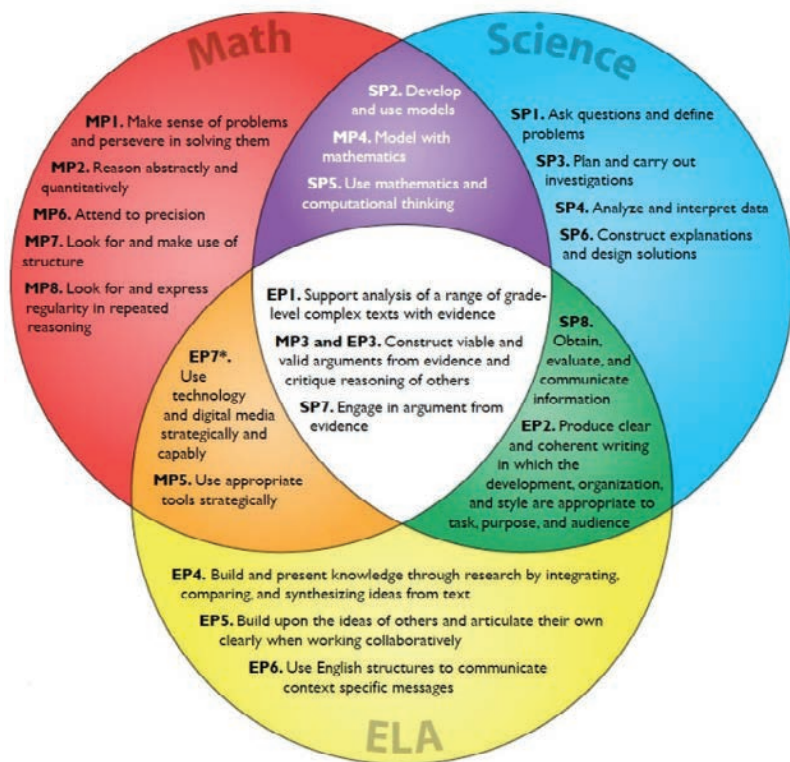
**Figure 2** Commonalities among the practices in Science, Mathematics, and English Language Arts (Cheuk, 2012)

Okhee Lee, an education professor at the University of Miami, engages elementary students in making little wind and rain machines, focusing on key concepts such as evaporation, condensation, and thermal energy. According to Lee, her students have shown "more than 100 percent gains in comprehension and writing on the Florida Comprehensive Assessment Test-FCAT" (Drake & Burns, 2004, p. 6). This was especially impressive because many of her students speak English as a second language. Lee believes that when she teaches the science concepts, she is also teaching students to think and write in the organized and clear ways required on standardized tests (Drake & Burns, 2004).

In Table 3, it is easy to see how the skills required in science are related to similar skills in English Language Arts.

**TABLE 2**
**Similarities in the Practices Across Mathematics, Science, and English Language Arts**

| Practices in Mathematics, Science, and English Language Arts* | | |
|---|---|---|
| **Math** | **Science** | **English Language Arts** |
| M1. Make sense of problems and persevere in solving them. | S1. Asking questions (for science) and defining problems (for engineering). | E1. They demonstrate independence. |
| M2. Reason abstractly and quantitatively. | S2. Developing and using models. | E2. They build strong content knowledge. |
| M3. Construct viable arguments and critique the reasoning of others. | S3. Planning and carrying out investigations. | E3. They respond to the varying demands of audience, task, purpose, and discipline. |
| M4. Model with mathematics. | S4. Analyzing and interpreting data. | |
| M5. Use appropriate tools strategically. | S5. Using mathematics, information and computer technology, and computational thinking. | E4. They comprehend as well as critique. |
| M6. Attend to precision. | S6. Constructing explanations (for science) and designing solutions (for engineering). | E5. They value evidence. |
| M7. Look for and make use of structure. | S7. Engaging in argument from evidence. | E6. They use technology and digital media strategically and capably. |
| M8. Look for and express regularity in repeated reasoning. | S8. Obtaining, evaluating, and communicating information. | E7. They come to understanding other perspectives and cultures. |

* The Common Core English Language Arts uses the term "student capacities" rather than the term "practices" used in Common Core Mathematics and the Next Generation Science Standards.

*Note.* Posted by aimsed@aimsedu.org (2017).

**TABLE 3**
**Skills Needed in Science and Literacy**

| Science Skills | Literacy Skills |
|---|---|
| Note details of experiment | Note details (characters, setting, etc.) |
| Compare/contrast | Compare/contrast views |
| Predict outcomes using data | Forecast (predict) |
| Link cause/effect | Sequence events<br>Link cause/effect in a story |
| Distinguish fact/opinion | Make inferences/draw conclusions |
| Communicate results | Link words/meanings |

An example of a classic book that is perfect for integration of language arts and science is *Stellaluna* by Janell Cannon. In this story, a baby bat gets separated from her mother and is raised by a bird family. The book is rich in vocabulary words, such as "sultry," "crooned," "clambered," "swooped," "embarrassing," "anxious," "clutched," "trembling," "limp," "peculiar," and many more. Many of

the words can express feelings or appeal to the senses, which corresponds to the Common Core Standard, ELA, Literacy RL 1.4: "Identify words and phrases in stories or poems that suggest feelings or appeal to the senses" (Common Core Standards, 2020). Others standards that can be addressed are: Common Core Standard, ELA, Literacy RL 1.6: "Identify who is telling the story at various points in a text," Common Core Standard ELA Literacy RL 1.7: Use illustrations and details in a story to describe its characters, setting, or events, and Common Core Standard ELA Literacy RL 1.9: "Compare and contrast the adventures and experiences of characters in stories" (Common Core Standards, 2020).

There are many opportunities to discuss sequence of events, predictions, and cause and effect. The illustrations provide ways to look for details to describe characters, setting, and events. The birds and baby bat become friends, even though in many ways they are different. The book provides a great springboard for discussions about friendships and accepting others' differences. "How can we be so different and feel so much alike?" mused Flitter. "And how can we feel so different and be so much alike?" wondered Pip. "I think this is quite a mystery", Flap chirped. "I agree, said Stellaluna. But we're friends" (Cannon, 1993, p. 20.)

When teaching science, there are many disciplinary core ideas that can be explored using this book. Examples include the needs of plants and animals in order to survive in a habitat, diversity of life, similarities between offspring and their parents, and structures (such as wings) that support animals' survival. In addition, some of the cross-cutting concepts identified in the *Next Generation Science Standards* include cause and effect, structure and function, systems (such as the rainforest), and patterns.

By being aware of the natural nexus between language arts literacy, science, and mathematics, teachers can maximize instructional time and students can find the connections needed to truly learn and internalize the concepts.

## What can be done to foster the building of bridges between language arts, mathematics and science?

Educators can encourage students to read literature related to science and mathematics and help students choose quality literature to further their understanding of the natural world around them. We all need to promote the cross-curricular connection between the English language arts curriculum and science and mathematics curricula. As educators, we can encourage and aid parents in choosing quality literature to enhance and extend their child's understanding of science and mathematics. We can encourage and help school curriculum planners and teachers select and infuse literature into their science and mathematics classes.

Using children's literature to enhance the effectiveness of science and mathematics instruction goes beyond simply finding connections. "Using children's literature, teachers can help their class through difficult situations, enable individual students to transcend their own challenges, and teach students to consider all viewpoints, respect differences, and become more self-aware" (Stonebanks, M. 2010, cited in Kincheloe, Steinberg, & Stonebanks, C., Eds. p. 323).

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# CAN A PICTURE ELICIT A THOUSAND WORDS? USING PHOTOGRAPHS TO FOSTER EARLY WRITING DEVELOPMENT

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## Abstract

*This study investigated the use of children's photographs—those of, selected by, or taken by children—to encourage and improve writing in a kindergarten classroom. The study involved two activities in which children's photographs were paired with their writing. For the first intervention, the children took over the classroom's daily documentation process. Each day a different child was designated the class documentarian, tasked with documenting important classroom happenings by taking and selecting relevant photographs and augmenting these photographs with written words and pictures. For the second intervention, the children wrote two small moment stories—one using a personal photographic support, the other not. When personally meaningful photographs were used, the children produced higher quality writing as measured by the Rubric for Narrative Writing—Kindergarten (Calkins, 2013b). The children demonstrated growth in their attitudes toward writing and stages of spelling development following implementation of the study interventions.*

*Keywords:* emergent literacy, early writing, photography, early childhood, kindergarten

# Introduction

Each fall, a new group of kindergarteners entered my classroom, eager to engage in real reading and writing. Despite this enthusiasm, during one part of the day—the writing block—a few children routinely stopped in their tracks, relying on individualized teacher support before beginning a new piece of writing. In a classroom usually abuzz with the movement and chatter of kindergarteners tackling the world, I found it rather unsettling to see a child quietly staring at a piece of blank paper. These reluctant writers usually required only a quick conference before they took off writing; nonetheless, any time spent waiting was time spent not writing.

In my classroom, I implemented a balanced literacy framework, which included four writing activities, each offering a unique level of support (Fountas & Pinnell, 1996). One component, writing workshop—an approach to writing that engages children in the writing process about topics of their choosing (Calkins, 2013a)—was the foundation of my writing block and received the most instructional time.

During writing workshop, I used a variety of instructional strategies to encourage children to begin writing. A method I found helpful involved using provocative picture prompts to stimulate their writing. Although picture prompts proved useful, I suspected using children's own photographs might be more meaningful. The desire to authentically utilize photographs to advance children's writing led to the formation of my action research question: How can photographs be used to facilitate writing development in a kindergarten classroom?

## Literature Review

**Using photographic methodologies with children.** The efficacy of using photographic methodologies with children in research and educational settings has been extensively reported (Allen et al., 2002; Barrett Dragan, 2008; Baskwill & Harkins, 2009; Blagojevic & Thomes, 2008; Briggs, Stedman, & Krasny, 2014; Byrnes & Wasik, 2009; Capello, 2005; Epstein, Stevens, McKeever, & Baruchel, 2006; Ewald, 2001; Marinak, Strickland, & Keat, 2010; Savage & Holcomb, 1999; Thompson & Williams, 2009). Among these reports, considerable variability existed in the precise photographic methodologies employed as well as in the factors involved in implementation. Important differences included who took the photographs—the researcher, the participant, both the researcher and the participant, or neither the researcher nor the participant—and how those photographs were used. Another important difference concerned whether the study or intervention was conducted primarily for research or educational

purposes. However, as all data was collected from published reports, which contribute to the available knowledge base, study purpose must be viewed as a continuum of contributing factors.

   ***Benefits.*** The image's power to evoke interest, emotion, and response has been demonstrated across academic disciplines and educational contexts (Barrett Dragan, 2008; Capello, 2005; Collier, 1957). Naturally curious and egocentric, children find cameras and personal photographs (both those of and taken by the child) intriguing and intrinsically motivating (Barrett Dragan, 2008; Byrnes & Wasik, 2009; Capello, 2005; Ewald, 2001; Thompson & Williams, 2009). Using a camera, technology typically reserved for older children and adults, feeds young children's desire to feel capable and powerful. When handed a camera, children receive the message that they are trusted, contributing to the growth of self-confidence and agency.

   By inviting participants into the data gathering process, photographic methodologies, especially participatory photographic methodologies, empower children by minimizing the inherent power imbalance between researcher and participant or between teacher and student (Ching, Wang, Shih, & Kedem, 2006). Byrnes and Wasik (2009) emphasized that "Having children make decisions about what pictures to take, and having them actually use the camera to take the pictures, will increase learning opportunities and make the activities more salient to the children" (p. 244).

   In research and educational settings, photograph integration can increase both the amount and quality of participants' responses (Capello, 2005; Harper, 2002; Thompson & Williams, 2009). In traditional language eliciting activities such as interviews and written compositions, children's responses are limited by their language development and memory as well as by affective factors including their familiarity with the other individuals involved (Capello, 2005). According to Capello, "Photographs may provide insights into children's perspectives and inspire expression not normally encouraged in children" (p. 171).

   This effect may be even more profound when using photographic integration methodologies with emergent bi- or multi-linguals (Allen et al., 2002; Marinak et al., 2010). Marinak et al. (2010) likened photographs to a "microphone" by explaining that "If *voice* is the capacity to convey a message from one person's mind to another's, then the child-taken photographs provided the dual language learners with 'microphones' that enhanced their ability to have their messages understood" (p. 35).

   Like the "windows" provided by culturally diverse literature (Cox & Galda, 1990; Purnell, Ali, Begum, & Carter, 2007; Sims Bishop, 1990), personal

photographs can serve as "windows," allowing members of different cultures to see into one another's lives (Allen et al., 2002; Barrett Dragan, 2008; Marinak et al., 2010; Thompson & Williams, 2009). Harper (2002) suggested photographs can form "bridges between worlds that are more culturally distinct" (p. 21).

*Challenges and risks.*   Using photographic methodologies with children is not without its obstacles. The very factors contributing to the photograph's utility in research and educational settings are also responsible for some of its greatest challenges (Torre & Murphy, 2015; Woolhouse, 2017). For example, the vast amount of information conveyed through photographs (a major factor contributing to their effectiveness) incites concerns about privacy and confidentiality, concerns that are only heightened when photographs feature children (Capello, 2005; Epstein et al., 2006; Torre & Murphy, 2015). Another challenge relates to children's inexperience with photographic media and technology. The camera's novelty, a major motivational factor contributing to the effectiveness of auto-driven photographic methodologies, means children often have had little prior practice using the technology and are less likely to experience high rates of success (Torre & Murphy, 2015).

**Integration of photographic methodologies and writing.**   Several researchers described utilizing photographs as illustrative accompaniments to student writing (Baskwill & Harkins, 2009; Lilly & Fields, 2014; Savage & Holcomb, 1999; Wiseman, Mäkinen, & Kupiainen, 2016). Although all involved the integration of predominantly child-generated photography and writing, students' final compositions varied with most involving photo essays (Thompson & Williams, 2009) or book making (Baskwill & Harkins, 2009; Lilly & Fields, 2014). In Lilly and Fields's (2014) study of a fourth-grade classroom, children created informational books, taking and using their own photographs for the illustrations, as a means of increasing student engagement while meeting national objectives for writing. Baskwill and Harkins's (2009) research also involved student book making; their study, which involved young children (four- to six-years-old) co-constructing books alongside their single mothers, had the added purpose of increasing family literacy.

**Conclusion.**   The published literature reveals, when properly and carefully implemented, photograph integration can enhance children's learning in general and writing development specifically (e.g., Barrett-Dragan, 2008; Byrnes & Wasik, 2009; Ewald, 2001; Lilly & Fields, 2014). However, far fewer accounts involved children as young as kindergarten age, likely due to the risks and challenges associated with using photographic methodologies with young children

and to the unconventional writing behaviors characteristic of kindergarten-age children. Despite these challenges, it seemed most appropriate to adapt photographic integration techniques for use in the writing curriculums of our youngest students; they too deserve the chance to enjoy the wealth of benefits this intervention affords.

# Methods

## Objective

Writing is a critical component of literacy instruction, facilitating and solidifying acquisition of important early literacy skills (Jones & Reutzel, 2015; Jones, Reutzel, & Fargo, 2010). Yet getting kindergarteners to write—much less to write eagerly and with stamina—is not always easy. Despite trying assorted instructional strategies with varying degrees of success, I continued to search for authentically meaningful and intrinsically engaging ways to encourage children's writing. I decided to capitalize on young children's innate egocentricity and need to feel powerful and important by exploring the use of children's photographs to support and extend their writing.

Previous reports, predominantly involving children in first grade and beyond, demonstrated the efficacy of using children's photographs (those of and taken by children) to improve their writing (Barrett-Dragan, 2008; Byrnes & Wasik, 2009; Ewald, 2001; Lilly & Fields, 2014; Wiseman et al., 2016). I wanted to see if the same was true when children's photographs were integrated into the writing experiences of children as young as kindergarten age. This led to the formation of my action research question: How can photographs be used to facilitate writing development in a kindergarten classroom? More specifically, I wanted to determine whether personal photograph integration improved my kindergarten students' writing performance and motivation to write.

## Participants

The study population comprised all seventeen children—eight boys and nine girls—in my chartered nonpublic kindergarten class, housed within the childcare program of a large public university in the American Midwest. All participants were five years old with no reported cognitive or physical limitations. The children were ethnically, culturally, and linguistically diverse with families coming from eight countries outside the United States. Nine children were bilingual or emerging bilingual with home languages including Arabic, Chichewa, Chinese, Farsi, Hindi, Indonesian, and Portuguese.

## Consent and Confidentiality

The institutional review board (IRB) determined that the study qualified for exempt status because it involved only instruction as usual. Although informed consent was not required, parental permission was attained according to the established protocol of the study site. To protect confidentiality, children were assigned a number that was used in place of their names in all study related data collection and analysis.

## Instrumentation

**Affective assessment.**    Owing to the profound effect affective factors exert on motivation and learning, an affective assessment was administered to elucidate children's feelings and attitudes about writing. The Writing Attitude Survey (Kear, Coffman, McKenna, & Ambrosio, 2000) was chosen because it was appropriate for primary-age children, used simple language, and was relatively brief.

The Writing Attitude Survey, which consisted of 28 questions related to one's feelings about writing, was administered to all seventeen children at two points during the study: as a pre-assessment before any project interventions were begun and as a post-assessment after all interventions were complete. The survey was administered individually or in pairs during the literacy block. On this survey, children were asked to choose which of four drawings of Garfield (very happy Garfield, somewhat happy Garfield, somewhat upset Garfield, or very upset Garfield) best matched how they felt about each question. After the directions were read aloud, the emotions represented by each picture of Garfield were discussed. Each question was read aloud, and children circled their responses on the survey.

**Developmental spelling assessment.**    The Primary Spelling Inventory (PSI) (Johnston, Invernizzi, Helman, Bear, & Templeton, 2015), a developmental, spelling-by-stage assessment, was used to ascertain children's current understandings of how words work. Designed to be used in kindergarten through third grade, the PSI was chosen for its focus on early spelling behaviors.

The PSI was administered twice—once as a pre-assessment before project interventions were begun and again as a post-assessment after interventions were complete. The PSI was administered to sixteen of seventeen children enrolled in the study. One child was absent when the pre-intervention PSI assessments were conducted and therefore was excluded from all pre- and post-intervention PSI data analysis.

The PSI was administered to groups of one to three children during the literacy block. The directions were read aloud using the script provided with the assessment (Johnston et al., 2015). For each word on the inventory, the word was read aloud, used in a sentence, and then read aloud again. To streamline data comparisons, each child was asked to spell at least the first ten words regardless of the number of errors made. After the first ten words, the inventory was discontinued in accordance with the assessment's recommendations. Only the first ten words were used in quantitative data analysis; however, all attempted words were considered when assigning a child's stage of spelling development. To aid analysis, the *Words Their Way* Primary Spelling Inventory Feature Guide (Johnston, et al., 2015) was completed for each child.

**Interviews.** For both interventions, children were briefly interviewed about selected photographs. The purpose of the interviews was two-fold: to elicit children's reflection, and to capture children's perspective and thinking.

**Writing rubric.** The Rubric for Narrative Writing—Kindergarten (Calkins, 2013b) was used to analyze and score both writing samples—no photo writing (without photographic support) and photo writing (with photographic support)—produced during the small moment stories intervention. To determine whether photograph integration influenced children's writing quality, the rubric was used to compare each child's no photo and photo writing samples.

## Data Collection

This research project involved two interventions: daily documentarian and small moment stories. These separate but related interventions ran concurrently owing to the length of time required to implement the daily documentarian protocol.

**Daily documentarian.** In my kindergarten classroom, important classroom happenings were communicated daily through photographs, work samples, and a teacher-constructed summary. Each day, the information and artifacts were displayed on a free-standing information board for the children and their parents to enjoy. For the daily documentarian intervention, my kindergarten students took over the documentation process. Each day a different child was assigned the classroom job of *documentarian*, tasked with creating the day's display by taking and writing about relevant photographs.

**Scaffolding.** Most children had little prior experience taking photographs, especially utilizing a camera instead of a cellphone or tablet. A system was developed to ensure children received adequate support without unduly

taxing the classroom teachers. While the documentarian was assisted as needed by the classroom teachers, support was also provided by the day's *teacher's helper*, another classroom job. Classroom job assignments rotated so the teacher's helper had been documentarian on the day before. This structure provided a situation in which the teacher's helper qualified as a more knowledgeable peer, fostering peer-mentorship between children.

**Procedure.** At the start of each day, the documentarian was shown how to operate the classroom's digital camera and given a few minutes to practice. The documentarian was asked to use the camera to take photographs of what they most wanted to share or what they thought was most important to remember about the day. All photographs were printed using the classroom printer, and the documentarian selected which to include on the documentation display. Before beginning the display, the documentarian was interviewed about selected photographs using one or more of the following questions:

1. Why did you take this photo?
2. Why did you choose this photo?
3. What is important about this photo?
4. What do you want people to learn from this photo?

After the interview, the documentarian, with teacher- and peer-support as needed, constructed a display board using a piece of black construction paper as the base. The child was encouraged to use written words and drawings to explain and supplement the photographs. The display was hung on the information board for a few days before being added to the classroom audit trail, a visual record of classroom learning and experience constructed over time.

**Small moment stories.** For the small moment intervention, children wrote two small moment stories—one using a personal photographic support (referred to as "photo writing") and the other not (referred to as "no photo writing"). Each small moment story was a personal narrative centered around a single event in the child's experience.

**Photographic support.** At the beginning of the schoolyear, children decorated their writing folders with personally meaningful photographs and other artifacts intended to elicit ideas for writing. Children chose one of these photographs, which acted as the photographic support, for their "photo writing" small moment story.

**Procedures.**　Children were assigned to one of two writing groups, each directed by a licensed early childhood educator. Half of each writing group started with either of the two writing activities. Once children finished their first small moment story—either photo or no photo writing—they started on their second. Children completed both small moment writing experiences in their assigned writing groups under the guidance of the designated teacher.

Each child was briefly interviewed about their selected photo before beginning the corresponding small moment story. The interview consisted of one or more of the following questions:

1. Why did you choose this photo?
2. Tell me about this photo.
3. Why is this photo important?
4. Who is in this photo? What are they doing?
5. How does this photo make you feel? Why?

While seated at small group tables with other members of their writing group, the children used drawings, labels, and words to compose their small moment stories. As was our standard practice during writing workshop, when appeals for help were made, children were reminded to stretch out words slowly and write down the sounds they hear. They were also encouraged to utilize classroom resources including an alphabet linking chart and word wall. Direct writing or spelling assistance was not provided unless a child appeared frustrated or unable to continue, and these instances were noted for inclusion in subsequent data analysis. Although different children required different levels of support, a deliberate effort was made to provide individual children with similar levels of support across writing experiences.

# Results

## Affective Assessment

The Writing Attitude Survey (Kear et al., 2000) was administered before and after implementation of all study inventions. Instrument norming data was not available for kindergarten; therefore, percentile rankings were assigned based on those established for first grade, the youngest with norming data available. Use of first grade percentile rankings was a limitation that must be considered when interpreting the percentile results.

Sixteen of seventeen children demonstrated higher scores on the Writing Attitude Survey following the study interventions. The other child demonstrated no change. As shown in Table 1, the mean raw score improved by 14.5 points and the mean percentile ranking improved by 26.8 percentage points. Children's change scores, defined as their post-intervention score minus their pre-intervention score, ranged from 0 to 33 points with a mean change score of 14.5 points.

## Developmental Spelling Assessment

To ascertain each child's level of orthographic knowledge, the PSI (Johnston et al., 2015) was administered both before and after implementation of all study interventions. For the purposes of this study, data related to the first ten words were collected and included in quantitative analyses; all attempted words were considered when assigning a child's stage of spelling development. One child was absent when the pre-intervention PSI assessments were conducted and was excluded from all pre- and post-intervention PSI data analysis.

All sixteen children with data available demonstrated higher scores on the post-intervention administration of the PSI. As shown in Table 2, mean increases were a 1.6 increase in the number of words spelled correctly, a 4.9-point increase in the feature score, and a 6.5-point increase in the total score. Children's change scores, defined as their post-intervention total score minus their pre-intervention total score, ranged from 1 to 11 points with a mean change score of 6.4 points.

## Daily Documentarian

Observational data suggested the daily documentarian intervention increased children's motivation to write. Each child appeared eager to be the documentarian. Many mornings I was greeted at the classroom door by children wanting to know who the daily documentarian would be.

The most significant finding exclusive to this intervention concerned the subjects and locations featured in the children's photographs. Most of their

**TABLE 1**
**Child scores on the Writing Attitude Survey**

| | | | Raw Scores | | | | Percentiles | |
|---|---|---|---|---|---|---|---|---|
| | n | Possible | Low Score | High Score | Range | Mean | Range | Mean |
| Pre-intervention | 17 | 112 | 69 | 103 | 34 | 83.7 | 22-94 | 58 |
| Post-intervention | 17 | 112 | 81 | 111 | 30 | 98.2 | 52-98 | 86 |

**TABLE 2**
**Child scores on the Primary Spelling Inventory**

| | n | Words Scored | Low Score | High Score | Range | Mean |
|---|---|---|---|---|---|---|
| | | **Spelling Accuracy** | | | | |
| Pre-intervention | 16 | 10 | 0 | 6 | 6 | 1.4 |
| Post-intervention | 16 | 10 | 0 | 8 | 8 | 3.0 |
| | | **Feature Scores** | | | | |
| | n | | Low Score | High Score | Range | Mean |
| Pre-intervention | 16 | | 1 | 25 | 24 | 12.9 |
| Post-intervention | 16 | | 6 | 26 | 20 | 17.8 |
| | | **Total Scores** | | | | |
| | n | | Low Score | High Score | Range | Mean |
| Pre-intervention | 16 | | 1 | 31 | 30 | 14.3 |
| Post-intervention | 16 | | 6 | 34 | 28 | 20.8 |

photographs pictured individuals working in the whole group meeting area or posed close-ups of classmates.

## Small Moment Stories

**No photo writing.** All children wrote a personal small moment story without use of a photographic support (referred to as "no photo writing"). No photo writing was the first of two small moment stories for nine children and the second of two for eight children. Using the Rubric for Narrative Writing—Kindergarten, children's no photo writings received individual scores ranging from 21 to 30.5 points with a class mean of 27.0 points. Children's corresponding scaled scores ranged from 2 to 3 and produced a class mean of 2.6.

**Photo writing.** All children also wrote a personal small moment story while using a photographic support (referred to as "photo writing"). Using the same rubric, children's photo writings received individual scores ranging from 25.5 to 37.5 points for a class mean of 28.6 points. Their corresponding scaled scores ranged from 2 to 3 and a class mean of 2.9.

**No photo writing and photo writing comparison.** Children's rubric scores were compared across the two small moment writing experiences—no

photo writing and photo writing. Children's change scores, defined as their photo writing score minus their no photo writing score, ranged from -1 to +6 points with a mean change score of +1.6 points.

## Discussion

This study explored the use of children's photographs to encourage and improve writing in kindergarten. The study involved two distinct interventions in which children's photographs were paired with their writing. Data analysis supported the efficacy of using photographic methodologies to enhance kindergarteners' writing development as well as their attitudes toward writing and motivation to write.

When personally meaningful photographs were used, the children tended to produce higher quality writing. Of the seventeen children, twelve earned higher rubric scores when writing with a photographic support, while four earned identical rubric scores across both writing experiences. Only one child received a higher rubric score when writing without a photographic support. Children also performed better on the post-intervention administration of the PSI. Although impossible to attribute their orthographic growth to photographic integration or any other single factor, all sixteen children with scores available for analysis earned higher scores on the post-intervention PSI.

This study supported earlier reports (Barrett Dragan, 2008; Byrnes & Wasik, 2009; Capello, 2005; Ewald, 2001; Thompson & Williams, 2009) advocating motivational benefits associated with integrating photography into work with children. The present study provides quantitative support to these previous reports, which relied primarily on observational and intuitive data. As measured by the Writing Attitude Survey, children exhibited improved attitudes toward writing following the interventions. All but one child demonstrated a higher post-intervention score, reflecting a more positive attitude toward writing and increased motivation to write. The other child exhibited identical scores on the pre- and post-intervention administrations. This child also had the lowest score (81 points) on the post-intervention assessment. As explained earlier, these findings must be viewed with caution owing to the absence of instrument norming data for kindergarten.

Consistent with findings from earlier studies (Capello, 2005; Harper, 2002; Thompson & Williams, 2009), the children's photographs elicited valuable information from and about them. The children's photographs, paired with their written and spoken reflections, revealed details about their lives and experiences as well as about their preferences and perspectives. During the daily documentarian

intervention, the content of children's photographs—and therefore presumably what they believed to be most important to share about the day—differed from that of the teachers. The children's photographs predominantly focused on the people in the classroom, rather than the activities or learning the people were engaged in, demonstrating the importance of interpersonal relationships to this age group. Additionally, most of their photographs were taken in our large group meeting area, our place to meet for daily community building activities.

Earlier research warned about risks associated with children's photography, including concerns related to young children's inexperience with camera technology (Torre & Murphy, 2015). Consistent with these concerns, our classroom camera, used by the children throughout the daily documentarian intervention, broke in the hands of a child. While the camera remained functional for the remainder of the intervention, it ultimately had to be replaced.

All things considered, the broken camera proved to be a small price to pay for the benefits afforded by the interventions. Integrating children's photography into the kindergarten writing curriculum increased children's attitude toward and quality of writing. Furthermore, through the interventions, I gained a valuable window into the children's lives, perspectives, and thinking.

## Limitations

This study had limitations preventing generalizability of results beyond the classroom and study population in which it was performed. The study exclusively included children from my kindergarten classroom, a population with whom I had a relationship and with demographics beyond my control. In addition, owing to the pervasiveness of literacy learning in early childhood, it was impossible to determine the extent to which findings were attributable to study interventions and not to other classroom happenings. During the study period, the children were immersed in many quality reading, writing, and language experiences, all contributing to their literacy growth and influencing project data.

## Conclusions and Recommendations

Based on my findings, I recommend integrating photography into the writing experiences of children in kindergarten. In the present study, children's photography and personal photographs fostered both their writing development and their motivation to write. I encourage educators to allow children to hold the pencils themselves as they produce their writing. During this study, the love of writing in the room was contagious as children eagerly wrote longer and longer stories and wrote unsolicited about events pictured in personal photographs.

Integration of children's photographs and writing offered a window into the children's lives, the children's perspectives, and the children's thinking. Over the course of the project, I learned to curb my assumptions, limit my comments, and trust the children's lead. As a result, I was able to learn so much about our classroom community and about the individual children within it.

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# Judy Richardson Literacy as a Living Legacy Award Spotlight

## Barrio Writers: Sharing Our Voice and Experience Through Creative Writing

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**With Barrio Writers Xander Garcia, Leonel Monsivais, and Sophie Johnson**

*The Judy Richardson Literacy as a Living Legacy Award (begun in 2003) is awarded annually to an ALER member to support a literacy-related project related to an existing need in a community or school that typically is not supported by other public or private funds. The award supports projects and work in early childhood through adult literacy. Robin D. Johnson won the award in 2018 based on her work with Barrio Writers. At the 2019 Association of Literacy Educators and Researchers conference in Corpus Christi, three of the South Texas Barrio Writers shared their voices and experiences as youth in today's society to an audience of literacy researchers and professors from across the nation. They have chosen to share their creative writing here in the 2020 ALER Yearbook as well.*

Barrio Writers (BW) is a creative writing program begun in Santa Ana, California in 2009 by Sarah Rafael Garcia. Her goal was to create a self-sufficient educational program that would represent community pride, perseverance, and endless possibilities through the empowerment of the teenage community. ("About Barrio Writers," n.d.). After training with Sarah Rafael Garcia in Nacogdoches and

participating in the inaugural Barrio Writers' week there, Johnson asked the BW founder to come to Corpus Christi and help establish a Barrio Writers' chapter in conjunction with Texas A&M University-Corpus Christi. In its first four years, #BWattheGulf, as the South Texas chapter is affectionately known, has had over fifty participants ages 13-21 that have participated in the week-long summer workshop and read their writing to a live audience at the end of the program. Themes through the years have focused on the perception of youth in today's society and how Barrio Writers can influence that in a positive way, the examination and exploration of issues of identity, and how lived experiences, community, and culture impact identity. Each day is centered around a specified time for reading and writing workshop that includes oral and written pieces of text by writers, artists, and musicians of color. At the end of each time where the Barrio Writers are given the opportunity to share their writing from the day, their audience of peers tell them what they did well in their writing and what they can improve on. The speakers are asked to stand up proudly as they read their writing and take ownership of their space and their words. These same routines are repeated during the live reading at the end of the week when Barrio Writers share the pieces they have chosen specifically for that moment. Throughout the week, when an author's work is shared with the youth, a biography of that author is also shared as a model for the youth to write their own short biography for publication. Each year, an anthology is published with all of the Barrio Writers' work from each chapter in Texas and California. Because one of Sarah Rafael Garcia's goals was for the anthologies to get into the hands of other teens and be read in schools, each chapter's writing advisors create writing activities for the published pieces co-constructed with the Barrio Writers themselves. In this article, the same format has been followed, a short biography of the Barrio Writer, their chosen pieces of text to share, and the writing activities that connect to each piece. On the final day of the workshop, the consistent theme for each chapter is one Sarah Rafael Garcia felt was important to end with – Your Voice is Your Weapon! The three Corpus Christi Barrio Writers featured here are using their words to show their creativity and bring recognition to the power that resides in the voice of today's youth. Enjoy!

## Barrio Writer: Xander Garcia

Xander Garcia is a person. Not a particularly nice or wholesome person, but that's what science classifies him as. He was born on the outskirts of Houston, Texas in 2004, but has lived almost all of his life in Corpus Christi. In one year and a decade of public education, he has managed to attend nine different schools and accomplished nothing special whatsoever. Unless nuclear warfare annihilates most or all of the United States, he looks forward to living out a successful future

full of traveling and adventure. Chew him up and spit him out as you please. It won't matter later.

## This Island of Mine

I've become lord of the flies, unfortunately I'm more naive than wise
The bottom barrel barely thinking twice about any shred of advice
a faulty code woven into a corroded membrane, producing a messed up device
pessimistic and possibly destined to become a peasant for life
Broken windows know that not everything is what people want to see
I've put up some barricades because lately it seems like people constantly bother me
Unholier than whoever takes the high road because God is watching, probably
It was your mistake to even remotely think I intend to give an apology
north or south side, city to city, never leaving this island of mine
I'm surrounded by a sea where Leviathan thrives inside the tides
I'm among winding vines hung low to cover where my true colors hide
hiking up this mountainside, the ground swallows my feet, I'm losing my mind
The same fear that only comes out at night lives inside my spine
the pressure twisting my gut comes from memories of dying countless times
But what's truly horrifying is that human nature gets to decide what's right
sometimes the only thing to be seen is a monstrous sight on this island of mine

## The Siren's Continuous Melody

Her sighs burn and crash in embers
then freeze over as the breath of phantom pretenders
joy has bowed its head in silent retreat,
the witness to a cold mind with intent of deceit
her hair reaches out the window to strangle crows mid-flight
she stares endlessly, devoid of rest in the night
on sight, her bitter company blinds passersby
their suffering becomes her answer. Why?
Look upon the shore and how it's soaking in blood
then fathom the meaning of hate and of love
and realize how entangled they really are
feel this revelation and gaze up at stars
contemplate death in the realm of the waves
and struggle against the ways promises misbehave
a song most unsettling attempts to out-sing the wind,
deafening sweet nostalgia so the past dies within

## Nothing Beats A Better Chance at Cancer for Dinner

Blind spots speckle the scrap of a brain stem I have left
the black mess that rests inside proves I'm half cursed and half blessed
certainties lie at the foot of a grave and the end of a rope
if only I had gone so far as to listen when love spoke
prove that we exist with the sense of just a few sentences
everyone plainly sees this huge mess, yet very few mention it
let in the flow of medicine to the antacids in which I let it sit
It's often I'm more stoned than a gravel road or pit of sediments
It's got to beat the alternative of living submerged in reality
although the clouds of smoke coating these lungs defy any practicality
my mind knots into shapes that mangle the brain stem I have left
I'm entangled in a trap that makes me stay half cursed and half blessed
It feels like having a plastic head, the kind that lands at the end of a rope
what a tragedy the sound landed on deaf ears when love spoke
what a tragic tale! The kind that brings you down when all else fails
read between the lines and wait for your world to swallow itself

## Gliding on Air That You Cannot Breathe In

Trust cannot be won over with a flash of teeth and contortion of cheek dimples.
It's that simple. It is possible to be won back with a full and open heart. Any
other kind of heart that tries appealing to trust is far more unwelcome than
any man or serpent would care to discover. But that isn't enough to discour-
age some from trying. Cold blood in the warm sun can only ever get burned.
Treachery can't conceal itself forever. It gives itself away while its victims are
still picking chunks of their heart from its jaws like spilled pieces of litter off
the floor. That's all you get from accepting it into your life. A part of you that
once had feeling is cleansed of its existence and shoved with a dirty boot into
the closest gutter as an inconvenience, a piece of gum clinging on to a surface
that dwarves it in value. That value is a currency without meaning beyond those
that spend it. It is worshipped as a false deity. It is spent by humans predestined
to be lacking humanity.

## Autumn On My Mind

It's this time of the year dressed in tangerine and scarlet when I realize death is
all around us. Leaves become crushed below the level of my shoelaces. Not even
THEIR beauty remains sacred after life passes. All the trees surrounded by their
fallen kin remind me that each tender day I cherish has its gravestone carved by

the following day. A whirling breeze that leans against my back reminds me that age always pushes forward, no matter what you otherwise desire. The breeze stops with an abrupt silence that chills my spine like a layer of dirt exactly 72 inches deep. That frozen moment thaws out quickly but leaves behind a puddle up to my chest which assures me of everyone's mortality. The water remains below my nose, but always rises and allows the scent of suffocation to linger always within an arm's reach. The trees wave their orange and red hands at me through the window, and immediately I sense that we are both falling apart. Is this awareness a symptom of insanity or a cornerstone of health? Is it natural or just a biproduct of maladjustment? Those leaves up there teach me that no matter how much the branches I cling to are swayed and shaken and violated by the environment, I can always fall further down.

## Writing Activities

1. What do you think the author meant by the line "Broken windows know that not everything is what people want to see" in "This Island of Mine"? During the pandemic of 2020, many people posted on social media what their view from their window was like while quarantined. Write a poem or short story about what you see (or don't see) outside your window.

2. The phrase "half cursed and half blessed" is used twice in the poem "Nothing Beats A Better Chance at Cancer for Dinner." Either use the phrase "half cursed and half blessed" as a repeating line or choose your own line to repeat in a poem you write about an experience in your life or your life in general.

3. The theme of "Autumn On My Mind" is centered around aging, death, and change. Choose a season that you would like to write about. What does that season mean to you? Use imagery and descriptive language to share the elements of the season you chose.

## Barrio Writer: Leonel Monsivais

Leonel Monsivais is thirteen years old. He is an experienced sailor. He won a trophy in the Rockport Regatta and a trophy in the Austin Regatta. He loves sailing. It is so fun! He loves playing with his dogs, Panzón and Güera. Güera is part wolf. Panzón is a Ninja who Leonel teaches parkour. He wants to be an author and an artist as a hobby when he grows up. For his profession, he wants to be a Chemical Engineer.

## Thy Cry for Seas

How cheeks touch thy sea
For brows are covered in sand
Soft sail flows through thy wind
The calm sea moves with thy wind
Sailing is an eloquent to do
How I miss the seas and wind
Make thy mind so extraordinary
Peace with the sea
Makes my heart glow
for thy cry for sailing
How I miss thy seas of goodness

## The End of London

Once there was a boy who lived in London. He was the wealthiest boy in London, but in July 2007 a terrifying attack of beasts happened to appear inside the London eye. As the beasts demolished London, the only thing that was still standing was The Big Ben, and that's where the boy lived. The boy lived inside the clock's gears; his bed was in a small crowded area. Near the gears was a small room where he slept and kept his trinkets. Yet, there was one thing that he always kept since being an only child. The boy had a key that opened a dimension from Big Ben to The London Eye. Before the beasts attacked London, the boy used the key to open a portal, but unfortunately the portal opened up to a dark shadowy place called Shi Okami. This means death wolf in Japanese. So, that means instead of opening London's portals, it was opening Japanese portals, which explains those OKAMI warrior beasts. Meanwhile, London was gone, but the beasts still continued destroying. As the boy climbed up the gears to look, when the boy finally got up to the top of Big Ben, he could see the beasts destroying the London eye. The Eye shattered until a huge black hole opened inside the Eye and sucked everything into the Eye of the black hole.

## Untitled

Hold the truths
Be self-evident
That all men are created equal.
That our endowed creator, the rights among life, liberty, and the pursuit of happiness.
Secure rights among men, deriving powers consent

That wherever any form becomes destructive
Ends evil abuses among
Those disposed to suffer.

## Writing Activities

1. Write a poem about something you have experienced, that you enjoy doing, or something that you long for using descriptive language just as the author does when he tells of his love for sailing in Thy Cry for Seas.

2. In the *End of London*, the author uses a key to open a portal to a new world. Write a short story about where you would want to open a portal to and what you would you find there.

3. The author's *Untitled* poem was written after writing advisor, Tom Murphy, shared Tracy K. Smith's "Declaration" and a writing technique known as Erasure Poetry. Choose a piece of text you like, a song, a poem, or a short story and create an erasure poem by erasing or removing words from any of the existing text. The remaining words are what make up your lines and stanzas. You may also choose to add your own words or phrases to the final poem.

## Barrio Writer: Sophie Johnson

Sophie Johnson is an artistic 15 year old who chooses to channel her creativity into acting, writing, drawing, anime, and music. She lives in Rockport, Texas and wants to become an art teacher who inspires children to find their own voice through their art.

## Squeak of Skechers
## (Nostalgia of 3rd Grade)

Your mom shaking your shoulder
Bubblegum toothpaste and puffy eyes
Stale cereal, untied shoes
Cold mornings, and hot nights

The squeak of your brand new light up Skechers
Fluorescent lights that flicker in your nightmares
The tapping of pencils against desks
Ticks from a dollar-store clock

Waiting for the bell to ring
The relief of getting out of class
Terrors of addition and multiplication tables leave the classroom with you in the
rush to recess

Rolled ankles, scraped knees, and Neosporin
Monkey bars and rusty swings too hot to sit on but you sit on them anyways
That horrid whistle beckoning you back to hell (sorry, I meant school)
Locking you away until that yellow bus, number 33, carries you home

## Strong

I am my community.

I am the waves crashing against a shoreline.
I am the fluid movements of a sundress in coastal wind, the shade of a beach
palapa blocking the scorching sun.

I am the sand between your toes.
I am the sting of a sunburn, the unreachable mosquito bite on your leg.

I am the cry of a seagull.
I am the laughter of toddlers digging for shells, the strokes of the artists' paint
brushes downtown.

I am the eye of a hurricane that no one expected.
I am the winds of a storm, the loss of a home.

I am the tearing apart of a town from the inside out until nothing is recognizable,
not even the people.
I am the salty air and your grandpa's fishing boat, the broken sails littering the
harbor.

I am the blue tarps covering the roofs.
I am the green and gold of the Pirate football team, the school rebuilding its walls.

I am the hope after destruction.
I am the volunteers who filled the parking lot of the old HEB, the mending of a
town that not even duct tape could quickly piece back together.

I am the community who didn't let Harvey win.

I am Rockport.

I am strong.

## **Writing Activities**

1. In "Squeak of Skechers," the author writes about her memories of third grade. What are some of the memories you have of a particular grade or time period in school? Use your senses to add details – What sounds do you remember? What smells filled your nose? What did you see and hear, at the beginning, middle, and end of the day? Do you remember a taste? Those can be details.

2. "Strong" began with a lifted line from community activist and writer, Wilisha Scaife's poem "I am My Community." Is there a line from an author you like, either in a poem, a song, or a book that resonates with you? Find a repeating line or a line that stands out in something you have read or heard and begin to write your own thoughts.

The Barrio Writer youth who have chosen to share their work in this year-book thank you for this publication opportunity, your support, and your belief in the power of writing. One of the parents of the authors featured here shared that Barrio Writers "reinforced in their teen the value of language, the value of writing, and the importance of poetry." They went on to add that "it was life-changing" for them, their acceptance of themselves, and their newly inspired writing habits. As an educator, opportunities that empower today's youth and allow for them to believe in the strength of their voice and the power of their own identity and own community are what are important to provide both in school and out.

**For more information about Barrio Writers, please see:**

TAMU-CC Barrio Writers Website: http://barriowriters.tamucc.edu/
Articles Written by TAMU-CC Media about Barrio Writers:

- https://tamucc.edu/news/2017/08/082317%20Barrio%20 Writers%20.html#.XYIfyShKj4c (2017)

- https://tamucc.edu/news/2018/08/082418_Barrio_Writers_2018. html#.XYIgHihKj4c (2018)

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Also: Visit Origins Journal Project Amplify at http://www.originsjournal.com/project-amplify-year-1/2016/11/2/-barrio-writers to learn more about Barrio Writers and read poetry written by 2016 participants, including one participant from our chapter in Corpus Christi.

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# Building Bridges Between Research and Practice: the Results of the 2019 What's Hot in Literacy Survey

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## Abstract

*The What's Hot in Literacy Annual Survey serves as a springboard for idea genera-tion and reflection about what areas of literacy should be a focus of attention. In this article, the authors share information about three of the "hottest" topics from the 2019 survey: digital literacies, disciplinary literacies, and English learners. Each discussion includes an introduction to and a definition of the topic, its relevance and significance, and why it is a "hot" topic, and should be a "hot" topic. Future directions are also considered.*

*Keywords*: what's hot survey, digital literacies, disciplinary literacies, emergent bilinguals

The What's Hot in Literacy survey has been on the forefront of building bridges between research and practice since its debut over two decades ago (Cassidy & Wenrich, 1997). Now in its third decade, the What's Hot in Literacy survey has documented persistent change from year to year among the literacy topics and issues receiving attention. In a summary of hot topics spanning 20 years, Cassidy, Ortlieb, and Grote-Garcia (2016) report the following trends within five-year intervals: a) 1997-2001: balanced reading instruction, early intervention, phone-mic awareness, and phonics; b) 2002- 2006: direct instruction, early intervention, fluency, high-stakes assessments, phonemic awareness, phonics, scientific reading research, and practice; c) 2007-2011: adolescent literacy, ESL/ELL, high-stakes assessments, and literacy coaches/reading coaches; and d) 2012-2016: college and career readiness, common core standards, high-stakes assessments, and informa-tional/nonfiction text. Such trends reflect multiple elements of the indicated time periods such as classroom practices, literacy research, and policy.

Not surprisingly, the topics receiving the most attention, while also reflect-ing trends for 2019, were digital literacies, disciplinary literacies, early literacy, and English learners (Cassidy, Grote-Garcia, & Ortlieb, 2019). These topics represent a new set of core literacies (digital literacies, disciplinary literacies, and early literacy) for today's learners (the growing number of English learners nationwide). While it is widely known that these topics are relevant to cur-rent literacy research and instruction, much remains to be learned about how

to improve upon these tenets of literacy in K-12 classrooms. What follows is a discussion about what educators need to know about each of these topics to improve upon pedagogy as well as student literacy achievement.

**Expanding Digital Literacies Pedagogies**    Digital texts and tools have proliferated in the past few decades both in and out of school contexts. Digital devices and networks have affected the ways we share ideas and communicate. In a recent Pew Internet survey, 95% of teens reported possessing a smartphone, with 45% reporting they are frequently online and another 44% reporting they are online several times per day (Anderson & Jiang, 2018). Such unfettered access to online texts and resources and collaborative sharing platforms create opportunities to use and produce a vast range of materials. Online environments provide spaces to share, revise, and remix digital content, these digital potentials allow individuals and groups to connect both locally and globally, and contribute to an ever-expanding base of knowledge.

The Internet, online information, and networked communication tools mediate learning in and out of school. The availability of digital texts and tools widens and amplifies opportunities to develop and deepen learning. Digital devices are increasingly used for accessing and sharing information, creating representations of conceptual thinking, and encouraging dialogic interchanges. Internet use and global networking that address these purposes unleash vast potential and a multitude of real-world contexts in which learners may engage as critical and agentive citizens. As a result, it is imperative that digital literacies are cultivated in school environments. Digital literacies are multifaceted and multidimensional and use digital tools to both consume and produce knowledge. Learners who are digitally literate need to develop flexible mindsets and competencies to make choices and interact and engage in an open, networked society (Lankshear & Knobel, 2006; Phillips & Manderino, 2015). In addition, digital literacies represent the multitude of ways people collaborate, create, and communicate using digital texts and tools.

Classroom and youth practices have generated the need for comprehensive policies regarding literacy and technology in education. School adoption of 1:1 computing has accelerated access to new technologies, but has not necessarily created equity in terms of use, instruction, or assessment. As educators, we can no longer sideline the learning of these essential literacies; doing so leaves digital literacies instruction to chance. Under-resourced communities and students who find themselves on the wrong side of the digital divide may not have regular access to tools, devices, or contextualized practice in using them to advance their learning (Leu et al., 2015; Leu, Forzani, & Kennedy, 2015). For many learners,

school is the best place to learn digital literacies in a formal way; however, many schools have not provided such instruction. All students need opportunities to learn the full range of digital literacies across the curriculum in order to be fully literate in a digital age.

While digital literacies have remained "hot" and "very hot" (Ortlieb et al., 2019), research and conceptualization of digital literacies have continually tried to keep pace with the acceleration of digital texts and tools. Online reading comprehension (Coiro, 2011), multimodality (New London Group, 1996), digital literacies (Barron, Gomez, Pinkard, & Martin, 2014) have all been used as conceptual frameworks, sites of empirical research, and the basis for policy and position statements. As we enter the third decade of the 21stcentury, we need to continue to examine the role of digital literacies as well as the classroom implications of teaching and learning in the digital age. The types of digital literacies instruction that youth deserve are pedagogies that a) affirm and sustain youth and community practices, b) extend and deepen existing digital literacies practices in and out of school, and c) problematizie and interrogate digital literacies practices. These pedagogies should serve as tools of justice and liberation to enable youth to engage as critical and agentive individuals and community participants.

**Affirming and Sustaining Pedagogies and Practices**    Evidence of youth expertise in digital environments has been well documented (Barron et al., 2014; Ito, Martin, Pfister, et al., 2018). This expertise can be leveraged for deeper literacy learning. Pedagogical approaches like cultural modeling (Lee, 1995) have a long history of affirming the literacy practices youth bring to classrooms and the complexity of those practices that can be brought to bear on academic tasks. Likewise, youth bring an array of repertoires of digital literacies practices inside and outside of school. These practices such as digital consumption, curation, and creation (O'Byrne, 2018) are powerful levers for literacies learning. In addition to affirming these practices, digital literacies can and should be used as culturally sustaining pedagogies (Paris & Alim, 2018). Culturally sustaining pedagogies use an asset-driven approach to the linguistic and literate practices that serve to sustain individuals and communities (Paris & Alim, 2018). An example of this may be the creation and circulation of a podcast that contains content and voices from and for the community. The use of a podcast affirms the literate activities of youth and also serves as a vehicle for sustaining the digital, linguistic, and multimodal practices of youth.

**Extending and Deepening Pedagogies and Practices**    Just as digital literacies of youth need to be affirmed and sustained, they also need to be extended

and deepened. While early research focused on online reading comprehension (e.g., Coiro, 2011; Leu, Kinzer, Coiro, & Cammack, 2004), the nature of online texts and tools has also shifted. Also, the presence of images, audio, and video has widened. Youth need specific instruction on how to source online texts that are media-based. As the ease of creation and circulation of online content advances, youth also require explicit instruction in the areas of digital composition and storytelling. Thomas and Storniauolo (2016) contend that the compositional practices of digital texts by youth serve to assert their participation and voices in the world. Currently, while much of that practice is conducted outside of school, we might ask how we are teaching students to extend and deepen their digital literacies practice.

## Problematizing and Critical Examination of Pedagogies and Practices

Finally, while the web has been celebrated for its potential to expand literacies and widen democratic practice, it has also been a site for racist, misogynistic, homophobic, and hateful rhetoric and influence as well as misinformation. Digital literacies instruction needs to also take a critical turn to problematize and interrogate the very spaces that can sow seeds of hate and discord. Youth deserve instruction that examines the algorithms of oppression that further marginalize people of color on the web (Noble, 2018). Critical media literacies (Morrell, Duenas, García, & López, 2015) and critical web literacies are essential to digital literacies instruction. These three areas of digital literacies pedagogies are neither mutually exclusive nor hierarchical. Youth deserve affirming, sustaining, extending, deepening, problematizing, and critical examination of digital texts tools, practices, and power relationships in online spaces. As this topic has been and remains hot, it is incumbent on us as literacy educators and researchers to keep pace with the ever-changing nature of digital literacies and support students in these practices so that the quest for justice and liberation through literacy is continuously pursued.

## Looking Back, Looking Forward in Disciplinary Literacy

The recent results from the *What's Hot in Literacy* survey (Cassidy et al., 2019) showed that the topic of disciplinary literacy is still considered to be very hot. Interestingly enough, disciplinary literacy as a topic still remains hot even in the midst of a decline in the "hot" status of the Common Core Standards (National Governors Association Center for Best Practices & Council of Chief State School

Officers [NGA & CCSSO], 2010). According to Cassidy et al. (2019), there seems to be a need in the field for an increased awareness of the specialized literacy demands of the disciplines on teachers and students.

Although there is an increase of publications in our field on the topic of disciplinary literacy, we could not say that there is clarity in how literacy researchers and practitioners define it. For example, should we refer to the topic as "disciplinary literacy" or as "disciplinary literacies"? What is the difference between the two? If there is a difference, is its root epistemological, conceptual, or simply definitional? Some still conceptualize disciplinary literacy as a synonym to content area literacy. According to this argument, isn't literacy in the content areas the same, after all, as disciplinary literacy? Well, not quite. There is still a need in the field for a clear distinction between disciplinary and content area literacy. This need not be aimed to impede on, or compete with, the value of reading in the content areas for student learning. Instead, it should be aimed to build educators' and researchers' knowledge base that will, in turn, create spaces for interdisciplinary research and instructional collaborations among literacy and disciplinary experts that will result in a new corpus of knowledge.

## Disciplinary Literacy as a Hot Topic

The first and immediate answer to this question is, because since the beginning of the last decade, research and educational reports have been highlighting the need for students, especially adolescents, to engage in a more deep and critical manner with disciplinary literacy learning (e.g., Lee & Spratley, 2010; Langer, 2011; Moje, 2008; Shanahan & Shanahan, 2008). Engaging in disciplinary literacy learning goes beyond organizing one's thoughts about reading or using specific study skills or strategies to study disciplinary texts. Instead, it involves students developing content knowledge through participating in and understanding how knowledge is created and shared in the discipline. Without developing such knowledge, students are left ill-prepared to handle the specialized nature of literacy in the disciplines and also limited in the levels of content knowledge they can attain. Adolescent literacy today happens inside and outside the walls of the traditional classroom. Considerations of how students use multimodal tools and texts to learn are necessary as emerging technologies are integrated increasingly within core content area instruction. Partnering with other content, literacy, and technology experts to plan across disciplines prepares students to use literacy skills for knowledge acquisition across content areas and contexts (Chandler-Olcott, 2017; International Literacy Association, 2019).

Another answer to the above question comes from the National Report Card results on reading. Although the National Assessment of Educational

Progress (NAEP) results are estimates of representative samples of student performance at the national level, still, the 2019 report on Grade 8 Reading scores showed that 34% of eighth- graders performed at or above the NAEP Proficient rating in reading and 31 states experienced declines in reading compared to 2017 (National Center for Educational Statistics, 2019).

## Disciplinary Literacy Defined

Disciplinary literacy refers to the ways of reading, writing, thinking, and reasoning within academic fields (Moje, 2007; Shanahan & Shanahan, 2008, 2012, 2014). A disciplinary literacy framework emphasizes the unique tools and discursive practices that disciplinary experts use to develop and communicate content knowledge, participate in the work of that discipline, and create disciplinary identity (Gee, 1996; McConachie & Petrosky, 2010; Moje, 2008; Shanahan & Shanahan, 2012; Zygouris-Coe, 2012). The separation of literacy and content teaching and learning has resulted in tensions, gaps, and even misconceptions in the field and especially in practitioners' understanding of disciplinary literacies. The question is: Can we teach content without teaching literacy and vice versa? Disciplinary literacies are pathways for content knowledge development.

Disciplinary literacy offers a different instructional and learning framework that emphasizes the unique tools and discursive practices that disciplinary experts use to develop and communicate content knowledge, participate in the work of that discipline, and create disciplinary identity (Gee, 1996; McConachie & Petrosky, 2010; Moje, 2008; Shanahan & Shanahan, 2008, 2012, 2014; Zygouris-Coe, 2015). For example, in science, while students are learning how to form scientific explanations and arguments orally and in writing, they will also be learning about scientific discourse, as well as developing scientific knowledge and advanced and science-specific literacy skills (Osborne, 2010; Shanahan & Shanahan, 2008). When educators teach students how to read the texts of science (print or multimodal) using a scientific inquiry lens, students will be doing close reading of texts, learning how language is used in science texts (Fang, 2004), identifying claims and biases authors make in texts, and learning how to use evidence from the texts to support (or not) a claim and then share their reasoning. Integrating disciplinary literacies in content teaching and learning can help students acquire a deeper understanding of how knowledge is created, evaluated, and communicated in each discipline.

Adopting a disciplinary literacy instructional framework will not neglect the needs of novice readers and other readers who might require additional language, content, and other academic supports in the content areas. Aside from

the different perspectives on the definition of disciplinary literacies, there is one common notion that is guiding our efforts to further understand and research the role of disciplinary literacies in student learning in 21st century contexts: each discipline uses literacy in unique ways. As literacy researchers and educators, it is our duty to forge disciplinary collaborations that will help produce a more comprehensive understanding of disciplinary literacies.

## Sample Innovative Practices: Learning from Disciplinary Experts

For the purpose of this paper, we will share sample innovative tools and practices that are shaping our knowledge of disciplinary literacy in science. The *STEM Teaching Tools* site has instructional tools for teaching science, technology, engineering, and math (STEM). All research-to-practice tools are aligned with the teaching of the Next Generation Science Standards (NGSS) (NGSS Lead States, 2013) and reflect the role of disciplinary literacy in science teaching and learning.

> What is 3dimentional learning in science and how to assess it? See http://stemteachingtools.org/pd/sessionb
>
> Learning to see the resources students bring to sense making. See http://stemteachingtools.org/pd/sessiong
>
> Making science instruction compelling for all students: Using cultural formative assessment to build on learner interest and experience. See http://stemteachingtools.org/pd/sessionc
>
> How can I help my students learn science by productively talking with each other? See http://stemteachingtools.org/brief/6
>
> Is it important to distinguish between the explanation and argumentation practices in the classroom? See http://stemteachingtools.org/brief/1

These are other innovative ways of co-constructing disciplinary knowledge that informs teacher practice and student learning and that are informative for specialized literacy professionals, researchers, and teacher educators who are learning about the academic and literacy demands of science.

## Sample Takeaways for Literacy Researchers and Educators in Higher Education

**Takeaway one.** Content literacy and disciplinary literacy are two different constructs that describe two different, and not mutually exclusive,

approaches to literacy teaching and learning (Fang & Coatoam, 2013; Gillis, 2014; Hillman, 2014; International Literacy Association, 2017; Shanahan & Shanahan, 2012). What counts as knowledge, how knowledge is constructed, and how language and literacy are used differ from discipline to discipline (Moje, 2008).

**Takeaway two.** There is a need for more disciplinary-focused instruction to support the content and literacy needs of all students, especially in grades seven through 12. This also calls for improvements in the preparation of secondary education teachers and K-12 specialized literacy professionals. We need to create learning environments and provide high quality instruction that supports adolescents' content and literacy needs while simultaneously valuing their voices, context, and socio-cultural identities to support their literacy development (Kazembe, 2017; Moje, 2015). All students deserve equitable access and effective preparation for school, college, careers, and life. Research collaborations and professional development partnerships between higher education and schools/school districts are necessary for the preparation and ongoing professional development of content area teachers and specialized literacy professionals on disciplinary literacy (International Literacy Association, 2015; Jacobs & Ippolito, 2015; Langer, 2011).

**Takeaway three.** As we navigate new interdisciplinary terrains in literacy teaching and learning, we need to challenge our knowledge, paradigms, and research through new modes created by emerging technologies, new digital literacy tools, texts, spaces, and contexts (Coiro, Knobel, Lankshear, & Leu, 2008; International Literacy Association, 2020). New literacies are multimodal, dynamic, deictic, and multifaceted (Karchmer-Klein & Shinas, 2012; Leu, Kinzer, Coiro, Castek, & Henry, 2013). Today's multimodal texts, contexts, and literacies require students to have different skills, strategies, and dispositions than before (Chandler Olcott, 2017; Manderino & Castek, 2016; Smith & Shen, 2017). The multimodality of 21st century teaching and learning poses new literacy challenges for teachers and students that call for positioning literacy in the heart of all disciplinary work.

## Future Directions

Although we have seen an increase in the amount of publications, reports, and briefs on the topic of disciplinary literacy, several lingering gaps and questions remain. The exciting and equally nagging issues we addressed in this paper, in our view, paint a positive landscape of new opportunities for interdisciplinary

collaborations and advancement of knowledge and research that informs practice. Let us not forget that literacy is a complex, socially constructed process. The multimodality of the 21st century, the situated diverse needs of students, teachers, and schools, the spaces educators use to learn about research and practice, and the evolving nature of literacy call for continued co-construction of new knowledge about the nature, importance, and implementation of disciplinary literacy in today's classrooms.

## From English Learners to Emerging Bilinguals and Bi/multilingual Students

In the 24-year history of the What's Hot survey, Cassidy and colleagues (2019) note how English learners have consistently been a "hot", "very hot" or "extremely hot" topic (with the exception of two years in 2000 and 2001). On the one hand, this continued trend is not surprising, as the children of (im)migrants are the largest growing population in U.S. schools (Zong & Batalova, 2017) with many schools experiencing a bilingual revolution (Jaumont, 2017). On the other hand, what has changed across two and a half decades in increasing measure is the terminology used to describe this student population as part of a greater paradigmatic shift in multilinguals' literacies.

In place of the term "English learner", the terms "emergent bilingual", "emerging bilingual", and "bi/multilingual" have grown in prominence. As Martínez (2018) explains, "English learner is a label that conceals more than it reveals. It emphasizes what these students supposedly do not know instead of highlighting what they do know" (p. 515). Instead, there is an emphasis on all the languages, language varieties, and literacies in development, as part of each student's unique language architecture (Flores, 2019) that can be leveraged for literacy, learning, and life. At the heart of this shift in terminology is a shift in paradigm regarding multilingual students, from a deficit, partial view of students' languages and literacies to an asset, robust view of students' entire linguistic repertoire (García, 2009; García & Kleifgen, 2019).

### Biliteracy Trajectories and Biliteracy Zones

This shift in focus and emphasis is not merely cosmetic, but rather deeply connected to the distinct nature of bi/multilingual literacy and its implications for their literacy development in schools (Gort, 2019). When viewed from a monolingual English perspective, bi/multilingual students are often positioned as struggling and in need of remediation, when in reality when taken from a

holistic bilingual view, bilingual students may be on a trajectory toward biliteracy (Butvilofsky, Hopewell, Escamilla, & Sparrow, 2017; Escamilla, Butvilofsky, & Hopewell, 2018) that is dynamic, bidirectional, and idiosyncratic. In other words, when participating in literacy instruction in two or more languages, bi/multilingual students may develop high levels of literacy proficiencies within, across, and beyond their named languages as languages, literacies, in distinctly complex ways from monolinguals (Escamilla et al, 2014).

To operationalize a holistic view of biliteracy development, Escamilla and colleagues (2014) created grade-level benchmark scores for emerging bilinguals' reading. In their work, Latinx bilingual students whose Spanish and English reading levels fell within a range of reading scores for each language and grade level are in what they call the *biliteracy zone*. This refers to the range of scores on the Evaluación del desarrollo de lecto escritura (EDL) and Developmental Reading Assessment (DRA), informal reading inventories to demonstrate grade-level reading for emergent bilinguals (Celebration Press, 2007a, 2007b). According to the biliteracy zone, emergent bilinguals are expected to show more advanced reading growth in Spanish than in English, but over time will demonstrate high levels of bilingual reading by the end of fifth grade. By creating a range of scores, instead of one score that is considered on level, researchers and teachers "practically reinforce the dynamic, idiosyncratic nature of biliteracy growth for native Spanish-speaking bilinguals" (Babino, 2017, p. 171).

## Taking a Translanguaging and Multilanguaging Approach to Literacy Instruction

Makalela (2019) reasons that a monolingual bias still exists in literacy development practices and plays a role in the continuing "failure" of multilingual students. The acquisition of literacy practices should not be viewed as a set of autonomous skills, rather the first language should be harnessed to increase access to knowledge and affirm the unique positions of emergent bilinguals. This is especially evident in *translanguaging*. Otheguy and colleagues (2015) define translanguaging as "the deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages" (p. 283). García, in an interview, stated that this allows students "to learn deeply, while also equipping students to recognize when to use what features for what purposes" (Grosjean, 2016, para. 5). So, translanguaging is both a theoretical framework and a pedagogy that resists monolingual and monoglossic views of bi/multilinguals' literacies.

Through this work, educators are further coming to understand that language learning is complex, sophisticated, and is often an extension of the self; it is more dynamic than possessing the ability to move back and forth between two languages or registers at the same time. In fact, García and Keifgen (2019) conclude that translanguaging in literacy refers to the process by which multilingual readers and writers leverage their entire *semiotic* repertoire. In light of this, McDermont (2015) asserts, "we must free learning from permanent winning and losing situations, and when those who lose correlates with race, class, and language differences, we must confront how they have been arranged to look like non-learners in contrast to children from more privileged situations" (p. 347).

There has also been a shift with respect to Latinx students. More recently, research has focused on the needs of adolescent recent (im)migrants and their needs as they adapt to high school settings. Flint, Dollar, and Stewart (2019) conclude that to experience success emergent bilinguals need spaces that allow them to be creative, have access to multimodality approaches, and work collaboratively with peers and their teachers. Nevertheless, research in this area is clearly still needed to identify additional approaches, practices, and programs that work with emergent bilinguals.

**Future Directions with Respect to Emergent Bilinguals**    There is an impressive amount of literacy research that is occurring with respect to the different approaches that are effective with emergent bilinguals; still there are several topics that need to be studied in the coming years. For one, research will be needed as educators consider the backdrop of the initiatives to return to a phonics-intensive instructional approach and the implications it has for the acquisition of literacy skills. Furthemore, writing is still less often researched when compared to reading—even though it is equally as important to the literacy development of emergent bilinguals (Gort, 2006). As such, the academic community must consider taking on the study of effective practices implemented at all grades, the external resources or supports are in use, and whether writing is being used as a tool for learning. In emergent bilingual settings, this is critical as it is necessary to understand more about those who see writing as product versus those who see writing as a process and versus those who see writing as meaning-making (García & Kleifgen, 2019).

Alexander and Fox (2019) remind us that "reading research and instruction during the next decade will be positioned to pay greater attention to the unique attributes and experiences of each learner" (p. 52). Given this charge, as researchers it behooves us to look into the unique experiences of emergent

bilinguals; for instance, the ways in which emergent bilinguals uniquely use YouTube to communicate with friends, family, and other stakeholders.

We believe that another immediate avenue of study relates to ways monolingual teachers develop a translanguaging/multilingual stance. Deroo and Ponzio (2019) tell us taking on a translanguaging stance allows teachers "to see bilingualism as one cohesive system, and invites teachers to create transformative educational spaces where students' multilingual identities are central instead of peripheral" (p. 229). Given that more than 80 percent of classroom teachers are monolingual, it makes sense to explicitly study the process of the ways teachers internalize this approach to their teaching stance.

Finally, we argue that initiatives and grants to prepare inservice and preservice teachers to meet the needs of emergent bilinguals needs further study. Particularly, in what ways are university preparation programs changing the conditions within their programs and other short-term offerings to prepare 21st century classroom teachers? Simply put, traditional models are no longer appropriate to meet the needs of emergent bilinguals. Although it may be wishful thinking, a historical analysis of the many grants and their outcomes might inform the literacy community about what's to be "hot" next.

## Final Thoughts

How we see the world and our students shape our instruction. As specialized literacy professionals, we must continue to engage in literacy learning around hot topics to position ourselves as change agents. With the growing interest and increased curricular expectations surrounding digital literacies (Maher, 2020), best practices in teaching digital literacies (Ortlieb, Cheek, & Semingson, 2018) that are also a best fit for the local context (Wilder & Msseemmaa, 2019) are more needed than ever. Digital literacies are no longer supplemental to curriculum and instruction; they are core literacies that must be developed in and beyond the ELA classroom.

Preparing students to become mindful and engaged readers and writers across print and digital media requires interdisciplinary collaboration, planning, and instruction (Lemley, Hart, & King, 2019). As schools continue to pilot-test project-based learning where math, science, and ELA teachers work together to facilitate projects across these content areas, more research and applications will follow. The same adage applies for seeing the unique abilities and needs of English Learners, a population historically marginalized. Equipping teachers with methods to leverage cultural currencies and background experiences is on the agenda for educational researchers charged with ensuring progress for all.

And with those responsibilities comes opportunities to provide preservice and inservice professional development. Specialized literacy professionals are well positioned to impact their schools and communities through literacy leadership and dedication to ensure every child is given equitable learning environments for literacy development. The What's Hot in Literacy Annual Survey serves as a springboard for idea generation and reflection about what areas of literacy should be a focus of current attention.

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# BUILDING BRIDGES WITH ENGLISH LANGUAGE LEARNERS AND FAMILIES

## ENGLISH TO ESL: ONE TEACHER'S PROFESSIONAL TRANSITION

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### Abstract

*Schools are experiencing growing diversity within English as a Second Language (ESL) populations and are recognizing that more resources must be committed to successfully serve the changing student population. This article relies on data from a qualitative case study designed to describe the ways in which an experienced high school English teacher drew upon prior knowledge to make instructional decisions in an ESL classroom. The findings from this study suggests that schools can build capacity by employing highly-qualified literacy professionals to support their ESL programs. The findings also suggest ways that schools can support the professional educators that are serving in ESL programs.*

*Keywords:* literacy, English as a second language, teacher knowledge, teacher beliefs

## Introduction

In recent years, educators and scholars in the United States have recognized the importance of shifting resources to meet the needs of an increasingly multilingual

student population (Batalova & McHugh, 2010). Researchers have established that schools are struggling with the ongoing challenge of meeting these needs of adolescent English learners (ELs) (Carnoy & García, 2017; Hakuta, 2011; Menken & Kleyn, 2010; Olsen & Jaramillo, 1999). While researchers have explored teacher attitudes related to ELs in mainstream classrooms (Walker, Shafer, & Iiams, 2004; Sinprajakpol, 2004; Reeves, 2006; Pettit, 2011), few studies have explored the possibilities of preparing experienced English teachers to work with ELs in English as a Second Language (ESL) contexts.

In the spirit of building bridges with and for literacy, this study examined the intersections of adolescent literacy and ESL instruction through the lens of one highly-qualified high school English teacher in their first year in an ESL classroom. The purpose of this qualitative case study was to describe the experiences of one experienced high school English teacher who was in the process of making a professional transition into the ESL classroom. The ultimate goal of this study was to explore the link between literacy and language instructional beliefs by journeying with an experienced English teacher to explore what pedagogical knowledge he drew on to make instructional decisions, his interpretations of high-quality literacy instruction for adolescent ELs, and his beliefs about teaching ESL. The following research questions guided this study:

1a. In what ways may previous literacy teaching experience influence the instructional moves of a teacher in an English as a second language (ESL) course?

1b. In what ways does a teacher's beliefs about language and literacy education change or stay the same upon gaining experience teaching ESL?

2a. In what ways may previous literacy teaching experience influence a teacher's beliefs about working with a linguistically diverse student population?

2b. In what ways does the teacher's beliefs about working with linguistically diverse students change or stay the same after gaining experience teaching ESL?

## Literature Review

English as a second language (ESL) instruction is currently a field under heavy critique. Some argue that the purpose of ESL instruction is to immerse students in an English-only environment so that they can be exposed to as much English as possible as quickly as possible, while others would argue that all language

education should be bilingual in nature (Cummins, 1981; Krashen; 2011; García & Li Wei, 2017). In this study, I argue that it is possible to design ESL classrooms that still focus on the development of literacy using the entirety of students' language repertories (Walker, 2019).

Adolescent literacy is fraught with many complex challenges presented by the texts themselves, as well as the complex production tasks that student are asked to engage in (Alvermann, 2002). However, we know that adolescents are more likely to be successful in their literacy learning if they believe that the appropriate level of challenge is presented to them and if they are able to clearly understand the way that the literacy task directly applies to their lives (Smith & Wilhelm, 2002). When working with culturally and linguistically diverse student populations, educators can draw on students' in- and out-of-school knowledges, languages, and literacies to help students see the direct application and authenticity of the instruction to their own experiences (Moje, et al., 2004).

Designing effective literacy instruction for adolescent ELs has the added dimension of language development, but it is important to acknowledge the role that culture plays in any learning venture (Khalifa, Gooden, & Davis, 2016). According to Au (1980), culturally appropriate instructional events include incorporating the cultural structures of language and literacy. This notion can be expanded upon when integrating translanguaging strategies that simultaneously promote literacy development across students' linguistic repertoires (García, Johnson, & Seltzer, 2017).

In addition to exploring the ways in which language and literacy education can become integrated processes in the adolescent ESL classroom, this study also seeks to explore what knowledge a teacher may draw opon when making instructional decisions. Teachers rely on a complex range of knowledge when designing instruction, including personal beliefs, past personal and professional experiences, information about students and the nature of the task, and the context of the instruction (Borko, Livington, & Shavelson, 1990). We also know that teachers engage in those decision-making processes before, during, and after the instruction (Borko, Livington, & Shavelson, 1990; Hall & Smith, 2006).

## Methodology

### Participant Selection

For the purposes of this study, the participant will be referred to as Mr. Edwards. Mr. Edwards was a sixty-five-year-old teacher, who was approaching the end of his career in public education. Mr. Edwards had sixteen years of teaching experience, during which time, he taught a variety of English courses in the 8th – 12th

grades. He described his entry into the ESL classroom as a position he accepted as a last resort when he was forced to change school districts to care for an aging parent. When he accepted the position, he was not ESL certified, so he enrolled in an ESL certification program at a local university. Despite the support he received outside of the school district, he still expressed anxiety over what he perceived as a lack of support and clear expectations from the district itself. He explains:

> I'm winging it. What I'm doing here, I'm adapting what I know about best practice from my years in this English classroom. I guess that's your purpose here, to better understand that. They just dropped us in to sink or swim. There is no support, no preparation. I was so scared I wouldn't know what to do, but I just rely on what I know and what I've been learning in my certification classes.

Mr. Edwards agreed to participate in the study, because he felt that it was an opportunity to reflect on his experience and to improve his craft.

## Context

The study took place in class for newcomer ELs at one high school in South Carolina. This class included approximately ten students over the course of one academic year. The number varied throughout the year, as this was a very mobile population. The students were all from Honduras, El Salvador, or Guatemala. Most of the students in the class also had recently as unaccompanied minors, through illegal border crossings, or had at some point been involved with the migrant caravan. Many of these students had experienced severe trauma, had interrupted formal education, and had very limited exposure to English.

## Data Collection

Data were collected using two responsive interviews, two instructional planning "think-alouds," two observations, and two observational debriefs (See Table 1). Lesson-planning artifacts were also collected during instructional planning and observations.

## Data Analysis

The data were analyzed using qualitative content analysis, in which raw data were coded, while simultaneously constructing categories "that capture relevant characteristics of the document's content," (Merriam, 1998, p. 160). The data were analyzed throughout the data collection process, as well as en masse (See

**TABLE 1**
**Methods**

| Data Collection Schedule | Data Collection Tool | Data Type |
|---|---|---|
| Beginning Fall Semester | Responsive Interview #1 | • Background on teacher experience<br>• Describe teacher beliefs related to:<br>  • literacy instruction<br>  • language instruction<br>  • working with culturally and linguistically diverse students |
| Mid Fall Semester | Instructional Planning Think-Aloud* | Describe:<br>• instructional decision-making processes while planning literacy instruction for beginning ELs<br>• the pedagogical beliefs/knowledge the teacher drew on during lesson planning |
| | Observation | Describe:<br>• the alignment between the lesson-plan and implementation<br>• instructional moves during the lesson |
| | Debrief | Describe:<br>• instructional-decision making behind the instructional moves made during lesson implementation<br>• teacher reflection on lesson |
| Beginning of Spring Semester | Instructional Planning Think-Aloud* | Describe:<br>• instructional decision-making processes while planning literacy instruction for beginning ELs<br>• the pedagogical beliefs/knowledge the teacher drew on during lesson planning |
| | Observation | Describe:<br>• the alignment between the lesson-plan and implementation<br>• instructional moves during the lesson |
| | Debrief | Describe:<br>• instructional-decision making behind the instructional moves made during lesson implementation<br>• teacher reflection on lesson |
| End of Spring Semester | Responsive Interview #2 | • Background on teacher experience<br>• Describe<br>  • teacher beliefs related to literacy instruction<br>  • teacher beliefs related to language instruction<br>  • teacher beliefs related to working with culturally and linguistically diverse students<br>  • consistencies or changes in beliefs before and after working with ELs |

*Description of Instructional Planning Think-Aloud: The researcher sat with the participant during his lesson-planning period. The participant explained his thinking and decisions as he created his lesson plan that would be used in the subsequent observation.

Figure 1). The semi-structured interviews were used to book-end the study by providing context and providing the participant an opportunity to respond directly to the research questions. The instructional cycles each included instructional planning think-aloud, an observation, and a debrief. The instructional planning think-alouds were used to cross-check the ways in which the intended instructional decision was implemented. The data collected from the instructional planning think-alouds and observations were used to structure the debriefs. The debriefs provided the participant the opportunity to reflect on what went well and what he might have done differently in the lesson. The debriefs also provided an opportunity for the researcher to clarify any incongruous data point.

Credibility was supported through member checks during semi-structured interviews and observations, as well as after data collection was completed. The researcher also shared her notes from her reflexive journal with the participant during the debriefs and asked to participant to confirm or clarify the researcher's interpretation of the lesson cycle. Once all data were collected, a final coding round was conducted to look across documents for the purposes of category construction and refinement. After the final coding, the researcher shared the results with the participant in a final member-check and asked him to confirm or clarify the final interpretations. The data were triangulated using multiple data sources including the instructional planning think-alouds, observations, and debriefs. Confirmability and dependability were accounted for through an audit trail that included the data sources, as a well as the maintenance of reflexive journal.
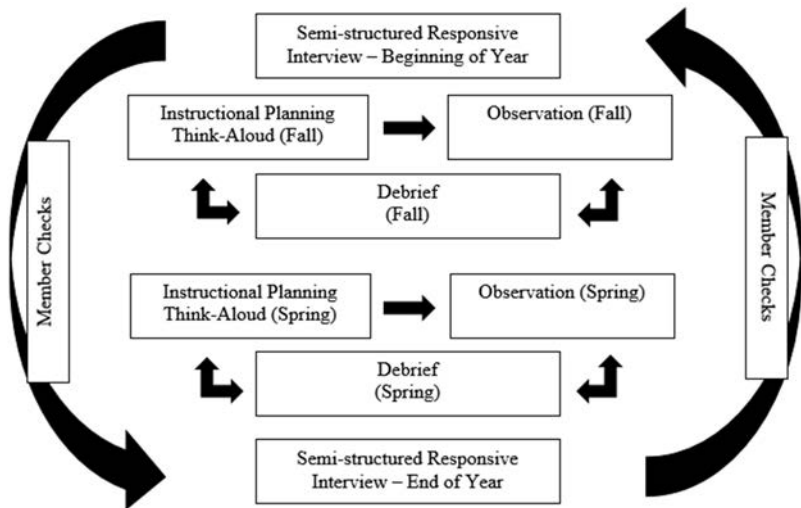


**Figure 1.** Data Analysis

# Findings

The categories constructed from the findings included defining high-quality language and literacy instruction, beliefs about working with linguistically diverse students, and the politicalization of the English as a second language (ESL) teacher. The findings suggested that Mr. Edwards defined high-quality language and literacy instruction as a multilingual endeavor that relied heavily on usage, grammar, and production. Mr. Edwards' belief about working with linguistically diverse student populations was that his students should be treated with care and autonomy. He prioritized the development of a culturally responsive, language learning community and with meeting students' needs both in and out of the classroom. Finally, the findings demonstrated the politicalization of the ESL teacher. Over the course of the year, Mr. Edwards adopted a pro-immigration stance that focused on treating immigrants with dignity in respect both in and out of school.

## Defining High-Quality Language and Literacy Instruction

In the semi-structured responsive interviews, there were questions that asked the participant to define high-quality language and literacy instruction. The participant initially defined high-quality literacy instruction as the following:

> Reading and writing every day. I use Reading A-Z for my newcomers and they all begin reading in their L1. I'm finding literacy levels for my current group, in their L1, is at about a $3^{rd}$ grade level. Students begin reading in their L1 and I slowly transition them to English by using the same articles in English in translation activities. When we begin with writing, it will be the same. I will have them begin writing in their L1 and then slowly begin translating into English.

In this definition, the participant defined literacy as the act of reading and writing in any language. One can see that he paid attention to reading levels and did rely on diagnostic assessments and leveled texts to provide literacy support in both the L1 and L2. In the end of year interview, the participant stated:

> My methods have changed. I think I focused too much on translating at first, so I did a ton with graphics and using both languages. My students are very mobile. I only have three students [that are still here] from the beginning of the year. I'm relying less on translating and memorization and have moved on to creating

and construction. It doesn't seem to be hindering my newcomers. I think I was focusing on too low a level. They're new here, but they're not new humans…

It is clear through these two statements that the teacher was primarily drawing on his knowledge of content and language repertoires to support language and literacy instruction in the classroom. He relied heavily on the students' L1 and non-linguistic clues when designing his accommodations. As the study progressed, these beliefs were clearly evident during the instructional planning think-alouds and the observations. Mr. Edwards did not privilege the use of authentic or culturally responsive texts to drive his instruction, though he did privilege authentic and culturally responsive relationships, as we will see in the final section. He frequently expressed concern that he felt constrained by what materials he was allowed to use and that these constraints cut into his professional autonomy, as well as student autonomy. He explains:

> [We] need autonomy for ELs and all students, we've pushed the micromanaging too far. We need to reduce the number of assessments, especially standardized and appreciate our students for what they are able to do and the progress they are making. We have to give them time to learn. I wonder how valuable the classes are for the long-term ELs. Are we helping them? I think we need to put them in regular classes and move on.

In the initial interview, the participant stated that he relied on his pedagogical knowledge from his years of experience teaching English and the strategies that he was learning in his ESL certification courses. Interestingly, this was inconsistent with the instructional decision-making that was observed during the instructional planning think-alouds, observations, and debriefs. During the observations and debriefs, it was evident that the teacher's instructional-decisions were primarily influenced by the available materials and curriculum, as well as his experience as a student in a foreign language course. One exception to this was the teacher's insistence on using supplemental texts to support his students reading and writing, despite the fact that the district had explicitly banned this practice.

> I try to supplement these skills as much as possible with other texts and resources. Actually, I got knocked down, because I asked about

> [using these texts] and I was told that I should not be using any supplemental materials, because we should be on a specific page of our curriculum on a specific day. The pacing should be exactly the same across the district, which… we know isn't good instruction… but the idea is that if they move to a different campus, they can jump right in.

These findings suggest the Mr. Edwards' view of literacy instruction was heavily reliant upon usage, grammar, and production. Interestingly, this view of literacy paired with his initial belief that ESL teachers were foreign language teachers resulted in instructional moves that drew on his knowledge of second language acquisition more than on modern views of adolescent literacy.

Mr. Edwards stated on several occasions that he wished he could engage his students in young adult literature books clubs. Initially, he was afraid that this would prove to be too much of a challenge for his newcomers and he was also concerned that his district would not support this decision. Toward the end of the study, he expressed a desire to design some of these learning opportunities, but he was struggling with conceptualizing appropriate accommodations to support newcomers with lengthy texts.

## Beliefs About Working with Linguistically Diverse Learners

During the beginning of year interview, Mr. Edwards described some of his misconceptions about working with ELs.

> First, I thought that all ESOL teachers were foreign language speakers. I didn't realize how much of ESOL instruction is about literacy and language immersion in English. I speak some very basic Spanish, but I typically don't find that to be a disadvantage when working with my students. It sets up a dynamic where we are both learners and they have the opportunity to be an expert in something that I'm not. I find that this helps with building positive relationships in my classes. Also, it never occurred to me that I'd have students who speak no English. When I worked in the mountains, I had a lot of Hispanic students, but most of them were born here and sounded like they just moved here from North Dakota. Their English pronunciation was even better than mine, with my old southern accent. But when I first had students that didn't speak any English at all, I

was shocked. I wasn't sure what to do at first. I've also found that many of my upper level students sound fluent, but aren't academically. When they begin writing, I see that there English isn't anywhere near what I would have expected based on listening to them.

Initially, Mr. Edwards found that part of this transition to teaching ESL required him to correct common misconceptions about the teaching context, as well as his expectations of his students. He also held a belief, that was consistent throughout the year: developing a classroom environment, in which both the teacher and the students were language learners, was essential to student success. He continues below:

> [I believe that the most valuable thing in a high-quality language and literacy classroom is] my being an emergent bilingual and my students know I'm working hard to improve my Spanish. If we are working on it in English, then I demand they teach it to me in Spanish. They respect that I value their language enough to work hard on it. I feel like that has been crucial in getting my students to be responsive. Occasionally, I'll answer them in Spanish, when they've asked me a question in English. I didn't expect that.

## Politicalization of the ESL teacher

Much of the work Mr. Edwards engaged in was political and in particular his defiance of district language policy based on his pedagogical knowledge of adolescent literacy instruction (García, et al., 2012). During the fall debrief, he stated that he was not allowed to use supplemental materials and that he must follow his curriculum as if it were scripted. He adamantly stated that he would not be following those policies, because they were not beneficial to his students. He explains:

> I don't really care what they say. I know this is what is good for my students. I know it's what they need, so I'm going to keep using these resources as long as I continue to see positive results.

Mr. Edwards also discussed the importance of developing student leaders. He often utilized students that had more longevity in the program to act as tutors for newly arrived students. Mr. Edwards expressed great pride in seeing the boost in confidence that his student leaders experienced: the way that confidence

translated into their academic success and the sense of community it created among his ESL students as a whole.

Interestingly, his advocacy for this student population intensified dramatically over the course of the year. He reflects:

> They come here really afraid and I often find out the bad things that have happened to them on their harrowing trip and they need some care. They need kindness. I do not patronize them, I treat them like adults.

He was also focused on providing a safe environment and on meeting students' needs outside of the classroom. Against one wall was a collection of backpacks stuffed with food from donations that Mr. Edwards had collected. The backpacks went home for students and their families that he knew were struggling financially.

Taken together, the findings of this study suggested that Mr. Edwards relied heavily on developing positive, culturally responsive relationships with the students in his classroom. Mr. Edwards described one situation in which a new student had arrived and grabbed at the snacks. Another student who had been in the class longer calmly but firmly explained to the young man the importance of sharing in the classroom, handed him a stack of napkins, and directed him to give each student a serving. The teacher felt this was evidence that he had developed a safe and respectful classroom culture that his students valued. He was pleased to see his students taking ownership over the classroom culture in this way.

Additionally, Mr. Edwards was engaged in providing support for his students who wanted to attend college. He reached out to several advocacy groups to try to find legal representation for a small contingent of his student population that had immigrated illegally, but who had been very successful academically and wanted to attend college after high-school graduation.

## Discussion

The findings of this study are important in beginning to understand how teachers' instructional beliefs and experiences influence their instructional decision-making. If scholars and educational leaders can learn to leverage the expertise of our most experienced literacy instructors to support the needs of adolescent ELs, then schools will have the ability to tap into a wealth of knowledge and skill for providing high-quality instruction for adolescent ELs. Additionally, understanding how teachers are navigating professional transitions between the literacy

and language classrooms can help instructional leaders and teacher educators to understand what type of supports teachers need to successfully serve ELs.

## Learning from Mr. Edward's Journey

In the findings, it was clear that Mr. Edwards did draw on his knowledge of literacy instruction, if literacy is defined through the traditional perspective of high school English language arts. That is to say, an approach to language arts instruction that focuses on skills-based instruction such as vocabulary, grammar, usage, and production. While this did not reflect the literacy beliefs of the researcher, the teacher did rely on his knowledge and definition of secondary literacy education. This view of English instruction aligned with an English as Foreign Language (EFL) approach to English as a second language (ESL) instruction. The data demonstrated that Mr. Edwards drew equally as heavily on his experience in a foreign language course as he did on his knowledge of English instruction. Interesting to note is that Mr. Edwards appeared to intuitively recognize the importance of literacy development across language repertoires and transference among languages, literacies, cultures, and knowledges that can support literacy development with adolescent ELs.

Additionally, Mr. Edwards quickly became an advocate for the new student population he was serving. He was dedicated to doing what he believed was in the best interest of serving his students socio-emotional, cultural, physiological, ethical, and educational needs. In future research, it would be illuminating to conduct a narrative inquiry with Mr. Edwards to examine if his advocacy for students stretched across his teaching career or if it was unique to his current teaching situation.

## Limitations and Bias

As a qualitative single-case study, the study was inherently limited by a small sample size. However, this study did not seek generalizability, but rather sought to explore the teacher knowledge and beliefs that influenced instruction. The purpose of this was to closely examine the teacher knowledge and beliefs that were drawn upon during the professional transition and any initial changes that may have been seen. It is possible that more change would be visible in a greater number of years. Additionally, the participant was only followed over the course of one academic year. The researcher and the participant both held firm beliefs about the constructs of language and literacy learning. In this study, the participant's beliefs are clearly outlined in the data. The researcher outlined her beliefs in the review of the literature, as well as in the discussion of the findings.

## Conclusion

This data is important in demonstrating the resources available to campus and district administrators seeking to build capacity among their staff to support a more robust ESL program. This data also revealed the importance of developing processes and procedures to support the professional development of ESL teachers, rather than focusing solely on compliance within the program. Mr. Edwards provided insight into the possibilities that exist when high-quality educators are utilized in the ESL classroom, but moreover, the importance of building system-wide capacity to support this program, the teachers implementing the program, and the students being served.

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# Using Think-Alouds to Support and Enhance English Language Learners' Comprehension of Multimodal Texts

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## Abstract

*Research has demonstrated that elementary students may not be skilled interpreters of multimodal science texts (McTigue & Flowers, 2010). This challenge may be enhanced for English language learners (ELLs), whose language skills are still developing. Therefore, in this qualitative case study, we implement think-aloud protocols to understand three striving ELL readers' comprehension processes and use of comprehension strategies. Then we collaborated with three pre-service teachers to design individualized comprehension instructions. After 7-weeks of intensive tutoring, findings show students were able to use a greater variety comprehension strategies. Classroom implications are discussed to provide best instructional practice for striving ELL readers.*

*Keywords: Reading comprehension, think-aloud, English language learners, multimodal texts*

The Common Core Standards (National Governors Association, 2010) asserts that 3rd and 4th grade students should be able to "interpret information presented visually, orally, or quantitatively… and explain how the information contributes

to an understanding of the text in which it appears" (RI.4.7). Even though elementary teachers are often encouraged to use multimodal texts (i.e., materials that contain both written text and visual information) to enhance students' reading comprehension (Authors, 2015), research conducted with both native speakers and English Language Learners (ELLs) demonstrates inconsistent findings regarding the impact of graphic displays on science learning; that is, multimodal texts may have positive, neutral, or negative effects on students' comprehension (Coleman, McTigue, & Dantzler, 2018; McTigue, 2009; Norman, 2012).

One possible explanation for this inconsistency is that without explicit comprehension instruction elementary students may not have the skills to interpret information from multimodal science texts (Jian, 2016; McTigue & Flowers, 2011), as multimodality adds another layer of complexity to the reading task. For instance, to fully understand a visual (e.g., a flow diagram of a water cycle), students need to apply a series of skills, such as understanding the functions of visual conventions (e.g., arrows, labels, and captions), deciding the reading order (i.e. text or picture first; Jian & Wu, 2015), extracting relevant information from visuals, and integrating information from both visuals and verbal texts to extract meaning (Hannus & Hyona, 1999). Therefore, with limited literacy skills or explicit comprehension strategies, students frequently misinterpret information in multimodal texts (Brugar & Roberts, 2017; McTigue & Flowers, 2011).

This comprehension challenge may be enhanced for ELLs, whose language skills are still developing. Several recent studies showed that simply providing ELLs visuals may not improve their science learning. For instance, in Ardasheva and colleagues' (2018) work, students in both treatment and control conditions (i.e., text and visuals versus text-only) performed similarly on reading comprehension. An additional limitation of the existent research is that it is largely focused on ELLs with average language proficiencies, and less is known about striving ELLs (e.g., who may have specific comprehension difficulties) and how they process multimodal informational texts. Therefore, in the current case study, we aimed to fill these research gaps in two ways. First, the primary goal of this study is to examine the needs and strengths of striving ELL readers, especially reading strategies they frequently used to make sense of multimodal texts. Secondly, based on their strengths and needs, we collaborated with pre-service teachers to provide individualized reading instruction for the striving ELLs and investigated the benefits and challenges of the instruction. Our research is guided by these objectives and the following questions:

1. What reading strategies do English Language Learners frequently use to make sense of multimodal texts?

**2.** What are English Language Learners' instructional needs in order to better comprehend multimodal texts?

# Literature Review

Borrowed from RAND Reading Group (2002), we defined reading comprehension as a cognitive process through an interaction between readers and texts. To successfully comprehend verbal and visual texts, readers need to simultaneously extract and construct meaning through this interaction (RAND, 2002). We assume that comprehension is an active interaction beyond memorizing and recalling. As such, understanding written text often involves a set of fundamental reading skills (e.g., decoding, vocabulary, reading comprehension, Hjetland et al., 2019; Ricketts, Nation, & Bishop, 2007) as well as higher-level cognitive and meta-cognitive strategies (e.g., inference making, Silva & Cain, 2015; comprehension monitoring, Cain & Oakhill, 2006).

Based upon this understanding, we begin this literature review by outlining existing research related to cognitive strategies that support the comprehension of both verbal and visual texts. Next, we describe research utilizing think-aloud protocols to understand students' use of reading strategies.

## Cognitive Strategies for Comprehending Verbal and Visual Texts

To date, it is well-established that using cognitive strategies supports learners' reading comprehension and providing students with comprehension strategy instruction facilitates their comprehension achievement after controlling for word reading and verbal ability (Cain, Oakhill, & Bryant, 2004). Specifically, students' comprehension improves when they are taught to use strategies including activating prior knowledge or predicting, questioning, visualization, inferencing, retelling, monitoring, clarifying, or using fix-up strategies (Shanahan et al., 2010).

Although much research has explored the effectiveness of strategy instruction on students' reading comprehension of written texts, an increasing number of visual displays has led to more studies exploring comprehension strategies with multimodal texts (see Authors, 2020). Especially, from a perspective of layer literacy, multimodal texts played an important role in students' meaning-making process, as they frequently contain combinations of texts, modes, and formats (Abrams & Russo, 2015). Following this research line, many researchers have investigated the effect of visual literacy instruction (e.g., Bergey, Cromley, Kirchgessner, & Newcombe, 2015; Cromley et al., 2013; Miller, Cromley, &

Newcombe, 2016). For instance, in Cromley et al.'s (2013) study, when teaching science texts, teachers provided students with diagram conventions tips, helping them to understand declarative knowledge (e.g., how to interpret color keys in diagrams) and procedural knowledge (e.g., when to interpret a specific part in a diagram). Findings showed that, in general, students in the intervention group presented greater growth in comprehension of graphic displays (Cromley et al., 2013; Leopold, Doerner, Leutner, & Dutke, 2015; Miller et al., 2016). These findings provide promising recommendations for classroom practices, however they focused on secondary monolingual students. Less is known regarding whether these conclusions can be generalized to elementary ELLs, who may need more comprehension support. Therefore, there is a call for deeper understanding of the strategies that allow ELLs to make meaning of multimodal texts.

## Using Think-Aloud to Assess Students' Reading Process and Enhance Comprehension

The present study uses think-aloud protocols both as tools for assessment and methods of instruction. At the core, a think-aloud is when someone verbalizes their thought process while reading a text (Jääskeläinen, 2010). As an instructional approach, teachers can use think-alouds to model the higher-order thinking skills and reading comprehension strategies (Davey, 1983). Providing students the opportunity to think-aloud allows the instructor to monitor students' use of comprehension strategies and assess strengths and areas for growth. We utilized think-alouds to first assess students' comprehension strategies before the intervention, then as an instructional and progress monitoring tool, and finally to assess growth at the end of the intervention.

In recent decades, research has shifted from exploring the impact of graphic design on students' learning achievement to understanding students' comprehension process and the effectiveness of instructional practices (see Authors, 2020). As a result, an increasing number of studies utilized think-aloud protocols to assess the strategies used while reading multimodal texts. This approach allows teachers to understand students' thinking processes before, during or after reading (Callow, 2018; Seipel, Carlson, & Clinton; 2017).

Specifically, researchers conducted a series of think-aloud studies in monolingual settings. For instance, when working with second graders, Norman (2010; 2012) prompted students to think-aloud while reading two books. In total, Norman (2010) identified 25 processes utilized while reading multimodal texts. Interestingly, students' reading ability was not a strong predictor of reading strategy use. However, this finding contradicts other research (Dermitzaki, Andreou, & Paraskeva, 2008; Samuelstuen & Braten, 2005).

As Norman (2010) noted, this inconsistency may be due to the different study design and the fact that not all reading processes equally contributed to reading comprehension.

Additionally, selected studies have also shown that a think-aloud approach can be used as an intervention as it allows teachers to model their thinking process and teach strategies (Baumann, Seifert-Kessell, & Jones, 1992; Oster, 2001). Although convergent evidence has proved that think-aloud instruction has greatly enhanced monolingual students' reading comprehension, limited research has been conducted with ELLs, especially those struggling with reading comprehension. Therefore, our study focused on ELLs who have adequate decoding abilities but need reading comprehension support.

In summary, our primary goal is to identify the strategies that language learners use to process multimodal science texts. Borrowed from previous research (Callow, 2018; Norman, 2010; Schoenbach, Greenleaf, Cziko, & Hurwitz, 2000), we developed a coding scheme to analyze the strategies exhibited in students' think-aloud transcripts. Based on their needs, we worked with pre-service teachers to provide intensive think-aloud instruction to teach strategies and enhance reading comprehension.

## Methods

We conducted a qualitative case study that allowed us to understand individual cases and the contexts in which cases are situated to understand how students make sense of multimodal science texts (Stake, 1995). As this is a socially and culturally constructed activity, it is important to explore students' meaning-making process within the social context. Thus, we chose case study as an appropriate methodology for this research that explores three ELLs' use of strategies in the process of reading multimodal texts.

To support ELLs who are struggling with comprehension, we collaborated with their tutors to provide them with instruction focused on multimodal science texts comprehension strategies. Pre-service teachers first evaluated students' reading processes using a think-aloud protocol and identified their needs. After 7-weeks of tutoring, we evaluated students' reading processes using a think-aloud protocol. Tutors audio recorded students' think aloud and completed a strategy use checklist (see Table 2). We also conducted 30 minute interviews with the tutors to obtain further information about the instructional strategies used and students' learning after 7-weeks tutoring is completed. In the following section, we described our participants, materials, study design, data collection, procedures, and data analysis.

## Participants

The participants are three (grade 3 and 4) ELL students and their tutors. All three tutors were traditionally-aged undergraduate preservice teachers seeking initial elementary certification with a focus on literacy instruction.

The study was conducted at a university-based literacy lab in the Northwestern United States. Enrollment in the lab is open to any K-12 child who is able to attend, and parents sign their children up at the beginning of each semester, and many children attend for multiple semesters. A small fee is charged, but scholarships are provided to any family who expresses a financial hardship. At the beginning of the study, the director of the lab identified returning students who met the following criterial: (a) in third- and fourth-grade, where students were likely to be exposed to high volume of multimodal texts; and (b) still developing reading comprehension skills, in spite of adequate decoding skills, and thus were likely to benefit from a one-on-one reading comprehension instruction.

The first student, Juana (all names are pseudonyms) is a 3$^{rd}$-grade Spanish speaker. Juana was born in the United States and, although her mother is bilingual, speaks Spanish at home. She has attended a bilingual (English/Spanish) program since Kindergarten. At the beginning of tutoring, she was able to accurately decode 1$^{st}$-grade texts, but was unable to answer comprehension questions requiring inferences.

Rei, the second participant, is a 3$^{rd}$-grade student who had moved to the United States from Japan two years earlier. His parents were still developing their English language skills, so Japanese was the primary language spoken at home. At the beginning of tutoring, Rei was able to accurately decode 4$^{th}$-grade texts, but his comprehension was frustrational even with 1st grade texts.

The final student, Tatia, was a 4$^{th}$ grader who spoke Italian at home. Tatia had been adopted when she was three years old and was nonverbal at the time of her adoption. Thus, while Italian is her home language, her skills in Italian were also still developing. She had moved to the United States four years earlier and her academics were rapidly improving. However, while she was accurately decoding at a 4$^{th}$ grade level, her comprehension was frustrational with third grade texts.

## Materials

We evaluated and selected science trade books based on the following criteria: quality, content, type of graphic and reading levels (see table 1). After reviewing over a hundred books, we finally selected 50 as options for tutoring.

**TABLE 1**
**Book selection criteria**

| Criteria | Description | Examples |
|---|---|---|
| **Quality** | Most books were on the National Science Teaching Association's Outstanding Science Trade Books list. | *Birds Make Nests* (Garland, 2019) <br> *The Brilliant Deep: Rebuilding the World's Reefs* (Messner, 2018) |
| **Content and text genre** | Informational text; Science topic | *About Habitats: Seashores* (Sill, 2017) |
| **Graphic type and function** | Includes symbolic visuals, such as pictures, images and/ or illustrations. Graphics must represent the information in the text and/or add more concrete examples. | *Over and Under the Snow* (Messner & Neal, 2012) <br> *How Animals Build* (Butterfield, 2017) |
| **Reading level** | Lexile level, sentence structure, and text complexity is appropriate for 3rd- and 4th- grade students. | *About Reptiles: A Guide for Children* (Sill, 2016) (Lexile: 390L) <br> *Ice Bears* by Brenda Z. Guiberson (Lexile: 760) |

## Procedure

Tutors and students worked in a one-on-one setting twice a week. Tutoring lasted two months, consisting of 14 sessions. Before the first session, each tutor used the think-aloud protocol to determine students' strengths and needs.

## Think-aloud: Examining students' meaning making process

We employed think-aloud protocols twice to examine students' meaning-making process of texts: before and after tutoring. First, we trained tutors to implement think-aloud protocols, informed by previous studies (Jiménez, Garcia, & Pearson, 1996; Norman, 2010; 2012). Each tutor used the think-aloud protocol to guide the student to verbalize their thinking process while reading a multimodal science text.

Since most of the students were unfamiliar with the think-aloud protocol, the tutor first explained the strategy and then selected several pages from a predetermined informational book to model the think-aloud process. Then the tutor selected another book and guided the student to implement the think-aloud method using the following verbal directions: "Now it's your turn. You will read an informational text. When you read aloud, you can stop at some point and tell me what you think about. I may ask you some questions about the passage.

I want to know what you are thinking about. It is totally okay if you have nothing to say. You don't need to worry about it".

Research indicates that sometimes younger students will not automatically stop to verbalize their thinking process (Norman, 2010; 2012). Thus, our tutors used general prompts (e.g., what are you thinking on this page?), if students do not stop to verbalize their thoughts. As a student read the book, the tutor observed students' responses and used a checklist to record cue words and tally each time when a strategy is used. Table 2 presents an example checklist used to record a student's responses in the initial think-aloud assessment. Tutors also audio recorded the entire reading process for later analysis. The assessment session lasted 20 minutes in total.

## Reading comprehension instruction

Based on the result of think-aloud assessment, we collaborated with the tutors to design, adjust, and implement lesson plans. Informed by previous research (Jiménez, Garcia & Pearson, 1996; Norman, 2012; Schoenbach, Greenleaf, Cziko & Hurwitz, 2000), we identified six key reading comprehension strategies that skilled readers often use to comprehend multimodal texts: predicting, visualizing, connecting, summarizing, verbalizing confusing points, and employing fix-up strategies. All instruction focused on teaching comprehension strategies with modeling, guided practice, and independent practice. Tutors spent 20-40 minutes of each hour-long session on comprehension instruction.

**TABLE 2**
**Think-aloud Strategy Use Checklist**

| Strategies | Tally Mark Each Time Strategy Used | Cue Words |
|---|---|---|
| Predicting | 1 | I predict that it's going to be … |
| Visualizing | 2 | I visualize … |
| Connecting | 7 | This makes me think of… That reminds me of… This makes me remember… |
| Summarizing | 0 | N/A |
| Verbalizing a confusing point | 0 | N/A |
| Fix-up strategies | 0 | N/A |
| List other strategies (if applicable) | 0 | N/A |

**Note.** *Checklist is adapted from Schoenbach et al. (2000).*

We began with a tentative plan (see Table 3 for examples) that was adjusted based on each student's needs. The adjustments were based on students' performance. After each tutoring session, we checked-in with the tutors regarding their students' progress. If the student was unable to implement a strategy independently, we worked with the tutor to provide additional instruction until the strategy was fully mastered. We also collaborated to develop instructional strategies to support tutors and shared quality science trade books they could use in their lessons. In addition to these check-in sessions, we interviewed them at the end of the semester to get an overall understanding of their students' literacy development.

**TABLE 3**
**Template for strategy instruction planning**

| Session | Think-aloud | Books |
|---|---|---|
| Pre | Assessment: A Tutor will use think-alouds to identify the students' needs | Multimodal text(s) of the tutor' choice (from a pre-determined list) |
| 1 | Predicting I | Squirrels Leap, Squirrels Sleep (Sayre, 2016) |
| 2 | Predicting II | Tall, Tall Trees (Fredericks, 2017) |
| 3 | Visualizing I | About Reptiles (Sill, 2016) |
| 4 | Visualizing II | Seashores (Sill, 2017) |
| 5 | Connecting I | Feathers and Hair (Ward, 2017) |
| 6 | Connecting II | About Marine Mammals (Sill, 2016) |
| 7 | Summarizing I | About Parrots (Sill, 2014) |
| 8 | Summarizing II | Can an Aardvark Bark? (Stewart, 2017) |
| 9 | Verbalizing a confusing point and demonstrate fix-up strategies I | *Planet Mars* (Simon, 2006) |
| 10 | Verbalizing a confusing point and demonstrate fix-up strategies II | ABC: ZooBorns! (Bleiman, 2013) |
| 11 | Verbalizing a confusing point and demonstrate fix-up strategies III | Forests (Sill, 2014) |
| 12 | Practice all strategies | Eat Like a Bear (Sayer, 2013) |
| 13 | Practice all strategies | Trees (Lemniscates, 2017) |
| 14 | Practice think-alouds | Pitter and Patter (Sullivan, 2015) |
| Post | Assessment | See What a Seal Can Do (Butterworth, 2013) |

Note. This template was adjusted depending on students' needs after the pre-assessment.

## Data Sources and Analysis

Our primary sources of data are the audio files of students' think-alouds, tutors' lesson plans, checklists of the strategies used during think-aloud, and audio files of interviews with tutors. First, we transcribed all think-aloud sessions and individually completed the checklists by counting the number of the strategies and identifying the cue words. We compared our checklists of strategies as well as crosschecked against those completed by tutors. If a discrepancy occurred, researchers discussed until we reached agreement. We also examined the variety of strategies students used before and after comprehension instruction. Specifically, we investigated if there is any change in strategy usage (in terms of number and variety) as instruction was provided.

Additionally, we analyzed students' think alouds to examine the quality and depth of the students' meaning-making process. For example, in the beginning think aloud session, one of the students merely paraphrased what she read with one personal thought or connection, such as, "It's strange. I've never known it can do that". Later, her connection became more elaborate, such as, "Seeing this frog makes me remember the night times. Sometimes I hear frogs, or toads or something I hear almost all the time at night and it's really annoying". This additional analysis can show a more comprehensive picture of students' comprehension of multimodal texts.

# Results

This case study focuses on understanding three striving ELLs' reading process of science multimodal texts. We are particularly interested in the strategies the three ELLs used to make meaning and attempted to address their needs and enhance their comprehension through 7-week, one-on-one tutoring focused on comprehension strategies. In the following sections, we describe each students' initial skills, instructional needs, and growth during tutoring.

## Juana

Before instruction, when Juana was asked to verbalize her thoughts when she read *Squirrels Leap* (Sayre, 2016), she focused on summarizing the information in the text by rephrasing the texts, and describing the illustrations. For instance, she reported that the text was "telling us about how the paws work, climbing, to pick, for clean and run away from the dangerous things." As illustrated by this example, Juana merely rephrased the texts and often utilized the exact words and phrases to summarize the content of the book. She did not articulate her

thinking process or demonstrate other strategies such as connecting, predicting, identifying confusing points, etc.

After identifying her needs, Juana's tutor implemented an instructional plan to help her to delve into the text more deeply by making predictions, connecting her experiences with the texts, using the five senses to visualize the text, identifying confusing points, and coming up with different ways to tackle confusions. Her tutor quickly realized that Juana's focus was on reading accurately, and therefore needed support to turn her attention towards comprehension. We began providing Juana with graphic organizers to help make the comprehension strategies more visual. Her tutor would then think-aloud to model how to use the graphic organizer to practice comprehension strategies. For instance, when practicing predicting, Juana worked with her tutor to complete an anticipation guide for the book *What do you do with a tail like this* (Jenkins & Page, 2003). As they read, the tutor would think-aloud, explicitly pointing to the anticipation guide to highlight what they had predicted would happen, and then pointing to the text to identify whether their prediction was correct.

After 7-weeks of comprehension strategy instruction, Juana became familiar with other strategies and was comfortable employing them when she did think-alouds. She especially enjoyed using connecting (e.g., "A winter when there is no leaves and they cancel school. I like that. I get to drink hot cocoa at home."), visualizing (e.g., "This makes me think when it's summer, you just see all the beautiful flowers and hear the birds sing") and predicting strategies (e.g.,"I predict that the next page is going to be about a bird, that kind of a bird getting a worm.").

## Rei

When Rei first used a think-aloud with *About Marine Mammals* (Sill, 2016), he did not articulate many thoughts. He described what he saw in the illustrations (e.g., "There are lots of ice and snow"), made a brief personal connection (e.g., "California sea lion. I think I went there") and added some information he knew about the topic (e.g. "Killer whale. Killer whales are predators and eat some preys. Predator eat prey").

Rei expressed that he wanted to work on his writing skills, as this was an area he felt he struggled with in school. Therefore, we integrated his reading and writing instruction to first build his summarizing skills. Much like Juana, he benefited from the use of graphic organizers. His tutor helped him identify the difference between main ideas and details, and then Rei would organize this information into paragraphs.

Seeing that he had emerging skills in making connections with text, we also supported Rei in making text-to-text connections. His tutor modeled this by reading two books about hurricanes and thinking-aloud to demonstrate how she found similarities and differences between the texts. She then supported Rei as he mirrored the process while reading about tornadoes, and was able to verbalize what he learned.

Rei was excited to use the strategies he practiced in tutoring, and would enthusiastically tell his tutor which strategy he used while reading. After several sessions, Rei could use all the strategies introduced by his tutor when he read *The Voyage of Turtle Rex* (Cyrus, 2011). He articulated that he did not know a word (rather than avoiding it or guessing its pronunciation, as he did previously). He made multiple predictions about what will happen next, such as "I think the baby will grow and the mom will find her baby". He visualized the scene, "I think in my head that I see this turtle swim in the ocean all the time, not going out and safe for baby. Look there are turtles", and summarized information, "I read about turtle swish swish swish and baby turtle fell. The dinosaur is doing something to the enormous dinosaur." He also made a connection by talking about his experiences of visiting Monterey Bay Aquarium. He even posed a wondering about the author's word choice, which was not one of the strategies explicitly discussed in the tutoring sessions: "What? Why did he [author] say hid?". He engaged in the meaning making process of the text more deeply by employing a variety of comprehension strategies.

## Tatia

When Tatia was expressing her thoughts while reading *Chameleon, Chameleon* (Cowley, 2005) in her first think-aloud protocol, she merely rephrased what she read: "This makes me think chameleon looking everywhere... It makes me remember chameleon walking on top of the tree". Except for one occasion when she articulated her personal opinions about a chameleon's behavior ("It's strange. I've never known it can do that") she never made any meaningful connections to the text.

Early in their sessions, Tatia's tutor noticed that Tatia would frequently skip over words she did not know, or rush through sections of the text that were challenging. When asked why she did that, Tatia would simply say that it was "boring". Tatia also had a habit of automatically replying to questions with "I don't know" before thinking about the content. We suspected that Tatia was reluctant to identify areas of confusion, so this became a focal point of tutoring. Her tutor thought-aloud while reading a challenging text to model the fact that reading can be challenging for everyone. She explained that being a good reader

did not mean always getting things right, but instead good readers use techniques and strategies to help them understand the text.

While Tatia showed some understanding of the comprehension strategies, she still struggled to verbalize her thoughts. Tatia benefited from the use of sentence frames to help her think aloud. For instance, her tutor wrote "I am confused when it said _____ because _____" on a sentence strip, and Tatia used this whenever she came across unfamiliar content.

After comprehension strategy instruction, she could show her ability to use all five comprehension strategies when she read *Paddle perch climb: Bird feet are neat* (Angus, 2018). She visualized (e.g., "I visualize swan mother, chicks and a fox behind the tree"), made a connection ("Seeing this frog makes me remember the night times. Sometimes I hear frogs, or toads or something I hear almost all the time at night and it's really annoying" ), made multiple predictions ("My predicting is seeing a bird running. Maybe he is running from an animal".) She often articulated her confusions with a word unknown (e.g., "I got confused when it says webbing between your toes, so I'm trying to guess what it means.") or the content (e.g "I was confused when it said small flexible toes because I didn't know that birds had small flexible toes."). She also tried different strategies, such as guessing and looking at a picture, to resolve her confusion. In addition, she tried to identify what strategy she is using in her think-aloud process, often looking to her tutor for confirmation. She became more aware and conscious of the comprehension strategies she was using.

## Discussion

The current study aimed to identify the reading comprehension strategies ELLs utilize to make sense of multimodal science texts, and tailor instruction based on their needs. Engaging in intensive tutoring designed for their individual needs taught students a series of reading comprehension strategies and utilized think-alouds to verbalize and monitor their reading processes. We identified the following implications for future teachers and researchers who aim to provide the best instructional practices for ELL readers.

First of all, ELLs are not a homogeneous group—they have different literacy needs even though they share the same goal of improving English reading comprehension. After their first think-alouds, it was clear they had different strengths, interests, and needs that had to be accommodated to support their comprehension of multimodal science texts. Despite the fact that tutors provided instruction on similar strategies, they used different activities, approaches, and materials based on their students' needs and interests. For instance, Juana and

Rei both benefited from the use of graphic organizers, however Juana's tutor used graphic organizers to visually model reading comprehension strategies, while Rei's used these tools to provide scaffolding for writing instruction. Despite the different approaches, after seven weeks of individualized instruction, students could engage in the meaning making process by employing a variety of comprehension strategies.

Tatia's experience in this study highlights how affective factors can interfere with students' ability to utilize comprehension strategies. Automatically responding to questions with "I don't know" or writing tasks off as "boring" allowed Tatia to disengage from the content. Her tutor explicitly addressed this by explaining that good readers often encounter confusions or have to ask questions, and modeled that this growth mindset was important for reading comprehension. This, combined with the opportunity to practice reading comprehension strategies, gave Tatia the self-efficacy to engage in more challenging texts.

In addition, ELLs need on-going and explicit instruction of comprehension strategies to improve their reading comprehension of science multimodal texts. Based on the initial think-aloud assessment, we assumed that students who showed the ability of using some comprehension strategies (e.g., connecting) did not need additional instruction in this area. However, when implementing these lesson plans, tutors found ELL students often confused the different strategies. On-going review helped students to solidify their understanding and application of these comprehension strategies.

Another interesting finding was that students, especially Tatia, demonstrated that they could use some of the comprehension strategies even when they struggled to name them. Further research should investigate the importance of being able to name the comprehension strategy being used. It could be argued that as long as a child effectively utilizes a strategy, it may not be important for them to be able to name that strategy. However, research in metacognition has demonstrated that being aware of one's thinking process can support comprehension (Garner, 1987). Thus, it might also be true that being able to explicitly name a strategy will help striving readers' comprehension.

## Limitations

The one-on-one individualized instruction may not work in the realistic setting of the classroom. However, teachers need to find ways to differentiate instruction to provide effective individualized support for their students. Possible differentiated instruction may be implemented by working with a group of ELLs with similar needs, team-teaching with ELL teachers (if available), or teachers

of the same or similar grade level, and providing materials with more guidance and support.

The findings of the current study are based on observing three striving ELL readers' comprehension process of multimodal texts, assessing the 14-sessions of individualized tutoring. One limitation is the small number of participants in this study. Moreover, we only analyzed the data from think-aloud assessments; future studies could also include more data sources such as field notes, and interviews with students. Finally, due to the time frame of university curriculum, we were only able to collaborate with reading tutors and provide instruction for seven weeks. Long-term tutoring may be more effective as it provides tutors the opportunity to reinforce some strategies as ELLs needed.

## Conclusion

The current study examined the instructional needs of three ELLs and comprehension strategies they used while reading science multimodal texts by employing think aloud protocol. After 7-weeks of individualized instruction, we found they could utilize more comprehension strategies, which helped them engage in multimodal science texts. Based on the findings, we suggest that it is important to understand ELLs' needs and provide on-going differentiated instructions and guidance to support ELLs' reading comprehension of informational texts. Furthermore, we encourage teacher preparation programs to train teacher candidates in the effective use of think-alouds, both as assessment and instruction, to support the comprehension development of language learners.

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# Home-based Family Literacy Practices of a Hispanic Family and School-based Literacy Expectations: The Condemning Intersection

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## Abstract

*As family involvement in reading is advocated by multi-leveled educational stakeholders there is value in understanding the intersection of home-based literacy and school-based literacy. In this context are expectations from some educators and administrators for "reading success" of students that are only situated in high scores on informal and state mandated assessments. Data from this case study research indicates aggressive, threatening explicit comments, and inertly implicit attitudes concerning reading expectancies from these educators toward the Hispanic parents and children of the parents. In reaction to these comments and attitudes, the mother had moments of extreme frustration and physically acted out against these children. It is important for educational stakeholders to recognize that their comments and attitudes are perceived in many ways; ways that can negatively influence familial situations that can limit student success and valuable parental assistance and involvement.*

*Keywords:* home-based family literacy, school-based literacy, reading expectations

This study provides insight in understanding the intersection of home-based literacy and school-based literacy and expectations surrounding each from educators and one administrator. Home-based family literacy and reading activities are broad in scope and are valuable. However, these activities were often

regarded as unimportant and/or unrelated to school-based literacy expectations, and therefore inferior. Educators and the administrator in this study only framed reading expectancies as "reading success" on informal assessments and state mandated reading assessments. In response to this perceived mismatch between home-based family literacy and school-based literacy expectations, the educators and administrator approached a Hispanic parents and children of the family from a literacy deficit perspective by delivering either aggressive, threatening explicit comments or having inertly implicit attitudes. These parents consistently assisted their children's reading to try to attain this academic success by culturally and socially relevant means but it was deemed "not enough" by teachers and the administrator. Ultimately in trying to meet the school-based literacy expectations familial relationships were jeopardized. Pressure, frustration, and guilt from the mother resulted in emotional and physical abuse from mother to children.

## Literature Review

### Deficit Perspective

Abdi (2016), England (2004), Purcell-Gates, (1995), Taylor & Whittaker (2003) and Villenas (2002) characterize deficit perspectives as those that focus on persons from culturally and linguistically diverse backgrounds and what these persons or their environment supposedly lack relative to the dominant society. Such perceived deficits in the context of education could include low intelligence, poor parenting skills, lack of concern for school achievement of their children, lack of involvement in children's education, and limited literacy skills and practices, especially in the home. Often teachers, principals, and public schools as a whole can fall victim to these deficit beliefs about Hispanic families (Gregory and Compton-Lilly, 2013; Nelson Baray, 2013; Valdes, 1996). These deficit perspectives may result in the devaluing of children, their families, and the literacy knowledge and activities in their home because they reflect on a limited or non-existent understanding of diverse families and a narrow vision of their home-based literacy practices (Compton-Lilly, 2009; Nelson Baray, 2013). To make assumptions based on lack of knowledge of a marginalized group, as Hispanic families, "…generates pedagogical decisions and moves that are uninformed, inappropriate, and hence ineffective…" (Purcell-Gates, 1995, p. 188).

Many educators believe literacy learning only occurs in school-based settings (Barton, 1997; Hurst, Wallace, & Nixon, 2013; Volk & Long, 2005). Volk & Long (2005) documented statements from various educators about diverse learners which indicate deficit beliefs and assumptions. Their research

documented public school educators' deficit belief system about Hispanic families, their households and literacy education.

Myth 1:    Hispanic families do not value education.

Truth:    All Hispanic participants in the study valued education and saw education as important to life and work.

Myth 2:    If Hispanic parents cared for their children, they would read to them and teach them the way it is done in school.

Truth:    Hispanic parents supported their children's learning in multiple, effective ways.
Some were school-like, for example helping with homework and reading to their children and others were more home-based. Examples of home-based activities include storytelling, using family recipes, reading from the Bible.

Myth 3:    Children and families in Hispanic homes participate in very limited literacy practices and activities.

Truth:    Hispanic families participated in many literacy activities in their home.

Myth 4:    Children and families in Hispanic homes have few literacy resources.

Truth:    Hispanic families have abundant literacy resources. Many times literacy learning is socioculturally-based.

It is many of these same deficit myths that educators often assume contribute to low education gains and low scores on state mandated assessments of Hispanics compared to their peers (Cairney 2009; Gorski, 2011; Purcell-Gates, 1995). The deficit perspective in education research with marginalized populations has been ongoing for many years. Fifty years ago (Carter, 1970) found there was a strong disconnect between the relevant world of Hispanics and the schools they attended. This intersection often created conflict between Hispanic parents, educator expectations, and the school. Sadly this negative intersection is still evident in many schools in the context minority students (Fox, 2016; Li, 2009).

## Home-Based Literacy and School-Based Literacy

Children's thoughts and learning are shaped by families, teachers, schools, and communities (Bogenschneider and Johnson, 2015; Gregory and Compton-Lilly, 2013). Specifically, family histories, family organization, and culture contribute

largely to knowledge acquisition. The effort to analyze how children and families learn while acknowledging their culture, benefits educators (Cairney, 2009; Compton-Lilly, 2009; Gregory and Compton-Lilly, 2013). By examining minority families in the context of literacy learning and the demands placed on them from educational institutions, researchers are coming to understand the impact these factors have on children's development and educational experiences (Gorski, 2011; Perry, 2012).

Gaining literacy knowledge outside the school-based setting counters the often traditional mainstream belief that a formal, academic education is essential for literacy acquisition. A more structured school-based approach may be appropriate for some learners, however public schools in the United States are educating more linguistically and culturally diverse learners than in the past and a "one-size-fits-all" model of learning is no longer appropriate (Osterling, 2001). This one size fits, school-based approach includes skills-based learning initiated by teachers or curriculums that often overlook relevant social and cultural backgrounds, knowledge, and experiences students bring with them to school. Educators must look beyond just school-based learning and fully embrace families and their home-based literacy learning that are centered in differing sociocultural experiences, erudition, and resources (Brown, 2013; Garcia and Wei, 2014; Purcell-Gates, 1995). Recognizing these assets as a foundation for school-based literacy contributes to greater success with all educational practices without placing blame (Cairney, 2009; Gregory and Compton-Lilly, 2013; Li, 2009).

## Educational Expectations

Often times, public schools and educators are immersed in the social and political aspects of education (Coburn and Woulfin, 2012). Many times these aspects are rooted in meeting national and state standards and attaining success on local-level and state mandated assessments. Pressure is created from top tier educational stakeholders (federal, state, and district personnel) to the lower levels (campus administrators and teachers) to achieve academic success. Gonzalez, Moll, and Amanti (2005) refers to these as "institutional constraints" (p. 2), which often limit social research agendas that encourage and allow teachers and administrators the power to change situations within their schools based on their "self-reflection and a deeper understanding" (p. 2). These conditions often detach educators from their student's needs and stress the "standardization and homogenization" of their students (p. 2). Educators often feel disempowered and begin to blame parents and students, creating a pressure to meet literacy standards devised by those lacking a true connection to all involved in education (Gonzalez et al., 2005; Smith, 2003).

As Fraatz (1987) states, many times educators spur parents "to consent to the ways schools define educational interactions" (p. 126). This pressure often creates an environment of hostility by educators because they openly or subtly devalue parents for their perceived deficit or lack of involvement, interest, skill, and caring (Dudley-Marling, 2000). This denigrating view by educators can create a sense of frustration and guilt for parents because they are both unsure of the school-based literacy expectations or the definition of literacy is so narrow that only school-based literacy activities are valued.

# Methodology

## Purpose

The purpose of this presentation is to assist educators and researchers in understanding the literacy experiences in the homes and schools of Veronica and Michael Ramirez while growing up, the current home-based literacy practices of the Ramirez family that contribute to literacy acquisition, and how present home-based literacy practices intersect with school-based literacy expectations that are driven by teachers and administration.

## Research Questions

The research questions guiding this research are (1) What are the past home-based and school-based literacy practices and experiences of each of the Hispanic parents? (2) What are current home-based literacy practices of a Hispanic family that support literacy acquisition? (3) How do the current home-based literacy practices intersect with school-based literacy expectations from public school educators and administrators?

## Qualitative Case Study

According to Gall, Borg, and Gall (2003), the case study approach stresses the comprehensive investigation of a phenomenon in its natural context and from the viewpoint of the participants involved in the phenomenon. Case study research also offers several benefits for researchers. These advantages include a thick account to support readers in comparing and contrasting case studies and offering researchers the ability to explore unusual phenomena, ultimately gaining better understanding. Case studies have the potential to develop grounded theories based on collected data. From these data, analysis via a coding system to assist the interpretation process occurred. Coffey and Atkinson (1996) state "coding qualitative data enables the researcher to recognize and re-contextualize data, allowing a fresh view of what is there" (p. 45). According to Miles &

Huberman (1994), this coding and categorizing system allows the researcher to assign units of meaning to the information compiled. The information is compiled in "chunks" of words, phrases, sentences, segments, or meanings significant to the study. Codes and categories are developed to retrieve and organize these "chunks" thereby drawing conclusions from the data. From this coding came connections and interpretations that created themes that became the foundations for theory development (Strauss & Corbin, 1998).

## Study Participant and Setting

The setting of the study was conducted in the home and community of the Hispanic husband, wife, and three children who were participants for this study. This home was located in a large city in Texas (United States). Veronica and Michael Ramirez (pseudonyms) have been married for nine years and have three children Anthony (age 15), Michael Jr. (age 10; 4th grade; failed 2nd grade) and Anita (age 8; 2nd grade). Michael is 40 and Veronica is 35. Each parental participant has a full time job and considers their family middle class. Each grew up in a lower class home, learned English as a second language, spoke mostly Spanish and limited English in the home and spoke English in school, had parents with limited formal education and attended public schools in Texas.

## Methods

A qualitative case study methodology is used with triangulated data from interviews, observations, artifacts, and field notes. In a six month period twelve interviews occurred between the researcher and the study participants (seven with mother alone, three with mother and father, two with two youngest children, one with all three children). Also in this period the researcher observed the participants in home-based settings including family gatherings including cooking sessions, dinners, movie/television times, homework time in the evenings, a church service including a baptism, quinceanera, and birthday party. These observations happened before or after each of the twelve interviews.

Occurrences gathered in each observation and interview guided questions asked in the next interview session. The specific data analysis process of the interviews and observations included the creation of a coding system to assign units of meaning (themes) to the information compiled. During each interview the researcher took comprehensive notes. Once in another setting the researcher would examine the notes looking for units of meaning. More units (themes) were documented as more interviews were accomplished.

During these interviews and observations comprehensive field notes were taken for each occurrence and artifacts gathered including, but not limited to,

family correspondences (handwritten), family recipes, written comments from teachers, note from principal, written notes on homework, and reports from school-based informal reading assessments. The specific data examination process of the field notes and artifacts also contributed to the coding system of ascribing units of meaning (themes) to the information compiled.

The mother in the study member-checked the field notes after each observation, interview, and collection of artifacts with the intent to offer additional information and clarification if needed.

Themes based on data continued to arise and are discussed in the following section. This data offers greater, detailed understanding of the negative intersection of home-based literacy practices and school-based literacy expectations and the parental pressure, frustrations, reactions, and guilt from the mother concerning these expectations. The pressure and frustrations resulted in verbal, emotional and physical reactions and abuse from mother to children.

## Findings

Study Data will offer valuable insight into the early literacy lives of two Hispanic children (who are now parents) and familial literacy practices within their home and community with their children, and how these early and present literacy practices traverse with school-based literacy expectations centered on higher reading scores on formal and informal reading assessments. These expectations currently influence Veronica and Michael greatly as they interconnect with educators and a principal where their children attend public school. These intersections are at times negative and impacts relationships at multiple levels.

The evidence grounded in the data concerning question one (What are the past home-based and school-based literacy practices and experiences of each of the Hispanic parents?) of Michael and Veronica Ramirez while growing up indicate literacy acquisition within each household was embedded in the daily, sociocultural functions of their lives although these literacy and reading occasions were not realized by either research participant. Their school-based literacy practices and experiences were extremely negative, not viewed as relevant, and continue to be influential in the interactions of Michael and Veronica with their children's teachers and principal. A summary of points to validate this premise follows:

1. At each respective home while growing up Michael and Veronica used an abundance of daily socially and culturally based activities to assist with literacy acquisition. Examples included, but not limited to,

various literacy instances within the home and community as ordering fast food, reading and paying household bills via checks, translating school information, writing to-do lists, notes, watching and listening to English speaking television, listening to the radio, and speaking to family and friends, including verbal interaction with parents, run errands, repair items, and attend church and social occasions.

2.  Growing up Veronica and Michael viewed literacy, and specifically reading, as valid only when it was used in school-based contexts. Because of various negative instances in school Veronica viewed herself as unsuccessful with school-centered literacy. Veronica repeated $1^{st}$ grade. She attributes this failure and other grade-level struggles to her interactions with teachers and her limited school-based reading skills. During these struggles she received humiliating comments from and adverse interactions with teachers. Specifically these were so traumatic that she had bad dreams and played sick, begged her mother to let her stay home, and several times in first grade she uncontrollably urinated on herself.

3.  In the same context Michael states his $2^{nd}$ grade failure was due to his reading difficulties. He, as Veronica, subsequently struggled with reading throughout his schooling. He indicates he was constantly in the low performing reading groups in his school-based education. He states he constantly was made fun of and felt bad about this fact.

4.  Extremely discouraged from school experiences and comments from educators each parent evolved into believing there was no relevancy and contribution to their lives from school-based literacy.

5.  Veronica received constant encouragement from her father to graduate high school. This encouragement did not outweigh the sense of uncaring teachers, the irrelevance of school work to her home life, and her perceived lack of school-based reading skills to sustain her graduation. Veronica quit high school in $10^{th}$ grade.

6.  Michael also felt the school offered no relevant aspects to his life, especially with reading. Yet Michael's stepmother was eager for him to graduate high school. To appease her Michael did complete high school.

The evidence grounded in the data collected concerning question number two (What are current home-based literacy practices of a Hispanic family that support literacy acquisition?) indicate that literacy acquisition is evident in the home.

Literacy serves many functions in the Ramirez family and is broad in scope, viable and valuable. A summation of points to validate this premise follows:

1.  The Ramirez family use literacy in multiple, functional ways. These activities include, but not limited to, gaining and sharing information from various sources, to enhance interpersonal relationships, to complete needed information for others, for entertainment, for school-based activities, and for social and cultural rituals.

2.  Literacy use within the family and community is not always realized or valued by the Ramirez parents and children because it is not used within a school-based context.

3.  Each Ramirez child uses relevant, home-based literacy practices in context to understand and complete a multitude of activities within home and community including technology usage (phones, video games, computer), watching and understanding various television programs (child centered shows, news, evening shows, game shows), church activities (worship sessions, baptisms), social activities with others, and school-based activities such as homework and special school projects.

The evidence supported in the data collected for question number three (How do the current home-based literacy practices interface with school-based literacy expectations from public school educators and administrators? ) include the home-based family literacy practices of the Ramirez family that are often marginalized and regarded as non-existent, unimportant and/or unrelated to school literacy expectations. From a school-based literacy perspective educators approach the Ramirez parents and children from a deficit perspective. This perspective creates a feeling of devalue, frustration, and guilt on behalf of the parents and negatively impacted the intra-familial relationship between Veronica and Michael Jr. and Anita to the point of verbal, physical, and emotional abuse. A summation of points to validate this basis follows:

1.  Hispanic cultural-based respect for educators keeps Veronica from asking more questions of teachers about her children's education, including reading abilities. She does not want to be viewed as disrespectful of teachers, their knowledge, and skills. Any comments given by educators she accepts without question or discussion.

2.  Veronica feels enormous frustration with the demands placed on her and her children from educators and principal to meet reading goals,

reading grades, formal and informal reading assessment scores. According to Veronica the comments and actions from school educators imply she and Michael are not doing enough at home to assist their children advance in reading. Veronica declares the principal stated, "They (Michael Jr. and Anita) need to get more help at home." In another interaction with Veronica the principal said "Michael Jr. had to improve his reading scores on the tests in an effort to help the school receive a higher overall score." Veronica affirms the principal told her "The school HAS to have certain scores." To Veronica, the impression the principal gave was more reading practice has to be accomplished in their home for Michael Jr. to be successful and not let the school down. In another instance Veronica indicates the principal stated privately, after an Admission, Review, Dismiss (ARD) meeting for potential services in Special Education, "Michael Jr. makes the school look bad." Veronica asks "Why would she (the principal) say this when she knows Michael Jr. may have (Special Education) issues?" Veronica reiterates to me throughout many interviews, she does assist the children with their homework, including their reading. Veronica also declares she and another parent had a recent conversation. The other parent confided in Veronica the principal said her son also "did not make the school shine because he struggles in reading." Veronica asks me "How can she (the principal) make people feel this little?" Veronica also declares teachers past and present of Michael Jr. and Anita made comments to her and the children about low scores on informal and formal reading assessments. Veronica shares several comments received, "Are you working with him?' "Are you helping with reading at home?" "What reading are you doing at home with her." "She's low. She needs more reading help at home." "You need to help them with the reading we do in class." Veronica states, "I get it from both ends. The teachers are on me and the principal is on me. I get so mad but I decide I have got to help them (children) even more because the people in charge want me to." Veronica expresses she has asked her children if their teachers have made comments about their reading skills. Michael Jr. and Anita both shared their teachers have. During data collection Michael Jr. states, "She tells me I've got to get better with my reading." "She asked me if my mom helps me at home." Anita offers, "I know my teacher wants me to be a better reader. She says that a lot."

3. Each parent wants their children to succeed. Veronica admits she takes all the comments from educators to heart and tries in every way to

meet the demands of educators and principal with reading. She has enormous guilt as Michael Jr. and Anita are not progressing enough as indicated by educators. In the past this guilt has caused her to act out her frustrations. She admits to times of verbal, emotional, and physical abuse of her children. She states "I will be helping them with their reading and they don't get it. I try to help them more with different reading and they mess up. This mess up is all the time it feels like. I get so mad because they don't get it and I don't understand why."

4. In the past few months (before this study) Veronica indicated she realized her abuse was becoming more frequent and she decided she does not want to use reading requirements, and scores, deemed necessary for school success, as a means to hurt her children, no matter the pressure she feels from educators and the principal. With her guilt reaching imposing proportions Veronica indicated her interpersonal relationships with her children are more valued than their school performance in reading. She says "I've decided to change. I've hurt my kids just to make the principal and teachers happy. I see the way they look at me when I start screaming about their reading. I won't…I can't do it anymore. I can't make my kids feel how I did when I was a little girl trying to learn to read."

## Discussion

Data from the case study of a Hispanic husband, wife, and three children who are participants indicates each parent had an abundance of home-based literacy, reading practices within their home while growing up yet reading was regarded as valid only in a school-based context by each and the schools they attended. In these school contexts negative comments and experiences about reading abilities came from educators. These quelled each parent's reading and school motivation. According to Veronica her prior school experiences and comments received influence how she views and reacts to educators today. Educators must remember each parent brings their child to school but also bring their own past educational experiences. While educators cannot change a parent's past encounters with school-based reading, they can have greater awareness and understanding of how these past experiences can shape interactions with educators. In this same context of mindfulness, educators should work to not make harmful deficit assumptions about parents that influence educator attitudes. If educators feel parents are not fully involved and not meeting school-based literacy demands reasons could include cultural respect for educators as to not be viewed as meddling and

parental past experiences with their own education. Educators must remember how easily a person's past can influence present interactions with teachers, their children, literacy, and school as a whole.

Presently the family uses home-based literacy in multiple, functional ways to contribute to their lives; but as with their younger selves, the parents still view reading as significant only when occurring in a school-based setting. This belief has also been appropriated by all three children even while they use home-based literacy for multiple purposes. Once educators themselves fully comprehend valuable literacy practices occur in settings beyond the classroom, they can assist students and parents to understand literacy occurs in multiple contexts at school and home, and is limited to school situations. Additionally this awareness by teachers broadens the idea of the reciprocal relationship between home-based literacy and school-based literacy in experiencing and teaching, thus making literacy more relevant to students.

Each parent indicates they want success for their children. They both stress a means to that success is school. Deeply rooted in school is literacy learning. Educators have the responsibility to ensure students reach their literacy learning potential. Many times with this responsibility comes authority. Many parents, including Hispanic parents, acknowledge this power as they view educators with respect and as people who will help their child succeed. The educators who effectively collaborate with parents to ensure student success do not use power as a means to dominate students, parents, or situations. While this is true for many educators, some negatively use their influence, or power, with families. Data indicates this is happening with this family. In the context of research contribution, this case study can broaden insights into what some families are facing. If educators become more consciously aware of their implicit and/or explicit adverse influence, they can constructively adjust their demeanor when interacting with families. This can also contribute to changing a deficit perspective. Deficit-based beliefs, comments, and actions are damaging. If those in education are aware of, fully understand, and work to remove deficit perspectives a change can occur in how students and their families are approached, spoken to, and treated. This can create a more collaborative spirit while helping to relieve the stress, frustration, and guilt some parents may feel and the destructive verbal, emotional, and physical actions some parents may do, all in an effort to assist their children with literacy attainment and success.

In the context of research contribution, this case study can broaden multiple insights into what some families face as they interact with and attempt to meet the literacy demands of educators. Even more important, this study brings

attention to the harmful consequences of these demands and the damage families can suffer.

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# Building Bridges: Connecting Content, Literacy, and Online Learning

## TexasSTREAMS: Bridging STEM into STEAM, then STREAM into STREAMS as an Inclusive Realization of Reading Engagement

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**Abstract**

*Transitioning from STEM to STEAM, then from STREAM to STREAMS expands the original conception and incorporation of the Arts into the original STEM model as insufficient with respect to an all-inclusive, cross-curricular construct that intentionally recognizes the role of reading and literacy as imperative to the overarching concept. Makerspaces bring people together to tinker, create and make things, yet learning studios are equally viable as embracing desired experiential, collaborative learning. A recognition of TexasSTREAMS as inclusive of reading engagement and literacy development as collaborative, and hands-on learning is realized. TexasSTREAMS also represents a viable conceptual framework model that leads into the inclusion of*

*social studies and diversity thus proposing a fully developed, content-integrated body of knowledge that builds bridges towards literacy development across the curriculum.*

*Keywords:* literacy, reading, differentiation, engagement, collaboration

## Introduction

Embracing and nurturing a 21st century learner's active engagement around educational activities is viewed as imperative if they are to fully internalize the presented content. Science, Technology, Engineering, & Mathematics (STEM) was the initial focus of a concept that integrated the respective components in an effort to produce more skilled, knowledgeable students in the key areas of math and science. A single event in science history astounded educators more than any other event. The former Union of Soviet Socialist Republics (USSR) launched the first artificial satellite. The unexpected launch of Sputnik in 1957 jump-started American efforts to improve science education. The technology advances represented by the launch of Sputnik and the success of the Soviet space program impelled extensive American investment in science education. Sputnik and the *race to space* between two world powers heralded at cold war that fueled changes in science curriculum, teaching materials and learning standards, thus invigorating an interest in STEM, intended to ensure that American students were prepared for science- and technology-related careers.

Anticipated deficits in future high-demand STEM careers further intensified concerns about the quality of STEM education. Spurred by comparisons, as measured on international tests (Programme for International Student Assessment, 2018 & National Assessment of Educational Progress, 2019), of American students to students in other industrialized countries, STEM education is the beneficiary of recent increased focus and funding. At this point, research in the field is still primarily focused upon STEM. As such, the ability to bridge an inclusive realization of reading engagement that shifts STEM into a more inclusive understanding around literacy is necessary and appropriate within the realm of meaningful learning engagement. The broad-based emphasis on analytical thinking has given way to the realization that science innovation opportunities should involve creative and imaginative approaches to problem-solving; thus, the extension of STEM to STEAM, thus directly integrating the creative arts into this learning model.

STEAM was created to integrate the Arts into the previously existing model and provide a visual representation to the initial focus. The addition of "visual, spatial, and graphic arts have the potential to reveal science and culture in distinct

ways that are complementary to our traditional ways of understanding science" (Segarra, Naatalizio, Falkenberg, Pulford, & Holmes, 2018, p. 2). The more recent expansion resulted in STREAM, which represents an attempt to highlight an inclusive understanding around reading and literacy, concepts that have been said to be *implied* but not clearly expressed in the original model. Content or subject matter literacy, more recently referred to as *disciplinary literacy* (Shanahan & Shanahan, 2012), apart from reading and writing literacies, are foundational aspects of academic competence necessary to read, write, and interact across a range of platforms, tools, media, and social networks in a digitally-connected world. Moreover, STREAMS offers the inclusion of social studies and diversity of thought, content that is often marginalized in the PK-12 curriculum due to time constraints and state testing foci (Shulsky & Hendrix, 2016), and encompasses understanding and the integration of multiple disciplines of humanities, history, social sciences, geography, and civics An increasingly globally-connected, diverse society suggests cultural competence, as a means to promote equity and social justice, is an essential component of a quality education.

## Critical Thinking, Problem Solving and Analytic Engagement

Throughout an instructional event wherein the learning process is a cognitively embedded engagement, the learner's implicit and explicit cognitive engagement supports discerned considerations around learning, understanding and differentiated conceptual frameworks of understanding (Vygotsky, 1933/1966, 1934/1987, 1935, 1962, 1978, 1981). Additionally, Bloom's Taxonomy of the Cognitive Domain that was revised by Anderson and Krathwohl for the Digital Age (Anderson, 2013; Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths & Wittrock, 2001; Bloom, Englehart, Furst, Hill & Krathwohl, 1956; Crawford & Smith, 2015; Krathwohl, Bloom & Masia, 1964) supports the engagement of learners with lower-order thinking skills that progressively enhances engagement with subject matter, towards higher order thinking skills that emphasize the more elevated levels of cognitive success that is introduced by Bloom as Evaluation (Bloom, Englehart, Furst, Hill & Krathwohl, 1956) and Creation by Anderson and Krathwohl (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths & Wittrock, 2001).

Conceiving of TexasSTREAMS from a social learning, motivational and self-efficacy recognition, Bandura introduced the ability of a learner towards analytic engagement as highlighting problem-solving success (Bandura, 1969, 1973, 1977, 1986, 1997; Bandura & Walters, 1963). The motivational interest around

the learning and instructional engagement process supports the development of a lifelong learning approach to looking at information in new and different ways, thereby supporting the learner's understandings towards self-efficacy.

## From Makerspaces to Learning Studios to EuroSTEAM

Learning environments are being re-imagined swiftly, from the Industrial Age model that focused upon readying young people for factory work into the Information Age reality that, "… by speeding up change in our outer world, we compel the individual to relearn his environment at every moment. This, in itself, places a new demand on the nervous system" (Toffler, 1970, 1984, p. 180). Further, "A similar strategy can be used to enhance human adaptability. By instructing students how to learn, unlearn and relearn, a powerful new dimension can be added to education" (Toffler, 1970, 1984, p. 414). Bridging the landscape from the Industrial Age mentality into the Information Age reality within today's necessary embracement of the learning process and, specifically, learning *how* to learn are primary concerns. Within this understanding, building upon the significance of literacy within this age of information overload is of vital importance. Not only must citizens be able to critically read and analyze everyday messaging through traditional means of communication, but also through today's digital marketspace of social media and immeasurable amounts of information at one's fingertips.

### Makerspace

The rapid and continuous changes in the expansive digital information age has introduced novel instructional and curricular design and delivery modes (Kidd & Keengwe, 2010). Something that has been catching fire across the educational landscape is the concept of a *makerspace,* a "movement [that] has gained a large following among the library community" (Mann, 2018, p. 82). Under the guidance of the American Library Association, all types of libraries, but particularly school libraries, are envisioning makerspaces through the lens of *information literacy* where library users blend maker experiences with information location, use, and evaluation (Mann, 2018). A makerspace as an experiential invention environment, a space in which people, and in this context students, come together to tinker, create and make things.

The concept of makerspaces has been an initial effort, towards pulling together a concept of focused attention within a locatable physical space, while

highlighting the physicality of manipulatives and tools of engagement. The strength of the makerspace must be emphasized as instructionally viable and a welcomed approach to individual and small group instructional engagement that aligns with the reflection of the "center" concept found in early childhood and young child instructional environments. The hands-on creativity and raw-ly visceral, instinctual physicality associated with understanding are to be commended, much as are physical manipulatives within a mathematics elementary classroom environment as they are used to support the learner's understanding at the appropriate developmental level of engagement. The implementation of makerspaces has been touted as creatively diverse and deeply engaging for the learners, no matter the developmental level, age, nor the articulated knowledge level of the learner. This is due to the ability of a makerspace to appropriately engage the learner at the level of ability, knowledge and skills specific to each individual learner. Makerspaces have slowly grown into viable highly engaging and hands-on environments within which learners have the opportunity to create new understandings through the physicality of engagement using an inquiry based approach. Towards offering a visual representation of the innumerable areas of emphasis within a makerspace environment, Figure 1 offers this style of understanding clarity. "Makerspaces provide hands-on, creative ways to encourage students to design, experiment, build and invent as they deeply engage in science, engineering and tinkering" (Cooper, 2013, para. 1).

Yet, what of a more cognitive endeavor such as literacy as a reading engagement? Consider further, Toffler's thoughts around the learning process:

> By instructing students how to learn, unlearn and relearn, a powerful new dimension can be added to education. Psychologist Herbert Gerjuoy of the Human Resources Research Organization phrases it simply: "The new education must teach the individual how to classify and reclassify information, how to evaluate its veracity, how to change categories when necessary, how to move from the concrete to the abstract and back, how to look at problems from a new direction—how to teach himself. Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn." (Toffler, 1970, 1984, p. 414)

One may suggest that a makerspace is necessary but not sufficient to address the learner needs around learning, unlearning and re-learning information in new and different ways. Yet within an instructional environment, one may suggest

**Figure 1.** Makerspace as curricular support, cognitive understanding and social engagement.

that the learning space is the message to highlight the quality of learning occurring. Simplistically stated, the learning studio.

## Learning Studios

Yet what is a *learning studio*? "A Learning Studio is a place where learners define the problems they want to solve and design solutions to address them. Leveraging powerful technology, students engage in activities and projects that expose them to skills and strategies such as design thinking, engineering, and digital communication" (Digital Promise, n.d.a, para. 1). A learning studio is an environment that embraces the vulnerability of experiential learning, collaborative learning pods, and even base step learning areas that support learners with different levels of knowledge understanding related to the subject matter. Advancing from the novice understanding of the subject matter that one may reflect upon as being a pedagogical realm of impact and influence, towards a learner with a developing conceptual framework of understanding (Vygotsky, 1962, 1978, 1934/1987) and engagement with prior knowledge. There is an emphasis upon scaffolding learning, around a subject matter while still engaging with the subject matter in

new and different ways that embraces the concept of andragogical learning. This learner is engaged through a more heutagogical and heuristic understanding of the subject matter that is more aligned with self-determined learning and which highlights the creative reimagining of the subject matter in new and different ways that are far beyond current imaginings (Crawford, Young, & White, 2018).

What does literacy look like within this type of learning studio? What is its function or role? What is the bridge that is built amongst levels of knowledge acquisition and understanding? A learning studio environment may sustain this supportive environment that reimagines learning and literacy development and reinforcement.

Along with this understanding of learning studios, an emotional intelligence must be realized. The learning studio supports a viable learning environment that not only underpins or strengthens, but embraces the conception of implicit cognitive vulnerability that opens one's trust, comfortableness and sense of safety within an instructional environment so as to more fully embrace the learning experience (Crawford, 2015, 2016, 2018; Crawford & Semeniuk, 2016; Crawford & Smith, 2014). While also considering learning in landscapes
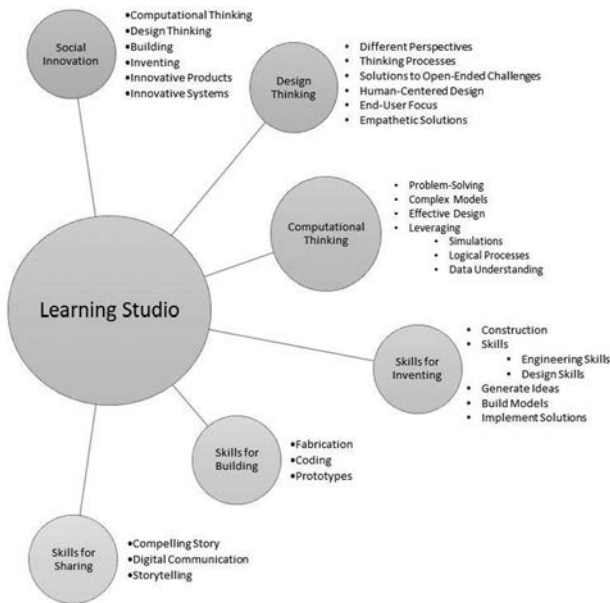


**Figure 2.** Learning studio as curricular support, cognitive understanding and social engagement.

of practice (Wenger-Trayner, Fenton-O'Creevy, Hutchison, Kubiak, & Wenger-Trayner, 2014; Wenger-Trayner & Wenger-Trayner, 2015), the learning studio highlights the conceptions of experiential learning, collaborative learning and basic yet supportive learning areas. A learning studio is a dynamic environment, focusing upon learner-centered endeavors and highlighting the library environment as a community of embedded literacy and learning endeavors that extend literacy from a reading and communication understanding into the inclusion of information and media literacy.

## EuroSTEAM

As Europe has embedded the EuroSTEAM Project, the suggestion of TexasSTREAMS represents a real-world model around educational activities that embrace and nurture learner's engagement with cross-curricular science, technology, reading, engineering, arts and mathematics. Perhaps the most appropriate place to begin is explaining the EuroSTEAM project. As explained through the EuroSTEAM web site (EuroSTEAM, 2017):

> EuroSTEAM will offer school learners as well as their educators' different perspectives and approaches to find their interests and strengths in STEM education while providing a better understanding, at the European level, on the impact of innovative teaching practices as a method for addressing underachievement in basic skills of maths, science and literacy. The lasting outcome of the project will be to increase the quality of STEM education ensuring the availability of innovative didactical materials across Europe to increase motivation for both teachers and learners to increase their understanding maths, science and literacy education. (para. 1)

Recognizing the strength of the European partners that strengthen the endeavor, EuroSTEAM pulls together seven European partners to realize the production of "…three innovative outputs for schools. The main output of the project will be the development of a training toolkit for teachers to deliver effective and innovative STEM education activities which nurture and enhance natural creativity in order to increase student's interest in scientific education and careers" (para. 1). The products are offered in partner languages, including "English, Italian, Spanish/Basque, Dutch, Portoguese" (p. 2). Of intrigue is the highlighted engagement of camp curricula and course materials as tangible resources suggested as including videos as cognitive tools highlighting conceptual frameworks

of understanding (Vygotsky, 1933/1966, 1934/1987, 1935, 1962, 1978, 1981), video tutorials towards supporting procedural projects, and even instructional support such as presentation materials highlighting brochures, manuals and worksheets. Enhancing the effort is the recognition that all noted resources are digital in nature and easily made available online. Also worthy of consideration, is the physicalness of the environment that supports learning in landscapes of practice (Wenger-Trayner, Fenton-O'Creevy, Hutchison, Kubiak, & Wenger-Trayner, 2014; Wenger-Trayner & Wenger-Trayner, 2015).

## TexasSTREAMS Curriculum

Recognizing that the EuroSTEAM acronym focuses upon science, technology, engineering, artistic endeavors and mathematics, it is worthy of notice that literacy around the core STEAM subjects is highlighted (or acknowledged). However, one may suggest that this embedding of literacy towards reflecting subject matter understanding is necessary, but not sufficient. Instead, literacy as a stand-alone concept around an understanding of English, language arts and reading is not found in either the STEM or the STEAM conception; instead, the acronym STREAM conceptualizes and recognizes/emphasizes the importance and subsequent integral impact upon the areas of science, technology, reading, engineering, art and mathematics. Additionally, the introduction and integration of social studies introduces the STREAMS representation. This inclusion of social studies highlights not only an inclusionary understanding and view of the world from a historic perspective, but also introduces the diversity that is reflective of disparate perspectives of historic occurrences, differentiated perspectives that emphasize complexity of thought and empathy towards diverse perspectives, as well as opportunities towards enculturated inclusionary practices.

TexasSTREAMS as a model of engagement embeds English, language arts and reading as levels of literacy engagement that are entrenched in a cross-curricular manner. As the model is founded within the Texas regional area and embraces the conception of STREAMS as engaging all levels of learning and engagement, the conception of training, resources and tools clearly available and framed through professional standards, and State of Texas standards designated as the Texas Essential Knowledge and Skills (TEKS) (Texas Curriculum Management Program Cooperative, 2019; Texas Education Agency, 2019). Of course, from a state-by-state perspective as the growth of the TexasSTREAMS conceptual curricular model reaches into other states within the United States of America, with a forward-leaning inflection into additional countries as viable styles of curricular support and engagement, the Texas aspect of the TexasSTREAMS model may

shift and change towards enculturating differentiated professional standards, socio-cultural styles of instructional appropriations and diversity, as well as renewed reflections around the strengths of the TexasSTREAMS conceptual model. As well, embedding objectives-based learning outcomes and competency-based realities throughout the curricular efforts strongly support an undergirding of regulated recognition of professional objectivity and alignment.

Yet the differentiation that highlights the strength of TexasSTREAMS beyond other project entities, beyond the training resources and tools available, is the recognized engagement of project curriculum and resources that support a multiple-tiered understanding of these resources as highlighting/supporting:

1. developmentally-appropriate learner engagement with the resources;
2. teacher candidates throughout their teacher preparation program;
3. K-12 classroom teacher professional development; and,
4. novice classroom teacher support and homeschool parents/guardians' acceptance of the viability of resources that support their learner's curricular needs.

TexasSTREAMS is a multi-level, multi-faceted understanding of resources that is not a top-down approach to training, resources and tools. It is, instead, a grassroots effort bringing together the creativity, subject matter knowledge base, instructional expertise and nuanced understandings of training, learning and development professionals at every level of the talent spectrum.

From an articulated yet differentiated curricular reflection, TexasSTREAMS introduces three types of curricular emphasis: PreK-12 curriculum; homeschooling curriculum; and, professional educator development.

## PreK-12 Curriculum: Learner Enhancement and Engagement

The Pre-K thru 12th grade curriculum mandates are delineated within the United States of America by each state. At the federal level, the United States Department of Education also has a hand in overseeing national standardization through formalized testing and fund availability by different ways and means. Within the TexasSTREAMS conceptual framework model, the PreK-12 curriculum would integrate and align with subject matter expectations focused upon content-specific national professional organization standards, the State of Texas Essential

Knowledge and Skills (TEKS), and the State of Texas curriculum. The state curriculum is sub-developed into each school districts' curriculum guides and is further defined by each school-based department's curriculum specialists and program faculty. Through this style of overarching subject matter curricular design that slowly develops into a more detailed and distinct grade level and subject matter delineation, appropriate curricular support can be articulated. Through this articulation, the TexasSTREAMS makerspace pods and learning studio pods can be defined and created.

## Homeschooling Curriculum

Recognizing the potential viability and curricular worth of TexasSTREAMS products within the PreK-12 instructional environment, supporting and enhancing the curricular engagement, similar expectations can be highlighted within the homeschooling curriculum. Homeschoolers have a favorable environment within the State of Texas, supporting the ability of parents and guardians to choose how their children will learn. As communicated by the Texas Home School Coalition Association (n.d.):

> Home schools in Texas have been determined by Texas courts to be private schools, and private schools are not regulated by the state of Texas. The law in Texas is one of the most favorable for home educators in the United States, and here people are free to determine the course of their children's education. Texas leads the nation in the number of families who home school. We estimate that more than 150,000 families in the state have chosen this tutorial method of education and that more 350,000 children are being taught at home. (para. 1-2)

Based upon this understanding, curricular resources that support the home educators and the homeschooled learners are vital proactive support tools of engagement in the learning and understanding process. TexasSTREAMS offers the perfect opportunity for homeschoolers to personalize the students' learning with resource pods that align to standards that are articulated within the PreK-12 curriculum, yet maintain the freedom to modify their learning within the homeschooling environment and climate. This adaptability can meet the needs and expectations of each homeschool family and each homeschool learner.

## Professional Educator Development

Professional educators encompass not only classroom teachers, but also paraprofessionals, professional staff and innumerable additional instructional support personnel who fit into the traditional educational milieu and range from novice through renowned experienced and reflective practitioner mentors. As well, professional educators may also include others associated with the teaching, training and learning world, such as school librarians, content specialists, and teacher technologists. The restructuring of instructional practices to incorporate technology and to foster the integration of technology applications, web content, and digital tools (e.g., video, animations, virtual/augmented reality), requires knowledgeable, organized, instructional leadership. Homeschooling parents and guardians may desire to delve a bit more fully into the artistic science of professional education so as to more fully enhance their support of the homeschooled learners. The makerspace pods and learning studio pods cover a range of topics and tools, inclusive of products focused upon subject matter, teaching and learning enhancement, and even learning technology enhancements within the instructional environment and attentive to achieving learning objectives.

## TexasSTREAMS Product Pod Developers

The design and development of TexasSTREAMS product pods are supported through differentiated groups of teams. Dependent upon the subject matter and grade level of engagement or level of expertise, the appropriateness of the developers may require different skill sets and different levels of subject matter expertise. As such, one may embrace a discerning understanding around articulated groups of developers that include: teacher education methods course students; graduate students; higher education faculty; PreK-12 classroom teachers as associated teacher educators; school librarians and, collaborations with external organizations. Subject matter expertise is pulled from innumerable realms of instructional knowledge, subject matter understanding, as well as creative ways to view the teaching and learning process as a progressive style of learning and engagement with new information.

The first TexasSTREAMS product pod developer team group worthy of consideration are teacher education methods course students. These preservice teachers have a developing level of subject matter understanding while simultaneously learning the professional skills and dispositions associated with classroom teaching engagement. The preservice teachers and teacher candidates have the opportunity to develop TexasSTREAMS product pods associated with their

focused subject matter and grade level articulation, with the added instructional understandings associated with formative and summative evaluations of their TexasSTREAMS, content-integrated product pods. What better way to understand the teaching and learning process, than through developing instructional products and learning about the strengths and weaknesses of the product pods within instructional environments and associated learner engagement? Through the TexasSTREAMS product pod development, the preservice teachers and teacher candidates have a first-hand impact upon learners, while also developing an analytic and reflective heightened understanding of the instructional environment.

Higher education graduate students are a second TexasSTREAMS product pod developer team group that is worthy of consideration. The graduate students have an enhanced subject matter expertise associated with not only the topics but also the instructional milieu. Through this lens, graduate students enhance their graduate coursework through designing and developing TexasSTREAMS product pods that are implemented in the instructional field. The graduate students may also achieve graduate capstone experiences, wherein their TexasSTREAMS product pods may offer the opportunity towards qualitative and quantitative formative and summative evaluative analysis. This style of data analysis articulates the learned experiences throughout the graduate program of study, as well as research design and methodological articulation appropriate within graduate studies.

The third TexasSTREAMS product pod developer team group worthy of consideration are higher education faculty. Higher education faculty have the inherent triad expectation of teaching, research and service responsibilities as contractual obligations. Through designing, developing and evaluating the TexasSTREAMS product pods within the higher education classroom as well as other instructional environments, faculty have the opportunity to support each of the three contractual aspects of the academic realm. Not only can the faculty have the opportunity to double-dip, but even triple-dip into instructional engagement, developmental research and instructional outcomes, as well as service opportunities that support the larger instructional field.

A fourth TexasSTREAMS product pod developer team are the PreK-12 classroom teachers who are actively engaged as associated teacher educators. Our classroom teacher colleagues are the "best of the best" in the field, professionally engaging with the next generation of citizens as they grow into adulthood; as well, these same professionals give of their time and professional expertise towards supporting the next generation of classroom teachers who are journeying through differentiated teacher education and alternative certification

experiences. Classroom teachers can offer the quality of real-world understanding and expectations that may be lacking within the ivory tower of traditional and non-traditional teacher education and alternative certification programs, bridging the theory and methodological practice into the real-world classroom engagement of day to day realities. These PreK-12 classroom teachers as associated teacher educators range from early childhood to elementary settings, from middle school to high school environments, always developing and redeveloping talents associated with articulating the subject matter in new and different ways, reaching the learners through differentiated generational ways of understanding and engagement. This is not to suggest that the talents of higher education faculty are less than the quality of classroom teacher colleagues; rather that talents, skills and understandings of the professionals involved may shift and change over time in new and different ways, for example, the forming of university – public school partnerships that serve to enhance experiences of all involved. Classroom teachers as associated teacher educators retain a hands-on engagement that is differentiated from persons who may be a bit more removed from the classroom environment.

A fifth and final TexasSTREAMS product pod developer team may be delineated as collaborations with external organizations that are outside of the traditional PreK-12 educational realm. This may include business and industry organizations at the local, regional, national and even international reach. Further, medical education realms that include nurses and different medical professionals, the space industry, even collaborations between higher education institutions from *just down the road* to around the world are viable TexasSTREAMS product pod development team collaborative opportunities.

## Extension and Outreach

Developing the TexasSTREAMS product pods is merely the initial stage of this conceptual framework model. Once the product pods have been formatively and summatively evaluated, reflecting the viability of each TexasSTREAMS product pod, the next step is to reproduce the TexasSTREAMS product pod and push out the products into the field. The question at this point, is how might this occur within a viable and stable, supportive manner? Within the K-12 professional environment, the one stable expectation is a library within each school site. As a disbursement route, involving a university within which to house the TexasSTREAMS product pod development and reproduction is a viable central unit, with the opportunity to push out the TexasSTREAMS product pods out into the field through different school libraries.

Credentialed school librarians are adept at leveraging information literacy and computational thinking with maker experiences and constructivist learning (Landoy, Popa, & Repanovici, 2020). A variety of professional organizations have endorsed skilled, credentialed school librarians as personnel who can fulfill the role of resource allocation and provide technology integration leadership (AASL, 1998, 2007, 2009, 2010; ISTE, 2010; NBPTS, 2012). The school librarian is both an early adopter of technological innovation and a change facilitator as mandated by their leadership role as a key component of student achievement, school success, and improved teaching (AASL, 1998; AASL, 2009).

The libraries are traditionally comfortable as informational centers within instructional environments; as such, implementing libraries as the field-based hubs into which the TexasSTREAMS product pods are received is a natural extension of the instructional and informational realm in which libraries thrive. School libraries are collaborative spaces reflecting an assurance of equitable access to information, digital resources, socio-cultural engagement, and as centers of community engagement. Libraries are perfect as resource sites for the community, housing innovative and viable support systems for the educational community as well as an outreach into the community needs.
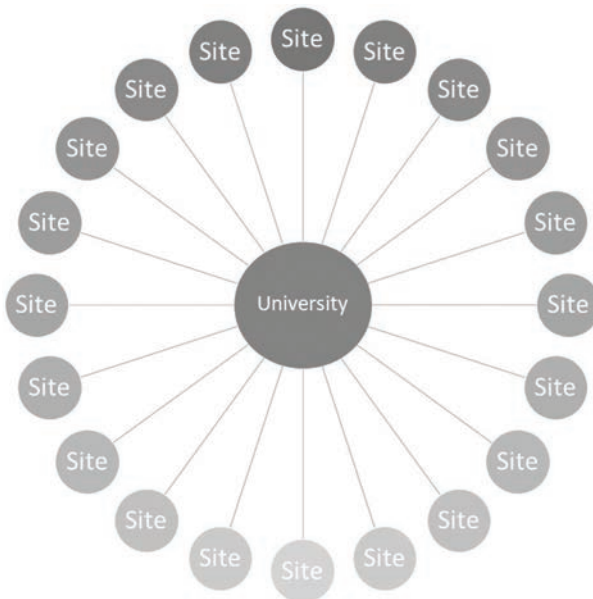


**Figure 3.** Extension and outreach plan.

## Conclusions

The bridging of literacy in all of its understandings, with specific recognition associated with an inclusive realization of reading engagement, has expanded the understanding of STEM through the integration of a more inclusive understanding around reading and literacy, reflects a strong movement towards expanding research efforts (Shulsky & Hendrix, 2016; Segarra, Naatalizio, Falkenberg, Pulford, & Holmes, 2018). The TexasSTREAMS conceptual framework is the coming together of innumerable ideas and frames of reference, innovations and realities of outreach that recognize the styles of active instructional engagement that supports the teaching and learning process. From Vygotsky's work (1933/1966, 1934/1987, 1935, 1962, 1978, 1981) to Bloom's and then Anderson and Krathwohl's Taxonomy of the Cognitive Domain supports the engagement of the learners as progressively enhanced (Anderson, 2013; Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths & Wittrock, 2001; Bloom, Englehart, Furst, Hill & Krathwohl, 1956; Crawford & Smith, 2015; Krathwohl, Bloom & Masia, 1964) more fully articulate the strengths of the learning process. Yet the introduction of not only the solitary learning experience but the social learning strengths of Bandura (Bandura, 1969, 1973, 1977, 1986, 1997; Bandura & Walters, 1963) along with the addition of Wenger-Trayner's work associated with landscapes of practice (Wenger-Trayner, Fenton-O'Creevy, Hutchison, Kubiak, & Wenger-Trayner, 2014; Wenger-Trayner & Wenger-Trayner, 2015) supports the concept of individual as well as social learning opportunities to enhance the instructional experience that may more fully embrace the learning experience (Crawford, 2015, 2016, 2018; Crawford & Semeniuk, 2016; Crawford & Smith, 2014).

Differentiated understandings around views of educational subject matter areas of emphasis have shifted over the years, from the initial Digital Age focus upon science, technology, engineering and mathematics, to a recognition of the arts as creative outlets, to the articulation of the imperative addition of reading and literacy that was originally suggested as unstated but underlying all other subjects highlighted, and finally the inclusion of social studies as an understanding of history, socio-cultural considerations and diverse views so as to introduce the conception of disparate viewpoints worthy of respect and recognition. The inclusive recognition of reading engagement throughout the TexasSTREAMS conceptual framework raises reading and literacy to the well-deserved ultimate art form.

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# Building the Literacy Content Knowledge of School Administrators: One Principal's Journey (A Single Subject Case Study)

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*Abstract*

*This case study follows one principal as he strives to improve his ability to provide effective literacy leadership so that he can better support student learning growth in the elementary building he oversees by participating in a reading specialist certification program. The researcher examines how the principal's participation in the program impacted his depth of knowledge regarding literacy instruction and his ability to lead by providing teachers with more effective feedback regarding instructional practices that are likely to lead to improved student performance? Results of the study indicate participation in the program lead to an increase in literacy content knowledge and that this newly acquired content knowledge significantly impacted the principal's comfort level and ability to participate in conversations with his teachers regarding literacy topics. Additionally, the increase in content knowledge improved the participants confidence in leading effective literacy instruction in his building.*

*Keywords:* Literacy, content knowledge, principals, literacy leadership, effective literacy leaders

## Introduction

Joe (pseudo name) was a secondary mathematics teacher. He completed an undergraduate teacher certification program in a university that emphasized a

deep knowledge of mathematics and effective instructional pedagogy for adolescent learners. Although it was steeped in mathematical pedagogy and content, the program did not require a single course in literacy instruction. Joe went on to successfully teach secondary math for a few years. While teaching, he pursued a Masters in Educational Leadership with Principal Certification. This new degree would enable him to serve as a building principal in any K-12 school within the state of Pennsylvania. Again, he was able to finish the program without a single course in literacy.

Shortly after receiving his principal certification from the state of Pennsylvania, Joe began his administrative career as an assistant principal in a middle school. One year later, he was asked to serve as a principal of an elementary building. It didn't take long for Joe to question his lack of literacy knowledge. "How can I engage in meaningful conversations about literacy when I know nothing about literacy" and "How am I going to help my teachers improve literacy scores when I have little knowledge of literacy instruction and assessment?" These were just a few of the questions Joe asked himself. This experience provided Joe with the realization that if he was to help his teachers improve literacy practices, he needed to deepen his knowledge of literacy instruction and assessment. So, in addition to the numerous routine tasks principals need to accomplish, Joe set off to read everything and anything he could find about literacy instruction. After spending countless hours reading literacy research and talking to other administrators about literacy instruction, Joe still didn't feel equipped for the task of helping his faculty improve their literacy practices. This prompted him to reach out to a local university and ask for support from their graduate reading program. That university worked with Joe to create a Reading Specialist certification program for administrators. After rounding up 8 other administrators who were feeling the same way about their lack of literacy knowledge, they began a life-changing endeavor.

## Review of the Literature

Though this story depicts one principal's journey, it is not a singular situation. A simple review of even just a few educational leadership program requirements serves as evidence that most don't require a course in literacy. Additionally, a search of courses required in preservice programs for secondary content areas, other than literacy, shows a lack of emphasis on literacy. Most of them fail to require even a single course in literacy. As a result, many school district administrators may lack the literacy knowledge needed to move their teachers forward because of the lack of literacy requirements in their graduate and undergraduate

programs. On the contrary, research informs us that the amount of content knowledge an administrator possess directly impacts their ability to support teachers in improving their practices. Additionally, their content knowledge also influences the decisions they make regarding curriculum and professional development (Houck & Novak, 2013). If we know that successful schools are a result of effective leadership (Anderson, Hiebert, Scott and Wilkinson,1985) and that depth of content knowledge impacts an administrator's ability to effectively support teachers, then why haven't programs adjusted themselves to include more literacy content knowledge?

Studies from many decades express the vital importance leadership plays in the literacy effectiveness of schools. In the famous, *Becoming a Nation of Readers: The Report on the Commission of Reading* (1985)*,* the authors declared, "instructional leadership in reading entails a considerable amount of specialized knowledge and experience" (p. 112). This belief was substantiated in a report on literacy from the Center for Improvement of Early Reading Achievement (1999). In their implications section they emphasized the importance of principal leadership in developing programs that support early reading acquisition in schools. Others have studied the effect depth of literacy content knowledge can have on an administrator's ability to improve literacy instruction. These studies demonstrate that the depth of content knowledge an administrator has will directly impact the support they are able to give their teachers as well as the programming and professional development decisions they make (Houck and Novak,2013). In a study conducted by Overholt & Szabocsik (2013), eighteen K-12 district administrators were invited to participate in a 12-hour professional development series on literacy instruction. This professional development series emphasized balanced literacy, with comprehension instruction and strategies for creating engaged readers and writers. Using pre- and post- survey results through comparisons of a control group, the researchers found,

> Principals who have a deep understanding of literacy can better recognize and support excellent literacy teaching. With their deeper knowledge, they know what to look for when they observe literacy lessons: in particular, they have concrete expectations for what students who are learning effectively should be doing. They have a better idea about what resources are needed to support effective instruction, and they provide collaborative conversation grounded in the concrete realities of teaching reading that supports the improvement of practice (p. 57).

In another study by Kindall, Crowe & Elsass (2018), novice teachers were surveyed and asked about the impact their principal had on their teaching. Those researchers found, "novice teachers reporting that the relationship of their building principal's knowledge and skill level about effective literacy instruction truly did make a significant impact on the effectiveness of their success in delivering high-quality literacy instruction" (p. 309). Even as recently as 2018, in a report on the causes of status quo achievement of American students on the National Assessment of Educational Progress (NAEP) in Literacy, researchers have identified leaders with depth of content knowledge as one of three essential components of an effective process for improving literacy scores. Unfortunately, educational leadership programs remain unchanged.

## Methodology

What would happen if educational leadership programs required a series of literacy courses designed for school district administrators? This was the driving force behind this case study. The researcher began a study that explored the impact participation in a reading specialist certification program can have on an elementary principal with a secondary mathematics background. Answers to the following questions became the focus of the study:

1. How does participation in a reading specialist certification program alter a principal's depth of knowledge regarding effective literacy instruction?

2. In what ways does the knowledge acquired through participation in a reading specialist program impact a principal's ability to provide teachers with feedback that will lead to change in instructional practices that are likely to lead to improved student performance?

The Leadership Content Knowledge (LCK for Literacy), Overholt & Szabocsik (2013) serves as the theoretical framework or this study. This framework builds on the work of Stein, M.K. & Nelson, B. S. (2003). They define leadership content knowledge as, "the kind of knowledge that will equip administrators to be strong instructional leaders we will call leadership content knowledge." In their 2003 study they conclude, "leadership content knowledge is the missing paradigm in the analysis of school and district leadership." Their study is based on the work of Shulman (1986) who found that the pedagogical content knowledge of teachers was essential in effective teaching. All of these studies conclude

that content knowledge is essential for teaching and learning to be effective. In other words, you can't teach what you don't know. If that is true, then how can instructional leaders assist teachers in improving practices if they lack the content knowledge needed to provide suggestions and recommendations that will improve their practices? Hence, Overholt & Szabocsik's Leadership Content Knowledge (LCK) provides the foundation for a theory that emphasizes the need for literacy content knowledge development of principals.

## Research Design

A single subject design was selected as the methodology for this research. This design was selected because it met the three aspects of single subject design as described by Barone (2011). It focuses on a single subject, in this case one of the principals. It is experimental as the principal is participating in an experimental program referred to as Reading Specialist Program for Administrators and it considers the relationship between an independent and dependent variable. The independent variable is the reading specialist program for administrators and the dependent variable is the principal's knowledge of literacy and ability to use knowledge of literacy to provide better feedback to his teachers.

## Context

The study began when a principal, who we will refer to as "Joe," from a local school district approached the Graduate Reading faculty at the researcher's university and asked for a graduate reading program for administrators. The researcher and other graduate reading faculty at the university jumped on the opportunity and immediately began the process of developing a Reading Specialist Certification program for a cohort of administrators from Joe's district. The university is a midsized university located in a rural area in eastern Pennsylvania. The program was designed to help deepen the knowledge of effective literacy instruction, assessment, and programming by creating and designing the program to support district administrators.

Nine administrators from four different school districts enrolled and completed the certification program. Each of those administrators previously earned a M.Ed. in Educational Leadership, so the participants elected to participate in the Reading Specialist Certification only program rather than our Masters in Reading with Certification. The "certification only" program requires candidates to complete 24 credits of literacy instruction. The same classes traditional reading specialist candidates take were utilized, but each course was taught through the lens of administration. The faculty made adjustments to the courses by asking

themselves questions such as, "What does an administrator need to know and be able to do in regards to literacy assessment and diagnosis? What does an administrator need to know and be able to do in regards to effective literacy instruction?"

Each course was held for 10 weeks in four-hour increments. Classes were held in one of the district middle school buildings immediately after the school day. The location eliminated the need to commute and the need provided a more personal approach then an online learning option. Working within a district cohort also provided the participates time to discuss literacy topics and issues specific to their districts. The conversations allowed them to problem solve while they learned.

The courses they took included: Literacy Curriculum and Instruction using a Balanced Literacy approach Prek-4, Literacy Curriculum and Instruction using a Balanced literacy approach 4-8, Literacy Curriculum and Instruction using a Balanced Literacy Approach in the Content Areas, Literacy Assessment, Strategic Literacy Instruction for Struggle Readers/Writers, and a field-based practicum in literacy instruction.

## Participant

For the purpose of this initial study, the researcher focused on one participant. This participant was the elementary principal who approached the Graduate Reading faculty at the university and asked for the graduate reading program for administrators to be developed. This principal was formerly a high school math teacher, who first served as an assistant principal in one of his districts' middle schools. After gaining a few years of experience as an assistant principal, he was asked to become a principal in one of the district's elementary buildings. It was the role of elementary principal that made him realize he needed to learn more about literacy to better assist his teachers with improving their instructional practices and to monitor the literacy achievement of his students. Having never taken a course in literacy, he read as much as he could, but still felt unprepared to support his teachers and students.

## Data Sources

The study included several data sources. The first instrument was a two-part survey that was administered to the participant before and after participation in the program. The first part of the survey included a series of 4 Likert scale items. The second part of the survey included 4 open ended questions. The second source of data that was analyzed included two sets of teacher observation reports written by the principal before and after completion in the program. These were reviewed

and coded. Finally, a post semi-structured interview with the principal was conducted upon completion of the program. This provided an opportunity to ask follow-up questions to further probe the participant regarding his responses to the open-ended survey questions. These data sources provided information on the participant's changes in content knowledge acquired through the course work, as well as changes in the participant's ability to provide instructional feedback and changes in his ability to make more knowledgeable decisions regarding the purchase of resources, instructional decisions and professional development.

## Data Analysis

The first source of data analyzed was the participant's responses to Likert scale items in the survey taken pre and post participation in the program. This data was analyzed using an item-by-item pre-post comparisons by running cross-tabs of each variable pre vs. post changes.

The researcher used a 2 step coding process to analyze each of the three qualitative sources of data including: open ended questions from the pre/post survey, a semi-structured interview and two sets of pre/post observation reports written by the principal during observations of literacy lessons. The first round of coding for each qualitative source of data utilized a round of "Initial Coding" described by Saldana (2016) as,

> "an opportunity for you as the researcher to reflect deeply on the contents and nuances of your data and to begin taking ownership of them. Initial coding is not necessarily a specific formulaic method. It is a first cycle, open ended approach to coding the data with some recommended general guidelines (p. 115)"

The second coding process for each of the three sources of qualitative data entailed focused coding where the researcher analyzed the frequency of codes presented in the qualitative data (Saldana ,2016). Using the two-step coding process allowed the researcher to identify frequent themes in the participants responses. Finally, the researcher analyzed the frequency codes to look for overlapping themes among all sources of data.

## Findings

The researcher set out to inquire how a principal's participation in a reading specialist certification program would impact his depth of knowledge regarding

literacy instruction and in what ways would that newly acquired knowledge impact a principal's ability to provide teachers with feedback that will lead to change in instructional practices that are likely to lead to improved student performance? The results demonstrated that participation in the program increased the participant's depth of literacy content knowledge and that this content knowledge significantly impacted the principal's comfort level and ability to participate in conversations with his teachers regarding literacy topics. Additionally, the increase in content knowledge increased the participants ability to lead literacy instruction in his building and lead to deeper metacognitive awareness regarding literacy practices among the participant.

The first source of data that provided evidence for these findings included the results of the participant's responses to Likert scale items in the survey taken pre and post participation in the program. Items are provided in table 1 below. Based on this set of data, it is clear that the participant grew in two aspects. One, he gained confidence in his role as a literacy leader. Prior to participating in the program, he noted that he had no confidence in himself as a literacy leader. After participating in the program, he scored himself a 2 which is closer to being very confident. Additionally, the participant expanded his knowledge of the balanced literacy components. Prior to participation in the study, the participant noted that he had little understanding of the components of balanced literacy. After participation, he ranked himself as a 2 which is much closer to having deep understanding of balanced literacy components. There was no change in his beliefs about professional development and his practices with professional development when implementing new initiatives being congruent. He ranked himself as a 2 (close to congruent) in both the pre and the post. There was a slight shift in thinking about question 1, "how important is it to allocate extended time for preparation of standardized testing of literacy skills." Prior to participation in the study the participant identify himself as a 2, close to very important. After participation in the study, he ranked himself a 3 which was closer to not important.

The next data set analyzed were the combined results of the participant's open-ended responses to questions on the survey that was administered before and after the program and his responses to interview questions that provided follow up question opportunities regarding his responses to those items. A table summarizing the results are provided in Table 2 below. In the initial survey, the participant responded to item number 1, "what prompted you to join the cohort?", by stating he wanted to join because he had no background knowledge in reading. After participating in the program, the participant responded that he participated because he wanted to be able to engage in conversations about literacy with his teachers. This shift in thinking suggests that the participant learned

**TABLE 1**
**Likert scale results**

| Questions | Pre Score | Post Score | Difference |
|---|---|---|---|
| How imp.t is it to allocate extended time for preparation of standardized testing of literacy skills? <br> *Very impt. 1 to 4 not impt.* | 3 | 2 | 25% decrease in the value of allocation of time for standardized testing of literacy skills |
| Are your beliefs about professional development and your practices with professional development when implementing new initiatives congruent? <br> *Congruent 1 to 4 not congruent.* | 2 | 2 | No difference |
| How confident are you in your role as a literacy leader? <br> *Very confident 1 to 4 not confident.* | 4 | 2 | 50% increase in the participants confidence as a literacy leader |
| What is your level of understanding of the components of balanced literacy? <br> *1 deep understanding to 4 little understanding* | 4 | 2 | 50% increase in the participant's level of understanding of the components of balanced literacy |

that once he acquired knowledge of literacy instruction, he could have more meaningful conversations with his teachers. In response to the section question, "What do you look for when observing teachers delivering literacy instruction?," the participant initially responded with elements of various instructional models such as parts of a Balanced Literacy Framework and parts of Depths of Knowledge. His post-response was more simplistic, but implied he understood all of the elements that make up a balance literacy approach. He responded by naming the key components of a balanced literacy framework, such as Read aloud, Read to self and Peer reading. The changes in his response provides some evidence that the candidate deepened his content knowledge regarding effective literacy practices. When analyzing the third question, "what do you want to learn about as a literacy leader?", the participant responded, "everything" both before and after participation in the study. This indicates he valued and continues to value life-long learning specifically in the area of literacy. In response to the final question, "how do you describe meaningful reading and writing instruction?", the participant responded by meeting kids on level in the initial response. In the post responses, he stated, "A balanced approach." Again, his response indicates a

deepening of content knowledge as he can identify a macro concept post participation rather than a micro strategy that was identify pre-participation.

The second coding process or focused coding allowed the researcher to identify the frequency of themes identified within the open-ended questions responses elicited by the participant. Table 3 summarizes the results of the focused coding process.

This data set revealed the most valuable information in the study. The interview validated the findings from the pre/post survey results. In the interview, the principal articulated that participation in the literacy courses allowed him to deepen his content knowledge regarding literacy and that the knowledge helped him increase his confidence as a literacy leader. He then explained that this knowledge and confidence allowed him to engage in conversations with his teachers and allowed him to reflect on his ability to provide literacy feedback to

**TABLE 2**
**Initial Themes, Descriptions and Examples**

| Theme | Description | Example from Interview |
|---|---|---|
| Increase in confidence regarding literacy | Any mention to a gain in confidence or self-reliance | "I definitely have more confidence in myself. I'm not shying away from doing language arts observations." |
| Increase in comfort level and ability to participate in conversations regarding literacy topics | Any specific mention of literacy related conversations | "Whereas this time, we had meaningful conversation |
| Deeper knowledge of specific literacy related activities and/or strategies | Any specific mention of a literacy-based strategy, routine, | "Really for me the take away was learning about what a true balance literacy framework looks like. You know the specifics: the read aloud, the shared reading, the guided reading, the independent reading and how they apply to writing as well" |
| Increase in metacognitive awareness regarding literacy instruction | Any reference to thinking about one's thinking in regards to literacy | "Prior to that, I don't know if I would have noticed the difference between a read aloud and shared reading." |
| Increase in ability to lead literacy instruction | Any reference to leading literacy initiatives, discussions or | " I noticed some teachers are starting to come to me more often for a language arts question rather than just math." |

his teachers before and after teacher observations. Overall, he summed up his experience taking the literacy courses in this statement, "This was the best professional development I have ever experienced." This one statement from a principal who previously earned two degrees, two certifications and had multiple years of teaching experience speaks volumes about the positive impact participation in the literacy courses had on him.

The last set of data analyzed included two sets of pre/post observation reports written by the principal during observations of literacy lessons. This analysis provided further evidence that the candidate increased his content knowledge regarding literacy and was able to use that content knowledge to provide more effective feedback to teachers. The same coding process that was used when

**TABLE 3**
**Focused Coding Results**

| Theme | Number of References |
| --- | --- |
| Increase in confidence regarding literacy | 10 |
| Increase in comfort level and ability to participate in conversations regarding literacy topics | 12 |
| Deeper knowledge of specific literacy related activities and/or strategies | 9 |
| Increase in metacognitive awareness regarding literacy instruction | 3 |
| Increase in ability to lead literacy instruction | 8 |

**TABLE 4**
**Pre/ post observation reports**

| Theme | Pre Example | Post Example |
| --- | --- | --- |
| Specific literacy related activities and or routines | "Some of the students were reading a paragraph while the teacher was discussing directions." | "Students wrote in their academic journal questions they had about their books" |
| Specific literacy related skill/strategy | "Reviewed pinion writing." | "Students had to find and list words that contain blends in their book" |
| Specific literacy related assessment routines | "Met with individual students during independent work" | "_____ was conferencing with individual students and using a checklist to monitor their ability to identify blends in their texts. |

analyzing the interview and opened ended questions items was used in the analysis of the observation reports. In the initial analysis the researcher identified and compared the pre-post results related to the themes. see table 4 above.

The results of the second coding phase are provided below in Table 5. Here the researcher counted the number of times each theme was identified and compared those numbers within the pre and post observation reports for frequency of occurrence (Saldana, 2016).

As noted in Table 5, the participant clearly increased his use of literacy specific terms in the post observation reports by dramatic numbers. In the initial observation reports he rarely identified any literacy activity by name, nor did he comment on the names of literacy skills being taught. In the initial observations he often used vague descriptors or nonspecific literacy skill terms. His post observation reports show that he now recognizes specific literacy skills and can identify instructional activities by their correct title/label. He is also able to identify literacy routines and structures and note them by name in his reports. Finally, although he did not include much assessment information in any of the reports, the participant clearly noted more specific literacy related assessment methods after his participation in the program than he did before.

## Discussion

The results of all data sources provide triangulated evidence that the participant increased his content knowledge regarding literacy. This is evidenced in all 4 data sources. Additionally, the increase in literacy knowledge has also contributed to his metacognitive growth regarding literacy instruction. The participant now recognizes specific literacy skills and strategies as well as routines and structures that support literacy development. This was noted in 3 of the 4 data sources. Finally, the interview data provides evidence that the newly acquired knowledge enabled

**TABLE 5**
**Literacy Related Themes Found in Pre and Post Observation Reports**

| Theme | Number of references in Pre-Observation Reports | Number of references in Post Observation Reports |
|---|---|---|
| Specific literacy related activities and or routines | 3 | 19 |
| Specific literacy related skill/strategy | 2 | 6 |
| Specific literacy related assessment routines | 5 | 7 |

the participant to gain confidence in his ability to engage in discussion regarding literacy with his teachers, reading specialist and district literacy supervisor.

The findings from the study provide evidence of the relationship between participation in literacy related coursework and an administrator's ability to serve as a better instructional leader of literacy. This is evidenced in the four sets of data provided. First the results of the pre-post Likert survey indicate that participation in literacy related courses deepened the participants content knowledge in literacy and increased his confidence as a literacy leader. The responses to the open-ended questions found in the survey indicate that participation in the program deepened his content knowledge which allowed him to engage in more meaningful conversations with his teachers. Results from the observations conducted post participation served as evidence that the participant could easily recognize and provided feedback on literacy strategies observed and that he was able to use his knowledge to provide feedback that would further strengthen the literacy instruction he observed. Finally, the semi-structured interview conducted post participation provided evidence that his participation in the coursework validated the emerging theory that his participation led to an increase in content knowledge and that the newly acquired content knowledge gave him more confidence as a literacy leader which allowed him to engage in conversations about literacy with his faculty. The interviews also revealed that the participant now had the background knowledge needed to be metacognitive about his thinking regarding literacy practices and discussions.

## Implications

Participation in the reading specialist certification program for district administrators proved to be extremely beneficial for Joe. He deepened his knowledge of literacy instruction and assessment. He now recognized and could elicit literacy related researched based instructional strategies and practices. He had the knowledge and skill set to engage in deeper more meaningful pre and post observation conferences with his teachers and in conversations with the literacy specialist in his building and across the district. Finally, it allowed the him to make more critical and effective decisions about professional development in literacy. In closing, the participant summed up his experience in the project in a few positive words when he stated, "It has been the best form of professional development I have experienced."

The findings from this study provide evidence of an emerging theory. This theory posits that if we prepare administrators who develop a deep understanding of both leadership and literacy knowledge, they will be skilled at Literacy Leadership. The theory supports the expectation of principals established by the

**Figure 1.** LLCK = ELL.

International Literacy Association. They state, "the principal's role as an instructional leader is critical for ensuring all students receive effective literacy instruction." In order to ensure effective literacy instruction for all, a principal has to have the content knowledge needed to make these determinations. As a result, the ideal principal would have in depth knowledge of leadership and literacy. This concept is best exemplified in the figure below:

## Limitations

Causal conclusions based on the data gathered in this study are inappropriate, since we could not exercise the level of control characteristic of experimental research. The only conclusion that can be drawn is that there appears to be a relationship that exists between the educational experiences of the participant in this study, and an increase in his knowledge of literacy instruction, his confidence as a literacy leader, and his ability to communicate with his teachers regarding literacy instruction. Since these factors are characteristics of effective leaders, one can infer that participation in the literacy related courses made him a more effective instructional leader of literacy.

Additionally, this single-subject design included only one participant. This individual was a willing participant and eager to grow as a literacy leader. Because it was a single-subject design the results are not generalizable. A multi-participant case study should follow in order to examine the effects participation in this program had on the other 8 individuals who participated. Furthermore, a replication

of the process in another setting with additional participants would strengthen the reliability of the recommendations. Finally, the participant in this case study eagerly participated and proved to be a self-motivated learner. One has to wonder what the results would yield for participants who entered the program unwillingly or who were resistant to learning.

## Recommendations

In a framework for literacy and leadership outline by Murphy (2004), the author is quoted as stating, "leadership provides one of the most powerful strategies we have in our arsenal to make these conditions of quality reading programs come to life in classrooms and schools so that all youngsters achieve high levels of literacy skills" (p. 93). This study provides a pathway for helping districts provide their leaders with the knowledge and skills they need to improve literacy instruction so that they can create "quality" literacy programs within their schools and districts. The study also suggests that educational leadership programs will benefit from including literacy courses as part of the curriculum. As we know from Houck and Novak (2017), "district leaders can help ensure that all school leaders conduct useful and powerful classroom visits by providing professional learning for principals" (p.33). Embedding the courses into educational leadership programs can reduce the number of professional development districts would need to provide their principals and prepare them to begin supporting their teachers as soon as they accept their positions.

A future study that examines the ideal number of courses needed for the participants to gain the necessary knowledge to be successful literacy leaders. Future studies should embed the survey and interviews at the midpoint, to see whether the participants reach the threshold of their learning then or are the 24 credit hours essential to the learning? Overholt and Szabocsik (2013) demonstrated, enough content knowledge to make a difference can be obtained with 12 hours of instruction. Since many administrators have limited time due to their already busy schedules and responsibilities, one may want to examine the "sweet spot" for appropriate number of hours needed to provide administrators with the depth of knowledge they need in literacy to make a difference.

## Conclusion

Literacy is the most important skill students need to acquire and it cuts across all content areas. If schools are to prepare students who are 21st century ready and can read and write critically, then they need administrators who understand literacy development and how to support that development. This study provides

a brief example of how the depth of literacy content knowledge a district administrator possess can enhance the literacy practices in K-12 schools.

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# BUILDING BRIDGES THROUGH ONLINE PROFESSIONAL DEVELOPMENT AND COACHING

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## Abstract

*PD takes many forms, such as district-wide workshops, summer institutes, university courses, and coaching. Coaching has proven to be effective at changing teacher practice and improving student achievement (Gulamhussein, 2013). With the realities of today's classroom, there is more of a need to explore how PD can be provided in an online/virtual environment, so this literature review was undertaken to determine what has been learned about this format for PD, particularly the role of coaching; however, the research with K-12 teachers is limited, particularly in the field of literacy. The purpose of professional development (PD) is to assist teachers in the development and refinement of their teaching practices. The limited research on coaching in an online/virtual environment and ideas for future research are presented with the goal to building bridges between online professional development and coaching.*

*Keywords:* Professional development, literacy coaching, online, virtual, technology

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## Introduction

The purpose of professional development (PD) is to assist teachers in the development and refinement of their teaching practices. Most teachers participate in some form of PD each year and several effective characteristics of PD have been identified (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). In order for PD to be effective, teachers first need to have buy-in, or ownership of it (Archibald, Coggshall, Croft, & Goe, 2011; Parsons, Ankrum, & Morewood, 2016). Teachers who are actively engaged with their PD are more likely to apply the new knowledge to their classroom and use it long-term (Archibald et al., 2011). Archibald and colleagues (2011) also posit that effective PD should align with goals and standards, focus on core content, include active learning, promote collaboration among teachers, and include continuous feedback. Similarly, Desimone (2011) found that PD needs to be content focused, coherent, contain active learning, and have collective participation. Overall, effective PD should be ongoing, intensive, consistent, connected to practice, and reflective (Archibald et al., 2011; Darling-Hammond et al., 2009; Desimone, 2011; Gulamhussein, 2013; Miller & Stewart, 2013; Parsons et al., 2016; Steeg & Lambson, 2015). Moreover, PD needs considerable time to take effect, because teachers need time to practice what they learn and monitor its effectiveness in the classroom (Desimone, 2011; Gulamhussein, 2013; Guskey & Yoon, 2009; Steeg & Lambson, 2015).

In this article, we start by sharing the different forms that PD can take, from district-wide workshops to practice-based PD models. Then we explore the role of coaching in PD, moving to what the literature shows about providing PD and coaching in an online/virtual environment, including using online tools for communication. The limited research on PD and coaching in an online/virtual environment and ideas for future research are presented with the goal to building bridges between online professional development and coaching.

### Forms of PD

PD takes many forms with the district-wide workshops as one of the most common. These workshops typically last half of a day or a whole day (Darling-Hammond et al., 2009; Gulamhussein, 2013). Often they have been criticized as "one-shot" deals and offer limited, or no, teacher choice, but when paired with ongoing support they can have positive effects (Butler, Schnellert, & MacNeil, 2015; Darling-Hammond et al., 2009; Guskey & Yoon, 2009). Workshops and summer institutes have shown positive relationships between teacher PD and

student learning when they include active-learning and allowed teachers the opportunity to inform their practice (Guskey & Yoon, 2009).

University courses are another way for teachers to grow professionally. Summer and semester courses give teachers a chance to learn new concepts related to their content area. However, Darling-Hammond et al. (2009) found that this was not as common as other forms of PD, and many teachers chose to take a course for recertification points that was not necessarily in their content area. One drawback to university courses is the fee for enrollment. Bradshaw, Feinberg, and Bohan (2016) found that offering free tuition to teachers through a grant-funded study allowed teachers to take a course with more access to new resources and collaboration with other teachers that would not have occurred otherwise.

A practice-based PD model refers to teachers learning in their classroom in real time and has also proved effective in helping teachers improve their practice in the classroom (Pella, 2015). This model can be an extension of another form of PD and often involves teachers working in a team to discuss what they are observing in the classroom (Pella, 2015). Practice-based PD can take different shapes including inquiry groups, action research groups, peer observation teams, and professional learning communities (Kennedy, 2005; Pella, 2015).

## The Role of Coaching in PD

As the focus of this article, coaching fits within the practice-based PD model and when used in schools coaching has proven to be effective at changing teacher practice and improving student achievement (Gulamhussein, 2013). At a basic level, Kraft, Blazar, and Hogan (2018) "define coaching programs broadly as all in-service PD programs where coaches or peers observe teachers' instruction and provide feedback to help them improve" (p. 548), while Gulamhussein (2013) describes coaching as the process that begins with a teacher and a coach meeting to discuss a particular teaching practice or strategy, then the coach observes the teacher's implementation of it in the classroom, and then they meet again afterwards to discuss its effectiveness and areas of improvement. This cyclical process is repeated until the strategy is mastered.

Research has found that when coaching is content-specific, addresses a teacher's needs, contains effective dialogue, and the coach is an expert in teaching teachers then it has proven to be effective (DeMonte, 2013; Gulamhussein, 2013; Kennedy, 2005; Miller & Stewart, 2013). DeMonte (2013) reported on a study that showed students of teachers receiving coaching feedback had higher academic gains than teachers without coaches. In a meta-analysis of the literature on coaching, Kraft et al. (2018) found that coaching had large positive effects

on the instructional practices of teachers and student achievement, particularly when the coaching was content-specific and to a lesser extent when coaching was general. Gulamhussein (2013) reported that teachers with coaches are more likely to incorporate new teaching practices into their classrooms than teachers without coaches. Coaching can create the link between research and practice that is often difficult to achieve in education (Miller & Stewart, 2013).

Miller and Stewart (2013) developed the Community Coaching Cohort Model (CCCM) as a nine-week cycle with three phases that involves the teachers learning and creating lesson plans on a topic, the coach modeling instruction for the teachers on the topic and then the process happens again with new lesson plans. Parsons, Ankrum, and Morewood (2016) described the educative model of PD in which providers "support inquiry and co-construct knowledge with teacher participants" (p. 252) and often coaches are included as part of the process. DeMonte (2013) explained that PD is more likely to be effective if a teacher has the opportunity to observe instruction and talk to the coach about what they observed.

## PD and Coaching in Online/Virtual Environments

With the realities of today's classroom, there is more of a need to explore how PD can be provided in an online/virtual environment; however, the research with K-12 teachers is limited, particularly in the field of literacy. In one study by Wilczynski and colleagues (2017), the researchers worked with a preschool teacher to support the implementation of behavior strategies with a student on the autism spectrum through web-based training. The teacher's knowledge increased through the web-based training, but there were only modest results for the teacher's skills increasing. In another study with preschool teachers of at-risk children, Landry and colleagues investigated four in-person mentoring and feedback conditions after the teachers participated in a year-long online PD that focused on language and literacy instruction, as well as communicating with other teachers via an online message board (Landry, Anthony, Swank, & Monseque-Bailey, 2009). They found that the teachers who received the online PD with mentoring and feedback that was detailed and connected to their instruction had the strongest improvements.

Downer and colleagues evaluated an online PD site, MyTeachingPartner, on the language and literacy development of 1338 preschool children in 161 classrooms (Downer, et al., 2011). There were modest but significant effects in which children improved their early language and literacy in classrooms in which English was the dominant language. Children's language and literacy were more effectively improved when the teachers had more online supports, such

as online consultation and videos of exemplary teaching. Powell and Diamond (2013) studied face-to-face and virtual coaching with Head Start teachers in which they found more positive effects with face-to-face coaching than virtual coaching. However, in an earlier study with colleagues, they found no differential effects between the face-to-face and virtual coaching (Powell, Diamond, Burchinal, & Koehler, 2010).

Another such need was on a larger scale in schools in the eastern Caribbean countries in which improvements in literacy instruction and achievement were a priority (MacKinnon, et al., 2019). The teachers and coaches used technology tools, such as laptops, webcams, communication software, and headsets to communicate with each other even in real time to support literacy instruction. In this pilot study, the participants shared the importance of the technology available and the Internet bandwidth for real time interaction; however, when faced with some issues related to this, they found that the post-lesson debriefing was beneficial.

Vernon-Feagans and colleagues conducted two literacy intervention studies with rural early childhood teachers (Vernon-Feagans, et al., 2015; Vernon-Feagans, et a., 2013) in which coaching was provided via live webcams. In the first study (Vernon-Feagans et al., 2013), rural teachers in the experimental group provided one-on-one instruction to a struggling reader in their class during webcam coaching sessions while receiving the coach's real-time feedback. The results indicated that the struggling readers in the experimental schools significantly outperformed those in the control schools. In the second study (Vernon-Feagans et al., 2015), some teachers received coaching face-to-face and some via live webcams. Greater positive results were found in the live webcam group for teacher fidelity and efficacy; interestingly, the researchers found that in the face-to-face coaching group, the teacher and coach would talk about classroom issues that were not related to the intervention and the coach would interact with children who weren't in the intervention.

In a study by Walsh and colleagues, fourth and fifth grade teachers first participated in online PD that focused on comprehension strategies to increase students' critical and analytical thinking and participation in dialogic discussions of text (Walsh, et al., 2020). Once the teachers began implementing the instruction, they were supported by the coach in a three-phase coaching cycle: (a) pre-lesson discussion between the teacher and coach via phone, then the teacher videotaped the lesson and sent it to the coach; (b) the coach selected 2-3 minute clips that the teacher then watched and responded to reflective prompts about their teaching; and (c) the teacher and coach had a post-lesson conference by phone so that the teacher could construct their interpretations of the lesson and

the coach could also model thinking about pedagogy by offering interpretations. The coaching model employed by the authors allowed the coaches to be facilitators of the teachers' reflection on their practice so that the teachers were able to "critically analyze students' thinking and their own role as a facilitator of students' thinking" (Walsh et al., 2020, p. 12).

Dingle and colleagues supported three special education teachers to implement word study and fluency instruction in their classrooms (Dingle, et al., 2011). Through monthly meetings with the coach, participating in an online community, and videotaping and reflecting on their practice, the teachers had success with making changes to their word study instruction, as well as responding more to students' needs, and they did both to a lesser extent with their fluency instruction. Technology was integrated in two ways: 1) teachers participated in an online community; and 2) teachers videotaped their lessons monthly and the coach provided feedback, such as their strengths and needs with regard to their instruction, with follow-up discussions that happened through email, phone or in-person visits.

One aspect of professional development was examined in other studies through teacher participation in online communities. In a study with secondary English teachers and their online PD (Rodesiler & Pace, 2015), the authors "described how, through participation in online book clubs, Twitter chats, and online discussion forums, they have taken charge of their professional development and applied their growing understandings of pedagogy to enhance literacy teaching and learning" (p. 374). Hur and Brush (2009) found that "…there were five reasons why teachers wanted to participate in online communities of teachers: (a) sharing emotions, (b) utilizing the advantages of online environments, (c) combating teacher isolation, (d) exploring ideas, and (e) experiencing a sense of camaraderie" (pp. 290-291).

## Future Research

With the limited research that has been conducted on literacy coaching in an online/virtual environment, there is a need for more research in this area. One possible study would be to use an online communication software and webcams to provide PD sessions with the teachers on literacy instruction, conduct monthly meetings with them, and observe their instruction (both in person and videotaped), providing feedback and opportunities for the teachers to reflect on their practice in debriefing sessions (Dingle, et al., 2011; MacKinnon, et al., 2019; Vernon-Feagans, et al., 2015; Walsh et al., 2020). Connecting teachers with each other in different schools and geographic areas through online discussions would

be one way for teachers to share ideas, make professional connections, and not feel isolated (Hur & Brush, 2009; Rodesiler & Pace, 2015). These experiences would add to the body of literature, particularly the integration of technology in PD through literacy coaching in K-12 settings to support teachers' literacy instruction and students' literacy achievement.

## Conclusion

A strong body of research exists about what constitutes effective professional development (Archibald et al., 2011; Darling-Hammond et al., 2009; Desimone, 2011; Gulamhussein, 2013; Miller & Stewart, 2013; Parsons et al., 2016; Steeg & Lambson, 2015) and indicates that coaching can have a positive effect on teachers' instruction and student achievement (Kraft et al., 2018). With the small body of research that has been conducted on different aspects of PD, including coaching in online/virtual environments, the positive results are promising for directions future research can take. Through the review of the literature, it is clear that researchers have found a number of effective strategies that could support teachers to improve their practice which, in turn, is the goal of PD and coaching.

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# No More "Winging It": The Influence of Course Design on In-Service Teachers' Learning in an Online Writing Pedagogy Course

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**Abstract**

*With a growing number of online courses in higher education (Seaman, Allen, & Seaman, 2018) and a continued need for educators to learn more about teaching writing (Graham, 2019), it is important to consider how online instruction might fill this need. Thus, this study examined participants' (n=32) experiences across three iterations of an online graduate writing pedagogy course. Surveys, follow-up emails, and course evaluations were examined to determine what participants reported learning about writing pedagogy and what course design elements influenced learning. Findings indicate a better understanding of consistent structure for writing instruction, the need to include more student writing time, and the importance of developing a community of writers. Reported influences to learning included application to individual contexts, a consistent structure emphasizing pedagogical strategies, examples, and ideas, and peer and instructor interactions.*

*Keywords:* Writing Instruction, Online Courses, Teaching Methods, Writing Pedagogy

As the overall number of students enrolled in higher education across the United States declines, the number of students enrolled in online courses has steadily

increased. In fact, this number has grown continuously over the last 14 years and is likely to continue (Seaman, Allen, & Seaman, 2018). Our institution reflects this trend, particularly as it has transitioned many graduate programs to fully online over the last several years, including our Masters of Arts in Education (M.A.Ed.) degrees in elementary and middle grades education.

Teaching online was a shift for most faculty who teach in our M.A.Ed. program, and we (the authors) became interested in studying the outcomes for students in our courses. Previous research has indicated that well-designed online instruction is at least as effective as face-to-face (Means et al., 2013; Nguyen, 2015). Additionally, online writing methods instruction has the potential to shift perceptions about the teaching of writing (Tracy, Scales, & Luke, 2014). Yet, research indicates that teachers are often underprepared to teach writing (Graham, Capizzi, Harris, Hebert, & Morphy, 2014; Martin & Dismuke, 2018). Because of the need to better prepare educators to teach writing and the potential that online instruction offers, we decided to focus our research on one course within our M.A.Ed program that centers on the teaching of writing. Specifically, we examined the following questions across three iterations of our online writing pedagogy course:

1. What do participants report learning about writing pedagogy from an online writing course?

2. What design elements of the course influence students' learning about writing pedagogy?

The aim of this paper is to share what participants in the course stated they learned and what course design elements seemed to influence this learning, as well as to discuss the limitations we faced with such a course. Thus, this study adds to a growing body of literature on online instruction and addresses an identified need in teacher development in writing. This work embodies the 2019 ALER conference theme of "Building Bridges with and for Literacy" as it attempts to build a bridge between what we know about online instruction and the need for further teacher preparation in writing.

## Theoretical Framework

Much of our study was guided by Bandura's (1986) concept of self-efficacy, or one's personal belief in their ability to reach a specific goal. People's self-efficacy can influence their motivation, achievement, and attitude (Ashton & Webb, 1986; Brown, 2012; Graham & Weiner, 1996), as well as their decision-making and actions (Pajares, 2013). Pajares (2013) states that the tasks in which people

feel capable are the ones they do, and, conversely, they avoid those in which they feel incompetent. Thus, self-efficacy could potentially have a direct impact on how teachers teach writing if they are feeling less capable (Tracy, Scales, & Luke, 2014; Troia, Lin, Cohen, & Monroe, 2011).

We coupled the idea of self-efficacy with Vygotsky's (1978) social constructivist perspective, particularly the concept of the Zone of Proximal Development. That is, social contexts influence learning where various perspectives and interactions shrink spaces between the known and what could be known about teaching writing. Street and Stang (2009) found teachers' perceptions of their abilities to teach writing evolved when they were among "supportive and committed colleagues" (p. 91). Thus, course content combined with the course design was intended to develop participants' confidence in teaching writing and provide opportunities for online interactions related to teaching writing.

## Relevant Literature
### Preparedness to Teach Writing

An examination of 50 teacher preparation programs from across the United States indicated that only 25% offered a writing-intensive methods course (Myers et al., 2016). This lack of coursework is reflected in several studies that note teachers feel underprepared for teaching writing, and this appears to be true from elementary to high school. For example, in a random sampling of 285 sixth to eighth grade teachers across the United States, Graham and colleagues (2014), found that 64% of respondents reported minimal to no preparation during their college coursework related to the teaching of writing. Comparably, a study of 157 third and fourth grade teachers indicated that 75% of respondents had little to no preparation (Brindle, Graham, Harris & Hebert, 2016). Similar results were found when surveying 361 high school teachers, with the majority of respondents indicating that they were not adequately prepared to teach writing (Kiuhara, Graham, & Hawkens, 2009).

This readiness to teach writing matters, as those who are better prepared tend to value writing more, spend more time teaching it, and are more likely to use evidence-based writing practices in their teaching (Brindle et al, 2016; Graham et al, 2014; Kiuhara et al, 2009; Martin & Dismuke, 2018). Preparing pre-service and in-service teachers to teach writing and helping them develop confidence in writing is critical. When teachers lack confidence in writing and in their ability to teach writing, they may avoid it (Hall & Grisham-Brown, 2011; Street & Stang, 2009). Writing is a crucial skill in life and a lack of effective

writing instruction means that many students are left without the skills they need to be successful writers (Graham, 2019).

## Online Instruction

Darby and Lang (2019) note that several learning design principles that instructors use in their face-to-face classes can translate into the online environment. Among these ideas is being a visible presence in the classroom, through means such as participating in online discussions, posting regular announcements, answering questions promptly, and giving timely feedback. Barran, Correia, and Thompson (2013) identify "teacher presence" as a top factor in the style of exemplary online instructors, along with communication and the building of student-teacher relationships. These ideas mesh with Darby and Lang's (2019) assertion that building a sense of community is a necessity for minimizing students' sense of isolation in the online environment. Other key ideas Darby and Lang (2019) suggest include scaffolding student learning through mini-tasks that lead to the cumulative assessment for the course, providing a clear organizational structure, and clearly stating expectations for the course. They remind us not to "set and forget" our online classes (Darby & Lang, 2019, p. 87).

Despite some similarities, teaching online is different than face-to-face instruction and cannot be seen as merely moving a face-to-face class to an online platform. Palloff and Pratt (2013) note the need to give attention to some key areas of online instruction, particularly in helping develop a learning community:

> ensuring access to and familiarity with the technology in use; establishing guidelines and procedures that are generated with significant input from participants; striving to achieve maximum participation and buy-in from the participants; promoting collaborative learning; and creating a triple loop in the learning process to enable participants to reflect on their learning, themselves as learners, and the learning process. (p. 30)

Several studies describe the effectiveness of well-designed online courses, including in the fields of education and literacy. For example, Jang (2008) found in her study of teacher candidates that interactions among peers online stimulated thinking and allowed for instant feedback. Similarly, Ferguson, Whitelock, and Littleton (2010) assert that the discussion that happens in online courses has the potential to help students develop new literacy practices.

## Methodology

To better understand what participants learned in the course and how the course design may have supported learning, we used convergent parallel mixed methods, analyzing quantitative and qualitative data separately, and comparing results (Creswell, 2014).

## Context and Participants

The online writing pedagogy course we focused on for this research is a three semester -credit hours graduate level course. It is part of a sequence of literacy-focused courses for elementary and middle level teachers in the M.A.Ed. program. This asynchronous writing course is taught every one to two summers and lasts for approximately 4.5 weeks. It may be taken at any point in the program prior to a final capstone experience. While there is no requirement for teaching experience to be admitted into this program, applicants must have an initial teacher license.

For this study, we collected data from three separate cohorts of students during the summers of 2015, 2017, and 2018. The course was not offered in 2016. Across the three years of data collection, 44 students enrolled in the course with 32 participating in the full research study. Participants were primarily from the southeastern United States, with teaching experiences ranging from recent graduates to 25 years. Participants taught in pre-K through adult student educational settings (see Table 1).

## Overview of Course Design

The first two weeks of this course focused on developing a sense of community, understanding the structure of the class and the online tools, and building shared knowledge of the teaching of writing. Tools such as VoiceThread and Padlet enabled participants to share and respond to "low-stakes" (i.e., writing that is not formally evaluated) personal writing to help create a more personalized environment. Participants read a common professional text along with varied articles and online resources (see Appendix A), viewed videos and narrated PowerPoints, and reflected upon and discussed their understanding of the teaching of writing. The course emphasized evidence-based practices in the teaching of writing, such as those laid out in The What Works Clearinghouse guide *Teaching Elementary Students to Be Effective Writers* (Graham et al, 2018). Specifically, the focus was on teachers providing more time for students to write, teaching students to use the writing process, and building a community of writers (Graham et. al., 2018). While some choice existed in which

**TABLE 1**
**Participant information***

| Participant | Years of teaching experience | Grade level(s) taught |
| --- | --- | --- |
| Amber | 3.5 | 2 |
| Angie | 7 | 4 & 5 |
| Ava | 7 | 1 |
| Barbara | 14.5 | 1 |
| Bella | 1 | 3 |
| Cassie | 0 | 0 |
| Chloe | 19 | 3 |
| Curtis | 1.5 | 6 |
| Deb | 2 | K |
| Faith | 10 | K |
| Gwen | 2 | 2 |
| Harper | 0 | 0 |
| Jasmine | 4 | 3 |
| Karen | 0 | 4 |
| Kylie | 6 | Pre-K |
| Layla | 8 | Pre-K |
| Leah | 1 | K |
| Leslie | 1.5 | 2 |
| Lily | 4 | 1 |
| Lisa | 1 | Pre-K |
| Madison | 6 | 3 |
| Melanie | 0 | 0 |
| Olivia | 3 | 4 |
| Piper | 3 | 2 |
| Riley | 2 | 7 |
| Sarah | 2 | 1/2 combo |
| Shelly | 4 | 3 |
| Stella | 25 | GED/Adults |
| Taylor | 4 | 1 |
| Vera | 0 | K |
| Wendy | 3 | 4 |
| Willow | 2 | 3 |

* All names are pseudonyms

resources participants used as they learned about a particular aspect of teaching writing, the first two weeks were highly instructor-directed with content primarily determined by the instructor. The next two weeks were designed to be far more student-directed with each participant selecting a topic of inquiry around the teaching of writing that was specific to their classroom context. Participants spent the majority of their time researching an area of interest. Sample topics included examining social justice writing, assessment in writing, writing in the primary classroom, and writing in specific disciplines. They shared what they learned about their topic with their peers through creating an infographic and an annotated bibliography of sources. They used discussion boards during this time to give and receive feedback and to share resources. Participants then used their research to develop a product that they could use in their classroom. Examples of products that participants developed include an annotated list of mentor texts to teach writing, a resource guide with strategies for writing across subject areas, and an overview of the first six weeks of their writing workshop. The final two days of class was spent sharing what was learned.

## Data Sources and Analysis

Data sources included online pre- and post-course surveys, follow-up email responses, and student course evaluations. Simple, descriptive surveys (Creswell, 2014) were adapted from prior research (Tracy, Scales, & Luke, 2014), with data collection at the start and end of the course. Survey items (see Appendix B) were developed in consultation with a psychometrician. Additional data sources included responses to open-ended questions from anonymous course evaluations given toward the end of the course and follow-up email replies from participants one year after the course ended. The course evaluations posed the following prompts: "Describe the best aspects of this course. Describe changes that could be made to improve the course." The follow-email asked, "How, if at all, are you using what you learned in EDRD 631: The Intensive Study of Writing in your classroom (such as strategies, frequency of teaching writing, your confidence level for teaching writing, student choice, your inquiry topic, etc.)?"

Likert-type survey items were analyzed quantitatively. Three correlated-means $t$-tests were conducted to determine if participants reported increased knowledge levels from pre-course to post-course surveys. While participants' teaching experiences and contexts varied, they opted to pursue this advanced degree with a focus on literacy instruction. Hence, these were classroom teachers

seeking to improve their teaching of writing. Our assumptions about what we would find from quantitative data were typical for course instructors. We hoped that participants would report increased knowledge levels as a result of taking this course.

Qualitative data analysis was conducted by hand. First, we analyzed participants' qualitative survey responses and follow-up email responses to seek patterns in how they described their learning. Then, we re-examined participants' open-ended survey responses and comments on course evaluations, seeking patterns in responses related to course design to better understand what design elements of the online course may have influenced participants' learning about writing pedagogy. Researchers printed out data arranged in a matrix and coded participants' open-ended survey responses together, which allowed for discussion and complete agreement. We assigned words or phrases from open-ended responses, then grouped those words or phrases into themes (Creswell, 2014). Follow-up email responses verified post-survey responses. Finally, we examined course evaluation comments to seek patterns in responses.

Themes we noticed in coding the open-ended survey responses to address question 1 resulted in the following codes: structure for writing instruction, time for students to write, and creating a community of writers. Those codes were affirmed in participants' follow-up email responses. Themes from coding participants' open-ended survey responses and comments on course evaluations to address question 2 resulted in the following codes: classroom application and the structure of the course and its content.

To attend to the overall trustworthiness (e.g., confirmability, dependability, credibility, transferability; Creswell, 2014) of our study, we employed the following steps. First, we organized and described our methods, procedures, and conclusions. Then, participants provided member checks. Finally, outside researchers served as critical peers.

## Results

In this section, we report findings for each of the two research questions. The first question is addressed with results from quantitative and qualitative analyses. Quantitative results will be presented, followed by the qualitative results by themes. Then, the second question is addressed with qualitative results by themes. Finally, we explain how the quantitative and qualitative data converge.

1. What do participants report learning about writing pedagogy in an online writing course?

Before we examined what participants stated they learned, we considered the results of three correlated-means *t*-tests to determine if participants reported increased comfort with teaching writing, knowledge of strategies for writing instruction, and knowledge of ways to integrate writing into different content areas from pre-course to post-course surveys. These survey items were created a priori. As the three items were not designed to measure a single underlying latent construct, a reliability analysis was not conducted.

The pretest and posttest scores for each of the three items were normally distributed, allowing for parametric analysis. For all three items, participants reported statistically significant increases from pre-course to post-course surveys, which indicated perceived growth in their understanding of how to teach writing (see Table 2). Very large effect sizes via Cohen's *d* (Cohen, 1988) were observed, suggesting a great deal of practical real-world utility of these findings as all three values greatly exceeded 0.8. That is, the teachers reported that the course positively influenced their comfort levels with teaching writing, their knowledge level on strategies for teaching writing, and their knowledge level for integrating writing into different content areas.

To better understand quantitative findings, we examined participants' qualitative survey responses to seek patterns in how they described their learning. Participants repeatedly discussed a better understanding of how to build a consistent structure for writing instruction, the need to include more time for students to write, and the importance of developing a community of writers.

## Structure for Writing Instruction

The course addressed ways to structure classroom instruction so that elementary and middle grade students receive consistent and explicit writing instruction with time to practice. Melanie shared:

**TABLE 2**
**Correlated-Means t-Tests and Effect Sizes for Pre-Post Comfort and Knowledge Level Survey Items**

|  | *t* | *df* | *d* |
|---|---|---|---|
| Comfort with teaching writing | 8.721 | 30 | 1.560 |
| Strategies for teaching writing | 15.331 | 31 | 2.710 |
| Integrating writing into different content areas | 11.496 | 31 | 2.031 |

NOTE: p <.001 for all tests

From this course I gained my whole perspective on teaching writing! Before I was unsure of the structure and now I know exactly how to structure my writing lessons as well as how to support my students throughout that process.

Specifically, the course focused on a consistent writer's workshop framework that used mentor texts and teacher modeling to help students understand key writing concepts, including elements of process writing, genre, writing strategies, and authentic audiences and purposes. This structure allows for daily writing time and opportunities for students to share their work with others. Some participants described how they were re-visioning their writing instruction to include a similar framework. Illustratively, Cassie explained:

In my classroom, I will implement a writing workshop, which will include at least a mini-lesson, writing time, and sharing time, every day. I will also integrate writing into different content areas, such as math, science, and social studies. During writing workshop, I will focus on certain principles, such as students having more of a choice in what their topic is, making writing more meaningful, engaging students in their own individual writing process, and celebrating student writing.

Similarly, Olivia wrote, "As a result of this course, I plan on teaching writing every single day. I am also eager to incorporate a more intentional writing workshop structure with authentic audiences and a student-led author's chair."

## Time for Students to Write

Olivia's quote also exemplified a sentiment that appeared repeatedly across survey responses: Participants were dedicated to including more time for their students to write. In all, 14 of the 32 participants noted that they would include more consistent writing time. To assist participants in recognizing the need for more writing in the classroom, course time was devoted to establishing the value of writing, both as its own subject and integrated into other subject areas. Taylor shared, "I learned about the importance of simply writing. I was one who often skipped writing if we needed more time for reading. Now, I plan to have a protected writing block each day and make it a priority." Similarly, Bella wrote, "I will actually make time for writing this year! It got put on the back burner a lot last year because I had no idea what I was doing,

I didn't know how to teach it or where to even begin." Likewise, Leah shared, "I gained the confidence of becoming an actual writing teacher, not just a teacher winging it, hoping for the best. I gained strategies and resources to support myself and students."

## Creating a Community of Writers

As participants learned about teaching writing, there was a focus on building an engaged community of writers, including through offering students more choices and independence. Twelve participants specifically discussed choice in their students' writing as a way to build an engaged community of writers. Instead of continuing a teacher-directed approach, participants overwhelmingly shared that they planned to allow choices in their future writing instruction to get their students more invested in - and engaged with - writing. Illustratively, Chloe wrote:

> I hope to allow MUCH more time for choice and give WAY less prompts. My writer's workshop time was always prompt driven with isolated lessons here and there. I hope to make a shift to more choice, more listening, and study of mentor texts.

While many participants focused on choice within topics, two explained that choices surpassed thinking about topics and prompts. Indeed, they addressed equipping students as a community of learners who could be self-directed writers. "For example, Sarah shared:"

> I want to give students more freedom to solve their problems and help them become more independent and self-directed. I will conference with them and encourage them to think through their challenges. There will be anchor charts throughout the room and supplies for students to use. I will have celebrations for my students to encourage their writing skills and help them feel proud of their work.

Hence, participants specifically addressed how providing choices in topics and tangible scaffolds could enhance their students' engagement during writing time while recognizing that they belonged to a community of writers. Participants' ultimate goal was helping students become self-directed writers who take ownership of their learning while recognizing that they are part of a larger community of writers within the classroom.

## Follow-Up Emails

Ideas and intentions that participants shared around structure, more time to write, and building a community of writers were affirmed in follow-up emails. Illustratively, Olivia stated:

> I am a much more consistent writing teacher. I teach writing every single day now unless something completely unavoidable comes up. I will say the biggest change in my writing instruction would be the author´s chair time. This is a non-negotiable part of our writing instruction that we do every time a student has signed up. I have a calendar on the whiteboard and students can sign up at any point in the month to share their writing if they choose. The only restrictions are that it is one child per day, once a week. This has been going very well! The student starts off by saying if they want celebration or feedback. They share their writing, and then the kids in the audience comment on whatever the author needed. I have seen improvements with the students' writing and a positive shift in our community since incorporating this author share time. I definitely look forward to writing time now!

Riley also indicated that he includes writing in his class every day and he plans to continue to do so. Riley is a particularly powerful example because he continues to focus on writing despite other teachers asking, "Why are you spending the time and effort on writing when it's not tested?" He shared, "I just feel like it's a vital skill students need to learn (and they can only learn it by doing)."

Encouragingly, other participants also shared what they learned with their school colleagues. Deb explained her instructional changes and how she is offering to help her grade level team members:

> I must say, my passion for writing has increased greatly and I enjoyed your course tremendously. I went from squishing writing in where I could and when I had time, to now I am making it a point to incorporate writing several times a day in my current classroom this year. My [students] write for their morning journal and then we also have a set time for writers workshop, and additionally I fit writing in all throughout the day. My students are really able to work on things independently and have truly started to shine in their writing abilities. I have shared my research project with my teammates and they do their best to incorporate writers' workshops as well.

While participants shared their positive changes, teaching writing, even with preparation, had difficulties. Participants explained that many of these challenges related to their teaching contexts. Amber shared:

> I am teaching writing as best as I can in my classroom. I tried implementing writers workshop but found that I did not have the time in the day to continue doing it in order to best help my students in the other areas I'm also required to teach. I am including writing every day in my Daily 5 layout which my students have a writing centers and are able to choose the writing prompt they want as well as have days of free write and choice. I also sometimes have them write as their morning work. Next year I plan to try and incorporate it even more!

Participants reported that teaching writing requires effort, consistency, and patience. That is, changing how they teach writing so it is aligned with evidence-based practices is not easy. However, participants shared that they are committed to teaching writing.

> **2.** What design elements of the course influence participants' learning about writing pedagogy?

To better understand what design elements of the online course may have influenced participants' learning about writing pedagogy, we re-examined participants' open-ended survey responses and comments on course evaluations, seeking patterns in responses related to course design. Two elements of course design were repeatedly discussed: classroom application and the structure of the course and its content.

## Classroom Application

The following comment is indicative of what participants appeared to find most beneficial about the course design: "I love how applicable this class is to my current classroom. Everything I have learned can be directly applied to my instruction next year." However, it was not just their own application that they found useful, it was also what they learned from their peers. As Cassie noted:

> With the guided inquiry assignment, I loved how I was able to focus on my own topic of interest, but that I could also learn from my

classmates' individual projects. The group discussions were helpful in learning different strategies, as well as finding new sources of information in a particular area.

The guided inquiry project seemed to be particularly beneficial for participants in being able to apply their understanding of writing to their own classrooms. Differences in contexts and experiences meant it was necessary to allow participants to determine their learning needs. For example, one participant was entering her first year teaching with a mandated schedule that did not include time for writing instruction. She used her inquiry project to create a justification to her school administration for the inclusion of writing. Another participant was going to be teaching only math in the upcoming school year; thus, she focused her research on the integration of writing into math.

Follow-up emails indicated that participants were able to apply what they learned to their classroom settings. Willow wrote, "My implementation project was a paced out plan of writer's workshop for a year. I took that to my grade level team and offered to help lead us in changing our writing block. Everyone was on board!"

## Structure of the Course and the Content

The second design element that participants indicated as supportive of their learning was the predictable and scaffolded course design, which centered around specific strategies, examples, and ideas for teaching writing. As indicated in one course evaluation statement, "The weekly assignments are laid out in a very organized fashion. There are detailed descriptions, along with a simple chart to refer to. What is due each week is never a question." Another course evaluation statement said, "I absolutely love the way [this course is] structured. We spent two weeks on best practices for teaching writing and then the last half on researching a writing topic specific to our teaching."

Course structure included selected readings, videos, and discussions. Intentional focus on how to use specific strategies for teaching writing along with examples and ideas on structuring writing in the classroom enhanced participants' confidence as teachers of writing. Because of these structured supports, participants shared that they were better informed as to how writing instruction could look in their classrooms and they envisioned possibilities as they planned for the upcoming school year. Illustratively, Piper shared:

> I will completely alter the way I teach writing! I finally feel equipped to approach writing in my classroom. Students will be given choice,

mini-lessons will be based on student needs, conferencing will happen with all students, and there will be designated share time daily! [I will] continue to attend [professional development sessions] and read books related to writer's workshop, as well as view my classmates' classroom products to see if I can use them in my own setting! I finally feel more comfortable with writing and am actually excited this year to begin teaching it.

Karen stated how support from the course increased her comfort level as a teacher of writing. She said, "I feel as though my comfort level has grown because of this class. I think this is primarily due to the professional readings and discussions we engaged in, as well as the guided inquiry project we completed."

Likewise, Cassie explained how specific readings were beneficial: "The texts for this class, especially the assigned and anchor ones, also helped me to discover new strategies and techniques to use when teaching writing to my students."

## Convergence of Data

In this convergent parallel mixed methods study, we analyzed quantitative and qualitative data separately, and compared results (Creswell, 2014). The self-report data from the examples given in the qualitative component shows positive growth over time at an individual level, and the results of the three t-tests show group-level growth. The convergence of our quantitative and qualitative results strengthened our results because we drew from each paradigm to address this vexing problem of how to teach writing pedagogy in an online format. By interpreting data in this way, we better understand what participants reported learning about writing pedagogy and what course design elements influenced learning.

## Discussion and Implications

This study suggests that a carefully designed online graduate course on writing pedagogy can help teachers become more prepared to teach writing. Participants indicated statistically significant increases in their comfort with teaching writing, knowledge of strategies for writing instruction, and knowledge of integration of writing into other content areas. Participants described better understanding of how to structure writing instruction, including a predictable structure for writing and the use of modeling and mentor texts to assist students in developing as writers. They noted the need for more time for students to write, indicated more value placed on the teaching of writing, and the importance of building a community of writers. Participants' growth in understanding *how* to teach writing

effectively is important, given the number of students that have indicated a lack of preparedness means that a teacher is less likely to teach writing (Brindle et al., 2016; Graham et al., 2014; Kiuhara et al., 2009; Martin & Dismuke, 2018).

Including readings, tasks, and assignments that led to a direct application in the classroom seemed to increase participants' willingness to make changes to their instruction. This fits with Darby and Lang's (2019) assertion that "when [students] find relevance and inherent value in the task, [they] will be much more inclined to take ownership of their learning" (p. 176). In a course for teachers, it seems particularly important to guide their learning in ways that account for their specific contexts.

The combination of participants' ability to apply their learning and their increased confidence and knowledge likely made teaching writing effectively feel more feasible. This affirms Bandura's (1986) and Pajares' (2013) concept of self-efficacy because participants moved from being unsure of how to teach writing, and thus potentially avoiding it, to having a clear plan for implementing writing instruction. This fits with previous findings that note that teachers who feel better prepared are more likely to teach writing, which may help address the lack of writing instruction in K-12 classrooms (Applebee & Langer, 2006; Applebee & Langer, 2011; Puranik, Al Otaiba, Sidler, & Greulich, 2014).

Despite positive findings, it is important to revisit challenges that some participants indicated as they returned to their classrooms to try to implement what they learned, as well as our own challenges with teaching the course. Schedules, time, and other requirements meant that some teachers could not implement their writing instruction as they had hoped. Additionally, while there were benefits to the course being offered in the summer, the compressed time frame meant that a limited amount of content could be covered. These constraints support the need for teachers to have on-going support for writing instruction. That is, the course could serve as an impetus for change in writing instruction and provide better understanding, but it is not the panacea. As Graham (2019) insists, changing instruction is an important first step, but to see real change in students' ability to write, there must be support at the school and policy level. Hence, more work in this area is needed.

## Limitations and Future Directions

Limitations in this study include self-reports and the lack of observations. Data were self-reports, which means participants may have responded in ways that they thought would please their instructor. Additionally, participants were not observed after the course to see how their learning was being implemented. Still,

we note that perception of learning is an important measure because self- perception influences teaching (Street & Stang, 2009).

Future research on this topic warrants observations and interviews. Observations should occur during researchers' extended time in the field, with interviews following each observation to get at participants' reflections on how they implement evidence-based writing instructional practices learned from coursework and how they plan to continue to grow as teachers of writing. With this layer of personalized professional development, another rich data source could be researchers' reflections on how they plan to shape writing pedagogy courses in light of participants' data.

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# Appendix A: Overview of Course Readings and Assignments

Required text*:

Mermelstein, L. (2013). *Self-directed writers: The third essential element in the writing workshop.* Heinemann. (Used in the 2015 term)

Kissel, B. (2017). *When writers drive the workshop: Honoring young voices and bold choices.* Stenhouse Publishers. (Used in the 2017 and 2018 terms)

Selected Readings*:

Anderson, J. (2014). What writing is and isn't. *Educational Leadership, 71*(7), 10–14.

Coppola, R., & Woodard, B. (June 2018). Three rules for writing-rich disciplinary classrooms. ASCD *Education Update, 2–7.*

Daniels, H., Zemelman, S., & Steineke, N. (2007). *Content-area writing: Every teacher's guide.* Heinemann.

Fletcher, R. & Portalupi, J. (2001). *Writing workshop: The essential guide.* Heinemann.

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National Council of Teachers of English (2016). *Position statement on professional knowledge for the teaching of writing.* https://ncte.org/statement/teaching-writing/

Tompkins, G.E. (2012). *Teaching writing: Balancing process and product (6*[th] *ed).*

Zumbrunn, S., & Krause, K. (2012). Conversations with leaders: Principles of effective writing instruction. *The Reading Teacher, 65*(5), 346–353. DOI:10.1002/TRTR.01053

Major Assignments:

Weekly modules include discussion boards, reflections, and analyses of readings/videos. 3 part guided inquiry project: Select a topic of interest related to teaching writing and dig deeply into it through a mix of professional texts and scholarly articles. Use your research to develop three products, each with a slightly different purpose and a particular audience.

1. Infographic – Distill your research down to its essence and synthesize it to present to your peers via an infographic that will be shared online. The infographic format was purposefully selected to engage you in a type of writing that may be new you for you. This mimics some of the experience for our own students who are often writing in new formats and genres. It also allows for integration of a visual writing component. In addition, it requires you to carefully examine your research and make decisions on what is most important to include for the intended audience of your peers.

2. Annotated Bibliography - As you research, you'll note the resources (books, articles, etc.) that are most useful and collect those into an annotated list to share with peers. This annotated bibliography is an intentional supplement to the infographic and allows you to share more about your topic.

3. Classroom Product – Consider what you are learning from your research and what your goals are for your classroom. Develop a written product that exemplifies how what you learned from your research will be applied to your context. Create something that will be immediately useful to you as a teacher. Examples include resource guides, long range plans, integration plans, and units of study. You are not limited to these ideas! The purpose is to meld your research with your practice.

*Data were collected from three separate summer terms and readings were updated across time. Additionally, the course required independent research and collecting of scholarly sources, as well as allowing for choices in which so all students did not read the same materials.

# Appendix B: Survey Questions

1. Name
2. Years Taught
3. Grade Level currently teaching
4. County you currently teach in or will teach in next year
5. Previous writing professional development (coursework, conferences, PLCs, workshops, etc.)
6. Have you taken an online course before?

**Likert Scale questions:**

1. Please rate your personal opinion on writing (This question refers to your own personal views on writing rather than how you feel about teaching writing.) (1 – Hate it to 5 – Love it)
2. Please rate your comfort level with teaching writing (1 – very uncomfortable to 5 – very comfortable)
3. Please rate your knowledge level on strategies for teaching writing (1 – know little to know strategies to 5 – know several strategies)
4. Please rate your knowledge level for integrating writing into different content areas (e.g., science, social studies, math). (1- little to no knowledge to 5 – very strong knowledge)

**Multiple Choice Questions**

1. How often did you teach writing last year? If you are new to teaching, how often do you plan to teach it next year?

   **1:** Every day

   **2:** 3-4 x per week

**3:** 1-2 x per week

**4:** Fewer than once per week

1. During time dedicated to teaching writing, how often do you allow your students to choose what they write about? If you are new to teaching, share how often you plan to give them choice in topics. NOTE – choice is defined as students developing their own topics (although the teacher might have parameters such as what genre they write in). For this question, please do not consider giving students different prompts to select from as choice.

   **1:** Always or almost always

   **2:** Pretty frequently

   **3:** Rarely

   **4:** Never or almost never

**Open Response Questions**

1. Describe how you teach writing:

2. List the types of writing that you expect students to do:

3. What would hold you back from engaging students in the writing process or offering them choice in topics during writing (i.e., what are the constraints of your context)?

4. How can you overcome the constraints you listed in the previous question?

5. Describe what you would do if you wanted to learn more about a particular aspect of teaching writing such as integrating technology, reaching reluctant writers, helping English Language Learners, etc.

6. What do you hope to gain from the course?

# MAKING CONNECTIONS ABOUT DIVERSITY AND IDENTITY THROUGH LITERACY

## Exploring an Intersection between Language, Literacy and Identity

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**Abstract**

*The purpose of this qualitative embedded multiple case study was to explore the written and literate language structures, or the academic discourse features of eight African American students in order to gain insight into the influences of their knowledge of academic discourse on their literate behaviors, such as their abilities to decode, anticipate, retell text, and answer comprehension questions. Select third-grade African American students participating within this study represented three reading proficiency levels (on-level, above-level, and below-level). Study participants engaged in five research tasks: the Burke Reading Interview, a wordless picture book story construction, leveled reading, combined comprehension tasks (retelling and answering comprehension questions), and a Cloze reading task. This investigation revealed the importance of academic language as a resource in assisting students to engage successfully with school-based text.*

# Exploring an Intersection between Language, Literacy and Identity

## Introduction

As classrooms become more diversified, filled with learners whose literacy and language background experience differ from the schools, both educators and researchers must understand the role of students' knowledge of academic discourse. They must be more familiar with how this knowledge influences children's literacy behaviors and literacy achievement. There is a large amount of literature regarding the language and literacy development and experiences of white middle-class children (Gardner-Neblett, 2017). Additionally, much has been written about the development of second language learners often referred to as ELLs or English Language Learners over the years (LeMoine, 2007). However, more research is needed in studying students who LeMoine and Soto (2017; 2009) refer to as SEL learners or Standard English learners as they too must embark on the journey into becoming successfully literate. SELs are students who speak language varieties that do not match American English language structure and grammar even though their language contains English vocabulary. SELs include African American students who speak primarily an African American Language (AAL) variety or American-non-new immigrant students who primarily speak Mexican American Language (MxAL). They also include Hawaiian American and American Indian students and other groups who have unique language and cultural backgrounds (LeMoine, 2007). Both ELLs and SELs share a similar challenge of needing more instruction and support in order to learn academic language or the language of school in order to access academic content, and abstract ideas embedded within written language (LeMoine and Soto, 2017; 2009). Often their home literacy learning experiences, though equally valuable, contrasts with the literacy practices needed for school success (Delpit & Dowdy, 2008; Taylor & Dorsey-Gaines, 1988; Heath, 1983; Labov,1972). Many times, their home and community language structures are deemed incorrect or a deficient. Often, this mismatch coupled with a lack of effective instruction and support put both SELs and ELLs at a disadvantage.

Standard English learners often have some of the lowest achievement scores and by third grade, in the absence of intentional academic language building experiences, these students fall behind (LeMoine, 2007). Hence, more research is needed in recognizing and understanding the language and literacy challenges that these SELs face in school and in learning how these students leverage their own developing levels of academic language to engage in literacy behaviors. Therefore, the information in this article clarifies and reinforces the

importance of academic language in burgeoning readers and challenges educators and researchers to become more attentive to students' internalized knowledge of academic language, referred in this study as written and literate language.

This article presents research from a qualitative study that explored the written and literate language structures and the literate identities of eight African American third graders. In the original study, the written and literate language combined with children's literate identities represent students' academic discourse. As shown in Table 1, students' academic discourse was used as a lens to explore students' literacy behaviors, to understand the influence of their level of academic language and their academic literacy identity on how they engaged with text. While an examination of their academic language showed how well they were taking on the language of school and learning, understanding students' literacy identity uncovered how they viewed themselves as readers, how they defined a good reader and revealed how they solved reading challenges. Even though children's literacy identity was a significant part of the original study, the primary goal of this article is to illuminate the influence of children's knowledge of school-based language structures on their ability to decode, orally retell a story, answer comprehension questions and anticipate academic text structures.

**TABLE 1**

| Academic Discourse | |
| --- | --- |
| Literate and Written Language Lens (d/discourse) | Literacy Identity (D/Discourse) |
| *Literate Behaviors* decode anticipate text structures answer comprehension questions retell stories | |

# Review of Literature
## Language and Literacy

Our understanding of language has changed throughout the years. Several notable researchers have provided information about language and language learning that have influenced how we design educational experiences for students. One of the most important of these understandings is the distinctions between oral and written language. For example, Purcell-Gates (2001) asserts that spoken

language is not merely printed oral language, but contends that written language has syntactic and lexical features that once adopted by emergent readers provides them with an internal model for how print should sound. This internalized model provides beginning readers with a point of reference which can be used to monitor, problem solve text and comprehend text more accurately. Therefore, Purcell-Gates contends that both educators and researchers should be attuned not just to children's oral language patterns, but to the presence of their emerging written language patterns. Additionally, in describing the differences between language use and acquisition, Westby (1985) situated language on a continuum from oral interactive language to written texts. As shown in Table 2, oralcy or face-to-face communication was on one end of the continuum, and formal written language was at the opposite end. Along the continuum from oral to written language, there were differences in how language functioned, how language was structured, and what topics and content that language contained. In the center of Westby's oral language to written language continuum, were narratives or the knowledge of school-based stories. This narrative knowledge, referred to as literate knowledge (Westby, 1985) in the field of speech and language pathology, was also termed, literate language. It acted as a transition between oral and written language expressions. Since both literate and written language are important within school learning, in this study, they are both considered forms of academic language.

Literate language is a language register that functions similarly to that of written language. Like written language, the development of literate language is dependent on children's literacy achievement and literacy experiences (Greenhalgh & Strong, 2001). Pellegrini (1985) identified features of literate language or structures that were more frequently embedded within narratives or oral stories. These language patterns were the precursors to written language patterns. Just as Pellegrini identified important language structures found within narratives or oral stories, Leu (1981) identified five frequently occurring syntactical patterns found in written language. Those structures are as follows: subordinate and relative clauses, appositive and participial phrases and passive verbs. Leu studied second and third grade students' ability to predict or to anticipate text as they read. He determined that text written in an oral language register was easier

**TABLE 2**

| Oralcy or Face to Face Communication | Academic Language or School-Based Language | |
|---|---|---|
| Oral Language | Literate Language | Written Language |

to anticipate than text that contained language patterns found in the written language register. Text containing structures more closely related to children's mental syntactic and lexical storage, eased the demand of comprehending school-based or academic text. However, based on his observations, he concluded that readers need to acquire mental syntactic expectations of written language within their schema (Anderson & Pearson, 1984) that can be accessed and mapped onto written language. The specific literate and written language patterns that are important to this study are listed below in Table 3.

Similarly, other researchers recognize the distinctions between learning and acquiring the language of home and community and learning and acquiring academic language. For example, O'Neal and Ringler (2010) consider Standard English distinct from Academic English. In their view, academic language encompassed more complex structures as well as more specialized content area vocabulary than Standard English. Thus, from their perspective, school and literacy success was determined not just by students' mastery of Standard English; rather, it was determined by their proficiency in academic English. These more academic syntactic structures can be acquired and enhanced through authentic reading and writing experiences (Barnitz, 1998). LeMoine & Soto (2017) seem to equate Standard English with Academic English. Additionally, Cummins (2007) also asserted that extensive reading was crucial for the development of these academic language structures. He maintained that the consistent reading and exposure to text containing these academic structures as well as less frequently occurring vocabulary words, having Greek and Latin linguistic roots, would allow students to more readily acquire the academic language register. Additionally, like other educators, he also believed that these structures could be learned through more direct academic instruction. Mesmer & Rose-McCully's (2017) research also brought attention to the difficulties that students have in comprehending complex sentence level text structures. However, their research identified the need for these structures to be directly taught, asserting that without adequate instruction on

**TABLE 3**

| Leu (1982) | Pellegrini (1985) |
|---|---|
| *Written Language Structures* | *Literate Language Structures* |
| subordinate and relative clauses | elaborate noun phrases |
| appositive phrases | conjunctions |
| participial phrases | adverbs |
| passive verbs | mental/linguistic verbs |

how to read these academic structures that students would have difficulty fully comprehending the author's message.

## Theoretical Framework

James Gee's (2004, 2012) discourse analysis theory framed this study. He proposed that discourses can be examined on two different levels, which he coined, capital "D"/Discourse and lowercase "d"/discourse. The lowercase "d"/represents the actual language patterns, words, and expressions that are more commonly associated with a particular discourse group. While the capital "D"/Discourse layer represents the tacit values, beliefs, actions, and thinking that are more representative of the discourse.

Gee asserts that school-based literacy is a type of discourse that children must adopt in order to be successful. Linguistically academic, school literacy discourse is considered a secondary discourse because it is constructed outside of the home. In keeping with his theory, secondary discourse encompasses not only school-based literacy practices and school-based language and language learning practices, but it also entails the inherent values associated with school-based literacy.

Specifically, school-based literacy has a language of its own, often referred to as academic language and its own body of values recognized by other literate people within the discourse (Gee, 2004, 2012). Therefore, in school, membership within this discourse is shown by students' adoption of the linguistic, behavioral, and tacit characteristics of the discourse. Based on this theory, it can be assumed that to some degree, students, have internalized language structures typically found in books and used in academic and/or literacy experiences. Gee (2014) contends that students' success or lack of success in school is associated with their membership within the literacy discourse of school. Their membership within this discourse is evident by them having internalized language patterns, views and practices relating to school literacy. Furthermore, these linguistic patterns, act as resources that aid students as they develop into readers and writers (Clay, 2001).

## Research Questions

Researchers have established a general link between language and literacy success and the presence of academic language definitely contributes to school literacy achievement. Clay contends that language acts as both a resource and beneficiary (2001). Even though, the intent of her statement is mostly associated with

emergent and early readers accessing their oral or primary language store to assist them as readers. It is assumed that the same can be true as children develop academic language; this language register also acts as a support or resource as students engage in literacy behaviors. With this in mind, the following exploratory question guided this investigation of select African American students' literate and written language features in order to uncover how students' knowledge of those features influenced or supported specific literacy behaviors. The following research question guided this investigation: *How do third-grade African American children use their knowledge of literate and written language discourse as a resource in reading as evidenced by their ability to decode, anticipate, retell, and answer comprehension questions?*

## Research Design

This exploratory study into literacy and language employed a case study design, specifically, an embedded multiple case study (Creswell, 2013; Yin, 2003). An assortment of tasks allowed me to more comprehensively study each case, or each one of the eight participants, in order to answer the research question. Creswell defines the case study method as a real-life exploration of a "contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed in-depth data collection involving multiple sources of information" (Creswell, 2013, p. 97). This design was selected because it allowed the researcher to examine students' language and their targeted reading behaviors more comprehensively.

The study consisted of students from three reading proficiency level groups: below-level, on-level, and above-level in order to understand better the role of academic language in different types of readers. The participants were selected purposefully to ensure that each proficiency level group contained at least one student. Each group represented a different case. The term embedded implies that specific elements within each case are investigated. Therefore, in this study, each proficiency group, as well as the individual students embedded within the groups, were studied. There were two to three students in each proficiency level group. The embedded multiple case study approach enabled me to explore group and individual student data and to compare multiple students and groups as needed. Even though many case studies are longitudinal, this study was cross sectional (Flick, 2008) in design because it involved collecting data at one point in time, providing a cumulative end of year snapshot of student's academic language and reading abilities. Because this was a case study, detailed summaries were compiled for each child involved in the study. However, for the purpose of

this article, only significant information relating to the main findings of the study will be included in the article.

## Participants

Eight African American children participated in this exploratory qualitative embedded multiple case study which took place at a Title I campus in a small suburban city. At the time of the study, ninety-eight percent of the students on the campus were economically disadvantaged. The students in the study were also designated as low socio-economic as determined by their free and reduced lunch classification. Additionally, African Americans made up thirty-four percent of the grade level and thirty-two percent of third grade. The eight students came from four departmentalized homeroom classes. The four classroom teachers taught in two dyads. Each dyad had a teacher who taught reading/language arts and math/science or social studies. The reading/language arts teachers planned together, using the same instructional strategies. The teachers used readers' workshop as their instructional framework. In this framework, readers were provided with daily opportunities to read both teacher and student selected books and apply learning strategies taught during a mini-lesson (Calkins, 2001). They also incorporated Comprehension Toolkit (Harvey & Goudvis, 2005) and the Journey's Reading Basal Literacy Kit (Vogt, Hougen, Jago, Palmer, Templeton, Valencia, & Fountas, 2014) within their instruction. However, a large amount of their instruction focused on preparing students for the state standardize test.

As mentioned earlier, the participants represented three reading proficiency level groups. There were two students in the above-level reading group. These students were on reading level Q, which is a beginning fourth grade reading level. Three students were in the on-level reading group and three students in the below-level reading group. The students in the on-level reading group were on level P, an end of the year third-grade reading level, and the students within the below-level reading group were on level O, a middle of the third-grade year reading level. It is important to note that students' reading levels were determined by their language arts teachers using the Fountas and Pinnell Benchmark Leveling System. All of the students in this study were identified as SELs or Standard Academic English Learners as defined by Le Moine and Soto (2017). These learners conversed in some variation of African American English. Nevertheless, there was one student who spoke both English and Yorouba language a language native to South Western Nigeria. This student learned to speak both English and Yorouba simultaneously because both languages were regularly spoken in his home. The students, distinguished by the pseudonyms used in this study, are listed within Table 4.

**TABLE 4**
**Actual Third-grade Sample by Reading Level**

|  | Above Level (Levels Q) | On -Level (Level P) | Below Reading Level (Level O) |
|---|---|---|---|
| Female Students | Kesha | Linda | 0 |
| Male Students | Samuel | Sloane Tevon | Dominique Calvin Sydney |

## Data Collection

Five research tasks were used to uncover the influence of students' levels of literate and written language (academic language) on select literacy behaviors. The literacy behaviors included decoding, orally retelling a story, answering comprehension questions, and anticipating text structures.

The first task was an interview designed to reveal students' reading identities which included their perceptions of reading, and their understanding of their own reading process. This task helped me to get to know each child as a reader. In the second task, students constructed an oral story using a wordless picture book. This task was designed to gain a sense of their levels of academic language, specifically focusing on the occurrences of select literate and written language features mentioned earlier in the article. This task revealed their internalized knowledge of literate and written language forms as they were used in creating a school-based story. In the third task, students read a text at their instructional reading level or independent reading level. In order to lessen the reading demand of the oral reading task, I read a portion of the text first and then asked them to orally read the remaining portion of the text. During their reading, I took a running record of their attempts which would later be charted and analyzed using Goodman's analysis procedures (Goodman, Watson, & Burke, 2005). In the fourth task, students orally retold the story that they read in task three and then answered comprehension questions about the story. The fifth task was a cloze assessment that measured their ability to anticipate deleted words within a passage taken from a different fictional story. This passage was at their independent reading level to ensure effortless reading of the words that were not within the passage. These individual tasks were administered over a two-day period during the school hours at the students' campus.

## Data Analysis

Each task within this study had its own separate analysis, and the results of those analyses were used to learn about each of the students and to answer the research

**TABLE 5**
**Data Collection Tasks**

|  | Tasks | Purpose of Each Task |
|---|---|---|
| Task 1 | Burke Reading Interview | Determined how students saw themselves as readers and what they understood about the reading process. |
| Task 2 | Story Reconstruction Using Wordless Picture Book | Uncovered students' abilities to construct a school-based story using literate and written language at the microstructure and macrostructure level. |
| Task 3 | Leveled story reading Task | Determined students' level of control in reading text containing literate and written language text structures. |
| Task 4 | Comprehension: Retelling | Revealed students' understanding of how to retell a school-based story in order to reconstruct the author's message. |
|  | Comprehension: Explicit & Inferential Questioning | Showed how well students were able to comprehend the author's message, explicitly and inferentially. |
| Task 5 | Reading Cloze Assessment | Demonstrated students' abilities to predict deleted words embedded in both academic and oral based text structures. |

question. In the Burke Reading Interview, theoretical thematic analysis was employed to identify themes or patterns within students' interview responses. The theoretical approach is used when the codes are predetermined by a specific theory or analytical interest (Braun & Clark, 2006). These codes would help the researcher to determine the students' values, beliefs and thinking regarding reading. Values codes were used to identify the following response types within the transcribed interviews: Value code (V), Attitude (A), and Belief (B). The codes were grouped and explored for important patterns and themes in order to draw conclusions about students' identities as readers.

In the wordless picture book task, discourse analysis was employed. In this analysis, select written and literate language features within the transcribed oral wordless picture book were coded using protocol coding procedures (Saldaña, 2009). Protocol coding procedures are used when the research requires the use of pre-established designations or categories from previous studies. Therefore, the written and literate language features, from the research of Leu (1982) and Pellegrini (1985), formed the categories and designations for this study. These language features were coded using a color system. Each linguistic pattern was assigned a color to facilitate the counting of those patterns.

The running record was analyzed using Goodman's miscue analysis procedures (Goodman , Watson, & Burke, 2005). This analysis procedure provided me with more information concerning the types of words and syntax context that students read correctly and incorrectly. In this analysis five questions were used to study students' reading attempts. These questions revealed how students accessed language cues which included semantic, graphophonic, and syntactic information in order to successfully read leveled text.

 Kucer's (2014, 2009, 2010) retelling taxonomy was utilized to determine how closely the students' retelling matched and differed from the author's original version of the story. The taxonomy consisted of the following categories: match, substitution, addition, summary, conflict, rearrangement, and omission. This task uncovered what was included in students' retelling and the way in which students organized and sequenced important events from the story. In order to analyze the comprehension questions, analysis tables were created. These tables allowed me to identify correct and incorrect responses and to categorize the responses according to why the responses were correct or incorrect.

Finally, a cloze analysis table was created to reveal the way students predicted language structures in the cloze assessment task. This table incorporated aspects of Goodman's (Goodman et al., 2005) miscue analysis and indicated if the unknown text or context of the deleted word was part of the oral or the academic register.

Inductive thematic analysis was used to search for patterns and themes across the five research tasks and across the reading proficiency groups to uncover the general findings of the study and to answer the research questions. These patterns and themes were determined using students' individual profile charts, which were created to summarize individual student data, and the cumulative data of each proficiency group. Table 6 shows the tasks and their corresponding analyses. Once the analyses were completed, I debriefed the results, student profiles and group summaries and conclusions with two different debriefers to verify the themes and patterns constructed from the data. Also, established research and analysis procedures were used to ensure credibility of the findings.

## Discussion of Findings

As stated in an earlier part of this article, students' levels of academic language were used as a lens to understand how their knowledge of academic language might help them with literate behaviors such as decoding, anticipating, retelling and answering comprehension questions. The findings below explain how students used their language as resources during the specific literacy behaviors.

**TABLE 6**
**Data Analysis Procedures**

| | Tasks | Type of Analysis | |
|---|---|---|---|
| Task 1 | Burke Reading Interview | Theoretical Thematic Analysis<br>Values Coding | |
| Task 2 | Story Reconstruction Using<br>Wordless Picture Book | Discourse Analysis<br>Protocol Coding<br>Frequency Chart | |
| Task 3 | Leveled Story Reading Task | Miscue Analysis | |
| Task 4 | Comprehension: Retelling | Discourse Analysis<br>Kucer's Comprehension<br>Taxonomy<br>Frequency Chart | **Inductive Thematic Analysis** |
| | Comprehension:<br>Explicit & Inferential Questioning | Analysis Table | |
| Task 5 | Reading Cloze Assessment | Analysis Table | |

However, these findings also reveal the challenges that students faced considering their levels of academic language.

## Student's level of academic language

An analysis of the transcription of student's oral wordless picture book construction revealed that the more proficient readers often had more frequent uses of written and literate language. For example, in the study, generally students in the on-level and above-level reading groups had more occurrences of literate and written language in their oral stories and sometimes in their retellings than the below-level group. Table 7 shows students' reading level rankings in relation to the frequency of their literate and written language features found within their oral wordless picture book story constructions. Kesha had the highest frequency of academic language patterns in her wordless picture book oral story construction. However, Tevon, considered an on-level reader also had a significant number of high frequency patterns in his oral construction. Not surprising, Sydney classified as an ELL student used significantly less academic language structures in his retelling. Calvin is considered a below level reader, but he was also much more fluent during the oral reading task and cloze reading task.

Even though Linda, a student in the on-level reading group, did not construct her wordless picture book using as much academic language, she still incorporated academic language forms when she reconstructed or retold the leveled

**TABLE 7**

| Task | Measure | On-Level Group | | | Above-Level Group | | Below-Level Group | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Tevon | Sloane | Linda | Kesha | Samuel | Dominique | Calvin | Sydney (ELL) |
| Reading Level (Fountas & Pinnell) | | P | P | P | Q | Q | O | O | O |
| Oral Story Construction Using Wordless Picture Book | Academic Language Frequency | 37 | 21 | 15 | 43 | 24 | 13 | 20 | 8 |

text story used in the oral reading task. The presence of academic language in her retelling revealed her internalized knowledge of academic language structures.

## Using Language to Construct Abstract Narrative Relationships

Additionally, this study also showed that the more proficient readers used their language in more complex ways. During the wordless picture book task, students with higher levels of academic language used these structures more frequently to express more abstract ideas from the pictures. This language was used as a tool to describe an event more fully and express a deeper understanding of the event. For example, in Table 7, Tevon, an on-level reader, used language to create inferences about character feelings and motives and used language to construct cause and effect story relationships within the story. Students like Dominique with lower levels of academic language, used language to mostly describe the illustrations.

## Interdependent Nature of Text Complexity Beyond Third Grade

Oddly, the participants in my study who read at lower instructional reading levels outperformed the above-level group in decoding and comprehending text. The above-level group was not as successful in reading and comprehending a beginning fourth grade leveled text. Fisher, Frey and Lapp (2012) conclude that the complexity of text increases after third-grade. Additionally, this phenomenon is aligned with Chall's (1983) assertion that many times students performed as expected in second and third-grade but experienced difficulty in fourth grade,

**TABLE 7**

| | Language Used As A Tool To Express Ideas or Story Events | |
|---|---|---|
| | Page 20-21 | Page 26-27 |
| Tevon | "They tried to hide, but they didn't know where to hide, because they were at the park and there's not that much places to stay at the park." They were all scared and frightened of the dinosaur". | "Then, the third boy, he had an idea. He drew the rain. Since he knew the chalk was real, he drew the rain cloud with rain coming out of it and it started to rain." |
| Dominique | "We climbed up on the playground and try to hide." | "Then, I draw clouds, with rain falling, to wipe the chalk away. Rain comes." |

where the text contained much more academic language. It is possible that students in the above level group, who were reading fourth grade leveled text were entering into this slump, but not because their language was deficient. This slump may have been a result of the increased linguistic and content of higher level text. Recognizing, the trend in which literacy learning becomes more difficult after third grade, LeMoine (2006) contends that many of these issues are related to students' lack of preparation to take on this language.

There is evidence that Keisha has a strongly developing knowledge of the academic structures identified in this study. However, she still had difficulty reading and comprehending portions of the text. Many of her errors involved low frequency words or more complex phrases. Samuel also struggled during some of the reading. Nagy and Townsend assert that the difficulty of academic language lies not only in its syntactic structures, but also in other elements such as the existence of Latin and Greek vocabulary; morphologically complex words; nouns, adjectives, and prepositions; grammatical metaphors; information density, and abstractness (2012). These aspects of academic language often work interdependently in text, increasing the rigor and complexity of the text and consequently effecting students' abilities to accurately comprehend what they read. For example, Table 8 reveals how a miscue or error might prevent students from fully understanding a sentence. In the case of Kesha, a simple word such as "stole" is read incorrectly and not self-corrected during the reading. It could be that the unfamiliar idiom "stole quietly away" made it harder for her to detect an error during her reading. Or, in the case of Samuel, his unfamiliarity with the phrase "wedding preparation" mixed with his difficulty in pronouncing a more complex multisyllabic word, may have also prevented him from not self-correcting the error. It is these types of miscues or errors that either distort the meaning

of the text or prevent students from fully understanding the author's message. Therefore, while students may be strong in one area of academic language, leveraging that strength to aid them during reading, if they are not also growing in the other multiple and interdependent components of academic language they may still experience difficulty to decode and comprehend text.

## Conclusion

When I look across the performance data of many of the tasks in the study, it was difficulty to see overt trends among the eight students. However, in looking at

**TABLE 8**

| Student | Error in context |
|---------|------------------|
| **Kesha** | √ √ √ √ √ √ √ <u>sole</u> √ √<br>That night, when everyone was asleep, Manyara *stole quietly away* |
| **Samuel** | √ √ √ √ √ √ √ √ √ √<br>The king's mother and sisters took Nyasha to their house, and<br>√ √ <u>precipitation</u> √<br>the wedding preparations began. |

**TABLE 9**

| | On-Level Group | | Above-Level Group | | Below-Level Group | | |
|---|---|---|---|---|---|---|---|
| | Tevon | Sloane | Linda | Kesha | Samuel | Dominique | Calvin | Sydney (ELL) |
| Academic Language Frequency | 37 | 21 | 15 | 43 | 24 | *13* | *20* | 8 |
| Comprehension Retelling "Text Matches" | 67% | 27% | 75% | 44% | 50% | *50%* | *73%* | 33% |
| Comprehension Questions (Percentage Correct) | 75% | 13% | 63% | 20% | 60% | *40%* | *80%* | 100% |

the overall performance data on three of the tasks listed in Table 9, I'm reminded of the complexity of becoming literate and the challenge of fully developing academic language, and all it's components. I'm also made more aware that academic language is in fact a tool that allows us to both create and comprehend abstract and complex messages as demonstrated by some of the students in the study as they created oral stories using the wordless picture books or as they recreated an author's story through retelling it or answering questions about it. When looking at the data, it is evident that each child is on a different language and literacy path. While no generalizable conclusions can fully be made using the data of this qualitative case study, many of the participants in the study represent the students in today's classrooms who have noticeable language and literacy strengths and weaknesses that need to be enhanced and supported. For example, Sydney is that student who has learned to answer comprehension questions correctly but still needs to increase his academic language and to develop his ability to construct and reconstruct stories. Samuel and Tevon, represent those students who are developing academic language but need continued opportunities to grow in this register through authentic reading and writing experiences. Their growth requires close monitoring to make sure that their ability to retell and answer questions develops simultaneously. Sloane's knowledge of academic language is beginning to grow, but his challenges with both retelling and answering comprehension questions are signs that his academic language is stalling.

As educators we must be more cognizant of academic language development and seek ways to monitor and measure its growth. While the storytelling task within this story provided some evidence of students' growing academic discourse, it did not capture the complexity that students will encounter when they read and try to comprehend advanced content area text. More research is needed in discovering ways to monitor students' academic language growth, understanding that for many children it may be the difference between school failure or school success.

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# The Use of Ongoing Reflection in a Literacy Assessment Course: Illuminating Teacher Candidate Self- and Social- Awareness

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**Abstract**

*Preparing teacher candidates (TCs) to use assessment that informs literacy instruction has been deemed an important part of teacher preparation. In this study, ongoing reflection was used to illuminate TC learning and beliefs about literacy assessment in field-based literacy courses. Twenty-seven TCs from two teacher preparation programs participated in the study, including TCs from a traditional route to licensure program (n = 17) and an alternate route to licensure program (n = 10). This study applied consensual qualitative analysis. Findings from TCs' weekly post-assessment and tutoring reflections revealed that TCs consistently reflected on their self-awareness as both the teacher and learner. TCs considered the greater social aspects in the assessment*

*and teaching of striving readers. Distinctions between the groups of TCs related to the frequency and depth of self- and social- awareness were noted. Implications for how literacy teacher educators may use ongoing reflection to foster self- and social- awareness are provided.*

## Introduction

Teacher educators are tasked with preparing teacher candidates (TCs) to use assessment, assessment data, and evidence-based practices to meet the needs of all literacy learners (International Literacy Association [ILA], 2018). Federal, state, district, and school-level initiatives hinge on the use of data to support literacy instruction within a school-wide structure, such as Multi-Tiered Systems of Support (Every Student Succeeds Act, 2015) and Response to Intervention (Fuchs & Fuchs, 2006). The practice of using data to inform literacy instruction is especially important for identifying and supporting striving readers (Leonard, Coyne, Oldham, Burns, & Gillis, 2019; Mayor, 2005). However, the skill set involved in creating data-informed literacy instruction is not simple nor is it prescriptive (ILA, 2018b) as it takes time and direct experience to learn (van Geela, Keuning, Visscher, & Fox, 2017). Researchers have reported TCs often have limited experience using assessments to inform their instruction with little coursework dedicated to literacy assessment (DeLuca & Klinger, 2010; Mertler, 2014). Moreover, when TCs have opportunities to administer literacy assessments, the process of learning how to use assessment data to make instructional decisions can be particularly challenging (Mertler, 2014). Yet, Odo (2016) purported that when TCs are provided with guided learning experiences, they grow from the challenges related to learning how to use literacy assessments in a manner that directly informs literacy instruction.

One long-standing practice in teacher preparation is fieldwork experience, such as small group literacy instruction or one-on-one tutoring in conjunction with a literacy methods and/or assessment course (Hoffman et al., 2019; Scammacca et al., 2016). Courses with focused fieldwork experiences have the potential to provide TCs with opportunities to gain knowledge of literacy assessments and build a skill base associated with making data-informed decisions (e.g., Al-Otaiba, Lake, Greulich, Folsom, & Guidry, 2012). Moreover, literacy focused fieldwork experiences provide a space for TCs to reflect upon and interpret their own teaching performance related to a challenging yet relevant task (i.e., assessing and working with a striving reader[s]) with the guidance and feedback of a more knowledgeable/experienced educator (e.g., teacher educator, mentor teacher).

Researchers have also noted literacy-focused fieldwork experiences can positively impact TCs' self-efficacy (Haverback & Parault, 2008; Massey & Lewis, 2011; Odo, 2016; Rogers-Haverback & Mee, 2015). According to Bandura (1997), one's self-efficacy is positively influenced by accomplishing a task (i.e., mastery experience), whereas perceived task failure can result in lower levels of self-efficacy and potential avoidance of the task in the future. In education, teacher self-efficacy has been defined as "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p. 4). High levels of teacher self-efficacy have been associated with improved student achievement (Ross, 1992; Varghese, Garwood, Bratsch-Hines, & Vernon-Feagans, 2016), teacher effectiveness, instructional practices, job satisfaction, and levels of stress (Klassen et al., 2009; Klassen & Tze, 2014). Therefore, creating course-aligned fieldwork experiences where TCs gain an understanding of literacy assessments and opportunities to directly apply their learning with students has the potential not only to increase TC learning but to foster positive self-efficacy.

To support TCs' learning during fieldwork experiences, teacher educators have used a variety of instructional techniques. Ongoing reflection is one such technique (Beauchamp, 2015). Ongoing reflection is a descriptive, analytical, and critical reasoning process that can be articulated in written form, orally, and/or through artistic expression. The development toward ongoing reflection is often done in the form of written reflections (Bain, Mills, Ballantyne, & Packer, 2002). Though an accepted practice in teacher education, few studies investigate how engagement in ongoing reflective practices influence TC learning of literacy assessments (Afflerbach, Kim, Crassas, & Cho, 2007). Researchers also noted a need for TCs to understand how to use assessments to inform instruction (Zehms-Angell & Iwai, 2016). In the present study, weekly written reflections were used as a technique to support TCs' learning in the context of literacy assessment and an intervention course in which they worked one-on-one or with small groups of striving readers to administer, analyze, and interpret informal literacy assessments for instructional purposes. Therefore, the purpose of this study was to examine how the use of ongoing reflection helped to illuminate TCs' thinking about administering, analyzing, and interpreting literacy assessments for teaching striving readers.

## Literature Review

University-based teacher preparation programs can support TCs to build bridges with and for literacy knowledge through literacy assessment focused fieldwork

experiences (Al-Otaiba et al., 2012, Odo, 2016) and ongoing reflective writing (Dewey, 1933). In the following sections we provide a narrative review of relevant literature focused on the use of literacy assessment courses with related fieldwork experiences as well as the use of ongoing reflection in the context of literacy-related teacher preparation.

## Literacy Assessment Focused Fieldwork Experiences

A small but growing number of literacy researchers have explored how TCs' knowledge, beliefs, and self-efficacy have been impacted through and by literacy assessment focused field experiences (Al-Otaiba et al., 2012, Odo, 2016). Odo (2016) found that TCs' self-efficacy benefited from an after-school literacy tutoring experience in conjunction with a literacy assessment and intervention course. Odo (2016) reported TCs grew "through a process of struggle including ostensive misunderstandings of assessment concepts, misidentification of an assessment's purpose or challenges with maintaining their student's engagement during tutoring sessions. This phenomenon was termed as the 'struggle for growth'" (p. 40). Consequently, TCs' self-efficacy not only grew through practicing literacy assessments but also through the challenges that arose during the mastery experience.

Fieldwork experiences aimed at maximizing a mastery experience for TCs also serves as an opportunity to differentiate instruction, apply best practices, and understand the daily routines of the classroom and/or of small group reading instruction (Lane, Hudson, McCray, Tragash, & Zcig, 2011; Massey & Lewis, 2011). Massey and Lewis (2011) noticed middle and high school TCs transferred skills from tutoring elementary students back to their student teaching experience. Although, not true for all TCs, many exhibited an increased awareness of their middle and high school students' reading needs. TCs also reported a greater sense of self-efficacy in implementing instruction to meet the students' literacy needs.

## Ongoing Reflection in Literacy Teacher Preparation

The practice of ongoing reflection can support TCs' learning and beliefs about teaching, especially when they reflect upon challenges that emerge during a mastery experience (Dewey, 1933). Bandura (1986) referred to ongoing reflection as a positive practice that can lead to growth and change in one's thinking and behavior. Thus, teacher educators have sought to create ongoing opportunities during fieldwork experiences that promote time spent on reflection (Yost, 2006). For teacher educators, analysis of TCs' reflections provide a window into their knowledge and skill sets (Mayor, 2005; Stefanski, Leitze, & Fife-Demski, 2018).

Likewise, Rogers-Haverback and Mee (2015) asked their TCs to write reflective journals at the beginning, middle, and end of their senior year which included one semester of fieldwork experience and one semester of student teaching. From analyzing the TCs' reflective journals, the researchers noted TCs grew in their depth of reflection related to teaching reading, self-efficacy toward teaching reading, and pedagogical understanding of the classroom across the time points. Specifically, the TCs were able to reflect deeper on their experiences by focusing on their own beliefs about teaching reading whereas they previously focused on their understanding of materials and strategies to teach reading. Ongoing reflections, in conjunction with coursework and fieldwork, can be used to strengthen TCs' self-efficacy and habit of reflection (Braun & Crumpler, 2004). This literature basis has directly informed the present study as has the use of reflection in the learning process (Dewey, 1993), in general.

## Theoretical Perspective

Dewey (1993) suggested that reflection is the continuous reconstruction of and description of experience. As teachers authentically describe their classroom practice and critically examine different methods and strategies used, these social and metacognitive acts have the potential to transform and improve practice (Glasswell & Ryan, 2017). Schön's (1983) work emphasized that teachers must take a step back from their own practice to examine their pedagogical choices, strengths, and weaknesses. Oner and Andadan (2011) purported that teacher educators believe reflective practices offer TCs an opportunity to bridge theory and practice. Moreover, reflective teaching can refine a teacher's practice beyond skills and strategies to create a habit for reflecting on lessons or interactions through an analytical and evaluative lens (Braun & Crumpler, 2004). Incorporating ongoing reflection in coursework has two aims: (a) to deepen and strengthen TCs' content knowledge and skills, and (b) help build TCs' professional habit of reflection (Shandomo, 2010).

Ongoing reflection has the potential to support TCs' learning. However, a paucity in this line of research, particularly in the context of courses focused on literacy assessment (e.g., Odo, 2016), remains. As teacher educators, our goal in conducting this research study was two-fold: (a) to better understand TCs' thinking about the process of administering, analyzing, and interpreting literacy assessments, and (b) to guide future iterations of the reading assessment and intervention course. The following research question was used to guide our study: How does the use of ongoing reflection illuminate TC thinking about administering, analyzing, and interpreting literacy assessment?

## Methodology

This study is part of a larger study that examines how the use of ongoing reflection influenced TCs' thinking about administering, analyzing, and interpreting literacy assessment for teaching striving readers.

### Participants and University Programs

Participants for this study included TCs in two teacher preparation programs in different regions of the United States (Northeast and West). TCs were recruited using purposive sampling. Purposive sampling is non-probability sampling and based on the characteristics of a population and the purpose of the study (Tongco, 2007). Sampling was purposive because of the need to examine TCs in the context of a literacy assessment course. All TCs who were enrolled in a literacy assessment course with a fieldwork experience (e.g., working one-on-one with a striving reader) were invited to participate in the study; however, TCs who worked specifically with students in kindergarten through fifth-grade were included in the present study.

**Northeast.** From the university located in the Northeast, TCs ($n$ = 17) were working toward their master's degree in literacy through a traditional route to licensure. From the Northeast, thirteen TCs had an undergraduate background in elementary education, seven were full-time prekindergarten through fifth-grade teachers, seven were substitute teachers, and three were full-time graduate students. For the TCs' fieldwork experience, they tutored one student in third through fifth-grade after-school in conjunction with their literacy assessment and intervention course.

**West.** TCs from the university in the West ($n$ = 10) were working toward their master's degree in education through an alternate route to licensure. TCs from the West did not have an undergraduate background in education, and all were full-time teachers. TCs from the West worked one-on-one with a kindergarten through fifth-grade student to fulfill their fieldwork experience. On average, TCs from both universities reported taking approximately two literacy courses prior to the start of the study.

### Procedures

During fieldwork experiences, TCs administered and scored a variety of literacy assessments (e.g., interest inventory, phonics inventory, spelling inventory, informal reading inventory, and writing sample) and made data-based decisions for instruction. TCs from both universities were asked to reflect after each fieldwork

experience using informal open-ended guiding questions (e.g., How did the session go? How did the student respond to the assessment and/or to your teaching? What did you learn about the student(s) during this session? What did you learn about yourself, as a teacher and as a learner during this session?). Weekly post-assessment and tutoring reflections served as the main source of data for the present study. Course instructors at both universities provided examples to guide the TCs' ongoing reflections. For both universities, ongoing reflections were assigned and collected for course credit. During the semester-long literacy assessment and intervention course, TCs from the Northeast wrote nine reflection essays each ($n$ = 153) totaling 137 reflections after calculating the number of missing reflections. TCs from the West wrote six reflective essays each ($n$ = 60) totaling 55 reflections after computing the number of missing reflections. Overall, 192 reflections from the 27 participating TCs were analyzed in the study.

Analysis of the ongoing reflections began after final grades were posted and with the written consent by the participants in accordance with Institutional Review Board (IRB). Colleagues of the researchers obtained informed consent from TCs at both universities.

## Data Analysis

To answer the research question about how the use of ongoing reflection may illuminate TC thinking about administering, analyzing, and interpreting literacy assessments, TCs' weekly ongoing reflections were first analyzed through consensual qualitative analysis (Glaser & Strauss, 1967; Hill, 2012). The researchers selected two TCs at each university at random and independently read and coded each TCs' beginning, middle, and end of semester reflections. A unit of data varied in length and was defined as one complete thought. After the researchers individually coded, they discussed code names and definitions until they reached 100% agreement. Nineteen initial codes emerged from this consensual process (e.g., acknowledges student strengths, beliefs about the process, social awareness, and professional decision making). Using axial coding, the researchers nested initial codes under broader conceptual categories (Strauss & Corbin, 1998). Inter-rater reliability was calculated using the Kappa coefficient to measure the reliability or agreement between the first and second coders (Saldaña, 2016). Reflections were coded independently and discussed until the researchers obtained at least 80% agreement.

For the purpose of this study, we report and expand upon six of the nineteen codes that were nested under the category labeled "teacher self- and social- awareness." We chose to report the findings in the category of self- and social- awareness in isolation for two reasons: (a) codes related to self- and

social- awareness were the most frequently reported, and (b) a clear shift in self- and social- awareness was identified as the semester progressed. We defined self- and social- awareness using definitions provided by the Collaborative for Academic, Social, and Emotional Learning (CASEL). Specifically, self-awareness is "the ability to accurately recognize one's own emotions, thoughts, and values and how they influence behavior … self-awareness includes the ability to accurately assess one's strengths and limitations, with a well-grounded sense of confidence, optimism, and a 'growth mindset'" (CASEL, 2017, p. 2). Thus, being self-aware includes the ability to identify emotions and encompasses self-confidence and self-efficacy. Social- awareness is defined as "the ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures ... and to understand the social and ethical norms for behavior and to recognize family, school, and community resources and supports" (CASEL, 2017, p. 2). Therefore, being socially-aware involves perspective-taking.

Six codes were nested under self- and social- awareness including social awareness, TC's growth mindset, response to challenges, indications of self-doubt, acknowledgment of relationships, and general awareness. To highlight TCs' self- and social- awareness, selected excerpts are provided to help define the nested codes from TCs' weekly reflections. Social awareness (i.e., TCs acknowledged/stated awareness of the social context and/or took the perspective of and showed empathy for the student) was noted in the following reflection, "[b]eing in the library did not work for our group. It was very distracting and hard for the students to focus [on their literacy assessments]. I think we will benefit from having our own space in the hallway." Evidence of growth mindset (i.e., TC acknowledged/stated growth or goals for his/her own role as a student in the class and/or teacher in the fieldwork or other teaching contexts) was demonstrated in this reflection:

> By administering this assessment, I realized that I have improved my ability to multitask during test administration. Previously, I would be so focused on paying attention to only the word list or the student's response that it escaped my mind to pay attention to other things such as how she needs to use her fingers to point and read longer words or that her mouth is silently blending letters together before she recites a word.

Response to challenges (i.e., TCs acknowledged internal and/or external challenges and/or challenges with assessment implementation, student frustration/

behavior, time constraints) was evident in this TC's reflection as he/she was in a sense, thinking and reflecting from the perspective of his/her student:

> At first the [CRI] sentences were a breeze … however, as time went on I saw my student's body language change. [My student] became uncomfortable and anxious about making a mistake. I want to leave a positive impression on my students and instill in them that mistakes are how we learn.

Indications of self-doubt (i.e., TCs acknowledged or stated doubt related to teaching, assessment, working with students, instruction, etc.) was conveyed in this TC's reflection, "I felt a little helpless during the writing portion of the session because I really wanted [my students ]to write something substantive, but [they] did not. I was tempted to include follow up questions, but I did not." Acknowledgment of relationship building (i.e., TCs acknowledged efforts in building/maintaining a positive behavior with the student/s they were working with) was expressed in this TC's reflection:

> Most of the assessments I have given have been used to gauge progress or to get a baseline. It was refreshing to sit and talk with [my student] about what he is interested in and what he likes to do when away from school. I also found that it created a better bond than if I had just started to give him a phonemic awareness assessment.

Lastly, a general comment (i.e., TCs acknowledged general observations linked to teacher self and social awareness that did not necessarily fit within the other constructs) was shared in this TC's reflection, ""Keeping [the lesson] simple allowed me to perform all of the tasks I had decided to without having to rush or change procedures."

## Findings

Frequency counts of the coded data revealed that the TCs from the Northeast ($n$ = 17) reflected on 605 individual units of data related to teacher self- and social- awareness within their 137 total reflections. The TCs from the West ($n$ = 10) reflected on 212 individual units of data related to teacher self- and social-awareness within their 55 total reflections.

As shown in Figure 1, TCs from the West, who were novice teachers in an alternate route to licensure program, reflected most on the challenges related

to administering and scoring literacy assessments (31.60%) than TCs from the Northeast (26.94%). For instance, one TC wrote, "the [reading inventory] was the hardest assessment I have given this year. It takes skill to administer and knowledge to grade." Another TC added, "I found the administering of the [reading inventory] to be cumbersome. I find it incredibly hard to mark errors as the student is reading."

TCs from the Northeast, who were novice yet already certified teachers in a traditional licensure program, reflected most on social awareness (49.42%) and more so than TCs from the West (15.60%). For example, TCs from the Northeast expressed empathy toward their students regarding the informal reading inventory and their perseverance. One TC shared:

> Due to [my student's] comprehension of the passages, we went down one [reading] level at a time … I began to worry that [my student] would tire of the [reading inventory] or get frustrated at not being able to answer questions regarding the passages, but she enjoyed the work.

Likewise, another TC from the Northeast expressed:

> [My student] did an outstanding job as he was focused and came in with a "ready to learn" attitude. At times, however, I could tell that
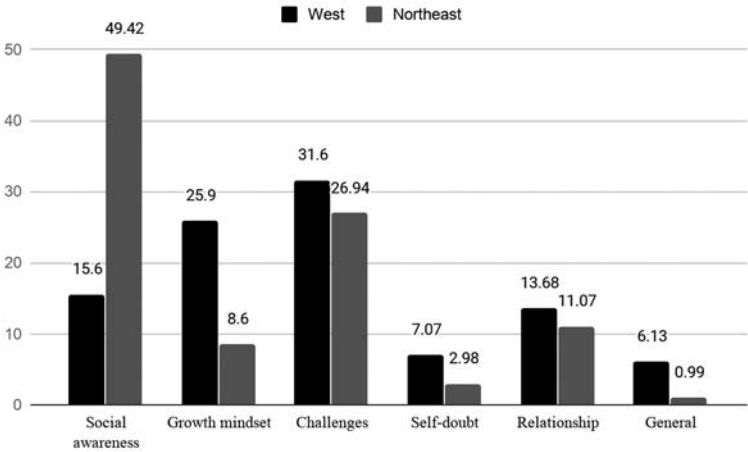


**Figure 1.** Figure 1. TCs' Teacher Self- and Social- Awareness Reflections (%)

[my student] did not necessarily want to continue on with reading passage after passage, but he did anyways. I was really proud of the effort that [my student] put in today.

As exemplified in the quotes, the TCs from the Northeast frequently took the perspective of and empathized with the students during the reading inventory.

Furthermore, TCs from the West reflected more on TC's growth mindset (25.90%) than TCs from the Northeast (8.60%). The novice TCs from the West may have reflected more on this aspect of self-awareness due to their inexperience and personal goals related to becoming a teacher. For instance, one TC said, "After conducting the first assessment experience, I found myself thinking more critically as a teacher." Further, another TC from the West stated:

I am beginning to make much more progress in my own professional understanding of phonics due to conducting assessments such as [the spelling inventory] ... [This experience] has required me to obtain a more sound understanding of various sound patterns that students struggle to read and write.

Through these quotes, it is evident that TCs from the West acknowledged their growth in relation to their goals as both the student in the class and teacher in the field.

As displayed in Figures 2 and 3, there were discrepancies in what TCs reflected on across the semester. For TCs from the Northeast, reflections were clustered into groups of three, and for TCs from the West, reflections were clustered into groups of two to represent three-time points during the semester (i.e., beginning, middle, and end).

As previously shown in Figure 2, TCs from the Northeast reflected on challenges (e.g., tutoring environment, assessment implementation, student behavior, and/or time constraints) across the three-time points, but they progressively reflected more on social awareness across the semester (e.g., acknowledged or stated an awareness of the social context and/or took the perspective of and showed empathy for the student). Whereas, as shown in Figure 3, TCs from the West consistently focused on classroom challenges within the learning environment (e.g., management, instructional delivery, basic knowledge of curriculum, content, and standards) across the three-time points. There was also a steady increase in TC's own growth mindset throughout the semester. Compared to the novice TCs from the West, there was a shift in focus toward social awareness from the more experienced TCs in the Northeast. Although
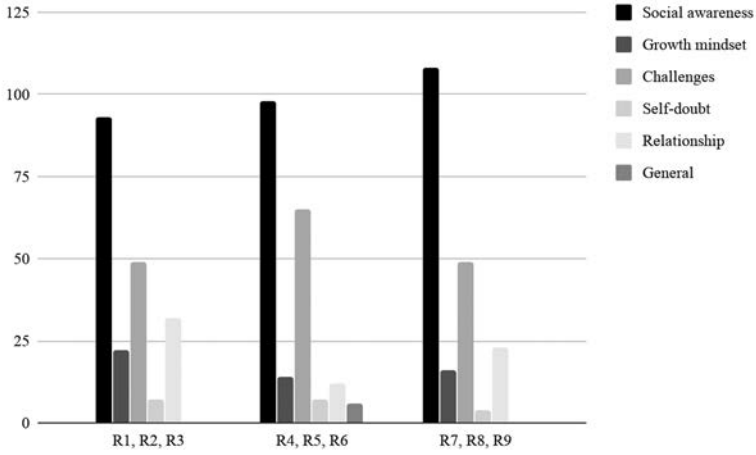
**Figure 2.** TCs' Reflections from the Northeast - Beginning, Middle, and End of the Semester. *Note. "R"* stands for reflection.
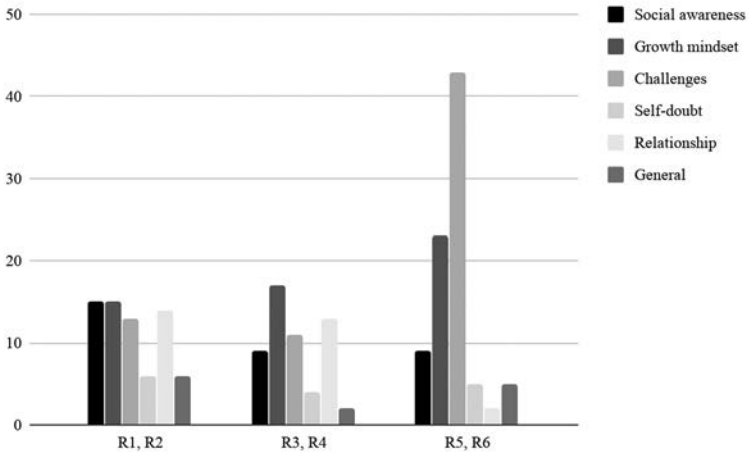


**Figure 3.** TCs' Reflections from the West - Beginning, Middle, and End of the Semester *Note. "R"* stands for reflection.

TCs did reflect on their self- and social- awareness, the reflections varied between the two licensure programs.

## Discussion

In the present study, TCs from two university-based teacher preparation programs were asked to continuously reflect on administering, analyzing, and interpreting assessments in conjunction with teaching a striving reader in the context of a semester-long course focused on literacy assessment and intervention. The study sought to examine the influence of ongoing reflection on TCs' knowledge and beliefs associated with literacy assessment.

Data analysis revealed TCs from both universities reflected on their sense of self- and social- awareness. However, there were some differences in the TCs' reflections regarding which aspects of teacher self- and social- awareness they reflected upon most frequently. Specifically, TCs from the Northeast reflected most on social awareness and challenges. Whereas, TCs from the West reflected most on challenges and their own growth mindset.

Further analysis of TCs' reflections noted TCs from the Northeast reflected on challenges throughout the semester, but a clear shift occurred where this group of TCs progressively focused more on social awareness across the three-time points. This natural shift moved the more experienced TCs from the Northeast away from reflecting on the challenges related to the learning environment, and instead, enabled the TCs to focus on the social context and empathy for the student. This shift was important because TCs need to be aware of the social context when working with a striving reader. TCs from the Northeast who empathized with their students understood the social and ethical behaviors and appropriate supports needed. This keen awareness allowed TCs to craft lessons that were responsive to the students' strengths and needs, behaviors, and interactions within the learning environment. Having the ability to recognize and meet students' diverse needs is a key component of becoming a literacy professional (ILA, 2017).

Additionally, TCs from the West consistently focused on challenges within the learning environment and their own self-awareness by having a growth mindset throughout the semester. It appeared that TCs from the West tried to mitigate the challenges that arose during their fieldwork experiences by having a growth mindset. Based on Dweck's (2008) work, students with a growth mindset believe that their abilities can be developed further. TCs with a growth mindset toward learning view challenges as an opportunity to grow. It may be the case that TCs from the West experienced growth in regard to their self-awareness including growth mindset and self-efficacy related to literacy assessment.

Similar to Rogers-Haverback and Mee's (2015) work, TCs in the present study from the Northeast, who were novice yet already certified teachers, grew in their depth of reflection over the three-time points. TCs from the Northeast progressively reflected more on social awareness through their capability to take the perspective of and empathize with students. Rogers-Haverback and Mee (2015) attributed this growth to the combination of mastery experiences, supportive coursework, and ongoing reflective practice. Conversely, TCs from the West, who were uncertified teachers, continued to focus on the challenges of the tutoring environment and their self-awareness including their growth mindset across the three-time points.

In relation to Odo's (2016) study, TCs in the present study from the Northeast and West both reflected on challenges throughout the semester. Odo (2016) noted that TCs' self-efficacy grew through the challenges associated with an after-school literacy tutoring experience in conjunction with a literacy assessment and intervention course. Similar results can be seen in the present study. TCs were tasked with assessing and scoring literacy assessments and making appropriate data-based decisions for instruction while alleviating challenges related to student behavior. Such experiences have the potential to positively influence TCs' self-efficacy toward a similar experience in the future (Bandura, 1977). For TCs, possessing a strong and resilient self-efficacy (Bandura, 1977; 1986) is crucial because making instructional decisions based on literacy assessment data can be challenging (Mertler, 2014).

Also, the findings from the present study support the current literature by exploring TCs' self- and social- awareness across teacher licensure programs with varying requirements and objectives. In one study conducted by Helfrich and Clark (2016), the researchers explored elementary TCs' self-efficacy from two different universities and programs (i.e., early childhood and childhood). The results indicated TCs had greater self-efficacy toward reading instruction than writing instruction at the completion of their program. Although the present study investigated similar yet different constructs, it adds to the current literature by exploring TCs' self-efficacy across programs of study, which is important to understand because adequate preparation can affect TCs' self- and social- awareness (Lewis-Spector, 2016).

## Limitations and Future Research

The study's limitations should be considered when interpreting and generalizing the findings. First, the study included a small sample size ($n$ = 27). Future research with larger samples involving several cohorts should be used to further

explore TCs' self- and social- awareness in the context of a literacy assessment and intervention course with a fieldwork experience. Additionally, data were collected in the context of two university-based teacher preparation programs in two regions of the United States. Future research could include universities from multiple regions of the United States to better understand TCs' self- and social- awareness from diverse areas. Finally, TCs who participated in the study were enrolled in the researchers' literacy assessment and intervention courses. Therefore, the content of the ongoing reflections may have been impacted by social desirability response bias (Bryman, 2008; Holliday, 2007). Future research may consider collecting data after final grades are posted to ensure authentic reflections and comments. These important limitations notwithstanding, this study addressed the dearth of research examining how TCs develop their self- and social- awareness in the context of a literacy assessment and intervention course with a fieldwork experience.

## Implications and Conclusion

Two implications follow from the findings of the present study. First, university-based teacher preparation programs should offer courses that focus on literacy assessment and intervention with a focused fieldwork experience. Courses including such content are few in number (DeLuca & Klinger, 2010), yet deemed essential for developing TCs' assessment literacy (International Literacy Association, 2017).

Second, university-based teacher preparation programs should understand such courses provide a mastery experience to TCs, which is inherently challenging. Most TCs will face challenges when learning how to administer and score literacy assessments and make data-based decisions for instruction. Regardless, TCs can grow their literacy assessment knowledge and self-efficacy through the challenges associated with working with a striving reader (Odo, 2016). Thus, it is important to recognize that although TCs face challenges, they may value the experiences regardless of complications along the way.

As demonstrated in this study, a literacy assessment and intervention course with a fieldwork experience has the potential to impact TCs' self-efficacy and social awareness across teacher licensure programs. Although there were discrepancies in what TCs reflected on, they expressed an awareness of the social context of the educational environment. As researchers, it is our goal that these findings provide university-based teacher preparation programs with evidence to advocate for a similar course to build TCs' self-efficacy and social awareness related to literacy assessment and intervention. Such experiences have the potential to

support striving readers and prepare TCs for the triumphs and challenges that literacy specialists face.

## Notes

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# "Can you see me now?": Building Bridges with Literacy to Make Hidden Disabilities Visible Through Young Adult Literature

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## Abstract

*This article discusses the application of the critical disability lens when assessing young adult literature with characters with a hidden disability. The purpose of this article is to establish the importance of recognizing the number of students in our classrooms with a hidden disability and question how they are represented through literature in the classroom. The author presents a criteria checklist that can be used by teachers to evaluate young adult literature that respectfully and realistically represent people with a hidden disability. The concept of viewing books as mirrors, windows, and sliding glass doors is applied to selecting books and the critical disability lens.*

*Keywords:* young adult literature; hidden disability; invisible disability; neurodiversity; critical disability theory; ableism

## Introduction

The term "neurodiversity" was coined by Judy Singer in her 1998 sociology Honors thesis that mapped out a new unnamed category of disability (Singer, 1999). Autism spectrum disorder civil rights activists initially embraced the neurodiversity paradigm. The movement has rapidly grown, and the term is now associated with the struggle for the civil rights of all people diagnosed

with neurological or neurodevelopmental disorders. The concept of neurodiversity refers to atypical neurological development as a normal human difference. Disorders under the neurodiversity umbrella include: autism spectrum disorder, attention deficit hyperactivity disorder, bipolar disorder, developmental dyspraxia, dyslexia, epilepsy, and Tourette's syndrome (Jaarsma & Welin, 2012). Judy Singer's coined term shifted the paradigm from society's view of these disorders as a disability or illness to a form of diversity. Although the neurodiversity movement has challenged people to rethink disability since the 1990's, the inclusion and representation of people that identify as neurodiverse in literature has not kept up.

According to the U.S. Department of Education (2018), there are approximately four million students with disabilities enrolled in public elementary and secondary schools. Forty-three percent of these students are classified as learning disabled, eight percent are classified as emotionally disturbed, and one percent are classified as other health impaired. More than half of the identified students with disabilities are hidden and cannot always be known without appropriate testing. Hidden disabilities, also referred to as invisible disabilities, are physical or mental impairments that are not readily apparent to others. They include conditions such as specific learning disabilities, diabetes, epilepsy, allergies, low vision, poor hearing, emotional or mental illness, heart disease, or other chronic illnesses (U.S. Department of Education, 2018). It is important to note that while many hidden disabilities are considered neurodiverse, many more hidden disabilities are not and consequently have not been included in the social movement to rethink the way disabilities are viewed.

## Whose Voices Are We Listening For?

Teachers are faced with the statistics that more than half of the identified students with disabilities in U.S. schools are hidden (U.S. Department of Education, 2018), and over 50% of U.S. youth aged 6-17 received treatment for a mental health disorder within the last year (NAMI, 2019). Teachers must embrace today's culture of addressing social stigma and bias head-on. It is imperative that teachers acknowledge the differences of the students in their classrooms, although their differences may be hidden.

Beyond acknowledging differences as any other human variation, teachers must understand how to identify young adult literature that features students with hidden disabilities, in which characters are authentically and respectfully represented. When teachers embrace quality young adult literature that authentically and respectfully represents characters with a hidden disability, they can be

used to facilitate classroom conversations about what it means to see and experience the world in different ways. If we are filled with the fear of saying something wrong, we miss the opportunity to address issues frankly and miss the opportunity to empower our students to express their own identity with confidence.

## Lived Experience with a Hidden Disability

This article uses the critical disability studies lens to evaluate young adult literature. Critical disability studies aim to understand the lived experience of disabled people and potential ways to forward political, social, and economic change (Meekosha & Shuttleworth, 2009). Disability can be viewed through the perspective of the medical model or social model. The medical model of disability focuses on the particular impairments of the individual. This clinical perspective has connotations of disabilities as an individualized problem that must be fixed or made better so that the individual will be "normal." The social model of disability, proposed by disability activists, views disabilities as not a tragedy, abnormality, or disease that needs a cure (Matthews, 2009).

This model allows individuals with disabilities to embrace their identity and personal experiences. Individuals with visible disabilities have no choice but to move throughout their world with their experience made public. Individuals with hidden disabilities have to make daily decisions about which identity to embody. They must constantly decide to who, why, and how to disclose their disability or to "pass" and portray "able-bodiedness" to the world. Furthermore, if they do choose to make their disability public, they often face skepticism about the validity of their condition because they do not "look" as if they have a disability (Valeras, 2010).

## Hidden Disability in Literature

The National Council of Teachers of English members approved a resolution on the Need for Diverse Children's and Young Adult Books in 2015 (Thomas, 2016). The non-profit advocates for essential changes to the publishing industry to produce and promote literature that reflects and honors the lives of all young people. We Need Diverse Books (2019) addresses their definition of diversity as recognizing "all diverse experiences, including (but not limited to) LGBTQIA, Native, people of color, gender diversity, people with disabilities*, and ethnic, cultural, and religious minorities." The included asterisk refers to the NCTE's broad definition of disability, "which includes but is not limited to physical, sensory, cognitive, intellectual, or developmental disabilities, chronic conditions, and mental illnesses (this may also include addiction)." We Need Diverse Books

(2019) elaborates their definition of disability by including the statement, "we subscribe to a social model of disability, which presents disability as created by barriers in the social environment, due to lack of equal access, stereotyping, and other forms of marginalization." By promoting the social model of disability, teachers can show students that their differences are respected, and their existence and involvement in the classroom is valued.

Koss (2015) used the critical disability theory lens to examine 415 picture books for evidence of characters with a physical, emotional, and cognitive disability. Her analysis showed that physical disabilities were the largest category represented. No book showed a character with an emotional disability. A cognitive disability was found in only two books; one of the characters had dementia and the other a learning disability. Clearly, these statistics are not an accurate representation of the students in our classrooms, leaving many students underrepresented.

Many studies have taken a similar examination of literature. Pennell, Wollak, & Koppenhaver (2018) focused their search on picture books and created specific search criteria. Their criteria included that the book must be easy to read, offer an interesting storyline, and show respectful representations of disabilities. The book's language must also not be overly didactic and should be easily available to locate. Irwin & Moeller (2010) focused their search to strictly portrayals of disabilities in young adult graphic novels. Curwood (2012) evaluated young adult literature but evaluated only recent winners of the Schneider Family Book Award from the American Library Association. All of the mentioned authors added to the lack of research on characters with a disability in literature. Still, there is a continued need for this type of research to apply to all literary genres and classifications of disability so that we can make these books available to our students.

## Book Selection Guide

New books are published each year, and teachers need more guidance on ways to select books for the students in their classrooms. I created my own criteria for selecting young adult literature with characters with a hidden disability so that teachers can select their own text and evaluate new books. Table 1 shows the evaluation checklist, which is divided into two parts, ways to check for stereotypes, and evaluation of the text. Young adult literature is typically read by adolescents independently, and they may be more introspective of their lived experiences and differences. Teachers need to select a variety of books to include students whose disability may not be known to the teacher.

**TABLE 1**

**Check for stereotypes**

| Criteria | Yes | No | Source |
|---|---|---|---|
| 1. Is the character portrayed as pitiful and pathetic? | | | (Biklen & Bogdan, 1977) |
| 2. Is the character portrayed as an object of violence? | | | (Biklen & Bogdan, 1977) |
| 3. Is the character portrayed as sinister or evil? | | | (Biklen & Bogdan, 1977) |
| 4. Is the character only in the background or add to the atmosphere? | | | (Biklen & Bogdan, 1977) |
| 5. Is the character portrayed as a "super crip" | | | (Biklen & Bogdan, 1977) |
| 6. Is the character laughable? | | | (Biklen & Bogdan, 1977) |
| 7. Is the character his/her own worst enemy or portrayed as able to succeed if they tried harder? | | | (Biklen & Bogdan, 1977) |
| 8. Does the character appear as a burden, helpless, or in need of care? | | | (Biklen & Bogdan, 1977) |
| 9. Is the character portrayed as incapable of fully participating in everyday life or not included by nondisabled peers? | | | (Biklen & Bogdan, 1977) (Rubin & Watson, 1987) |
| 10. Is the character used for the growth of another character who is "normal"? | | | (Heim, 1994) |
| 11. Is the character's disability "sensationalized"? | | | (Author, 2020) |

**Quality of text**

| Criteria | Yes | No | Source |
|---|---|---|---|
| 1. Is the information accurate? | | | (Heim, 1994) |
| 2. Is the text free from stereotypes? | | | (Heim, 1994) |
| 3. Is the disability confronted and realistic to everyday life? | | | (Heim, 1994) |
| 4. Is the text quality literature? | | | (Heim, 1994) |
| 5. Does the plot of the book not involve the character becoming cured to live happily ever after? | | | (Author, 2020) |
| 6. Does the book offer an interesting and engaging storyline and characters with depth? | | | (Pennell, Wollak, & Koppenhaver, 2018) |
| 7. Would the story be interesting to students with disabilities, and would they be able to identify with the story in meaningful ways? | | | (Pennell, Wollak, & Koppenhaver, 2018) |

8. Does the book use respectful language and portray the characters with disabilities as rich and complex individuals who are defined by more than their disabilities? — (Pennell, Wollak, & Koppenhaver, 2018)

9. Would you feel embarrassed to read the book aloud in front of students with the disability portrayed in the story? — (Pennell, Wollak, & Koppenhaver, 2018)

The included criteria can be applied to all literature but were created specifically to evaluate young adult literature. The list heavily relies on the major stereotypes that Biklen & Bogdan (1977) found when they surveyed classic literature and contemporary media. They identified ten major stereotypes with examples that are commonly used in the media to portray people with disabilities. In addition to (Biklen & Bogdan, 1977), I included additional criteria that Rubin & Watson (1987) suggested when evaluating disability bias in children's literature and combined overlapping terms. Beyond evaluating the characters, I referred to the five criteria Heim (1994) outlined in her selection of books with characters with a cognitive disability. Lastly, I included further suggestions from Pennell, Wollak, & Koppenhaver (2018) as well as my own suggestions based on the findings of the mentioned research. In addition to the items within the evaluation checklist, teachers must find a variety of books with levels of text difficulty that make the content accessible for students that may be reading well below grade level (Pennell, Wollak, & Koppenhaver, 2018). Table 2 shows a chart of suggested books and their corresponding text levels.

## Books as Mirrors, Windows, and Sliding Glass Doors

Identifying books that represent all students reminds me of Bishop's (1990) metaphor of books as mirrors, windows, and sliding glass doors.

"Books are sometimes windows, offering views of worlds that may be real or imagined, familiar or strange. These windows are also sliding glass doors, and readers have only to walk through in imagination to become part of whatever world has been created and recreated by the author. When lighting conditions are just right, however, a window can also be a mirror. Literature transforms human experience and reflects it back to us, and in that reflection we can see our own lives and experiences as part of the larger human experience. Reading, then, becomes a means of self-affirmation, and readers often seek their mirrors in books." (p. ix)

I selected two books that include a character with a hidden disability as an example of books serving as mirrors, windows, and sliding glass doors. Both of

**TABLE 2**

| Title | Text Level | Awards |
|---|---|---|
| **Learning Disabilities** | | |
| Philbrick, R. (1993). *Freak the mighty*. New York, NY: Scholastic Inc. | Guided Reading: W<br>DRA Level: 60<br>Lexile Measure: 930L | Judy Lopez Honor Book<br>ALA Best Books for Young Adults |
| **Dyslexia** | | |
| Connor, L. (2018). *The truth as told by Mason Buttle*. New York, NY: HarperCollins. | Lexile Measure: 310L | 2019 Schneider Family Book Award Winner, Middle Grades<br>Capitol Choices: Noteworthy Books for Children and Teens<br>ALSC Notable Children's Books - 2019<br>Kirkus Best Books, Middle-Grade - 2018<br>NYPL Best Books for Kids - 2018 |
| Engle, M. (2012). *The wild book*. Boston, MA: Houghton Mifflin Harcourt. | Lexile Measure:1050L | Kirkus Reviews New & Notable Books for Children<br>Horn Book's Guide to 2012 Notable Novels in Verse |
| **Epilepsy** | | |
| Philbrick, R. (2000). *The last book in the universe*. New York, NY: Scholastic Corporation. | Guided Reading: W<br>DRA Level: 60<br>Lexile Measure: 740L | Maine Lupine Award<br>Maryland Readers Medal |
| Hoyle, M. (2017). *The thing with feathers*. Grand Rapids, MI: Blink. | Lexile Measure: 770L | |
| Duyvis, C. (2014). *Otherbound*. New York, NY: Amulet Paperbacks. | Lexile Measure: 680L | |
| **Asthma** | | |
| Booth, C. (2014). *Kinda like brothers*. New York, NY: Scholastic Paperbacks. | Guided Reading: Z+<br>Lexile Measure: 660L | ALA Notable Books for Children |
| **Crohn's Disease** | | |
| Frank, L. (2014). *Two girls staring at the ceiling*. New York, NY: Schwartz & Wade. | Lexile Measure**:** 730L | |

**Eating Disorder**

| | | |
|---|---|---|
| Moskowitz, H. (2015). *Not otherwise specified*. New York, NY: Simon and Schuster. | Lexile measure: 850L | Rainbow Project Book List |

**Schizophrenia**

| | | |
|---|---|---|
| Shusterman, N. (2015). *Challenger deep*. New York, NY: Harper Teen. | Guided Reading: Z DRA Level: 70 Lexile Measure: 800L | National Book Award Winner Golden Kite Award for Fiction |

**Depression/Anxiety**

| | | |
|---|---|---|
| Colbert, B. (2017). *Little & lion*. New York, NY: Little, Brown and Company. | Lexile Measure: 830L | Stonewall Book Award |
| Albertalli, B. (2017). *The Upside of Unrequited*. New York, NY: HarperCollins. | Guided Reading: Z+ Lexile Measure: 490L | |
| Khorram, A. (2018). *Darius the great is not okay.* New York, NY: Dial Books. | Lexile Measure: 710L | William C. Morris Debut Award |
| Green, J. (2010). *Will Grayson, Will Grayson*. New York, NY: Penguin. | Guided Reading: Z+ DRA Level: 60 Lexile Measure: 930L | Stonewall Book Awards-Children's and Young Adult Award Odyssey Award |
| Kessler, J. M. (2011). *Rage*. New York, NY: Houghton Mifflin Harcourt. | Guided Reading Level: Z+ Lexile Measure: 780L | |
| Rodriguez, C. L. (2015). *When reason breaks*. New York, NY: Bloomsbury Publishing. | Grades: 7-12 | |
| Summers, C. (2012). *This is not a test*. New York, NY: Macmillan. | Lexile Measure: 610L | |

**Post-Traumatic Stress Disorder**

| | | |
|---|---|---|
| Bardugo, L. (2015). *Six of crows*. New York, NY: Henry Holt and Company. | Guided Reading: Z+ DRA Level: 60 Lexile Measure: 7900L | |
| Smith, S., & R.M., Brown. (2014). *Stranger*. New York, NY: Penguin. | Grades: 4-8 | Rainbow Lists: 2016 YALSA Best Fiction for Young Adults: 2015 |

**Obsessive Compulsive Disorder**

| | | |
|---|---|---|
| Toten, T. (2013). *The unlikely hero of Room 13B*. New York, NY: Ember and the E colophon. | Lexile Measure: 6200L | ALA Schneider Family Book Award |
| Silvera, A. (2017). *History is all you left me*. New York, NY: Soho Press. | Lexile Level: 820L | |
| Wilson, R. M. (2014). *Don't touch*. New York, NY: Harper Collins. | Grades: 9-12 | |
| Thompson, L. (2017). *The goldfish boy*. New York: Scholastic. | Guided Reading: W DRA Level: 60 Lexile Measure: 750L | Waterstones Children's Book of the Month |

**Autism Spectrum Disorder**

| | | |
|---|---|---|
| Lord, C. (2006). *Rules*. New York, NY: Scholastic. | Guided Reading Level: R Lexile Measure: 670L | Newberry Honor Schneider Family Book Award |
| Martin, A. M. (2014). *Rain reign*. New York, NY: Square Fish. | Guided Reading: V DRA Level: 60 Lexile Measure: 720L | Schneider Family Book Award |
| Arnold, E. K. (2017). *A boy called Bat*. New York, NY: Scholastic. | Lexile Measure: 670L | |
| Arnold, E. K. (2018). *Bat and the waiting game*. New York, NY: Scholastic. | Lexile Measure: 670L | |
| Lucas, R. (2017). *The state of grace*. New York, NY: Feiwel & Friends. | Lexile Measure: 930L | |
| Ursu, A. (2013). *The real boy*. New York, NY:Harper Collins. | Guided Reading: W DRA Level: 60 Lexile Measure: 730L | National Book Award 2013 Longlist Selection New York Public Library's "One Hundred Titles for Reading and Sharing" Indie Bound Kids' Indie Next List Pick |

these books meet the evaluation checklist criteria discussed in Table 2. Although I searched through countless books with characters with a hidden disability, I found only three that depicted a character with epilepsy and met the evaluation checklist criteria. McCall Hoyle's (2017) *The Thing with Feathers*, follows the story of sixteen-year-old Emille as she begins a public high school after being

homeschooled. Emille's journey is relatable to many readers in that she is attending a new school and navigating the typical struggles of an American teenager. However, Emille has epilepsy. Readers enter her story as she faces the struggles of having a hidden disability and the decision to disclose her disability or "pass" and portray herself as "able-bodied." The following quote may serve as a mirror to the 3.4 million people with epilepsy nationwide (Zack & Kobau, 2015).

"Maybe because I live in fear of being exposed. It wasn't all that long ago that people with epilepsy were believed to be possessed by demons and banished from their communities or isolated in mental hospitals for fear they were contagious. Okay, I know people don't think that anymore—not really—but it isn't like having epilepsy is suddenly cool." (Hoyle, 2017, p. 185)

Our students deserve books that serve as mirrors and represent their life experiences. Often our deepest connections are the ones that the mirror reflects internally (Johnson, Koss, & Martinez, 2018). When books serve as windows, readers can view into an accurate representation of the human experience that is not their own. This authentic representation of the lived experience of a person with epilepsy may serve as a window to readers who do not face the same struggles as Emille. Although epilepsy is prevalent, the disorder presents itself differently for everyone, just as everyone effected has different life experiences. McCall Hoyle's (2017) *The Thing with Feathers* serves as a mirror to some and a window to others of just one fictional character's lived experience in a respectful representation.

Books that serve as windows only allow readers to visit the character's life. Sliding glass doors allow the reader to step into the life of the character and become changed (Johnson, Koss, & Martinez, 2018). Seeing this walk of life can become a sliding glass door and provide the potential to promote social justice as well. Epilepsy is typically presented in the media inauthentically and in its most florid and feared form. Advocacy for those affected by epilepsy can be most effective when it alters the presentation of the symptoms in media and reflects the current state of knowledge and reality about the disorder (Kerson, Kerson, & Kerson, 2000). The inclusion of this book in the classroom is a step in the right direction for advocacy and social change to those affected.

Through my book search, I found numerous books that included a character with mental illness. None were as moving and powerful as Neal Shusterman's (2015) *Challenger Deep*. His story depicts a unique perspective of the symptoms of schizophrenia and the lived realities of the illness through the fifteen-year-old character, Caden. Shusterman pulled from his experience raising his son with mental illness. His son, Brenden, collaborated with him and provided the artwork, which represents his stream-of-consciousness during an episode as a way to

communicate. All readers can relate to the following quote, "And when the abyss looks into you—and it will—may you look back unflinching." (Shusterman, 2015, p. 311).

Although everyone's "abyss" may not look the same as Caden's regarding schizophrenia, we can relate his struggles to our own and experience empathy. Similarly to epilepsy, mental illness is also prevalent, but each person's symptoms and experiences differ. Neal Shusterman's (2015) *Challenger Deep* can serve as a mirror to some, a window to others, but a sliding glass door to many. Portrayals of mental illness in the media contribute to the mental health stigma. This stigma has severe consequences for people living with mental illness (Ma, 2017). The ongoing stigma may inhibit some adolescents from seeking help as well as feeling accepted and valued by society.

Stories that depict the inclusion of characters with a hidden disability and validation of their experience through the social model of disability can be the catalyst to combat stigma and address what it means to be a "normal" human being. As teachers, it is imperative to make careful decisions about the books we provide to our students. By using the critical disability studies lens to evaluate literature, we can provide books that serve as mirrors, windows, and sliding glass doors for all readers.

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# BEYOND THE BINARY: EXPLORING GENDER DIVERSITY IN BOOKS FOR ADOLESCENTS

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**Abstract**

*The authors describe a conceptual inquiry with 15 university students who identify as transgender. The focus was on reading young adult literature with genderqueer characters. The authors discussed the books with students in three sessions and analyzed their responses through three coding cycles. Insights from this project revealed three major themes related to the literature: (1) stories surrounding family, mental health, and personal identity; (2) challenges to stories that did not reflect their own identity; and (3) a desire for more substance in the literature. In this article, the authors share criteria for the selection of books, a description of themes that emerged from the discussions, an overview of literature featuring gender-diverse characters, and a summary of their next steps informed by this project.*

*Keywords:* Literature, literature discussions, adolescents, young adult literature, gender diversity, identity

## Introduction

*"I actually saw this book (Beyond Magenta) in my high school library, and thought 'a book that has 'trans', the word transgender, right there on the front, in MY school library? I have to take this chance! It's the only one that I had seen that had anything to do with anything LGBT directly on the cover. I was excited."*

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Experiences like this student's sparked our interest in exploring transgender literature for children and adolescents; that is, literature with characters whose gender identity differs from their gender assigned at birth (Gay, Lesbian, & Straight Network [GLSEN], 2016). A few years ago, we (Connie and Ashley) met to talk about a literature course we teach for pre-service education majors, with a goal of identifying children's or young adult literature with transgender characters. Both of us had previously shared with one another that we have close family members who had recently come out as transgender, which furthered our interest in pursuing this topic in literature. Having experienced our family members' transitions, one of which was school-aged at the time, we knew that we had a responsibility to familiarize teachers with books portraying gender diverse characters. In doing so, we could begin to help both pre-service and in-service educators to build bridges that acknowledge the multitude of identities that students bring to literacy classrooms.

As cisgender female teacher educators who sought to become more informed of queer perspectives and pedagogy, we initiated contact with the sponsor of our university's club for transgender students to enlist them as participants and informants for our project. We hoped that our critical conversations around literature about transgender experiences would invite the students to become text critics (Schieble, 2012) and guide our decision-making in selecting books that represented genderqueer perspectives.

In this article, readers will hear voices of university students from various disciplines who identify as transgender reflecting on their experiences at home and in school, and their responses to literature during book discussions. We hope these authentic voices will assist readers in selecting literature for their own classrooms and navigating discussions. First, we offer a review of the literature and theoretical perspectives that ground our project. Second, we provide an in-depth discussion of the outcomes of our conceptual inquiry through students' narratives.

## Terminology

Most people are familiar with the acronym LGBT, with the letters standing for lesbian, gay, bisexual, and transgender. In some literature the acronym includes the letters Q, I, and A, with "Q" representing either queer or questioning, "A" representing asexual, "I" representing intersex. In recent literature a plus sign (+) has been added to include additional expressions of gender identity (Dorr & Deskins, 2018; GLSEN, 2016).

The vocabulary of the transgender community is rapidly evolving and preferred terminology may differ between age groups within the transgender

community. For the purpose of our project we used terminology supported by the professional literature (GLSEN, 2016; Neely, 2017) and by the students' organization. The terms *transgender*, *genderqueer*, and *gender-nonconforming* are often used interchangeably to refer to a person whose gender identity or expression is different from the gender they were assigned at birth (GLSEN, 2016). The definitions used in this project are compiled in Table 1.

## Situating Our Project

Alarming statistics surround transgender teens and young adults, including the data that show 41% attempt suicide, compared to less than 2% of the general population (Rethinking Schools, 2018-2019). Transgender characters have surfaced on television and online shows, yet there is little recognition of a

**TABLE 1**
**Vocabulary**

| | |
|---|---|
| **Transgender (or trans)** | Transgender is used as an umbrella term that includes all gender non-conforming people. Transgender may also refer to a person who has already transitioned to living as the gender they understand themselves to be. |
| **Transitioning** | The process of shifting from one's birth-assigned gender to the gender with which one identifies. This process may or may not involve medical intervention. |
| **Coming Out** | Coming out is the process of communicating one's wishes to be recognized as the gender with which one identifies. Names and pronouns are important components of coming out. |
| **Genderqueer** | Genderqueer refers to young people who reject the assumption that people are limited to two categories: male and female. Some gender-queer individuals perceive themselves to be neither gender or both genders. Other synonymous terms are gender-variant, gender-fluid, or gender-expansive. |
| **Gender Diverse** | Gender-diverse youth reflect their gender in ways that are not reflective of the gender binary construct. |
| **Gender-nonconforming** | Gender-nonconforming youth express their gender in ways that differ from societal stereotypes or expectations for the gender they were assigned at birth. |
| **Gender Dysphoria** | Gender dysphoria involves a conflict between a person's physical or assigned gender and the gender with which he/she/they identify. |

non-binary perspective. When the environment surrounds students with gendered pronouns, gendered dress, and gendered activities, genderqueer students may feel that there is no place for them. Using students' chosen names and pronouns is a simple, yet powerful way teachers can push back against the heteronormative culture and acknowledge all of their students' identities (Rethinking Schools, 2018-2019).

For adolescents and young adults who identify as genderqueer or non-binary, school and work can be places of stress and harassment. GLSEN's current National School Climate Survey (Kosciw, Greytak, Zongrone, Clark, & Truong, 2018) revealed 60% of LGBTQ students felt unsafe at school, citing verbal and physical harassment and discriminatory policies that affect their school experience. Fewer than 20% of those surveyed indicated that they were taught positive representations of LGBTQ people, events, or history (Kosciw et al., 2017).

Our regional university is located in a small town in the Blue Ridge Mountains. While the official campus climate toward gender differences is accepting and respectful, several students in the club reported that faculty in their departments often failed to use correct pronouns or call them by their preferred names.

Before our project began, North Carolina passed its "bathroom bill" which caused unease among the students in the club. Students viewed the political climate in North Carolina as antagonistic to people living as genderqueer, causing stress and anxiety, as reported by the club sponsor. Nationally, students were also affected by President Donald Trump's announcement that transgender persons would not be allowed to serve in the military.

This project became the intersection of personal and professional focus for us. We are both cisgender, heterosexual, white females who were interested in learning more about different identities through reading, research, and dialogue. As we each learned about close family members' transitions, we became more committed to studying adolescent literature with gender diverse characters. While reading books for our project, these questions shaped our knowledge:

- Are the characters' experiences authentic to what gender non-conforming adolescents experience?
- Would the books be engaging for university students who identify as transgender?

In the remainder of this article, we elaborate on these questions through a discussion of our project.

## Review of the Literature

### Identity

Identity exploration is a critical task for adolescents who are actively creating an image of who they are and who they wish to become. From a sociocultural perspective, identity is multidimensional, meaning that a person can have many self-understandings acquired through social and cultural contexts. Individuals take on these identities when they are recognized by others (Gee, 2001). McCarthey and Moje (2002) explored the ways in which identity matters. It is the lens we use to view the world and our experiences, creating a framework through which we understand and respond to others (Moje & Luke, 2009). When our identity is contradictory to what society deems as acceptable or normal, it matters even more.

While gender is only one aspect of a person's identity, it is one of the few identifiers that society imposes before children take their first breath. The dominant social discourse on gender asserts the male/female dichotomy, leaving no space for identities that fall outside this binary. Heteronormative gender expectations feel confining and unsuitable when young people come to understand that their gender is more fluid than our society suggests. Adolescents may experience anxiety and gender dysphoria if they are not cisgender; it can be a time of seeing themselves in fragmented or contradictory ways (McCarthey & Moje, 2002).

For transgender students, there may be varying, even conflicting identities at different times. For example, a person may inwardly identify as a female, while being outwardly identified as a son, brother, or grandson. Our society has only just begun to recognize those who identify as non-binary.

### Gender-Diverse Literature

Teachers should consider the role of identity in their classroom environment. The gender identities that students bring to the classroom influences their experiences at school (McCarthey & Moje, 2002). Using literature as a vehicle for exploring gender discourses can make visible the ways in which our understanding of gender is shaped by and through the stories people tell. Scholars have explored how narratives shape identities, referring to these stories as the "gel" that binds identities together (McCarthey & Moje, 2002, Moje & Luke, 2009). From this perspective, it becomes critical to examine the stories we make available in classrooms.

Access to books that represent gender diversity is an important first step educators can take to begin to normalize transgender lives (Dorr & Deskins, 2018; Jenkins & Cart, 2018; Ryan & Hermann-Wilmarth, 2018).

Introducing gender diverse characters into the curriculum creates space for a more expansive interpretation of gender, but simply including these characters is not enough. A commitment to valuing all gender identities demands that educators queer their literature and their teaching (Simon, hicks, Walkland, Gallagher, Evis, & Baer, 2018). Teachers must confront their own beliefs about gender if they are to engage students in a critical analysis of literature that represents gender in diverse and varied ways. Christensen (2017) describes critical teaching as "sustained argument against inequality and injustice." Taking a queer approach invites students and teachers to interrogate heteronormativity and confront homophobia, practices that create more equitable and inclusive classrooms (Blackburn, Clark, & Nemeth, 2015; Ryan & Hermann-Wilmarth, 2018).

## Books as Prisms

When readers open a book, they bring with them their assumptions and mindset; for some that will be a binary view that there are two discrete genders. Opening a book with a gender-queer character, the reader is confronted with a contradictory concept to the way they have always thought about gender. Their ideas will be bent, refracted, or distorted, as though looking at the world through a prism, rather than clear glass (Krishnaswami, 2019). When books act as prisms, readers are exposed to complex characters with shifting and evolving gender identities that disrupt and challenge readers' notions of gender. When looking through a prism, there are more ways of seeing the world and understanding one's own identity.

## Access to the Literature

We found studies exploring lesbian and gay characters in children's literature; however, few studies focused on representations of transgender characters (Blackburn et al., 2015; Ryan, Patraw, & Bednar, 2013; Taylor, 2012). While there has been an increase in the number of books featuring gender-diverse characters in recent years, the number is still exceptionally low considering the total number of books published annually. Among this small collection of books with transgender characters, it is likely that few actually make their way into classrooms because of formal and informal censorship. Scholars have advocated that reading literature offering diverse gender perspectives is an important way teachers foster acceptance of these differences (Clark & Blackburn, 2009; Dorr & Deskins, 2018; Ryan & Hermann-Wilmarth, 2018).

## Critical Readings of LGBT-Themed Literature

Scholars have provided a critical framework for understanding the promise of using books with LGBT content - a framework that acknowledges both literary quality and content (Blackburn et al., 2015; Jenkins & Cart, 2018; Ryan & Hermann-Wilmarth, 2018). Our book discussions were patterned after Blackburn and Clark's (2011) literature discussion group and were informed by our personal experiences with transgender family members and students' personal and family experiences. The two university faculty members brought expertise in literature for adolescents and young adults; the university students brought their lived experience and the impact of prior literacy and educational backgrounds. In this environment we all became co-learners and co-teachers (Simon et al., 2018).

# Methodology

## Selecting Books

Informed by current sources on LGBT-themed literature, we included any books with characters who experienced their gender identity in multiple and varied ways (Jenkins & Cart, 2018; Ryan & Hermann-Wilmarth, 2018). We identified 33 books through our university's library database, Goodreads, online book sellers (e.g. Amazon), and the Stonewall Book Awards. As we read each book, we assessed its literary merit, authenticity of the characters, emotional reality, believability of plot, style, and skilled use of language (see Table 2).

We ultimately selected 19 books and purchased several copies of each for the students in the transgender club to create a small library in the LGBT center on our campus (see Table 3). Our selection of literature included ten novels, three memoirs, one informational book, and six picture books. Students were invited to read any book they chose and were not required to read the same books simultaneously. Most students read longer books written for middle school or young adult audiences; our findings reflect their selections.

The following books were among those read by the students and represent the most popular selections from the books made available. *Beautiful Music for Ugly Children* (Cronn-Mills, 2012), features a female to male trans character named Gabe, a high school senior, who is following his dream of being a radio disc jockey. *Parrotfish* (Wittlinger, 2007) is the story of a teen who is transitioning from female to male. Family issues and school bullying are primary themes in these books.

In *Lily and Dunkin* (Gephart, 2016) one of the characters, Dunkin, was diagnosed with bipolar disorder and the other main character, Lily, transitions

**TABLE 2**
**Criteria for our Book Selection**

**Criteria for Fictional Books**

1. Are the characters portrayed as multi-dimensional individuals with complex lives, rather than one-dimensional characters representing transgenderism?
2. Is the writing free of stereotypes and language that might be offensive to transgender people? If such language is used (e.g. by someone bullying a character), is it clear that it is not appropriate?
3. Does the book authentically portray experiences common to many transgender teens?
4. Are conflicts/problems and solutions portrayed in an authentic way?
5. If the book includes illustrations, are they free of stereotypes?
6. Does the book make a positive contribution toward learning about the transgender experience?
7. Could transgender teens reading this book identify with the characters and learn ways others have coped with problems similar to their own?

**Criteria for Informational Books**

1. Is the information accurate and current? Check the publication date, as laws and regulations, psychological approaches, surgical and medical options, and public sentiment are evolving rapidly.
2. Is the author qualified to write on this topic? Has the author consulted with experts in the field?
3. Are there additional resources readers can locate to learn more about transgender topics?
4. Does the book have an attractive design? Are text features, such as fact boxes, sidebars, variety of fonts, and layout of pages, created/used in a way that enhances the primary text.
5. Do illustrations and photographs add to and complement the text?
6. Is there a clear separation between fact and opinion?
7. Is the content useful to both transgender and cisgender people trying to understand the transgender experience?

**Criteria for Memoirs and Biographies**

1. Is the content personalized, including the perspective of the individual at various stages of development?
2. Does the writing depict the subject and their family in a realistic light?
3. Does the writing depict the experiences of self-awareness, gender identity and transition realistically?
4. Do photographs and artwork add new information or complement the text?
5. Does the author speak from personal experience and avoid generalizations about the transgender community?

from male to female. *Gracefully Grayson* (Polonsky, 2014) portrays a middle schooler, assigned male at birth, who yearns to be female. *George* (Gino, 2015), a book written for a middle grade audience, conveys the confusing feelings of a child assigned male at birth who feels like a girl and calls herself Melissa. *Dreadnought* (Daniels, 2017) is a young adult novel about a transgender female

**TABLE 3**
**Selection of Books**

| Novels | • *A Boy Named Queen* by Sara Cassidy<br>• *Beautiful Music for Ugly Children* by Kirstin Cronn-Mills<br>• *Dreadnought* by April Daniels<br>• *George* by Alex Gino<br>• *Gracefully Grayson* by Ami Polonsky<br>• *I Am J* by Cris Beam<br>• *If I Was Your Girl* by Meredith Russo<br>• *Lily and Dunkin* by Donna Gephart<br>• *Luna* by Julie Anne Peters<br>• *Parrotfish* by Ellen Wittlinger |
|---|---|
| Memoirs | • *Being Jazz* by Jazz Jennings<br>• *Rethinking Normal* by Katie Rain Hill<br>• *Some Assembly Required* by Arin Andrews |
| Informational | • *Beyond Magenta: Transgender Teens Speak Out* by Susan Kuklin |
| Picture Books | • *Annie's Plaid Shirt* by Stacy B. Davids<br>• *Introducing Teddy: A Gentle Story about Gender and Friendship* by Jessica Walton<br>• *Jacob's New Dress* by Sarah & Ian Hoffman<br>• *Morris Micklewhite and the Tangerine Dress* by Christine Baldacchino<br>• *Red: A Crayon's Story* by Michael Hall<br>• *Roland Humphrey is Wearing a What?* By Eileen Kiernan-Johnson |

who receives her greatest wish to be transformed alongside a cadre of other fantasy superheroes.

## Context and Procedure

The university students who volunteered to participate in this project were all involved in a club for transgender students at our university. Prior to beginning the study, we interviewed the club's faculty advisor to learn more about the students' backgrounds, needs, concerns, and experiences. We learned that there were 15-25 students who participated in the club with a core group of about seven. The advisor felt that anonymity would be important to the students in light of legislation in our state (Public Facilities Privacy & Security Act House Bill 2, 2016). We also learned that the students formed the support group themselves, because many of them did not feel that their homes were welcoming environments and a few were not accepted in their parents' homes.

The club advisor supported our research by introducing it to the students during one of their regular meetings. After students agreed to participate in the

study, we delivered multiple copies of all books on our list (see Table 3) to the center. The club president sent a message letting students know the location of the books and encouraging them to begin reading. Students were not required to read all books and were free to make the book selections that most appealed to them.

During our first of three meetings we introduced ourselves, shared our personal connections to the transgender community, and described our project and what we hoped to learn from it. We provided snacks and allowed time for students to mingle before we started. The students were all undergraduates, most identifying with "they, their, them" pronouns. The number of participants across the three book discussions ranged from six to 15. Club members who were willing to participate gave verbal consent. At the beginning of each discussion, students agreed to participate by introducing themselves, sharing their preferred pronouns, and identifying the books they had read in preparation for the book club. Their consent and all book discussions were audio recorded.

We initiated the discussions by introducing new books through and then opened the floor for students to share what they had read. The students were pleased that faculty members on campus showed an interest in them. They eagerly read the fictional stories and characterized them as "fun reading" and quite different from their required readings for classes.

## Data Collection and Analysis

We posed open-ended questions to facilitate discussion about the books, but students' questions also emerged during our conversations (see Table 4). These conversations took place during three roughly one-hour sessions over the course of a semester. We were interested in the authenticity of the stories in relation to the lived experiences of the transgender students. In addition to creating space for students to reflect on the characters and events portrayed in the literature, we also wanted them to consider who might benefit from reading these books in schools. A final question asked our participants what background knowledge would help readers understand the stories.

**TABLE 4**
**Discussion Questions**

- In what ways did scenes or characters in the books relate to or differ from your own experiences
- Did any parts of the books seem inauthentic? If so, how or why?
- What would you like students to know before reading this book?
- If you were to write your own story what would it include?

Informed by Grounded Theory methodology, the audio recordings were transcribed and manually coded following each book discussion (Corbin & Strauss, 2015; Saldãna, 2016). To analyze our data, we read through the transcripts twice, made notes about possible relationships, and looked for commonalities across the discussions. From this we developed an initial list of categories. During the second round of coding, we discussed our first impressions and read through the data together. Collaboratively, we discussed the way we categorized each piece of data and agreed on a code for each meaningful phrase and sentence. We identified 14 initial coding categories, but ultimately collapsed these into nine codes that fit into three larger themes. From this we developed definitions, descriptions, and examples of the nine themes which were used in a third and final round of coding. To ensure the validity of our analysis, we shared the final report of our coding schemes with two students from our study.

# Findings

First, students responded to stories in the literature that related to navigating family support and mental health issues. Second, students focused on stories in the literature that conflicted with their own lived experiences. Finally, students reacted to written descriptions of the plot, characters, and the language used by the authors. We address each of the themes in the following sections.

## Navigating Issues

Stories of mental health issues and lack of family support were two major findings that emerged from our discussions. Students connected with characters whose identity as a transgender person was intertwined with complex family dynamics and struggles with mental health. Topics such as anxiety, depression, and sleep disorders emerged during conversations. Students expressed regret that they did not have more family support.

## "Just not on board."

Some of the events characters faced were shaped by a parent's negative response. Students felt that they could identify with these experiences of a family member responding negatively to their gender differences. In the following example, a student reflects on a parent's use of incorrect pronouns. "It didn't hurt when they used 'she' pronouns for me until this past break when they knew. Before that [I] was like 'Oh fine, whatever, they don't know.' But this past break, every time my mom said *she*, there was physical pang in my chest."

Referring to *Beautiful Music for Ugly Children* (Cronn-Mills, 2016) one student reflected, "One of the things Gabe's parents do is they refuse to talk about it and refuse to call him by his actual name. That is something my parents do." Many students agreed this was a common occurrence in their own families.

Another student reflected on how a character in *George* (Gino, 2015) responded to the trans character's coming out. "That is the way my stepmom reacted, reacts, still, actively. She [says] 'Oh, since you're a trans guy that means we have to throw away all of your feminine clothes.'" The student expressed dismay with their stepmother's response because this meant they would need to get rid of all of their clothing.

Many students related to having family members who did not understand their desire to identify as a different gender. They expressed worries of feeling isolated as a result of these difficulties. "He's [Gabe in *Beautiful Music for Ugly Children*] super worried about being alienated in the way his parents treat him. I know how that feels, so that resonated with me...having to deal with people who were just not on board."

### "Feeling like you can't breathe."

Our students understood the mental health challenges that characters faced and appreciated authors including this as a dimension of the narratives. Discussing *Gracefully Grayson* (Polonsky, 2014) a student commented, "The author talks about feeling like you can't breathe and hearing people but they sound far away. That was super relatable. You never see that in children's books."

One student shared a scene from *Dreadnought* in which Danny, the main character, looks in the mirror and feels fear in seeing their image. "Sometimes I see myself in the mirror and get a jolt of fear because that really happened to me. It happened to me once when I was on vacation...in fourth grade. I didn't know anything about being trans. I just remember seeing myself in a full-length mirror in the hotel and it was just immediate fear."

While the mental health difficulties varied across the group, many students shared feelings of isolation, particularly during high school. A common experience across the books was that characters only had one friend; students noted that this was "pretty accurate."

### Different Stories

Students observed when characters received support from educators and family members, noting how it differed from their own experience. Interestingly, the students did not find many examples of characters whose gender identity

matched their own. One student noted, "The books are not representative of the trans community as a whole; everyone has a completely different experience."

## Stories of support

Some of our discussions focused on advocacy of family members and school leaders. In this example, a student reacts to a chapter in the book *Parrotfish* (Wittlinger, 2015), in which bullies follow the lead of one transphobic student: "In *Parrotfish* the school wide bullying, to where everyone was rallying behind the one bully, was inauthentic to me. There is definitely bullying, and there's definitely smaller rallies of bullying, but it wasn't everyone following one person."

Most of the students in our study lacked encouragement from family and friends when they came out as transgender or non-binary. The following comment related to *Lily and Dunkin* (Gephart, 2016) exemplifies this aspect of students' experiences:

"Seeing how accepting her mom was and even though her dad didn't quite understand not being blatant and abusive about it, was super foreign and surreal, to be honest. It is important to get that kind of perspective. 'Oh, you do have some support. There are catches, but there's support there.' It would be nice."

## Gender identity

We learned that most of the students identified as non-binary; when a person or book character transitioned from one gender to the other gender, they were considered to be "straight" or binary. Therefore, students had difficulty connecting to characters like Gabe in *Beautiful Music for Ugly Children,* who transitioned from female to male. "There were a lot of things that I didn't relate to, mostly because Gabe is straight and I don't know what that's like. Also, he has super sexist thoughts about girls he likes and I don't know any transmasculine people who say things like that."

In many of the stories, characters were aware of their gender dysphoria from a young age. Grayson, in *Gracefully Grayson* (Polonsky, 2016), dressed up in female attire when he was just three. Memoirs such as *Rethinking Normal* (Hill, 2014) and *Being Jazz* (Jennings, 2016) convey the idea that transgender youth know about their gender differences when they are as young as two years old. One student questioned that certainty: "You don't always know. I was very feminine for my entire life, but I just thought I was a feminine gay guy. Then I read some more stuff about gender and I was like, 'Oh, wait, but I'm not.' But in some of the books the children knew from a very young age, and I'm asking myself 'but do they, though?'"

## Needs More Depth

A third and final theme involves critiques of the texts. Students reacted to the language used by the author, and critiqued the development of characters and plots in many of the books.

## Language

We knew language would be important when we began this study. Our initial conversations about language were focused on ensuring we had the correct understanding of a term students used. As we focused more on the books, our understanding of the complexity of language was magnified in students' responses. One student commented on the fluidity and inconsistency of language surrounding transgender people. "Even if you identify the same way, what it means could be totally different because you have your own definitions."

While the students mostly agreed on acceptable vocabulary, they critiqued some of the language that authors used, labeling it as outdated or odd. "He [Gabe in *Beautiful Music for Ugly Children*] describes himself using the T slur, which really bothered me. It's transsexual if you don't know. It's not really something a person in that age group in whenever this is set, would use to describe themselves." When students encountered outdated language in books, they questioned the author's connection to the transgender community.

## More substance

The students in our study yearned for more robust characters who had personalities that developed beyond their transgender identity. Referring to this idea, one student said, "I want more substance. ...[A] lot of the time it feels like when people who do not experience [being transgender] and write about it, they focus too much on it [being transgender] because they're trying to write about it instead of writing people."

Many of the books in our study presented characters desiring to be a discreet gender different from the gender assigned at birth. Students, most of whom identified as non-binary, desired characters that disrupt binary perspectives of gender (Blackburn et al. 2015). Building on the idea of more developed characters, students commented that "these sorts of things need to be character driven." As one more student summarized, "a character has to be their own character first and not just 'this is a trans person.'"

There was also a desire among the students to read about the process or journey people experience as they come to understand their transgender identity. Since the students' own identities were fluid and shifting, they saw binary

characters as too stable and invariant. "So more of the person working through these things and fewer stories [in which] they've kind of figured it out; like this is it." Students acknowledged the lack of depth in the way characters expressed their identities, noting that descriptions were often limited to material, physical aspects, rather than actual identity issues. There was a shared sentiment among students that wanting to wear dresses and fingernail polish should not be the focus in books. They wanted to read more about how a character arrived at conclusions about their identity, an insight that one student referred to as the "behind the scenes" work.

In several of the books, characters discover the meaning of transgender when they are searching the internet. Although some students shared a similar process, others found it overused in the books they read. "It would be interesting to go through this gender journey instead of just searching the internet and finding, 'This is a trans person. I googled it once.'"

## Discussion

From our initial conversations, it was obvious that students desired literature that reflected their personal experiences and shed light on the many ways of being gendered. Seeing books through a gender queer prism allows readers, both gender variant and cisgender, to view the multifaceted ways gender plays out in the world (Krishnaswami, 2019). Books can help readers adjust their assumptions and expectations regarding gender and the evolving terminology related to gender diversity.

The students in our book discussions shared disappointment that their families were not supportive of their gender differences, leading them to seek support beyond their homes. Many students in our book discussions identified with book characters who were experiencing mental health issues, citing their own difficulties throughout their transitions. When reading and reflecting on the books for young adults, the students expressed a desire for more fully developed characters with nuanced personalities. They also commented that, while language surrounding gender might carry varying definitions, it is important for teachers to educate themselves on current terminology.

While these findings only represent the perspectives of the students who participated in our project, their stories helped us arrive at a more gradated and complex understanding of transgender identities. Before using these books in the classrooms, teachers must confront their own assumptions and anxieties about gender, reflecting on the ways in which heteronormativity plays out in their classrooms and in their lives. One important place to begin this work is

with pre-service and in-service teachers. Bringing diverse portrayals of gender into teacher education programs creates a space for teachers to grow in their awareness, self-understanding, and empathy. Many of the transgender students in our project commented that they lacked access to books with gender-diverse characters during their K-12 experience. For some of these students, our book discussions were their first exposure to books with characters that reflected their own lives. For this reason, we believe it is critical that books with characters reflecting the continuum of gender expression are made available to all students.

However, making books accessible is only a first step. Our students pushed back against portrayals of the transgender identity in many of the books they read. Students wanted to read about characters who lived full and rich lives; they also wanted themselves to be seen as complex, whole people who also identify as transgender. For this reason, we encourage educators to carefully read reviews of books on the transgender experience and use those that appear to reflect the most authentic experiences. Book decisions can be guided using the criteria in Table Two and the insights from this conceptual inquiry. Our book discussions provided a supportive way for transgender students to share their experiences while talking about books. We encourage educators at all levels to support campus organizations for transgender students and their allies and to create opportunities for students to engage with the literature.

According to former children's Poet Laureate Jacqueline Woodson (2014), books can serve as a companion to readers. In an interview *The Guardian* (Dean, 2014), Woodson commented on the critical need for diverse literature, "…writing across socioeconomic class and race, and gender, and sexuality…I don't want anyone to walk through the world feeling invisible every again."

We hope our students' voices highlight the breadth of issues, including mental health and lack of family support, that genderqueer people confront in and out of school. This project was only a first step in the work we hope to do at our university and in our teacher education program. Our next steps include continuing the conversations around gender-diverse literature with the students in the LGBT club on our campus. The students welcomed the opportunity to read and talk about books and we see an opportunity to have more focused discussions around recently published books reflected non-binary voices, a perspective that our students felt was lacking in our initial selection of literature. Additionally, we plan to collaborate with upper-elementary and middle-grades teachers in our community as they use gender-diverse texts in their classrooms. Lastly, we will continue to incorporate varied expressions of gender through our text selections in the children's literature courses we teach in our teacher education program

and create opportunities for our pre-service and in-service teachers to critically analyze gender representations in the literature they bring into their classrooms.

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# COMPARATIVE PERCEPTIONS OF TEACHER CANDIDATES' READING CLINICAL EXPERIENCES

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## Abstract

*This quasi-experimental study examined non-traditional teacher education candidates' responses to two different clinical experience models. Results indicated support of an embedded, authentic reading clinical experience in a structured university setting directly supported by reading faculty. Quantitative data revealed significant results in the areas of Foundational Knowledge and Assessment and Evaluation, two of the six key components of the ILA reading instruction standards. Statistically significant gains were identified in the areas of (a) involving families as active, essential participants in the assessment process; (b) creating a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches, and methods, curriculum materials, and the appropriate use of assessments; (c) taking on the role as the most important agent of assessment; (d) using assessment to improve teaching and learning; and (e) using instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing.*

*Keywords:* field experiences, nontraditional certification, literacy preparation, literacy clinical experiences

## Introduction

Teacher education programs draw on clinical experiences to support candidates in the development of pedagogical skills, content knowledge, and critical dispositions such as reflective decision making. These experiences encourage teachers to combine thought and analysis with action in practice to become "adaptive experts" (Hammerness et al., 2005). Programs also design these experiences, which immerse candidates in the culture and demands of the profession, to increase candidates' self-efficacy in content and pedagogy.

In traditional programs, these experiences usually require candidates to enter schools as part of their course requirements. This design is more difficult to create with nontraditional programs where meetings take place online or in the evenings and weekends. Teacher education faculty working in online course environments have struggled to define best practices pedagogy involving clinical experiences. In nontraditional programs, building authentic learning experiences for teacher candidates are difficult to conceptualize, particularly with limitations on faculty ability to model directly or to capitalize on interactions that occur in the classroom context (Daves & Roberts, 2010; Gillett, Cole, Kingsbury, & Zidon, 2007). Consequently, teacher candidates in nontraditional programs receive less practice teaching than teacher candidates in traditional programs (Humphrey & Wechsler, 2007; Kee, 2012).

This is a "gulf" the researchers identified as a focus for study. The methodologies underlying the design and implementation of clinical experience delivery are an area of critical focus in current contexts as online and traditional programs work to find ways to provide content to learners via remote learning. Nontraditional programs have felt increasing pressure to move to online formats to support student learning (Ortagus, 2017), and recent events resulting from COVID-19 have required programs to think flexibly about how to support teacher candidates through remote and online learning formats.

The purpose of this pilot study was to examine the relative impact of two clinical experience models on nontraditional teacher candidates' content and pedagogical knowledge as well as on candidates' efficacy in teaching reading. One cohort in the study engaged in virtual clinical experiences where teacher candidates had to identify a K-8 student locally to administer identified assessments and interventions. Candidates submitted assessment and intervention plans and results along with video evidence of their work. The second cohort participated in a university campus-based reading clinic. Candidates worked directly with struggling readers in the early evening hours prior to attending class, submitted assessment and intervention plans and results, and were directly observed and supported in their work with K-8 students on-site.

The focus of the study was on candidate efficacy in enacting critical literacy content and pedagogy as supported by their clinical experiences. While content knowledge and pedagogical skills were directly taught and assessed, the focus here is on candidates' self-reported perceptions of their preparedness to enact these skills with struggling readers. Strong perception of ability to enact content is a marker of candidate efficacy and an indicator they will do this work when entering their own classroom spaces. Self-efficacy here is defined as a person's belief about their capabilities to complete a task to a certain level of performance (Bandura, 1984).

While content knowledge and pedagogical skills for candidates were also assessed, the focus for this study was in their efficacy in enacting this knowledge and skills leading to our research question: What is the relative impact of reading clinical experiences on candidates' self-reported efficacy in reading content and pedagogy?

## Theoretical Framework

Kolb's experiential learning theory, a four-stage learning cycle in which the learner progresses through each stage in the cycle grounded the study. The cycle consists of (a) concrete experiences, (b) reflective observations, (c) abstract conceptualizations, and (d) active experimentation. In Kolb's theory of experiential learning (1984), the four-stage learning cycle provides a structure for using experience as the primary driver to scaffold development of knowledge, skills, and attitudes in an environment or experience (Dennick, 2012).

In this pilot study, teacher candidates assessed and delivered instruction to struggling readers, reflected on the experience, and made changes to the instructional procedures or strategies. Candidates in the fall/spring were able to enact these practices with explicit, on-site coaching from the course instructor while the summer candidates experienced delayed coaching in the form of instructor feedback on their written and video submissions. While both models relied on experiential learning requiring candidates to work directly with students, the on-site model provided more direct coaching and scaffolding. The researchers were keen to investigate the relative impact of direct coaching on candidate self-efficacy in literacy content and literacy pedagogy.

## Literature Review

Teachers feel pressure to ensure learners leave school prepared for college and career contexts, and literacy is an area in the forefront of education.

The overwhelming negative life consequences for students not successful in school-based reading and writing contexts are significant. Success in school literacy contexts hinges on students mastering an early foundation in phonological awareness and phonics (Machado, 1999; Tompkins, 2013; Vukelick & Christi, 2009). The International Literacy Association (ILA) established principles and recommendations for reading teaching practice (Neuman, Copple, & Bredekamp, 2000) to include standards for reading professionals (ILA, 2010). These standards guide teacher preparation programs in reading coursework curriculum and assessment design and provided a foundation for this study.

The value of field and the need for specific guidance to support candidate acquisition of content and skills in teaching reading has been established in the research base (Garmon, 2005; Lipp & Helfrich, 2016; Massengill, Shaw, Dvorak, & Bates, 2007). Candidates often do not always have an accurate perception of what they know and do not know (Cunningham, Perry, Stanovich, & Stanovich, 2004; Grossman, 2011). They need support to understand the complexity of teaching reading and to build their efficacy for teaching reading. However, preservice teachers' perceived self-efficacy in teaching reading is often overlooked in the research (Barr et. al, 2016; Ciampa & Gallagher, 2018; Haverback & Perault, 2008; Helfrich & Clark, 2016) as is the relationship of clinical experiences to the development of these knowledge and disposition areas (Jordan, Garwood, & Trathen, 2019; Leader-Janssen & Rankin-Erickson, 2013).

## Clinical Experiences in Teacher Literacy Pedagogy Development

To build candidates' efficacy for teaching reading, preparation programs should provide candidates with mastery experiences where they can see their own growth as well as the growth of their students (Fives, Hamman, & Olivarez, 2007; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998; Waltz, 2019). These experiences should include a high level of support and guidance and should include specific preparation to teach struggling readers (Duffy & Atkinson, 2001; Niersheimer, Hopkins, Dillon, & Schmitt, 2000). Additionally, these programs should explicitly seek to link candidates' experiences working with struggling readers to specific pedagogical and content knowledge (Leader-Janssen & Rankin-Erickson, 2013).

Research in the field indicates that clinical experiences without guidance from university faculty may actually work against candidates' development of content, pedagogy and efficacy in teaching reading in that these experiences may reinforce traditional and non-supported instructional practices aligned with candidates' "apprenticeship of observation" (Darling-Hammond & Richardson,

2009; Lortie, 1975). Additionally, clinical experiences bounded by one class or that are comprised of loosely selected placements with minimal guidance or nominal connection to coursework are also counterproductive (Darling-Hammond & Richardson, 2009). The need to create rich clinical experiences calls for a "re-envisioning" of these experiences to reach across coursework and to include connections to the community (Darling-Hammond, 2009; Zeichner, 2010).

Candidates involved in authentic contexts, such as a reading practicum embedded within a course, acquired more content knowledge for teaching reading than those who simply took a course without a required field component (Leader-Janssen & Rankin-Erickson, 2013). However, this same study recommended researchers examine the effects of different types of clinical experiences, as this study sought to do.

## Literacy Clinical Experiences in Nontraditional Teacher Preparation Programs

Solutions piloted by nontraditional programs are contingent on the value the program places on clinical experiences relative to the logistical demands faculty and candidates face. In nontraditional programs, a common option has been to ask candidates to identify a local student to use as a subject for assessment, lesson design, and intervention. Candidates then provide paper (e.g., lesson plans, reflections) and/or video evidence of their work for instructor feedback (Danielowich, 2014). Another option requires candidates to report to a more authentic setting (e.g., an active classroom or a clinic setting) in an attempt to find a balance of online and clinical requirements (Grossman, 2010). However, programs requiring face-to-face experiences may receive push-back from nontraditional candidates already juggling the demands of school against work and family. Additionally, some of these face-to-face components are only offered in the first year of the program and are limited to only classroom observations (Wilcox & Samaras, 2009).

Current national foci on K-12 literacy development means that program design and candidate preparation are high-stakes considerations. States across the nation are advocating for literacy instruction based in the science of reading—merging the scientific/research worlds with the educational/teaching worlds by studying the reading brain (Gentry & Ouellette, 2019). In particular, state legislation and initiatives focus on the content and skills specific to phonemic awareness, phonics, and dyslexia identification intervention (Hanford, 2017). In this highly politicized context, teacher education programs are grappling with how best to meet new mandates for teacher preparation in reading instruction to include knowledge of linguistics and the language which are imperative to

teaching science-based curriculums (Joshi & Wijekumar, 2019). Meeting these mandates are challenging for nontraditional programs with less access to traditional field-based clinical options.

In 2010, the *Committee on the Study on Teacher Preparation Programs* of the National Research Council (2010) stated that "research is badly needed" (p. 174) to compare nontraditional certification pathways to understand the effects of different teacher preparation pathways on K-12 student success. A few extant studies give some initial findings. Wilcox and Sarmaras (2009) found that the importance of hands-on learning situated within authentic activity, context, and cultural experiences was critical to support nontraditional candidates in developing the necessary content, skills, and dispositions. They recommended program designs that include situated and scaffolded learning experiences. Similarly, Kee (2012) found in his study that the length of teacher candidates' field experience has an important relationship with how well prepared 1st-year teachers feel. The differences in preparedness scores suggest teacher candidates who receive even a few weeks of practice feel better prepared than those who have no field experiences. Kee (2012) felt the implication was clear: nontraditional programs should offer as long a field experience as is affordable.

While these studies provide some guidance, research on nontraditional programs remains limited. "It is unclear whether there are alternative programs in literacy teacher education that offer access to the characteristics supported by credible evidence. We need reliable evidence if we are to ensure equitable access to high-quality teacher preparation" (Risko & Reid, 2019, p. 428). The identification of this gap in the research base sets the precedent for this study.

## Methodology

### Design

This study took place in a Master of Arts (MAT) program of study in a state university setting. The 36-hour program was designed for candidates with a bachelor's degree in a non-teaching major who had decided to move into education as a profession. The program offered eligible candidates a graduate degree and an initial teaching license at the elementary, middle, or secondary levels. Teacher candidates in the program chose when to take the course targeted for this study (fall, spring, summer), so convenience sampling rather than randomized sampling was used. Candidates were encouraged to take the course in the fall or spring so they could complete their field experience in the university-based reading center (BearsRead Literacy Camp). In the summer semester candidates identified and worked with a student off-site to complete their field experience

in a setting unaffiliated with the BearsRead Literacy Camp, and without direct supervision to complete their field experience. Due to MAT candidates scheduling and personal conflicts, they were allowed to select the summer option. With both models in place, program faculty were poised to examine face-to-face versus virtual field experiences to determine the impact of each on candidates' self-reported efficacy in reading content and pedagogy.

**Participants.** Participants included seventy-one non-traditional MAT teacher candidates enrolled in a Reading Difficulties course (MAT 6314). In the fall and spring terms, candidates (*n=48*) participated in a face-to-face, clinical field experience embedded in the university's reading clinic where the instructor was on-hand and available to scaffold students through their work with a struggling reader in grades K-8. In the summer term, candidates (*n=23*) participated in an off-site, virtual experience where they identified a student with whom to work. Teacher candidates were then asked to record and upload evidence of the sessions for the instructor to view and provide feedback at a later time.

## Procedures

Candidates enrolled in the Reading Difficulties course in either the summer, fall, or spring semesters. During the course, candidates received instruction in characteristics of dyslexia, components of reading, assessment, and intervention. Candidates enrolled in the summer semester followed a fully online asynchronous format. Field experiences were conducted at a time and place of the candidate's choosing. Candidates enrolled in the fall or spring semester followed a hybrid model. In this hybrid model, candidates came to the university's campus for class 6 times to work with the K-8 students and conference with the course instructor. The remainder of the course was held in an asynchronous format online.

Both the fall/spring and summer models were designed based on Kolb's Experiential Learning Theory (1984). Regardless of term enrollment, candidates engaged in concrete experiences, reflected on that experience, created new knowledge from that reflection, and then applied their ideas to their work with the K-8 struggling reader. Again, the only difference in the model occurred through the immediate scaffolding provided by the course instructor in the fall/spring on-site clinical experience setting.

Candidates enrolled in the summer semester located their own student (from their school, church, home, neighborhood, etc.) to work with in their geographic area. Candidates were guided through a process of assessing the student, designing and implementing instruction, and reflecting on their experiences. This process was supported by the instructor in terms of guides and templates as

well as through feedback on written and video submissions. Candidates in the fall or spring semesters worked with struggling readers enrolled in the BearsRead Literacy Camp. The instructor was on site, monitoring intervention time, modeling for those who had questions, and offering immediate feedback to the teacher candidates. Unlike the summer candidates, those enrolled in the fall or spring semester had face-to-face time with the instructor to use in debriefing the experience, analyzing and reflecting on the data, and making plans for the next intervention session.

In both the summer and fall/spring semesters, candidates engaged in the same process: conducting assessments on their student and analyzing the data. Candidates staged 3-4 intervention lessons based on the resultant data. Then, candidates post-assessed their students using the same instrument as in the pre-assessment. All data were analyzed and written up in a case study format.

Candidates administered the Profile of Phonological Awareness, a rapid automatized naming screener, and DIBELS as pre-assessments. After analyzing the results, candidates learned to implement the Barton Reading and Spelling System for students identified with dyslexia, characteristics of dyslexia, or severe phonological deficits. If the target student did not show markers of dyslexia, candidates instead implemented evidence-based lessons around fluency, vocabulary, and/or comprehension using sources such as the Florida Center for Reading Research, Intervention Central, and methods taught throughout the course.

All candidates across three semesters' enrollment in the reading difficulties course (summer, fall, spring) completed a survey at the end of the course which was collected and recorded in Qualtrics. The survey consisted of demographic data, Likert-scale items, and two open-ended qualitative prompts.

## Instrumentation

Researchers used the International Literacy Association (ILA) Standards for Reading Professionals (2010) and the Standards for the Assessment of Reading and Writing (2010) created by the Joint Task Force on Assessment by the International Literacy Association (ILA) and the National Council of the Teachers of English (NCTE) as a framework to create the survey used to measure candidate perception of their literacy pedagogical skills. The Standards for Reading Professionals *outlined* criteria for developing and evaluating teacher preparation programs for reading teachers. The standards described what reading teachers should know and be able to do. They were performance based and focused on the knowledge, skills, and dispositions necessary for effective instruction. The framework divided the complex activity of teaching reading into 6 standards with

numerous smaller elements embedded in each standard. The 6 standards were: (1) Foundational Knowledge, (2) Curriculum and Instruction, (3) Assessment and Evaluation, (4) Diversity, (5) Literate Environment, and (6) Professional Learning and Leadership. The Standards for the Assessment of Reading and Writing provided a set of 11 standards to guide decisions about assessing the teaching and learning of literacy (ILA & NCTE, 2010).

For this pilot study survey, researchers included the six overarching standards from the Standards for Reading Professionals (ILA, 2010) and the 11 standards from the Standards for the Assessment of Reading and Writing (ILA & NCTE, 2010). The final survey included 17 items directly paraphrasing these standards along with demographic questions and two open response prompts. A Likert-scale was used to determine candidate perceptions of their preparedness to meet these standards and their efficacy to meet these standards based on their teacher preparation experiences (1 = not at all prepared; 5 = very well prepared). Assessing their self-reported level of preparedness was a reflection of their efficacy in these areas. Content validity was established by comparing the survey to the ILA standards based on faculty joint probability agreement through an iterative development process.

## Data Analysis

To determine differences in candidate perceptual data based on intervention model, researchers analyzed candidate responses to the elements reflective of the ILA and NCTE standards. The Kruskal-Wallis nonparametric test was used to determine if there were differences between groups based on the model for the clinical experience (summer versus fall/spring).

# Findings

Examination of descriptive statistics indicated candidates enrolled in the summer course had a mean range of 3.91 - 4.99 across the six ILA standards while the candidates enrolled in the fall or spring course had a mean range of 3.07 - 4.49 as evidenced in Table 1. The examination of ILA standard elements uncovered an increase on the Likert-scale rating means for standards one, three, four, five, and six in fall/spring cohort over the summer cohort. ILA standard two had a decrease on the Likert-scale rating mean for standard 2 in the fall/spring cohort over the summer cohort.

Examination of descriptive statistics further indicated candidates enrolled in the summer course had a mean range of 3.7-4.43 across the 11 Standards for

**TABLE 1**
**Standard Means Across Cohorts**

| | Off-Site (Summer) | | On-Site (Fall/ Spring) | | Significance: Kruskal-Wallis |
|---|---|---|---|---|---|
| | $\bar{x}$ | $n$ | $\bar{x}$ | $n$ | |
| ILA Standard 1: Understand the foundations of reading and writing processes and instruction | 4.00 | 23 | 4.29 | 48 | |
| ILA Standard 2: Use instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing. | 4.99 | 23 | 3.07 | 48 | .05* |
| ILA Standard 3: Use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction. | 4.22 | 23 | 4.33 | 48 | |
| ILA Standard 4: Create and engage their students in literacy practices that develop awareness, understanding, respect, and a valuing of differences in our society. | 3.91 | 23 | 4.36 | 48 | |
| ILA Standard 5: Create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments. | 4.00 | 23 | 4.47 | 48 | .05* |
| ILA Standard 6: Recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career-long effort and responsibility. | 4.22 | 23 | 4.49 | 48 | |
| ILA & NCTE Standard 1: Consider the interests of your students in assessment and instructional planning | 3.87 | 23 | 4.29 | 48 | |
| ILA & NCTE Standard 2: Take on the role as the most important agent of assessment. | 3.70 | 23 | 4.18 | 48 | .05* |
| ILA & NCTE Standard 3: Use assessment to improve teaching and learning | 3.96 | 23 | 4.38 | 48 | .05* |
| ILA & NCTE Standard 4: Reflect and allow for critical inquiry into curriculum and instruction. | 4.17 | 23 | 4.27 | 48 | |

| | | | | | |
|---|---|---|---|---|---|
| ILA & NCTE Standard 5: Recognize and reflect the intellectually and socially complex nature of reading and writing and the important roles of school, home, and society in literacy development. | 4.09 | 23 | 4.22 | 48 | |
| ILA & NCTE Standard 6: Recognize that assessment must be fair and equitable. | 4.43 | 23 | 4.51 | 48 | |
| ILA & NCTE Standard 7: Recognize that consequences of an assessment procedure are the first and most important consideration in establishing the validity of the assessment. | 4.13 | 23 | 4.22 | 48 | |
| ILA & NCTE Standard 8: Establish the validity of assessment prior to use | 3.91 | 23 | 4.33 | 48 | .05* |
| ILA & NCTE Standard 9: Consider assessment based in the local school learning community, including active and essential participation of families and community members. | 3.91 | 23 | 4.09 | 48 | |
| ILA & NCTE Standard 10: Give all stakeholders in the educational community, students, families, teachers, administrators, policymakers, and the public an equal voice in the development, interpretation, and reporting of assessment information. | 3.83 | 23 | 4.11 | 48 | |
| ILA & NCTE Standard 11: Involve families as active, essential participants in the assessment process. | 3.96 | 23 | 4.27 | 48 | .05* |

* $p < .05$

the Assessment of Reading and Writing (ILA & NCTE, 2010) while the candidates enrolled in the fall or spring course had a mean range of 4.09-4.51. The examination of these standards uncovered a higher mean on the Likert-scale rating means for all 11 standards in the fall/spring cohort than the summer cohort.

The nonparametric test, independent-samples Kruskal-Wallis, revealed five areas of statistical significance in the data with all but one item in the fall/spring cohort (on-site field) when compared to the summer cohort (off-site field). For the item "using instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing," the summer cohort scored higher than the fall/spring candidates. Differences are detailed in the numbered list below. The prompt for these items read, "please rate your level of preparation in…"

1. involving families as active, essential participants in the assessment process ($F(2, 66) = 6.047$, $p = .049$);

2. creating a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches, and methods, curriculum materials, and the appropriate use of assessments ($F(1, 67) = 5.857$, $p = .016$);

3. taking on the role as the most important agent of assessment ($F(1, 67) = 4.060$, $p = .044$);

4. using assessment to improve teaching and learning ($F(1, 67) = 4.324$, $p = .038$); and

5. using instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing ($F(1, 67) = 4.423$, $p = .035$).

In the Standards for the Assessment of Reading and Writing standard 3, 5, 11, and ILA's Standards for Reading Professionals standard 5, the fall/spring data were significantly higher than the data from the summer intervention. However, in ILA's Standards for Reading Professionals standard 2, the summer candidates indicated a stronger response scoring this section significantly higher than their fall/spring peers.

## Discussion

In response to the research question for this study, the data around the relative impact of reading clinical experiences on teacher candidates' self-reported efficacy in reading content and pedagogy indicated the scaffolded experience with direct instructor presence resulted in higher teacher candidate self-efficacy in five of the six standards for Reading Professionals and all 11 Standards for the Assessment of Reading and Writing as seen in the fall/spring data. Instructor guidance and immediate feedback resulted in significantly higher teacher candidate self-assessment of their preparation to enact difficult literacy pedagogy compared to teacher candidates in the summer who completed their course embedded field experience with a student of their choice, at a time of their choice, and without direct instructor support.

Examining the areas of statistical significance, the on-site field experience allowed for a more naturally occurring involvement of families as active, essential participants in the assessment process. In the summer course section, candidates chose their student (which could be a friend, relative, etc.). It is not clear if the

candidates chose to visit with the parents regarding the students' growth as this was not a requirement of the assignment. In the fall/spring course, parents were required to come inside the university building to drop-off and pick-up their students at the BearsRead Literacy Camp. Even if the candidate did not seek out the parents to involve them, parents would often catch them in the hallway and initiate discussions forcing the candidates to engage in conversations regarding assessment and interventions. This natural occurrence was a positive unintended consequence of the field experience.

The statistical significance of the candidates' feelings of self-efficacy to create a literate environment makes sense given that the fall/spring candidates participated in the on-site clinical experience working in an established literacy camp with technology and other instructional materials available for check out as well as direct access to the course instructor. Additionally, candidates debriefed after each session, reflecting on the positives and negatives of the intervention leading to the next plan. This practice allowed for a wider view of experiences working with students as candidates compared their experiences with their colleagues and compared the successes and struggles faced by the students. Doing debriefing and guidance with a group of peers and the instructor seemed to provide candidates a higher feeling of self-efficacy than those in the summer who had to find materials or seek out the instructor on their own time.

Candidates in the fall/spring in the on-site field left with a higher sense of self-efficacy to take on the role as the agent of assessment and to use assessment to improve teaching and learning. Candidates in the on-site clinic experienced situations such as students not showing up, arriving late, or leaving early which led to a significant impact on the candidates' abilities to assess. Candidates experienced the need to work through the assessment quickly so as to be able to plan instruction due to these circumstances. Additionally, during debriefing time, candidates engaged in extended discussions regarding supporting students with severe reading difficulties or complete illiteracy. The emotions generated throughout the class during these discussions further enforced the importance of assessment, determining how to use assessment to inform instruction, designing and delivering appropriate intervention, and reflecting each time to determine the effectiveness of the intervention. Candidates in on-site experiences felt the pressure, drive, and importance of helping their students achieve as much as possible in the short time they had to work with them.

In the final area, candidates in the summer course indicated statistically stronger responses than their fall/spring peers to the construct of using instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing. Perhaps the summer

candidates were responding to the demands of working in isolation without direct support from the instructor. For that reason, they had to be assertive in their own attempts to respond to the needs of the student. They had to be critical and use problem-solving skills. In comparison the fall/spring candidates could simply turn to the instructor for direct, immediate scaffolding and may have been in a situation where they were "given" one answer as opposed to seeking it out and considering multiple solutions in response to the needs of the student. Certainly, this area needs further study to analyze these results with a qualitative lens.

Overall, this study adds to and affirms the body of research supporting field experiences in authentic settings, even in nontraditional programs. Nontraditional programs struggle to find ways to support candidate development of content, pedagogy, and efficacy around literacy instruction. While the use of video tools in asynchronous formats to provide instructor feedback may be one powerful way to craft nontraditional clinical experiences, in this study, the clinical model involving face-to-face, instructor-scaffolded support led to higher scores in the instrumentation as well as statistically stronger data when compared to the summer, non-traditional model. These findings indicate the value of a traditional, clinical experience to prepare preservice and novice teachers to enact complex literacy pedagogy.

## Limitations

A limitation of the study was the self-enrollment of candidates into the various terms and the impact that had on the different cohorts. A delimitation of the study was the focus of the study was on self-efficacy. While self-efficacy is important, an actual test of knowledge would provide further support for the self-efficacy claims.

## Implications for Teacher Education Programs

The researchers in this study found statistically significant differences for MAT candidates' perceptions of their preparation based on the clinical model they experienced. Comparison of the means indicated that the students in the fall/spring terms involved in the on-site BearsRead Literacy Camp field experience had significantly higher responses to six critical components of teaching and assessing reading than their peers in the off-site model. These baseline results have led to a subsequent mixed-methods study seeking to add qualitative research to better understand the quantitative results.

The study findings revealed clinical experience contributed to candidates' efficacy as reflected in their self-reported perception of preparation to enact

critical reading content and pedagogy. The face-to-face, instructor scaffolded, clinically-based model provided candidates a richer experience. Results support this model as necessary for teacher education programs despite complications of logistics afforded by the model and particularly noted for nontraditional candidates. While nontraditional programs face pressure to move entirely online, this study affirms that programs still need to have teacher candidates participate in experiences in the field. In order to produce teachers with integrity, it is important to see the teacher candidates working with children in the moment and not only through asynchronous recording resulting in feedback at a later point.

While the importance of face-to-face experiences is supported in this study, programs should continue to search for models to facilitate field in ways other than on-site clinical experiences due to the demands to move programs fully online to accommodate candidates' schedules, families, obligations as well as when necessary during times of shelter-in-place or closure of schools due to a pandemic.

We have identified many positives to online field experiences. These experiences can be conducted without an instructor physically present, which assists programs with candidates enrolled out of state. Schedules are more flexible in that the instructor and candidate do not have to ensure they can be in the same room or the same space for a period of time. Additionally, a field placement coordinator does not have to find additional placements for field in classes which are not internship experiences.

Online or virtual clinical field experiences could begin with the model described in this research study, but seek improvements. For example, candidates could video and upload their video to a platform which supports embedded video annotation where candidates can watch and reflect on their lessons followed by the instructor watching and commenting on the lesson and the reflections. In this way, candidates can reflect more in the moment since they are watching their lesson again and tagging places in the video for commentary. Alternatively, apps such as FlipGrid or SeeSaw could be used with guided reflection questions entered by the instructor for candidates to reflect immediately after intervention.

With Zoom and other video conferencing software, candidates could be put into small groups to collaborate on each assessment administered, analysis completed, and intervention planned and implemented. Candidates could conference with the instructor either before or after the intervention with Zoom. Additionally, Zoom, FaceTime, or Skype could be used with a blue tooth device for candidates to receive in the moment coaching while the instructor watches online (Wake, Dailey, Cotabish, & Benson, 2017). All of these ideas could be implemented where the candidates complete their field in a classroom or virtual setting while still being enrolled in a fully online program.

The current shift in educational delivery methods due to COVID-19 cannot be ignored. Teacher education programs and teacher candidates must find or create alternative means to enact clinical experiences.

## Conclusions

The Reading Difficulties course underpinning this research study context was duplicated almost exactly in all three semesters (fall, spring, summer) to include: (a) instructor, (b) lectures, (c) resources, (d) templates, (e) slide decks, and (f) assignments. The only differences between the fall/spring and the summer semesters occurred during the field experience. Therefore, the researchers concluded that through the on-site field experiences, growth in knowledge and self-efficacy came more organically as a result of the on-site coaching and informal conversations, which occurred between the instructor and among the other candidates.

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# PICTURING DIVERSITY THROUGH THE Lens OF A METAPHOR

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**Abstract**

*This study examined teacher candidates' understanding of diversity concepts. Participants were 13 teacher candidates enrolled in a university course, offered in Ireland to prepare them for the diversity of students in future US classrooms. This case study examined their process to create metaphors related to diversity, the quality of their metaphors, and how paired images photographed in Ireland were used in the metaphors. Data collection included teacher candidates' visual metaphor projects, field notes, and informal interviews with participants. Indexicality was used to analyze the metaphors and semiotic analysis was employed to examine the salience of images. Forty-eight sources represented in images were used to index areas of diversity. The constructed metaphors show that 57% of students have at least a "stable" understanding of areas of diversity while 43% of metaphors were evaluated as "fragile." Several sources were used for more than one area of diversity. The addition of the visual text to support the verbal text conveys more information than the verbal text provides alone. Implications for employing metaphors for instruction in both teacher preparation programs and middle and high school levels are discussed.*

*Keywords:* teacher education, diversity, multimodal projects, study abroad, indexicality

# Introduction

The US society is often referred to metaphorically as a melting pot, mosaic, or a salad bowl to represent the diversity of the cultural backgrounds of its population. The public schools of the United States are a microcosm of the increasingly diverse population. Unlike the influx of European immigrants in the past, more than half of the new immigrants are from Latin American countries, which comprise 18.3% of the nation's total population, and 25% of the new immigrants are from Asian countries. This growth has brought with it an increase in linguistic differences. English Learners made up 9.6% of the population in the US public schools and as much as 20.1% in the western states in 2017. About 12.3 % of people in the US live below the poverty level (US Census Bureau, n.d.). Frequently the classroom teacher's ethnicity, socioeconomic status, or other layers of diversity do not reflect that of some of the students in the classroom. According to the US Department of Education, National Center for Education Statistics (2019), the percentage of white public-school educators was eighty percent in 2015-16, while African Americans represent approximately 13.4% of the United States' population (USDE, NCES, CCD, 2016-17). As such, students enrolled in teacher preparation programs are often required to complete a course related to diverse learners, social foundations, multicultural education, or similar topics. In these courses, students recognize their own multicultural selves. Still, they are also challenged to examine implicit biases and perspectives of differences to adequately inform respectful, tolerant, and responsive teaching practice for all students. In this study, we examined how teacher candidates used metaphors to describe their emerging understanding of diversity concepts and implications for classroom instruction. The study was guided by the following questions:

1. How do teacher candidates create metaphors related to diversity using photographed images they captured while studying abroad?
2. What is the quality of their constructed metaphors to demonstrate understanding of the complexities of diversity in the classroom?
3. How are images used in metaphors for diversity?

# Literature Review

## Metaphors

Metaphors are pervasive in our daily lives and used regularly in typical discourse. We use metaphors to conceptualize, to represent, and to communicate

many of our thoughts and actions as well as to develop our imagination and reasoning (Lakoff & Johnson, 2003). American anthropologist Hall (1976) described society as an iceberg with some aspects visible while other aspects are hidden below the surface. Not only do metaphors show how we understand our world, they disclose how we conceptualize social relations within that world. As Santa Ana argues, "Even though many scholars continue to assume that such metaphoric expressions are only rhetorical frills, cognitive theorists now argue vigorously for 'metaphor's central role in the construction of the social order'" (2002, p.1). Metaphors help us understand and experience "one kind of thing [called the target domain] in terms of another [called the source domain]" (Lakoff & Johnson, 2003, p. 5). Such metaphors allow language users to understand and describe complex or abstract ideas in terms of ordinary experiences. Metaphors are constructed through an "embodied schema" or an "image schema" (Johnson, 1987). An embodied schema is "structures of an activity by which we organize our experience in ways that we can comprehend. They are primary means by which we construct or constitute order and not merely passive receptacles into which experience is poured" (Johnson, 1987, pp. 29-30). This means we construct metaphors to link our bodily experience of something to our more abstract thinking and to "give shape, structure, and meaning to our imagination" (Sfard, 1994, p. 47). This suggests that in fact, the whole conceptual system of how we think and act may be fundamentally metaphorical in nature.

Henze (2005) posits that once a particular metaphor has become commonplace in our public discourse, it is a challenge to think of the concept differently. Santa Ana (2002) examined the language the Los Angeles Times used to describe the demographic changes in California due to the increase in the number of Latinos. Metaphors used repeatedly by media to portray the change included "awash under a brown tide"," "the relentless flow of immigrants", and "like waves on a beach, these immense human flows are remaking the face of America" (p. 7).

## Metaphor Analysis

Metaphor analysis has been used across various fields to examine a vast range of contexts, disciplines, and experiences. Lim (1999) used metaphor analysis to gain better insight and understanding of college students' views and experiences related to mathematical education. In an open-ended question, students in a college math course were asked for their images of mathematics and learning mathematics in the form of descriptions, metaphors, or analogies. Three common categories emerged from the data to describe students' perspectives:

mathematics as a journey, mathematics as a skill, mathematics as a game or puzzle. Henze (2005) examined how school leaders used metaphors to construct concepts of diversity, intergroup relations, and equity. Management researchers, Gibson and Zellmer-Bruhn (2001), used metaphor analysis, in part, to develop a conceptual framework to explain different understandings of the concept of teamwork across national and organizational management. Metaphor analysis has also been deployed to examine college students' discussion about diversity (Kochis & Gillespie, 2006). Brown (2019) identifies the ways that fish imagery, as a metaphor, is used to depict the life experiences of people who have disabilities. Through her article, she demonstrates the complex facets of symbolic representation of a diverse topic within children's literature.

Previous studies have examined the organic use of metaphors in everyday discourse and also how metaphorical language is used to describe complex or abstract ideas in more concrete ways understood by cultural conventions. This study examined pre-service 'teachers' construction of metaphors paired with images of their choice to demonstrate their understanding of diversity. The addition of images to support their metaphors added another layer of text and meaning to the project. Social semiotics, specifically salience, was used to analyze the images; consequently, a brief description of semiotics and social semiotic follows.

## Semiotics

Chandler (2002) defines semiotics simply as the "study of signs" (p. 1). Signs take the form of texts, gestures, images, sounds, and flavors, as well as many other forms, but only convey meaning when they are received as projecting meaning. According to Chandler (2002), Saussure, a late nineteenth-century French linguist, described a sign as having two parts: the signified and the signifier. An actual boat would be the signified, and a photograph of the same boat would be the signifier of the boat. Similarly, the smell of strawberries would be a signifier of the signified red, ripe strawberry. Peirce, an early twentieth-century American philosopher expanded the way signs work to include the role of the interpreter in interpreting the sign or what is actually communicated. In his tripartite model, the form a sign takes can be classified as one of three types: symbolic, icon, and index. An icon has a physical resemblance of the signifier, while an index shows evidence of the signifier, for example, smoke to indicate fire. A symbol likely does not resemble the signifier and is closely connected to culture. For instance, letters of the alphabet represent sounds, and the power symbol on an electronic device symbolizes what to press to switch the device from states of on and off.

## Social Semiotics

Kress and van Leeuwen (2006) broaden still further semiotics to include the social relations that influence sign systems, social semiotics. Key to social semiotics is making the message understandable within a particular context for optimal communication among participants. Yet, a position of power can include or exclude certain groups of people depending on the element in a sign that might hold significance to a specific population. For them, signs are "never arbitrary… sign-makers use the forms they consider apt for the expression of their meaning, in any medium in which they can make signs" (p. 8). Secondly, sign-makers choose forms that best express what is believed to be the most relevant to those making the interpretation. Kress and van Leeuwen's social semiotic approach examines power, context, and environment, affordances not previously considered by earlier semiotic approaches. These social constructs are presented within three main principles, or elements, of the layout of visual composition: its information value, framing, and salience.

Information value refers to the placement of the elements of an image and gives every aspect its specific meaning relative to other elements. When layouts are constructed horizontally, some of their elements are positioned to the left and others on the right of center. Elements placed on the left are presented as "given" or what the reader or viewer is assumed to know already as part of the culture. Elements placed on the right are presented as "new" or key information or what the viewer should consider. The "given-new" structure also gives a sense of ongoing movement (before/after). A layout structured along the vertical axis suggests what is placed on the top of the layout as the "ideal" and placed at the bottom as the "real". Framing is the connection or disconnection of elements of the image, thus signifying they belong or do not belong to the overall image. Framing can be accomplished through actual frame lines surrounding an element or empty space surrounding an element or through other means. The stronger the framing of an element, the more it is represented as a separate unit of information.

Salience is the weight given to an element in a visual composition. Elements are given significance by where it is placed, foreground or background, its relative size, and how it is contrasted with elements surrounding it. The more an object is pulled to the left, the more weight it carries due to the asymmetry created. The closer an object is in perspective to the viewer than other elements, the more significance it has to the viewer. Tonal contrast involves distinct differences between colors. Where there are contrasts, typically between light and dark tones, there is a stronger weight to an element. The same is true with color contrasts. Each of these techniques works together to construct the level of salience intended for the viewer.

# Methods

As teacher-researchers, we sought to examine how teacher candidates understand areas of diversity through their creation of a Visual Metaphor Project (VMP). Case study was selected as the methodology to answer these questions and to better "understand a specific issue, problem, or concern" (Creswell, 2013, p. 98). The bounded case was a small group of teacher candidates enrolled in a diversity course offered in Ireland during two May terms. The use of case study allowed for the examination of teacher candidates' both idiosyncratic and common ways of creating metaphors to describe areas of diversity and also assisted in finding negative cases that strengthened findings of the study.

## Setting and Participants

Learning in a new context, Ireland, required some student participants to employ skills they might not consider in a familiar setting, such as taking a train and navigating a large city. Prior knowledge and experience are influential, but an unfamiliar context might allow participants to examine content with a new lens. The VMP was one assessment that would provide us insight into the divergent ways students interpret elements of diversity concepts by making implicit comparisons in which a word or phrase typically used in one domain is applied in another.

Participants were thirteen undergraduate students, 10 females and 3 males, anticipating acceptance into the teacher preparation program in a Midwestern university and enrolled in the course, Teaching Diverse Learners. The course was offered as a May course for two consecutive years and data were collected from participants from the two times the course taught in Ireland. Data were collected from 7 participants during the first trip to Ireland and 6 participants during the second trip abroad the following summer. We met with the participants three times before traveling abroad and several times a week during the 3 weeks in Ireland. Common areas of diversity, such as culture, ethnicity, wealth, gender, and religion were explored, and academic language associated with diversity was emphasized. Students read research articles and case studies, viewed videos, interacted with guest lecturers, and wrote in their reflective journals after visiting and observing in local schools. They also were assigned the (VMP) to challenge them to think beyond the surface of a concept to gain a deeper understanding. On the second day of class, students were introduced to the VMP. One researcher who taught the diversity course reviewed with students the concept of metaphor, solicited common metaphors from students, examined and analyzed metaphors in popular music, and then explained how they would use photographs of images they captured in Ireland as metaphors for areas of diversity and associated

academic language. Explaining why the image was a metaphor for diversity was one of the essential elements of the voice-over video they would create for the VMP. The final project was due a month after returning to the US. Throughout the course students informally discussed their progress on the assignment with us and their methods for carrying out the task.

## Data Collection

Data sources included copies of student participants' VMP, an informal interview with student participants about the construction of their projects, and our field notes of informal interactions with student participants about their projects.

**Students' visual metaphor project.** Each student created a 5-7-minute visual metaphor video to demonstrate their understanding of the constructs and implications for their future students and classrooms. Student participants understood the list was not inclusive of all categories of diversity. Students in the course considered the following concepts for the project: 1) ethnicity, 2) gender identity, 3) cultural diversity, 4) linguistic diversity, 5) religious diversity, 6) socioeconomic status, and 7) concepts associated with diversity such as discrimination, equity/equality, and stereotype. Students could choose the video creating software, but the video was required to have at least 12 images with voice-over narration stating the metaphor associated with the concept, an explanation of the metaphor, and why educators should be aware of these differences in their future classrooms. They were to resource assigned readings, class discussions, and videos viewed before and during class. Each metaphor and description was narrated across two images to break up the narration and to add interest to the viewer.

**Informal interview.** An email was sent to the thirteen students who had taken the course requesting their participation in a 15-20-minute interview to review their VMP assignment. Seven students volunteered to participate in the interviews. A laptop was used to access students' videos they had uploaded to the university's learning management system. Student participants were interviewed about the specific images they chose to represent the particular diversity concept. Sometimes they were prompted with the following questions: 1) How did you go about choosing a particular image? 2) Did they choose the image first and then look for a particular category that it would represent or did you choose the category and then review their photos to find an image? Or did you have another process?

**Field notes.** Descriptive field notes (Patton, 2014) were recorded during class and excursions with students in order to provide a more accurate account

of moments rather than relying on memory. The description included contexts, situations, quotations, and participants. Multiple layered data sources provide triangulation to reduce potential bias and subjectivity and to strengthen the trustworthiness of the data collection (Patton, 2014).

## Data Analysis

After all projects were graded, we viewed, coded, and analyzed the Visual Metaphor Projects (videos) together to increase the credibility of the analysis. Indexicality (Strauss & Feiz, 2014) was a useful discourse analysis tool to examine how the source domain indexed the target domain and how the image indexed the metaphor. The supporting explanation of the metaphor was also analyzed. First, we constructed a table to compile the data for analysis. Each row in the table listed the area of diversity, the metaphor, and a pseudonym for the participant. We then viewed some of the videos together, then paused frequently to discuss the quality of each metaphor.

      **Categorization of metaphors.** An iterative process required us to go back and forth among the metaphors to develop the criteria for sorting the quality of the metaphors into categories. We noticed a strong or solid connection between the target (diversity concept) and source (descriptor) for some metaphors, yet for others the connections were unclear without the additional explanation or description which followed the metaphor. A third category emerged to describe a metaphor that was confusing even with the support of the explanation. For a few metaphors, the source was a definition or an object associated with the diversity concept, which suggested to us these participants did not have a complete understanding of the concept. We adapted the method of categorization by Ferguson and Harkness (2017), which they utilized to evaluate teacher candidates' emerging understanding of academic language. Three categories were identified based on criteria: robust, stable, or fragile. Metaphors that described an unexpected or novel parallel between the diversity concept target (diversity concept) and its source (comparison or descriptor) were categorized as robust. Though the metaphor was original, the source was familiar, which provided a shared understanding by viewers; whereby, the required explanation was not necessary to link the concept directly with the source (e.g., "Religious diversity is a stone."). Stable metaphors indicated a clear parallel between the concept and descriptor. Still, the addition of the explanation or image was necessary to clarify the metaphor. ("White privilege is cars on the road with bikes. Though the law allows for both, cars often dominate while making cyclists feel unsafe"). A fragile metaphor showed no parallel between the two domains, or it may have simply

given an example of the concept (e.g., "Gender identity is a pink tag".) or contextual comparison (e.g., "Linguistic diversity is a market with people speaking different languages and contemporary classrooms in the USA".). For some, the description of the concept was vague or was detached from the metaphor. After determining the categories, we independently evaluated the remaining videos before meeting to discuss the scoring of the videos. Any discrepancies were discussed until we reached consensus.

**Compilation of sources.**    We constructed another table to compile the source or descriptor used to describe each target (concept). For example, ethnicity was compared to a hostel, a cup of coffee, a field of rocks, to name a few. We tallied the frequency of each source with each diversity concept. We then identified instances within the table where a source was used to describe more than one concept related to diversity. For example, we searched for the source of stained glass within the table and found this source was used to describe both linguistic and religious diversities.

**Analysis of saliency.**    We examined the salience of the source within the photographed image for a possible correlation between the quality of the metaphor and the salience of the source. Kress and van Leeuwen (2006) describe salience as one of the three principles of visual composition and use it to evaluate the weight of an element within a visual composition. For this study, the source domain is what Kress and van Leeuwen described as an element. We examined the language used to describe the source with the factors that contributed to the weight of the source. For example, Opal described cultural diversity as a colorful garden. This metaphor was depicted with an image of a greenhouse within a popular public garden in Dublin. We assigned little weight to the greenhouse since it only occupied approximately one-fourth of the image horizontally, the green color blended in with the buildings behind it and a large flower garden occupied about one-half of the image in the foreground. In short, it did not meet Kress and van Leeuwen's criteria for assigning weight to an image.

In the second phase of coding, we analyzed the fragile metaphors describing culture and linguistic diversity due to a larger number of metaphors categorized as fragile than stable for those two areas of diversity.

## Findings

In the sections that follow, we describe the findings of our analysis to address the research questions: 1) How do teacher candidates create metaphors related to diversity using photographed images they captured while studying abroad? 2)

What is the quality of their constructed metaphors to demonstrate understanding of the complexities of diversity in the classroom? 3) How are images used in metaphors for diversity?

## Visual Metaphor Project Process

Results from field notes of students during the course, excursions with students, and individual interviews after the course was completed indicate participants approached the task in four unique ways: 1) creating the metaphor and then finding a photograph in the gallery on their phones, 2) viewing photographs in the gallery on their phones and then creating a metaphor, 3) creating the metaphor "on location" and then photographing the subject that prompted the metaphor, and 4) employing a combination of some or all approaches.

Two of the seven student participants stated they created their metaphors before finding an associated image or photographing an image to depict the metaphor. Similarly, five of the seven student participants stated that they contemplated the diversity category, how to best represent it with a metaphor, and then selected a suitable image. All seven interview participants stated they had chosen at least one of the photographs because they liked it and wanted to use it in the project. Then, they connected it to a diverse concept. For example, one student expressed a desire to use an image of the Long Room at Trinity College and then thought about a metaphor that could be related to the image. Though none of the student participants revealed that they created metaphors "on location" during excursions, our field notes recorded several incidences when this occurred.

## Quality of Created Metaphors

Metaphors were categorized as robust, stable, or fragile. Three out of the thirteen participants created two metaphors evaluated as robust, and no participant had more than two at that level. Two diversity concepts had more than one metaphor categorized as robust: linguistic diversity and gender diversity. Table 1 provides three examples from three areas of diversity.

Kathy described poverty (low SES) as a washing machine. She stated, "Poverty is a washing machine and is a continuous cycle. Once the door is closed, the laundry keeps spinning around. The washing machine is related to poverty because once you are in it, your days all seem the same, just like in a cycle". Kathy, in a follow-up interview, revealed that she envisioned poverty to a washing machine as she waited for her laundry to finish washing. We evaluated this metaphor as robust because it had a surprise element, a sort of

**TABLE 1**
**Quality of metaphors by area of diversity**

| Area of Diversity | Robust | Stable | Fragile |
|---|---|---|---|
| Ethnicity | 1 | 3 | 2 |
| Linguistic | 2 | 6 | 8 |
| Gender in the classroom | 3 | 4 | 7 |
| SES | 1 | 8 | 6 |
| Culture | 0 | 9 | 7 |
| White Privilege | 1 | 6 | 3 |
| Religious | 1 | 3 | 2 |
| Discrimination | 0 | 2 | 2 |
| Stereotypes | 1 | 0 | 1 |
| **Totals** | 10 | 41 | 38 |

Note. 89 metaphors

riddle to be solved. Literally describing poverty as a washing machine was not helpful, but when thinking about its function and operation, the metaphor makes sense. The washing machines in this laundry room continuously spun in a circle once the door was closed, and unless the door was opened, or the cycle interrupted, it would continue in the same manner. For both images depicting the metaphor, the washer was salient due to the placement of the washer in the foreground and the size of the washer within the image. The second image showed a contrast in tones between the washer and surroundings, thereby adding weight to the washer.

Next, two more examples of robust metaphors are briefly described. Evelyn's metaphor describing linguistic diversity was also robust: "Linguistic diversity is a closed gate. Accents and dialects and different languages can be barriers and lead to problems for the student to communicate effectively in a classroom to be understood or explain her thinking". Evelyn illustrated the metaphor with only one slide, and because of its size and placement, the gate draws the attention of the viewer. Opal described gender diversity as colorful and explained: "Gender roles are no longer black and white. The classroom teacher must communicate with the parents to fully understand".

Thirty-eight of the 89 metaphors were evaluated as fragile. A closer analysis shows linguistic diversity having fragile metaphors more frequently than the other areas of diversity, with half of the 16 linguistic metaphors evaluated as fragile.

Keith stated,

> Linguistic diversity is Howth Market. There are many vendors who speak a language that might be different from the shoppers or other vendors in the market. Some might be selling crabs, jewelry, wool, food. The different people are trying to communicate at the marketplace. We might have various languages represented in our classrooms so we need to consider all the students in our classrooms.

Howth Market, located outside of Dublin, is a weekend market that features local food, ethnic food from around the world, artisanal goods, souvenirs, seafood, and more merchandise similar to what Keith described above. Howth Market was one of the places the students went as a group to experience the diversity of food for purchase. As such, some of the vendors communicated to them in their first language while pointing to signs to help as potential customers select their lunch. Keith compared the vendors' attempts to communicate their foods and wares to the possibility of having "various languages represented in our classrooms" and the responsibility teachers have to effectively teach all students. In this metaphor, it was scored as fragile, because Keith's explanation compared contexts where linguistic diversity potentially occurs. The unfamiliarity of Howth Market would impede the connection between the target domain of linguistic diversity and the source domain of Howth Market.

Sarah stated,

> Linguistic diversity is a sunrise. Seeing a sunrise is a lot of hard work, such as getting up early, it might be foggy, walking a lot of unknowns; you may not be on the right side to see it. It's worth it to see the perfect sunrise. It's one of the best experiences you'll ever have. It's like the different languages in your classroom. It takes a lot of time to learn, but once you do, 'it's worth the work. It's magic.

The hostel where Sarah and the rest of the student participants stayed was in a quaint, seaside town. One small, popular restaurant frequented by both locals and tourists was established by twin brothers who had changed their eating habits and exercise routines to live a healthier lifestyle. Every morning at sunrise, they arrived at the local beach just minutes from their restaurant to swim in the Irish Sea. Eager to be a part of the healthy culture permeated in the community, Sarah and a few other students accepted the open invitation to swim with the brothers and others. Later in her interview, she explained her selection of a particular

photograph. She volunteered that she selected the image of her arrival on the beach with the sun peeking over the horizon simply because she liked it. Then, she tried to think of a metaphor that might go with the image. We categorized this metaphor as fragile. In her video, she compared a sunrise to linguistic diversity; then, she explained the challenges and obstacles one might encounter to see the sunrise. According to her, seeing the "perfect sunrise is worth the challenge". She then attempted to compare the "hard work" necessary to see a sunrise to the time necessary to learn a different language. Making a connection between linguistic diversity and a sunrise is not an easy or readily correlated comparison. The explanation she provided is confusing, primarily because the structure is not parallel. Rather than relating hard work to both getting up early and learning a new language, she compared hard work to a rate of change in learning.

These two examples are indicative of other metaphors evaluated as fragile. Three main types emerged from data. Similar to Keith's metaphor, participants simply indexed a situation or a place where diversity might occur or have prevalence. Sarah's metaphor and explanation demonstrate the other two types. The connection between the two domains is obscure and thereby uninterpretable by the interpreter. Due to the diversion from hard work to time within the explanation, the entire comparison was convoluted and, in short, contrived. In Sarah's case, the contrivance was primarily to use a favored photograph.

## Saliency of Source Domain

There were 89 metaphors constructed by the 13 student participants. Some students represented their metaphors across two images to add interest and attention to the viewer. In total, there were 105 images among the 13 student participants. Twenty-one of the images were not weighted. Further analysis indicated that metaphors evaluated as robust also showed sources that were salient. Table 2 displays the ten metaphors evaluated as robust. Within the table are diversity concepts, the metaphor and explanation, and the techniques to provide saliency to the source. For most sources, placing the source in the foreground with contrasting colors or tones around it contributed to the saliency of the source.

## Common Images

Forty-eight sources were used to describe diversity concepts which are presented in Table 3. Twenty sources were used by more than one participant, and in most cases described more than one area of diversity. For example, the term "rocks" was used in the source domain as rocks on the beach, a field of rocks, precious stone, boulder, and small rocks overpowered by waves. They were used to describe five diversity concepts: linguistic, ethnicity, gender, religious, and SES respectively.

**TABLE 2**
**Robust metaphors**

| Area of diversity | Source | Saliency factors |
|---|---|---|
| **Ethnicity** | Various spices: individual ethnic groups have a unique flavor that seasons their surroundings like curry, cinnamon, rosemary, and thyme each flavor has a story to tell | Image 1 - (1, 2, 3)<br>Image 2 - (1, 2, 3) |
| **Linguistic** | Closed gate can act as a barrier between students and their peers and teachers. If a student is EL then they have the potential struggle with speaking English. | Image 1 - (1, 3) |
| | Bumpy path: it can be very difficult for EL to follow the typical path of education. It can be difficult to know what the students understand and what they do not. | Image 1 - (1,2,3)<br>Image 2 - (1,2) |
| **Religious** | Is a stone: it provides a solid place to stand. A religious worldview provides a way to make sense of the world and its happenings. Tension hostility between religions can leave holes and imbalance stone. Religion a solid place to stand. | Image 1 - (1, 2, 3)<br>Image 2 - (1, 2, 4) |
| **Gender** | A row of colored houses: Each designed to stand out to reflect the uniqueness based on color, but the architect designed the house, the house did not decide what it wanted it to be. | Image 1 - (1, 2, 3, 4)<br>Image 2 - (2) |
| | Is colorful: Gender roles are no longer black and white, pink or blue. People can be whatever they want regardless of their sex or gender. The classroom teacher must communicate with the parents to fully understand the specific needs of the student. | Image 1 - (2, 4)<br>Image 2 - (1, 3) |
| | Birds competing for food: females are the smaller less competitive ducks; males are the bigger and more competitive swans… Swans have a greater chance to receive more food in the pond due to being bigger and pushing the ducks out of the way. | Image 1 - (2)<br>Image 2 - (2, 3, 4) |
| **SES** | Poverty is a washing machine and is a continuous cycle. Once the door is closed, the laundry keeps spinning around. This is related poverty because once you are in it your days all seem the same, just like in a cycle. | Image 1 - (1, 3)<br>Image 2 - (1, 2) |

| | | |
|---|---|---|
| **Stereotypes** | Closed doors: everything seems to be stereotyped today. This usually comes from something that is true for some, but when taken to the extreme you do not look at someone for who they are. This can shut off the opportunity to see the person for who they really are. You are not able to see or know who someone is. | Image 1 - (2, 3) Image 2 - (2) |
| **White Privilege** | Lifebuoy: it aids the swimmer when the current gets rough. It aids white people during the ups and downs of life. | Image 1 - (1,2,3) |

Key: 1: Placement (foreground) 2: Contrast 3: Size 4: Asymmetrical

On the other hand, 28 sources were used only once. For example, religious diversity was compared to a street: "Religious diversity is a street. All different types of people traveling on the same street". Linguistic diversity was described as a key on a piano: "Linguistic diversity is keys on a piano. Just one key cannot make a song, but together they create a beautiful melody. Linguistic diversity is the same way. All languages come together to make a diverse environment". During downtime, participants periodically put together the pieces of a jigsaw puzzle displayed on a table in a common area. Sarah stated, "Ethnicity is a puzzle. We all bring our own unique differences. It's only when we all come together that we see the complete picture." Thirty-five sources, though sometimes used by more than one participant, represented only one area of diversity.

However, 13 sources were used more than once to describe an area of diversity or related concepts. Through a close examination of Table 3, we noticed 3 of the 13 sources were associated with the same target domains. Rock climbing, stained glass, and a path were all used to describe both linguistic and religious diversities. Similarly, map and flower garden were mapped with both targets of cultural and linguistic diversity. In addition, rocks and a cup of coffee were both associated with ethnicity and socioeconomic status.

Rock climbing was used by Tim to describe linguistic diversity, and Jill used rock climbing to describe religious diversity. Tim stated, "Linguistic diversity is rock climbing. When rock climbing, there are multiple ways to get to the top. Different ways to communicate. Different languages, but it is still communication. It is important to know the specific differences in our students." Jill stated: "Religious diversity is rock climbing. If you follow the path, the rocks guide your climb. Religion guides your life. People may fear religion because of where it might lead."

Comparing rock-climbing to both religious and linguistic diversity appears random, yet both metaphors used similar terminology in the source

**TABLE 3**
**Common images/source**

| Source | Target |
| --- | --- |
| Rock climbing | Linguistic |
|  | Religious |
| Colored houses | Gender in the classroom |
|  | SES |
| Stained glass | Linguistic |
|  | Religious |
| Flower garden | Culture |
|  | Linguistic |
|  | Discrimination |
| Trail/path | Religious |
|  | Linguistic |
| Street | Religious |
| Closed door | SES |
|  | Stereotype |
| Colored doors | SES |
| Shard of glass | SES |
| Rock | Linguistic |
|  | SES |
|  | Ethnicity |
|  | Gender in the classroom |
|  | Religious |
| Long room in | Linguistic |
| Trinity Library | Ethnicity |
| books |  |
| Sunrise | Linguistic |
| Keys on a piano | Linguistic |
| Variety of breads | Ethnicity |
| and cheeses |  |
| Hostel | Ethnicity |
| Cup of coffee | Ethnicity |
|  | SES |
| Puzzle | Ethnicity |
| Map | Linguistic |
|  | Culture |
| Market | Linguistic |
| Island | Linguistic |
|  | SES |

| | |
|---|---|
| Sunrise | Linguistic<br>White Privilege |
| Rainbow | Linguistic |
| Birds | Gender in the classroom |
| Boats | Gender in the classroom |
| Cows/sheep | Gender in the classroom |
| Arrows | Gender in the classroom |
| Fish | Gender in the classroom |
| Colorful | Gender in the classroom |
| Painting | Gender in the classroom<br>Culture |
| Structure | Gender in the classroom |
| Ruins | Gender in the classroom |
| Mountain | SES<br>White Privilege |
| Climbing stairs | SES |
| Elevator | SES |
| Construction | SES |
| High wall | SES |
| Washing machine | SES |
| Uniforms | Culture |
| Greenhouse | Culture |
| Shoreline | Culture |
| Ocean | Culture |
| Lifebuoy | White Privilege |
| Cars/bikes | White Privilege |
| Open gate | White Privilege |
| Ladder | White Privilege |
| Guidebook | Religious |
| Fishbowl | Discrimination |
| Cemetery | Discrimination |
| Souvenirs | Stereotypes |

domain to assist in the elucidation of the metaphor. Tim used the term "ways" to describe the multiple "ways" to get to the top (of the rock-climbing wall) and different "ways" to communicate. Jill paralleled rocks that must be scaled in order to get to the top of the cliff, though challenging, they help "guide" the steep climb. "Religion guides your life". Both terms, "ways" and "guides" suggest methods for accomplishing a task. This closer examination of the source domain provides a more plausible explanation for the use of rock climbing as a source to parallel both linguistic and religious and diversities.

Stained glass is another object that was used to describe both religious diversity and linguistic diversity. Sophia explains that "just like a stained-glass window is made up of many different pieces to create a whole, each is a contribution". Kate explained her parallel between stained glass and linguistic diversity: "A stained glass window is a collection of many-colored lenses filtering the light". Both metaphors were viewed by the participants as having individual parts that make up a whole or a collection. Both terms are semantically similar, therefore a feasible explanation for why stained glass was used to describe both religious and linguistic diversity.

Hiking paths across clifftops, hillsides, and ancient cemeteries were irresistible and often a choice excursion for the students. As such, "paths" was a third source to describe both religious and linguistic diversity. Ellen employed the imagery of a bumpy path to explain that "the typical path of education can be hard for an ELL to follow". Opal employed "trail", a synonym for path, to compare it with religious diversity. She stated that the trail "leads the hiker in the way they should go. Religion leads and directs people in lifestyles and in many different ways". Terminology in the source domain to support the use of path and trail by the two participants are not similar. Ellen employed the description of a path as "hard to follow," whereby Opal utilized "trail" to lead to a destination. Four of the source domains used similar operative words or phrases, while three of the source domains did not have similar operative words or phrases. To illustrate dissimilarity, rocks indexed both socioeconomic status and ethnicity. In the explanation, the impact of low socioeconomic status is compared to the overpowering effects of the waves on small rocks or pebbles. Ethnicity was compared to different sizes and shapes of rocks and the beauty of differences in a classroom.

In some cases, the explanation following the metaphor revealed why some sources were used more than once to index a target. However, in other cases, common indexing appears random. Table 4 shows operative words used in the explanation of metaphors with sources that index the same domains.

**TABLE 4**
**Target domains indexed more than once and relationship of operative wording in source domain**

| | Operative Wording Linguistic Diversity | Operative Wording Religious Diversity | Operative Wording Cultural Diversity | Operative Wording SES | Operative Wording Ethnic Diversity | Relationship Of Operative Wording |
|---|---|---|---|---|---|---|
| **Rock Climbing** | Ways | Guidance | | | | Similar |
| **Stained Glass** | Whole | Collection | | | | Similar |
| **Trail/ Path** | Bumpy | Leads and directs | | | | Dissimilar |
| **Flower Garden** | Different languages and styles; beauty | | Own characteristics; beauty | | | Similar |
| **Map** | Where and want to be | | How to do things and get where you need to go | | | Similar |
| **Rocks** | | | | Small pebbles overpowered by waves; no strong foundation | Different sizes, shapes, differences make a beautiful classroom | Dissimilar |
| **Cup of Coffee** | | | | Amount of milk…like money | All one race. All drinks are coffee based; variety of Flavorings | Dissimilar |

## Discussion

The aim of the study was to examine teacher candidates' understanding of areas of diversity through the creation of a visual metaphor. The study was guided by the following questions: 1) How do teacher candidates create metaphors related to diversity using photographed images they captured while studying abroad? 2) What is the quality of their constructed metaphors to demonstrate

understanding of the complexities of diversity in the classroom? 3) How are images used in metaphors for diversity? The Visual Metaphor Projects constructed by 13 teacher candidates while traveling abroad in Ireland and enrolled in the course, Teaching Diverse Learners, were analyzed using indexicality and social semiotics.

## Metaphors Shape Our Thinking

Often a metaphor is useful to simplify a complex system, process. For example, the brain is a computer. Metaphors also help shape our thinking and the construction of knowledge. Reducing a complex diversity concept to a metaphor does not allow for entertaining the many characteristics, issues, and the sociopolitical implications for diversity and multicultural education. Students bring to a literacy task a wide range of experiences with the world and with discourse, which they employ to construct and interpret their world—the structure of the assignment provided for only a superficial definition or explanation of the concept. The static nature of objects, such as rocks, limit how it can be a useful comparison of a diversity concept. The addition of the explanation and at least one paired image provided layers of potential support for elucidating the metaphor to the viewer of the VMP. In some cases where the metaphor was lacking, the explanation provided better evidence of a 'student participant's understanding of the concept. Without interviewing student participants, we do not know if some metaphors that did not have a clear meaning for them were related to the cultural conventions of the student not shared by us.

## Utility of the Visual Metaphor Project

As "fish out of water" students were navigating a new context for learning. The variety of photographs students paired with their metaphors showed images easily found in the Midwest, where the university is located, but also many images unique to Ireland. For example, a sunrise, puzzle, elevator, washing machine, cars, and sheep are common to both locations. Though these images are familiar to students, being in a new space afforded opportunity to see images common in the Midwest and then consider employing them in their metaphors: mountain, ruins, shoreline, and ocean, boats docked at a harbor, hostel, and the Long Room at Trinity College. The photographs served to artifact memories of the pleasure, intellectual stimulation, and the contextual richness experience through the study abroad trip in Ireland.

In some cases, the images served as a catalyst for the creation of a metaphor. In other cases, the metaphor and explanation could stand-alone. For some other

visual metaphors, the addition of the photograph served as a meaning-making support for the viewer, especially if the viewer lacked background knowledge of elements in the metaphor. This is similar to Nodelman's (1990) work with picture books in which he posits that the interplay of the verbal with the visual conveys more information than either medium could achieve alone. There appeared to be a correlation between robust metaphors and the importance the student gave to the source within an image; however, salient sources were often found within all images regardless of our evaluation of the actual metaphor.

## Other Texts Shape Metaphors

Commonplace metaphors can be employed as positive or negative descriptions; however, once a particular metaphor becomes part of our public discourse, it is a challenge to think of popular concepts in a different way (Henze 2005). This normalizing of language maybe juxtaposed from one context to another or from one form of communication to another. In a few instances, some of the metaphors created by participants in the study were similar to metaphors that have become mainstreamed through language learned in social interactions. "It is commonplace to view any text as indexing many others, imbued with the voices of many people and many past text" (Bloome, Carter, Christian, Otto, Shuart-Faris, 2005, p. 40). As such, it can be assumed that some metaphors presented in the visual metaphor project were subconscious uses and alterations of metaphors in their lexicon. Ellen may have borrowed from conventional metaphors describing challenges as bumpy roads or bumpy rides in her description of linguistic diversity as a bumpy path for English Learners.

While some metaphors were likely subconscious variants of mainstream figures of speech, intertextuality was noticeable in other ways as well. Students were encouraged to resource class notes, articles, videos, and discussions as they created their visual metaphor project. Consequently, it was not concerning to hear modifications of these resources in descriptions following the metaphor. For example, Kathy's creation of the metaphor that SES is a washing machine sometime after the class had described poverty as a vicious cycle and a difficult state to break without some type of external intervention. Realizing these variants are natural, cognitive responses free the instructor from questioning the originality of a student's metaphor, especially by one who might struggle with the task.

## Implications for Classroom Teachers

The Visual Metaphor Project is a viable project for upper middle school to college-level students as an alternative to traditional assessments or even self-assessments.

While many students have been assigned the task of finding metaphors in literature and even adding a metaphor to a poem or other writing genre, creating metaphors for other purposes is less common. To prepare students for success, familiarizing them with the structure of metaphors, exposing them to common metaphors, and even rewriting common metaphors with a new source domain would be beneficial precursors for composing their metaphors.

Many students, their parents, or guardians have smartphones that can be utilized for capturing images to pair with their metaphors. While the context for this study was outside students' home country, many of the images students paired with their metaphors were images they could have taken "back home". For students without access to a camera, it might be helpful to provide images in an electronic folder for the entire class to consider. However, similar to some students in the study, the metaphor may be supplanted by a popular image, regardless of its connection to the metaphor. Unless the metaphor is strictly an English assignment to assess students' creation of metaphors, the metaphor is another way for students to demonstrate knowledge of a concept. The addition of the connection between the two domains of the metaphor and an explanation of the relevance of the concept is also important. Based on our findings, informing students of the various approaches to create metaphors would be helpful. Creating metaphors is a challenge and placed at a higher level of cognitive processes (Ortony, Turner, & Larson-Shapiro, 1985). While they could be challenging for native English speakers, they are even more challenging for English Learners.

After employing a gradual release of responsibility (Pearson & Gallagher, 1983), some students may still not be ready to create their metaphors. To differentiate the assignment, these students could be supplied the metaphor, but be required to explain how the two domains are connected and find a suitable image for the source. Still, other students may be given two or three source domains to choose from, but one having an obvious connection, then they explain the connection and choose a complementary image.

## Implications for Teacher Educators

This study thoroughly examined metaphors paired with visual text created by teacher candidates to demonstrate their understanding of diversity concepts. While the metaphor alone seldom demonstrated student participant understandings, the addition of the visual texts and explanation in many cases elucidated teacher candidates' understanding of these diversity concepts. Overall, the metaphors created by teacher candidates demonstrated a basic knowledge of areas of diversity that will likely permeate their future classrooms. Certainly, this project

is only one of many tasks that can begin to prepare future teachers for instruction in a diverse society. Assigned readings in textbooks and research articles provide seminal studies and current information, case studies, instructional strategies, and even assessments of ourselves as responsive educators. Integrated with assigned readings, classroom observations, field experiences, and student teaching within a diverse classroom setting over an extended period of time provide experience, examples, and strategies for interacting with diverse populations within the school setting. Yet, this context provides primarily visible facets of the diverse classroom, especially for future teachers who may have limited time in schools before student teaching. Considering the cultural iceberg described by Hall (1976), aspects such as behaviors, language, food, and some beliefs are visible above the water. Yet, what is often foundational to a culture is hidden beneath the surface. These include what is valued in society, other beliefs, customs, traditions, perceptions, rules, implicit biases, and prejudices. To see below the surface takes time, effort, and often an inconvenience, but should eventually begin to uncover the impetus for the manifestation of what is above the surface. Most ways of seeing what is below the surface can be discovered in informal and non-threatening settings. These include 1) volunteering as a tutor for urban refugees, 2) tutoring in an afterschool program, 3) attending an unfamiliar place of worship, if appropriate and welcomed, 4) volunteering to converse with English Learners at the university, 5) reading award-winning or highly acclaimed contemporary fiction or viewing films with characters from diverse backgrounds, 6) attending cultural events outside one's immediate culture, 7) visiting history, art, and culture museums, and 8) intentionally developing a relationship with someone outside one's immediate culture. At first, these interactions reveal conscious or visible aspects of culture and diversity. Yet, over time, a deeper understanding of others will surface and consequently better equip future and even current teachers' instruction for all students.

## Conclusion

Teacher preparation programs are the bridge that connects pre-service teachers to their future classrooms, yet the bridge is only as stable as its superstructures such as quality of instruction, field experiences, and required courses. In these contexts, students learn to grapple with complex issues, tensions, and differences, learn to personally navigate social and cultural nuances, and learn to facilitate respectfulness and acceptance among future students. This process is likely a lifelong endeavor. Our children are impacted by a racialized society, social injustices, religious and cultural differences, low wealth, privilege, and implicit bias,

to name a few influences in today's classroom. Recognizing the impact is foundational for teacher candidates to be effective change agents of education and the subsequent success of students. This study explored how teacher candidates create visual metaphors to represent areas of diversity and also the quality of the metaphors. Findings suggest that the creative and divergent thinking associated with composing metaphors add to teacher candidates' emerging understanding of diversity. Future studies should examine pre-service teachers' perspectives of activities and sites beyond the classroom setting that potentially provide a deeper understanding of aspects of a society that are not visible. This should be followed by the Visual Metaphor Project with the anticipation that these non-classroom experiences will enhance students' understanding of US children.

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# LEARNING WITH AND FOR LITERACY

## Building Teachers' and Students' Confidence with Writing Through A Professional Learning Community

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### Abstract

*School districts have spent the last 10 years transitioning to new curriculum standards for writing based on the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). The purpose of the project was to engage teachers in a Professional Learning Community that would positively influence their instructional practices with writing. Through multiple qualitative sources, teachers indicated that PLC allowed them to build bridges between the time, focus and collaboration provided by the PLC and the writing instruction in the classrooms. As their confidence increased, they provided more writing opportunities for their students. Teachers also observed more student independence in the writing process and greater student confidence in using tools for writing.*

*Keywords:* Professional Learning Community, Writing instruction, Professional development, Teacher perceptions, Writing

Many teachers might admit that writing is an instructional area where they experience the most difficulty. What is good writing? How do you teach students to become strong writers? The changes in instructional standards and performance assessments over the past decade require more sophisticated writing from students, thus teachers are under pressure to provide strong writing instruction when they may not feel confident in their own knowledge and skills as writing instructors. The purpose of the study was to address the problem by engaging teachers in a Professional Learning Community (PLC) that would positively influence their instructional practices with writing, leading to impacts on students' writing as well. Could a Professional Learning Community (PLC) experience impact teachers' perceptions of and practices for writing instruction in their classrooms?

## Background Knowledge

In the social constructivist theory of learning, Vygotsky claimed that "All the higher functions originate as actual relationships between individuals" (Vygotsky, 1978, pg 57). For this reason, professional development methods suggested for educators have focused on rich social interactions around specific teaching approaches or strategies (DeMonte, 2013). A report by the National Staff Development Council (Wei, Darling-Hammond, Andree, Richardson & Orphaous, 2009) identified several research-based principles for the design of effective professional development for teachers. As a result of ongoing, intensive and goal-oriented opportunities for job-embedded learning, the authors also identified that there was a measurable impact on student achievement when teachers worked together in professional learning.

## Professional Learning Communities

Professional Learning Communities (PLC) for teachers is a construct that has existed for some time, but has been defined and implemented in many different forms. At its foundation, a PLC could be defined as a group of people who have an interest in education (DuFour, 2004). For teachers, however, effective PLCs have a more specific focus on practice, as a bridge between teacher learning and classroom applications Bolam, McMahon, Stoll, Thomas and Wallace (2005) defined a PLC as a community "with the capacity to promote and sustain the learning of all professionals in the school community with the collective purpose of enhancing student learning" (p. 145). In a review of the international literature

on PLC, Stoll and colleagues (Stoll, Bolam, McManon, Wallace and Thomas, 2006) considered a variety of different definitions of the PLC. For the purpose of this study, a PLC is defined as a *community of learners, focused on the growth of the group and individuals, who are working together over a sustained period toward the acquisitions of skills and knowledge relevant to teaching, for the benefit of improving teacher effectiveness and student learning.* Quality professional learning also takes time, as knowledge and collegiality develop with more opportunities to interact, dialogue and reflect with peers about teaching practices (Darling-Hammond & Richardson, 2009).

The direct impacts of Professional Learning Communities on teachers and students have been documented. Stoll and colleagues (2006) identified links between change in teacher practice and PLC involvement through their literature review. They concluded that changes in instruction were usually the result of changes in the school community, brought about by the PLC. For students, the authors did find evidence in their review that PLC participation could be linked to improve student outcomes. In a meta-analysis of the PLC literature, Vescio, Ross & Adams (2008) sought to answer several questions related to changes in teaching practices due to participation in a PLC and the impacts on student learning related to teacher's involvement in a PLC. After reviewing sources from both the US and England, the authors determined that, while there was limited evidence of a direct PLC impact to pedagogy, there were evident adjustments to teachers' adoption of a student-centered approach. Positive changes to school communities from enhanced collaboration, continuous teacher learning, and teacher empowerment were evident, along with an increased focus on student learning. When teachers participated in a PLC, Vescio et al. (2008) was also able to identify student benefit in terms of increased achievement scores from the reviewed sources, attributed to the PLC's attention to student learning.

**PLC for literacy instruction**.    Bridges between professional development for teachers and classroom literacy instruction have been an area for attention in the literacy research community. Coaching and other interventions involving teachers has been studied, but attention to Professional Learning Communities focused on literacy instruction have been somewhat limited. In one published study, a group of reading teachers in a school district established their own PLC in order to provide time and opportunity for collaboration, problem solving and lesson development (D'Ardenne, et.al, 2013). The group's shared goals focused on meeting the needs of struggling readers in grades 3-5, through appropriate text selection, development of lessons which focused on decoding, vocabulary, comprehension and standardized test questions. The PLC experience appeared

to have a positive impact on the educators who took part. Working together toward a common goal, teachers developed bonds and mutual respect for one another, while also challenging their own development as reading professionals. Through ongoing common assessment of student learning and critical reflection on their own teaching practices, "our collaboration allowed us to check our own progress and improve our efforts by capitalizing on the expertise of the group" (D'Ardenne, et al, 2013, pg. 149). In terms of student outcomes, struggling readers who participated in the PLC-designed intervention had significantly higher mean gain scores than students who did not receive the intervention. Overall, the results of this study indicated a PLC experience can deliver benefits to both students and educators.

A PLC study involving teachers and writing instruction (Murphy, 2012) sought to explore the relationship between teacher's experience in a professional learning community and their attitudes about teaching writing. The teachers involved in this study indicated a discomfort with the teaching of writing. The study focused on how a PLC could impact an area of instruction where teachers seem to lack efficacy. Four themes emerged from the teacher's experiences with the writing PLC: 1) Collaboration with peers, 2) Participation in a writing workshop, 3) Instructional coaching/modeling lessons, and 4) Student achievement. The ability to collaborate and learn from peers supported the bridges between teachers' writing practices in the classroom and their feelings about writing. All respondents indicated that they enjoyed teaching writing after taking part in the writing PLC and felt more confident in their own writing instruction. For students, this study found that the teachers' participation in the PLC led to significant gains in writing achievement on the state-wide standardized tests. The findings of this study support the claim that teacher's efficacy for writing instruction can be developed through a professional learning experience that includes interactions with peers, modeling and feedback on practice and direct experiences with writing instructional techniques.

## Effective Writing Instruction

Direction on effective writing instructional practices requires a sound research base. An Institute of Education Sciences practice guide (Graham, Bollinger, Booth Olson, D'Aoust, MacArthur, McCutchen, & Olinghouse, 2012) provides educators with research-based guidance on effective writing instruction in the elementary grades. Based on the available research reviewed by the panel, the authors identified four recommendations for best practices in writing: 1) Provide daily time for writing, 2) Teach students to use the writing process for a variety

of purposes, 3) Teach students to become fluent with the conventions of writing (spelling, sentence construction, handwriting, typing and word processing and 4) Create an engaged community of writers.

The Gradual Release of Responsibility model of instruction was promoted by the practice guide authors, as applied to teaching students the techniques and strategies associated with writing instruction. The Gradual Release of Responsibility model (Fisher & Frey, 2013) consists of four components, which transition the responsibility for learning from teacher to student. Through a process of modeling, guided instruction, collaborative learning and independent learning, students are provided with the scaffolded support necessary to be successful once they reach the independent level of performance.

The guide authors also recognized the 6+1 Trait Framework (Culham, 2003) used as both an instructional framework and assessment guidelines for writing. This approach delineates seven traits of good writing, across the different purposes. These traits include Ideas, Organization, Voice, Word Choice, Sentence Fluency, Conventions and Presentation. The framework provides a structure for teachers regarding the the qualities of each trait and provides examples or "mentor texts" for which students can emulate. When used for assessment, the formative feedback provided by teachers regarding these traits (Graham, Hebert, & Harris, 2015) allows writers to more clearly represent the characteristics of good writing in their own compositions.

The existing knowledge of social learning, best practices for teacher professional development and effective writing instruction were used to design the Professional Learning Community at the school site. This project aimed to examine how the PLC experience for teachers focused on writing might impact their perceptions of and practices for writing instruction in their classrooms.

## Methodology

In 2015, the project established a professional learning community at one school in the Appalachian region of a Mid-Atlantic state. Prior to the official start of the project, I had applied for and received approval from the University IRB committee to collect data on the impact of professional learning communities on teachers' instructional practices. At the end of the 2014-2015 school year, all teachers and administrators completed an electronic survey regarding their interest in participating in a professional learning community, their past experiences with the PLC concept and the identification of possible literacy topics they wished to focus upon for the learning experience. The results of the initial survey were used to plan and conduct the professional learning community experience.

## Professional Learning Community Description

At the start of the 2015-16 school year, 23 teachers, specialists, instructional assistants and administrators from the school formed two PLC groups focused on writing, based on grade levels: Grades PreK-1 and Grades 2-5. The initial survey results, my communication with school administrators and the school and district goals for improvement in English/Language Arts supported the group grade-level breakdowns and writing focus. In the first initial meeting in August, all participants indicated a desire to increase their own efficacy in writing instruction, with specific needs regarding developmental expectations for students, appropriate instructional strategies and assessment practices. During the project, each group met for two hours twice a month, on Monday afternoons, in the school media center. While these groups met separately, they both focused attention on the steps for developing a writing program that I had determined from the literature in writing instruction and followed a similar path toward adjustments to their writing instruction in their classroom and school.

**Grades PreK – 1**.  This group consisted of nine regularly attending members, which included one Head Start Teacher, three Kindergarten teachers and one teacher from 1st grade. This group also included one Kindergarten instructional aide, two special educators, and one Head Start administrator. All teachers at the Kindergarten level in the school participated. Opinion writing was selected by the teachers for specific focus, as this genre of writing was addressed during the second that marking period. This group investigated two instructional models for possible implementation in the classroom; Writing Workshop (Calkins, 2006) and Gradual Release of Responsibility (Fisher & Frey, 2013). The Gradual Release of Responsibility (Fisher & Frey, 2013) was selected as a guiding framework, which aligned with the district's adoption of this planning and instructional model for Language Arts. Each member of the PreK-1 group also observed at least one demonstration lesson I taught in each of their classrooms. The most common lesson involved opinion writing with the book *Duck!Rabbit!* by Amy Krause Rosenthal and Tom Litchenheld (2014). This lesson was delivered to several PreK, K and 1st grade classes, using the Gradual Release of Responsibility (GRR) model and the OREO mnemonic for opinion writing.

**Grades 2-5.**  This group consisted of 14 regularly attending members, including three teachers from 2nd grade, two teachers from 3rd grade, two teachers from 4th grade and three teachers from 5th grade. The group also included one special educator, one interventionist and two school administrators. All teachers in 2nd, 4th and 5th grades at the school participated. These educators also elected to focus on opinion writing, which was a planned for attention during the second

marking period and selected the OREO strategy with a Four Square organizer. After experiences with both the Gradual Release of Responsibility (Fisher and Frey, 2011) and Self-Regulated Strategy Development (Harris, Graham, Mason, & Friedlander, 2007) approaches, the GRR framework was the selected to guide writing instruction in the upper grades. Model GRR lessons using the OREO and Four Square organizer with a variety of grade level appropriate texts were presented in 2nd, 3rd and 4th grade classrooms.

**Group collaboration.** The two PLC group's work concluded with a joint meeting in December. The majority of the time at this meeting was focused on sharing the work by each group in the instructional design steps and crafting recommendations for school wide action for improving writing instruction, through attention to writing goals, assessment practices, instructional plans and material selection.

## Data Sources and Analysis

At the end of the formal PLC experience, I collected additional information from the participating educators in the form of an electronic follow up survey in January 2016 and individual follow up interviews in March-April 2016. All of this qualitative data was used to determine if the PLC had influenced teachers' perceptions and practices during the 2015-2016 school year.

All participants, regardless of teacher or administrator status, could voluntarily provide data on the research question, following the PLC experience. The follow up survey was delivered electronically roughly one month after the last PLC meeting. This survey consisted of thirteen questions, both closed and open ended, focused on participant demographics and impressions of the PLC experience that was just completed. These questions took the form of rating items and open responses regarding the PLC benefits and challenges experienced by the survey participant. The survey concluded with a voluntary agreement to participate in a face to face interview.

The interviews were completed approximately four months after the PLC concluded. The interview protocol involved six open ended questions regarding the individual's experience in the PLC. Each person was asked to provide description of the benefits and challenges around participating in the PLC. They were also asked questions about their personal perceptions of how the PLC impacted their writing instruction and their students' classroom experiences with writing. Interviewees were encouraged to provide concrete examples to support their ideas to these questions. Administrators who volunteered for interviews were asked

to respond to the questions based on perceptions of the impact of the PLC on themselves as educators, as well as the teachers at their school.

The closed questions on the follow up survey were first analyzed using descriptive statistics, with calculated percentages of respondents for each multiple choice or rating question. Open ended questions on the survey and for the interviews were analyzed using content analysis and the process of coding each idea in a word or phrase. A constant comparative method (Glaser & Strauss, 1967; Strauss & Corbin, 1990) was used to identify coding categories, based on emergent themes evident in the responses. This process of analysis of the two data sources provided an opportunity for the perceptions of PLC participants to be considered more than once, across two different points in time.

# Results

## Follow up Survey

In January, I conducted an electronic follow up survey of all participants regarding their experience in the PLC and the impact of this professional development around writing. Seventeen of the 23 participants completed the survey. The demographics of this group leaned heavily toward teachers, with 62.5% of respondents serving in that role. When asked to rate the quality of their PLC experience on a 5-point scale from Very Good to Very Poor, 87.5% placed it in the "very good" category. Respondents were asked to rank the PLC elements in terms of benefits. "Teacher discussion and sharing", "Facilitator presentations" and "Lesson planning" were all highly ranked. At the conclusion of the survey, participants were asked to consider taking part in short face to face interviews, in order to follow up on the impact of their PLC experience.

## Follow Up Interviews

In March and April, I conducted short, voluntary follow up interviews with 14 participants, regarding their experience in the Professional Learning Community. Through these interviews, I spoke with the two school administrators, the Head Start director, the two special educators and at least one teacher from each grade level. In these interviews, I asked participants several open-ended questions related to their experience in PLC, in order to address the the guiding question for the project. Through content analysis of their responses, several themes emerged for each question and across all the interviews.

**What were the benefits of the PLC?** Four common benefits were identified by participants; time, focus, tools and comradery. Participants valued the

time allotted by the experience, which allowed them to talk to other educators outside of their grade level and to share ideas through these cross-grade conversations. For those PLC members who were taking part with other members of their grade teams, the PLC experience also allowed them to conduct preliminary planning with their team members and to collaborate in planning grade-level writing activities. For focus, participants recognized benefits in having the opportunity to focus their attention to one area of instruction: writing. They also had a chance to delve more deeply into the writing expectations for their grade level and to align and link their reading instruction to student's writing. Through the PLC experience, these educators indicated that they were exposed to more tools and graphic organizers for writing. Many of them mentioned that the PLC allowed them to become more familiar with the Gradual Release of Responsibility model of instruction. In both groups, the PLC participants had selected the OREO mnemonic for use with opinion writing, along with the more general Four Square organizer. Both tools were mentioned during the follow up interview as being used with and by students for writing in multiple grade levels. Comradery was the last benefit identified through the interviews. Many of the educators spoke about the support they felt within the PLC and how the meetings allowed them to share their common struggles with teaching writing in a low risk environment.

**What were the challenges of taking part in the PLC?** While most PLC participants attended all meetings, there were challenges to taking part in the professional development. In addition to being identified as a benefit, time was also mentioned as a challenge. Many people had to juggle other commitments in the afterschool hours, such as childcare duties, family commitments or other conflicts with the Monday afternoon meeting schedule. For others, it was difficult to muster energy for the PLC meetings after a long day teaching in the classroom. A few members faced specific barriers to reaping the full benefits of the PLC. Teachers who did not have other grade level team members participating often felt at a disadvantage, as they didn't have any peers with which to collaborate or plan. The complexity of teaching writing was also identified as a challenge. The ability to communicate effectively through written language relies on the coordination of several areas of development. These areas, such as literacy, language, cognition, and fine motor, all grow over long periods of time and at different rates. This is one of many factors that makes writing difficult to teach.

**How has the PLC impacted your writing instruction?** When asked about the impacts of the PLC on teachers' writing instructional practices, the participants' responses seemed to focus on three areas of influence. First, the teachers I spoke with indicated that the PLC encouraged them to engage their

students in more writing opportunities. They mentioned the use of modeled writing, shared writing and independent writing in their classrooms. The use of journals as a daily writing practice was also identified. A few teachers also described having students work collaboratively to write in small groups. Second, several interviewees mentioned that they were using the tools and strategies which had been identified as benefits of the PLC. The Gradual Release of Responsibility, the OREO mnemonic, Four Square organizer and anchor charts were all identified as new elements used in instruction for writing. Finally, an increased confidence in teaching writing was identified as an impact factor. These educators spoke about feeling more comfortable in using the writing process in their classroom instruction. They mentioned using rubrics to guide their expectations and assessments. A clearer understanding of different genres of writing was also gained through the PLC. Teachers also expressed that through the conversations at the PLC, they had a better understanding of the writing development, instruction and expectations at the grades below. This knowledge would then allow them to build on those experiences when planning for the writing students were completing in their grade.

**How has the PLC impact your students' writing development and performance?**   The themes in response to this question mirrored the teacher's perception of the PLC's impact on their teaching, with a focus on more writing, improved products and increase confidence during writing. As a result of the PLC, teachers said their students were engaged in more writing than before. This writing occurred as part of daily routines. Students were more apt to use graphic organizers and other tools to guide and organize their writing. Text-based writing, such as a written response to something read by students, was also more common. Teachers felt that students were better able to focus on the ideas behind their text construction, rather than just the conventions, like spelling and punctuation. More time and opportunity to write also related to teacher's observations of a higher quality of writing in the finished products. Students seemed to be putting more thought into their writing and were more willing to use organizers. Teachers also saw that students were more comfortable with sharing their ideas, through collaborative learning and writing opportunities. Confidence in writing was also a by-product of the PLC. Students of these PLC teachers were more willing to make writing or drawing attempts and to read or interpret their own attempts. These teachers also reported that they saw students using their literacy skills to support writing, such as the use of invented spelling. Academic vocabulary, the language of a discipline such as math, science and social studies, was also used in relation to opinion writing. Overall, the teachers interviewed

felt students showed more independence when writing , which is an overarching goal of any instruction.

## Discussion

Based on the results, the professional learning experience on writing appears to have had a positive impact related to the teachers' perceptions of and practices for writing as well as their students' writing experiences in the classroom.

The teacher's perspective indicated that they valued the PLC experience for the time provided, which allowed them to engage in two important professional development activities; planning and collaboration. The time and activities in professional development provide the bridge between the teachers' feelings about themselves as teachers of writing and the adjustments in the writing instruction that was happening in the classrooms of the participating teachers. These changes also seemed to lead to some transformations in the students' experiences with writing in the classroom, based on the teacher's observations.

## Impact on Teachers

The results of this project indicate that the Professional Learning Community had a positive impact on teachers and on the quality of the writing instruction in their classrooms. From the interviews, four clear benefits were identified by the teachers: time, focus, collaboration and confidence.

**Time.**    The first element of impact discussed by teachers was time. This seemed to be the most valuable resource for teachers at the school, and one consistently in short supply. When asked in several instances about the benefits of the PLC, every teacher named time as the first benefit that came to mind. When each participant made a choice to participate in the PLC, they were provided with about 4 hours per month to develop their knowledge and skills as educators. However, time was also identified as a challenge by teachers in the follow up interviews and it seemed that setting aside this time each week was difficult for many. In spite of these challenges, having time available for planning and talking about writing created an environment where teachers could focus their attention on one subject area and could collaborate with others, both within and outside of their grade level.

**Focus.**    In both the interviews as well as in my observations and conversations at the school, it seemed that teachers are pulled in many different directions and must attend to multiple subjects and topics for planning each day. Opportunities to focus on one area of teaching are few and far between. For most people, the time spent with the standard documents for writing at the PLC meetings was extremely valuable. This time to focus on the standards also allowed the teachers to make planning decisions regarding the writing instruction that would be happening in their classrooms during the second marking period. All three of the 2nd grade teachers participated in the PLC and found the planning time so valuable that they chose to meet every Monday afternoon, even when their PLC group was not meeting. The data also identified that more time and opportunity was provided to students for writing in the classroom.

**Collaboration.**    The time provided by the PLC also allowed teachers to engage in a related activity that was valued and had a positive impact on instruction: collaboration. Participating teachers consistently indicated that the time and focus to talk and work with teachers at their grade level, but also at other grades, was valuable and benefited their instruction. Teaching can be an isolating endeavor, so many teachers crave the chance to develop and attempt techniques with the support of others. Within the grade levels, teachers described co-planning for writing that would involve many classrooms. I observed the three Kindergarten teachers develop and implement an opinion writing activity tied to the topic of healthy foods, based around a planned field trip to the local grocery store. While the Healthy Food unit had already existed, the field trip and writing activity were new elements that were conceived during the PLC meeting. I believe that this new, authentic writing opportunity may not have occurred if not for the opportunity for these three teachers to plan and collaborate. While most teachers had at least one grade level teammate with which to work, the 1st grade teacher was a solo member. In contrast to the other teachers that saw great value in the opportunity to work with their fellow teachers, this individual experienced the difficulties of not having those other teachers with which to collaborate. Comprehensive participation in this kind of professional development seems to be necessary in order for all members to reap the full benefits.

**Confidence.**    The final area of PLC impact on teachers relates to teacher efficacy. In the interviews, teachers stressed that the time, focus and collaboration provided by the PLC led to changes in their own perceptions of themselves as teachers of writing. This new-found confidence was a common thread within the qualitative results. Teachers talked about feeling more confident, more knowledgeable and more able to teach writing and to teach it well. They felt

comfortable using the tools we had introduced in the PLC. The OREO organizer was adopted school-wide and the shared use of this tool provided teachers with more security and a common language for talking and planning for opinion writing. The Gradual Release of Responsibly model was routinely mentioned in the teacher results, as a framework for instruction that many PLC teachers were trying within their writing instruction. I heard teachers say that before, they had dreaded the writing instruction that was planned in their classrooms. This was no longer as strong a feeling after being part of the professional learning community. This change in perception, I believe, was an important result of this project and had a direct impact on the student's experiences with writing.

## Impact on Students

The results from this project would suggest that the teacher's participation in the Professional Learning Community on writing at the school had a positive impact on student's writing experiences. The PLC encouraged teachers to spend more time thinking and planning for writing, which led to more writing activity in classrooms. This increase in opportunities allowed for a greater focus on writing instruction. As the tools for writing, such as mentor texts and graphic organizers, made their way from the PLC to the classroom, students now had the opportunity to use these items to improve their writing. They could select from the different graphic organizers that their teachers had used during instruction. They could share their ideas with a partner before writing. They knew the expectations for writing from the rubrics developed by their teachers. As a result, teachers saw students becoming more independent in their writing, from Kindergartners attempting to write sentences to $4^{th}$ graders writing multiple paragraphs. This growing independence appeared to develop along with an increased confidence and comfort with writing for students. I believe that this student confidence is the direct byproduct of the teacher's confidence with writing, which was grown within the PLC.

## Conclusion

Confidence begets confidence. This project has shown that activities which have a confidence -building element for teachers can result in growth for students. This change in perception demonstrated a clear impact on both teachers and learners in several areas. More time for planning and collaboration created a bridge to more attention to writing in the classroom and more actual writing in the classroom lead to a growth in confidence for everyone impacted by the PLC. These findings support the conclusion that this project involving a professional learning

community around writing instruction had a positive impact. As one 20-year veteran teacher commented in her interview, "I feel excited to teach writing for the first time in my career."

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# Using Structured Student-led Whole-class Discussions to Develop Comprehension for Literary Analysis

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**Abstract**

*Classroom discussions can be an effective way for students to expand and refine their comprehension of a particular topic; however, the teacher-directed nature of many whole-class discussions can limit their effectiveness. In this chapter, researchers investigated the implementation of a student-led whole-class discussion format that was structured to incorporate research-based guidelines for effective discussions. The implementation included 110 participants spread across 5 sections of a Grade 7 ELA classroom. The discussion activity was helpful in extending student understanding of the concept of theme in literature, and participants in the study scored higher on a state-wide ELA writing assessment based on theme than their grade-level peers at both the school district and state levels.*

*Keywords:* Student discussion; literary analysis; theme; comprehension

## Using Structured Student-led Whole-class Discussions to Develop Comprehension for Literary Analysis

As students progress through school, the literary analysis component of English Language Arts becomes an increasingly formal part of the curriculum. One of the more challenging parts of literary analysis for students is the concept of *theme*. As defined for this chapter, theme is the abstract, universal content, embedded within text, often crossing cultures and traditions, which can reveal important ideas to a reader about the world and about one's self. Not surprisingly, many state standards require that students be able to identify the themes of a text while still in elementary school; for example, the Grade 4 Common Core State Standards for English Language Arts include the requirement that students be able to "Determine a theme of a story, drama, or poem from details in the text;" (National Governors Association, 2010). As students reach secondary school, however, the increasing complexity and variety of texts they are required to read can make it more difficult for them to access and identify a text's themes.

Identifying the themes in a text can be challenging because it typically requires the reader to either possess or develop some background knowledge about the content of the text, particularly as it relates to the experiences of the characters in the text. Indeed, research indicates background knowledge is a necessary requirement for comprehension of texts across disciplines (Kintsch, 2004; McNamara, Ozuru, & Floyd, 2011; Ozuru, Dempsey, & McNamara, 2007; Sadoski & Paivio, 2007; van den Broek, Rapp, & Kendeou, 2005). To develop background knowledge about characters' experiences, it is often helpful for students to gain exposure to various perspectives regarding the characters' actions and motivations in a text. A classroom discussion can be an effective way not only to expose students to a variety of perspectives about the experiences of characters, but also to help them solidify their comprehension of the text (Almasi, 1994; Lightner & Wilkinson, 2017; McKeown, Beck, & Blake, 2009). Moreover, meaningful class discussions can help students gain an appreciation and understanding of other's viewpoints, backgrounds, and cultures, which speaks directly to the 2019 Association of Literacy Educators and Researchers Conference Theme of *Building Bridges.* In this article, we describe a classroom discussion activity, adaptable to a wide variety of grade

levels, that was successful in helping students build their understanding of the themes in a text.

## Classroom Discussions

Sociocultural, dialogic, and cognitive perspectives emphasize the significance of communication with others as instrumental to the process of how we construct knowledge and understanding (Bakhtin, 1981; McKeown, et al., 2009; Vygotsky, 1978; Wells, 2007). In P-12 classrooms, this communication is often accomplished via classroom discussions, both small and whole group, using various discussion formats to accomplish different purposes. Because discussion of a topic requires discussants to formulate, organize, and express their thoughts, it can expand and deepen their understanding of that topic (Gillam & Reutzel, 2013; Lightner & Wilkinson, 2017). Furthermore, a significant body of research supports the efficacy of classroom discussions in developing and scaffolding student understanding of content across disciplines (Abrami et al., 2015; Almasi, O'Flahavan, & Arya, 2001; Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009; Nystrand, 2006). For example, a meta-analysis conducted by Abrami and his colleagues found that both whole-class and group discussions had positive effects on the development of critical thinking skills, especially when students had some preparation regarding the topic of discussion (Abrami et al., 2015). In addition, a meta-analysis conducted by Murphy and her colleagues found discussion formats in which teacher participation was reduced and student participation was increased led to gains in measures of critical thinking and comprehension (Murphy et al., 2009).

Moreover, students in secondary English Language Arts classrooms have reported they find classroom discussions beneficial to gaining a fuller understanding of literacy content (Alverman et al., 1996), and this is supported by research showing positive gains in student comprehension from structured whole class discussions, such as Socratic Seminars, etc. (Frey, Fisher, & Hattie, 2017). Unfortunately, there is evidence to suggest classroom discussions are used less frequently than they could be across all grade levels, especially at the secondary level (Applebee, Langer, Nystrand, & Gamoran, 2003; Commeyras & DeGroff, 1998). In addition, not all classroom discussion formats are equally effective in terms of promoting student understanding (Abrami et al., 2015; Mercer, 1995; Murphy, Wilkinson, & Soter, 2011; Nystrand, 2006; Nystrand, Gamoran, Kachur, & Prendergast, 1997; Wegerif, Mercer, & Dawes, 1999). For example, teacher-led whole-class discussions often follow an *initiation*, *response*, *evaluation* (I.R.E.) format that is not very effective in either developing or increasing student

knowledge of a topic (Cazden, 1988). Also, studies have found comprehension and/or critical thinking are not improved by only increasing student talk time as student preparation and a structured discussion format are needed as well (Abrami et al. 2015; Murphy et al., 2009).

Nonetheless, research has provided some clear guidance regarding classroom practices that can make discussions more beneficial for the students. Wilkinson and Nelson's (2013) review of classroom discussion research found the effectiveness of classroom discussions tends to be greater when: (a) there is an increase in the amount of student talk relative to teacher talk; (b) students are invited into the discussion by other students and/or the teacher through meaningful questions and/or responses; (c) students incorporate other students' observations and/or thoughts into their own responses; and (d) "students are encouraged to consider others' perspectives and to explain, elaborate, and defend their positions …" (p. 301). Therefore, the researchers incorporated each of these four elements into a classroom discussion protocol to investigate whether this format could help develop and expand students' perspectives on and understanding of a text, with the specific goal of helping them deepen their understanding of the literary concept of *theme*.

## Implementing a Student-led Whole-class Discussion

The whole-class discussion activity we implemented involved students leading a discussion based on their previously written responses to an open-ended question. The researchers believed having students actively lead a structured, whole-class discussion would allow them to both apply and deepen their understanding of a topic/concept by (a) stating a position and supporting it with evidence; and (b) listening and reacting to others' responses to their statements with the teacher participating only as a facilitator. We conducted this activity with 110 participants using five sections of a Grade 7 English Language Arts class in a school located in the south-central U.S. The student population represented a demographic mix that was approximately 45% Hispanic, 40% White, 8% Asian, and 7% African American. In addition, students represented a variety of cultural traditions, including Hindu, Muslim, Jewish, Christian, and Buddhist, as well as origins, including African, Indian, Mid-eastern, Chinese, Filipino, European, and South and Central American. Standardized test scores from Renaissance Learning's STAR test indicated student reading abilities ranged from several grades below grade level to upper high school level.

Discussion data were collected through video recordings of the class implementing our discussion protocols that were based on Wilkinson and Nelson's

(2013) recommendations. Videos were then transcribed, and an informal analysis used. Student comments were first categorized based on the movie scene selected as the best example of the coming-of-age theme. A second category was created for students who switched their selection as the discussion progressed. This allowed for a quick referral of students' beliefs/thinking at the beginning of discussion and if or how it changed by the end of discussion. Gathering and categorizing the data this way allowed for documentation that (a) the protocol was implemented properly, and (b) the discussion method supported student critical thinking.

One of our long-term goals for this class was that the students gain a greater appreciation for the underlying themes contained in literature and that they understand good literature as more than just narrative. The students participating in this activity were nearing the end of a 6-week unit addressing the coming-of-age theme – how people begin to define themselves and establish their identities as they go through adolescence and move towards maturity (a timely and applicable topic for these Grade 7 students). During the unit, students read pieces of literature from various cultural traditions, which were focused on how identity is influenced by friends and peers, family and cultural background, and conflicts with others, including authority figures. All texts we used addressed coming-of-age themes with characters in an age-range similar to that of our students; the texts, variously authored by Gary Soto, James Hurst, Chaim Potok, Maya Angelou, Sandra Cisneros, and Amy Tan, included poems, chapters from larger texts, and excerpts. Because the coming-of-age theme is common not only in traditional texts but also in a wide variety of narratives across media platforms, we wanted to help students solidify their understanding of coming-of-age themes by extending what they were learning through comparative analyses of this theme as portrayed in both printed texts and the non-print media of film.

As part of this activity, and to further emphasize the trans-cultural commonality of coming-of-age narratives, we chose to have the students view the film *Whale Rider* (2002), a coming-of-age film containing aspects of the themes we had been studying but that was set in a culture different from that of any of the students in class. Our ultimate goal was that they see the universality of coming-of-age themes, both across diverse traditions and including the one they happened to come from. In this film set in modern times, Paikea, a native New Zealand girl, strongly influenced by her own Maori culture and with an intuitive sense of her own destiny as the next leader of her tribe, has a conflict with her grandfather and current chief of the tribe (Koro) because of her gender. In the film, Paikea defies authority (a common aspect of coming-of-age narratives) to

overcome the constraints of cultural traditions, until Koro comes to accept that she is the one destined to become the new leader of his tribe.

While watching the film, students took notes using a researcher-developed script log (see Appendix A) designed to draw their attention to relevant details from the different scenes. We implemented the script log because students are frequently not attentive to details in visual text, despite consuming vast amounts of it (Werderich, Manderino, & Godinez, 2017), and because discussions tend to be more effective when students have prior preparation regarding the topic of discussion (Abrami et al., 2015). A script log requires students to complete sentences containing either specific narrative information or bits of dialog from significant scenes in the film. The log we designed highlighted specific details in important scenes so that students would, in paying close attention while filling out the log, remember and/or have a record of the details that would equip them to answer the discussion prompts with evidence from the film. In addition, their script logs enabled them to refer back to specific scenes in the movie for clarification during the discussion. After the film, we asked the students to answer two questions on their own using evidence from the film to support their answers: "Which scene do you think best demonstrates Paikea's defiance of authority?" and "Which scene do you think best demonstrates the influence Paikea's culture has on her?" Their written answers were then used as the basis for a whole-class discussion.

Our instructional goals for this activity were that students express their own interpretations and hear their classmates' reactions to and interpretations of various scenes in the film so that they could see to what extent their ideas agreed with, differed from, or were extended by those of their classmates. The whole-class discussion format was intended to show the students the different possible interpretations or perspectives of parts of the film. Since part of becoming an adult and defining oneself is being able to state and defend one's opinion among one's peers, the whole-class discussion format provided the students valuable practice in doing this. It also allowed students to see to what extent their own thinking about a topic, in this case the interpretation of various scenes in a movie, was enhanced by dialogue with others.

Our instructional strategy was designed so that students would take responsibility for and control of the majority of their discussion. In previous whole-class discussions students had either, in teacher-driven formats, not been as engaged and spontaneous as rich discussions require, or, in less structured formats, not been respectful of each other, attempting to talk all at once or out of turn, or to talk over someone with whom they disagreed. In order for us to incorporate those aspects of class discussions that research indicates would develop and

expand students' understanding of a topic, we had to instruct the students on how to hold valuable and meaningful discourse with their fellow students in a whole-class setting. To that end, we implemented the following procedures based on Wilkinson and Nelson's (2013) recommendations:

1. The instructor began the discussion by asking one of the questions from the film to which students had previously written an evidence-supported response.

2. The first student answered the question providing evidence to support his/her answer, and then called on another student.

3. Each student afterwards then had to summarize or paraphrase what the previous student had said in his/her response, to agree or disagree with the previous student by stating his/her own answer with the reasons they chose that answer, and then to call on the next student.

In addition, to foster student participation we encouraged students to call on those who had not yet had an opportunity to speak, and we occasionally intervened to ask students to clarify or elaborate on their responses in order to validate their contributions to the discussion, thus encouraging them to further deepen their responses. Students were also allowed to raise their hands when they wanted to respond to a particular student's statement, but in the interest of parity, we still limited to three the number of occasions they could contribute to the discussion. We had noticed in previous iterations of whole-class discussions that if we did not require both the restatement of another's answer and the calling on the next student to speak, but instead allowed students to jump into the discussion in a less structured manner, shy students became too reluctant to speak and so the discussion ended up being dominated by those with the strongest and most vocal personalities. By stipulating these procedures, we found this protocol to be an effective way to allow students to drive the discussion: students seemed to respond more freely when they were called on by another student instead of an instructor.

The following example from one of the discussions we observed illustrates how this discussion protocol can be effective in enhancing students' perspectives regarding the actions of characters in a text (in this case, a film). To start the discussion, I had asked a student, Lisa (all names are pseudonyms) one of the questions to which each student in the class had prepared an answer: "Which scene(s) do you think best demonstrates Paikea's defiance of authority?" Lisa had picked the scene in which Koro asks Paikea to move to the back of the class

during an initiation ceremony because she is a female; when Paikea refuses, Koro asks her to leave. Lisa then called on another student who agreed with her, paraphrasing Lisa's answer, and added her own rationale. This second student then called on Juanita, who argued for the importance of the scenes she had selected, which were the ones in which Paikea secretly learns from her uncle how to use a sacred fighting stick (another activity in which she isn't allowed to engage); Koro finds out and forbids her to continue practicing with the fighting stick. As the discussion moved around the room, other students contributed their responses, each of which happened to coincide with either the scenes Juanita had argued for or the scene Lisa had selected, setting up a type of debate between these two selections. Then another student called upon Elizabeth; Elizabeth had read much more widely than many students in this class, which likely afforded her more background knowledge and a deeper perspective regarding the experiences of characters in narrative texts. Elizabeth's choice was the scene towards the end of the film in which, after Koro has told her not to touch a stranded whale, Paikea climbs onto its back, at which point the whale is able to turn itself back toward the sea, and Paikea rides it out into the ocean.

After Elizabeth explained her selection, two other students sided either with Lisa's or with Juanita's choice. The discussion returned back to Lisa, who again, asserting the importance of her selection (the initiation ceremony scene), explained why she felt this scene represented a more outward form of defiance than the other scenes students had selected. Lisa then called on Elizabeth, who pointed out calmly, and without insisting on the scene she had previously chosen (climbing onto the whale), that although defiance was demonstrated in the scene Lisa had selected, Paikea ultimately yields to Koro's request and leaves the ceremony. As Lisa began to respond to Elizabeth, she paused, noticed out loud that Paikea had yielded to Koro's wishes in both the scenes she and Juanita and the other students had been debating between, and, hit with her own realization, said out loud simultaneously with another student, "Except for the whale scene," conferring predominance to Elizabeth's perspective. This was significant in that Lisa, a self-admittedly stubborn person who had been trying very hard to defend her own position throughout the discussion, was persuaded – because of the structure of the discussion protocol – to grant validity to a viewpoint other than her own. Moreover, five other students (Bryan, Hector, Adam, Pedro, and Rose) who had each spoken earlier, all changed their views concerning their original answers, agreeing instead with Elizabeth's interpretation of the scene when Paikea rides the whale as a strong, valid choice.

Through this example, one can follow our implementation of Wilkinson and Nelson's (2013) recommendations during the discussion. First, the teacher

minimized comments after the initiating question and only stepped in occasion-ally to moderate if necessary; this significantly reduced the amount of teacher talk relative to student talk. Also, students were invited to share their thoughts by invitation of other students, following the second protocol. Next, as new students joined the conversation, they summarized or restated viewpoints shared by their peers either to support their personal perspective or to establish an argument against it which allowed them to complete steps three and four. Although this is an example from just one of the discussions about *Whale Rider,* we observed a similar development and expansion of student perspectives in other classes as well, which we attribute to the discussion protocol.

## Conclusion

We believe there were several successful aspects to this activity. First, students were able to apply the analytical skills they were learning with printed text and extend that analysis to film. Alvermann (2012) cites how multimodal literacies such as film can support literacy practices and provide avenues for teaching criti-cal media literacy. In this respect, all students in the class were able to identify scenes in the film in which Paikea had demonstrated defiance of authority. Since multimodal literacy skills are now essential skills, a discussion activity, such as the one we implemented, offers a way to implement a multimodal thematic analysis in a classroom setting.

Second, the classes were able to take charge of most of the discussions them-selves, and we only had to intervene on a few occasions to mediate. Managing a discussion themselves, a valuable skill for students to acquire, is something with which the students had not had much experience. Almasi et al. (2001) discussed the difficulty educators may have with implementing peer-led discussion due to the complexities involved. Our experience with this method was positive in part because it helped simplify how students should participate in the critical discus-sion by giving them specific steps to follow. Repeated practice with this protocol could help students not only with critical thinking but also with developing a comfort level with participating in student-led discussions. In addition, we believe the simplicity of a discussion protocol like the one we used could be easily adapted for implementation across a wide range of grade levels.

Finally, as in our example discussion, the choice of several students to change their own views based on another student's reasoning demonstrated to the entire class the impact that hearing other perspectives can have on the devel-opment of one's owns ideas: discussion can broaden and deepen one's view-point of meaningful topics (Gillam & Reutzel, 2013; Lightner & Wilkinson,

2017), although the type of talk is crucial (Abrami et al., 2015; Murphy et al., 2016; Wilkinson & Nelson, 2013). As students listened to and restated their peers' stances, they could consider and compare their peers' thinking with their own, before stating their responses to the discussion prompt. Thus, the discussion protocols themselves led to more focused, reasoned, and thoughtful responses than we had witnessed in less structured discussions, and we observed this across all the class sections. Although we did not introduce these discussion protocols until late in the school year, their impact was confirmed to some extent during the culminating activity for this coming-of-age unit, which required students to write a paper describing to what extent they believed the formation of their identity was influenced by various aspects of their lives, including their cultural background, their family, and their interactions with peers. Not only were all students able to write meaningful papers to complete this final assignment, several students also included in their papers that the discourse they had shared with others contributed to their identity formation. Furthermore, despite the difficulty in quantifying the impact of this class discussion activity or even a series of activities on helping to develop the students' understanding of a concept such as *theme*, 100% of the students across our five ELA sections passed the state-wide ELA writing test which involved writing an essay related to *theme*, compared with a school district passing rate of 93%. Moreover, 60% of these students received a "Commended" score on their writing, whereas the state and school district "Commended" score levels were 31% and 26%, respectively.

Our experience with this activity encourages us to continue the use of structured student-led discussions with written responses as discussion prompts. Preparing students for well-reasoned discussion highlighted by close listening to others is a skill much needed in society. Since this is an ability that often must be taught, this protocol provides students and instructors not only with enough structure to support discussion, but also with enough freedom for students to consider other's ideas and share their own without fear of interruption or of being ignored.

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# Appendix A
# Sample of Script Log

**_Whale Rider_ Script Log**: **Day One**

The opening credits are shown against a background of blue _____.

The narrator's voice-over explains that "The land felt a great emptiness," that is was "waiting to be filled up, waiting for someone to love her, waiting for a _____." She continues: "And he came on the back of a _____, a man to lead a new people, our _____ _____, Paikea. But now we were waiting for the first born of a _____ generation, for a descendant of the _____, for the _____ who would be chief."

As the mother dies, she whispers the name _____.
The narrator continues: "There was no gladness when I was born. My twin _____ died and took our mother with him."

The grandfather (Koro) comes into the hospital room and asks his son "Where's the_." Koro and his son (the father of the two babies, one now dead) walk out of the hospital room. Koro tells his son he can _____ again, which makes his son angry. Before he turns to leave, he says, "I've got a child. Her name is _____."

The grandfather tells the grandmother to take the baby girl away. As he starts to sing over the dead boy, the baby girl starts to cry. When the grandmother insists that he hold her and gives the baby girl to him , the baby _____. The grandmother tells him "She _____ you."

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The narrator tells us "He wished that I'd never been born, but he _____
_____ his mind." In the next scene, the narrator, Paikea, and her grandfather
are together on a _____. Her hand holds the whale tooth
he wears around his _____.

Paikea tells the women playing cards that her _____
is coming for the concert. They joke about him: "How long's he staying this
time, _____?"

# GROWING READERS AND TEACHERS TOGETHER: IMPACT OF A TUTORIAL PROGRAM ON TEACHER CANDIDATES' READING INTERVENTION PRACTICES AND FIRST GRADERS' LITERACY TASK PERFORMANCE

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## Abstract

*Islanders Helping the Early Acceleration of Readers Together (IHEART) is an in-school tutorial program for first grade students who struggle with literacy tasks, according to formal and informal assessments and teacher observations. The purpose of this study was to gauge the impact of teacher candidates' (TCs) reading tutorial sessions. A convergent parallel mixed methods design was employed to collect and analyze data in the form of reading assessments (Observation Survey tasks [Clay, 2013]), surveys, and interviews. Student assessment results revealed that the children made significant growth on assessments. Tutor survey results showed that the tutors reflected on lesson planning, applied what they learned in university courses to their tutoring sessions,*

*valued collaboration with other tutors, and developed their own teaching styles. The teachers and the principal also held positive views of the program, and all groups provided suggestions for the following semester's implementation of IHEART. This study has implications for the continuation of this particular program, as well as for others who are seeking to sustain and implement a tutoring program at a school site.*

*Keywords*: early literacy, teacher candidate tutors, reading tutorials, volunteer tutors

## Introduction

The most commonly experienced academic difficulty among young learners is in the area of reading development (Morrow, 2015). Effective intervention depends upon the successful preparation of teachers who will be responsible for assessment, intervention, progress monitoring, and decision-making (Barrio & Combes, 2013; Hurlbut & Tunks, 2016). Despite the variety of intervention practices, there has been limited emphasis on preparing teacher candidates (TCs) to support emergent readers who struggle with print (Danielson et al., 2007; Harvey et al., 2015). TCs need to develop strategies required to serve students receiving intensive intervention (Bean & Lillenstein, 2012; Harvey et al., 2015; Hurlbut & Tunks, 2016; Murawski & Hugues, 2009).

Early intervention and acceleration are key to successful intervention efforts (Pinnell & Fountas, 2009). By selecting the lowest-achieving 20% of children to participate in tutorial programs, they are given a chance to catch up to their peers (Clay, 2005). To do this, these children will have to "progress faster than [their] classmates for a time" (Clay, 2005, p. 22). The longer they are in school without extra support, the more help they will require later (Clay, 2005).

The IHEART program (Islanders Helping the Early Acceleration of Readers Together) provides TCs opportunities to connect with children who struggle with reading (Richards, 2006; Worthy & Patterson, 2001). Undergraduate TCs teach a small group of students twice per week, thereby creating a "community of practice" that prepares them for their future classrooms (Assaf & Lopez, 2012, p. 377). Teaching children in small groups allows the tutors to monitor reading behaviors and provide focused teaching that is guided by these behaviors (Fountas & Pinnell, 2017). These tutoring experiences bolster what the undergraduate students are learning in their courses about working with striving readers and can be "modified and adapted to their work in the classroom setting" at a later time (Duffy & Atkinson, 2001, p. 96). The tutors also learn about implementing instructional strategies to make "well-informed, responsive decisions, rather than preprogrammed responses" (Tuten & Jensen, 2008, p. 30). The IHEART

program coordinators provide this instruction by filming and posting professional development videos and observing lessons and providing feedback.

The purpose of this inquiry was to gauge the impact of TCs' reading tutorial sessions with first grade children by collecting and analyzing data related to 1) the children's response to the tutors' lessons and 2) the tutors', teachers', and principal's feedback regarding the program. The following questions guided this inquiry: 1) What effects does the implementation of reading tutorial sessions have on first grade students' Observation Survey task performance? 2) What do the tutors and teachers see as benefits of IHEART?, and 3) According to the tutors, teachers, and principal, what are ways to enhance the tutoring program?

## Literature Review

Although studies related to preservice teachers engaging in field work are prominent in the literature, this study is associated mainly with three topics, which are discussed here. These are teacher candidates' reading content and pedagogical knowledge, implementation of reading strategies learned in university reading courses, and children's responses to intervention provided by volunteer tutors.

### Teacher Candidates' Reading Content and Pedagogical Knowledge

Research related to Response to Intervention (RTI) (Barrio & Combes, 2015) show that TCs feel unprepared to provide reading intervention, because of the lack of knowledge of how to implement it in an authentic classroom setting. According to Hurlburt and Tunks (2016), teachers' success with intervention is dependent on an understanding of the dynamic relationship of student assessment, intervention, monitoring, and decision-making. Some evidence suggests that if teachers receive preparation in RTI implementation at the preservice level, they may implement interventions in the classroom with more integrity and less coaching (Begeny & Martens, 2006). Additional research studies have reported similar findings, with TCs citing a lack of basic content and pedagogical knowledge needed to teach struggling students (Hoppey, 2013; Mather, Bos, & Babur, 2001).

Overall, inadequacies in preparing TCs to implement early reading interventions continue to be a concern (Al Otaiba et al., 2012). TCs need to learn about implementing instructional strategies to make "well-informed, responsive decisions, rather than pre-programmed responses" (Tuten & Jensen, 2008, p. 30). Despite widespread RTI implementation, there has been limited emphasis

on preparing TCs for working with students who require additional reading help (Harvey et al., 2015). TCs need support to develop strategies required to serve students receiving intensive intervention (Bean & Lillenstein, 2012; Harvey et al., 2015; Hurlbut & Tunks, 2016; Murawski & Hugues, 2009).

## Implementation of Reading Strategies Learned in University Reading Courses

Providing TCs the opportunity to tutor at-risk students in a real-world setting allows them to transfer the theory of coursework to the practice of small group instruction through student-centered instruction (Massey & Lewis, 2011). A study conducted by Worthy and Patterson (2001), in which TCs participated in a tutoring program, revealed that they transitioned into clinical teaching with more confidence, knowledge, and assertiveness than those who did not participate. According to the TCs, the most important aspect about the experience was the connection from theory learned in their coursework to the classroom setting. Furthermore, TCs who deliver reading instruction to young students demonstrate greater knowledge of the reading process, increase their sense of responsibility to their own education, and display less school-related anxiety than those who do not have tutoring experiences (Juel, 1996).

In other studies, individuals who have served as tutors have also reported an increased sense of empathy for children with learning difficulties as well as a greater understanding of how to improve students' self-esteem and confidence (Invernizzi et al., 1996; Juel, 1996; Topping, 1998). In addition to gaining an increased sense of empathy, TCs view this opportunity as a service-learning experience that encourages connections between course content and real-life experiences that not only benefits the TCs, but also the classroom teachers, students, schools, and communities (Giboney Wall, 2017). Sider & Belcher (2015) examined the experiences and reflections of teacher candidates as they tutored children in two high-needs schools. The tutors gained valuable experiences, such as learning to recognize reading difficulties and implementing the resources to which they had been exposed during their reading courses.

## Children's Response to Intervention Provided by Volunteer Tutors

Research acknowledges the impact TCs have on their tutees. A meta-analysis conducted by Elbaum and colleagues (2000) revealed that college students and trained, reliable community volunteers were able to provide significant help to readers who struggle. While intervention has been reported as being more

beneficial when delivered by certified classroom teachers or reading specialists, research has also shown that tutoring provided by volunteers is also effective (Morris, 2006). This finding suggests that it may be possible to reduce the cost of providing effective, supplemental instruction to students at risk for reading failure. It is also suggested that positive interactions with an adult can improve children's academic reading achievement (Pajaras & Schunk, 2001; Piasta & Wagner, 2010; Valentine et al., 2004). Generally, struggling students who participate in structured tutoring programs outperform their peers academically and demonstrate more positive attitudes towards the targeted subject area than do students who participate in unstructured programs (e.g., homework support) or those who do not participate (Baker, Gersten, & Keating, 2000; Vadasy et al., 2002).

## Methods

A convergent parallel mixed methods design was employed, in which researchers "merge" quantitative and qualitative data collected simultaneously to "provide a comprehensive analysis of the research problem" (Creswell, 2014, p. 315). Quantitative data were collected in the form of surveys and assessments. Qualitative information was collected in the form of open-ended question items on surveys and interviews.

### Context

IHEART is an in-school tutorial program at Madison Elementary (pseudonym) for first grade students who struggle with reading. In this school, 100 students in grades kindergarten, one, and two need intervention in reading and are therefore served under the RTI model. The classroom teachers identify students who will receive RTI services after conducting a careful review of daily work, running records, and the results of a benchmark screening tool (i.e., Texas Primary Reading Inventory [TPRI]). The school does not have a reading interventionist nor reading materials for small group instruction. We began partnering with Madison in the spring of 2018 by recruiting university TC tutors.

The children are provided with opportunities to read continuous text during every lesson (Allington, 2006; Fountas & Pinnell, 2017). Allington (2006) asserted teachers "need to equalize the volume of reading practice" among strong and striving readers (p. 38). Even though the tutors engage the children in some isolated work with letters, sounds, and words (Pinnell & Fountas, 2009), many children who find reading difficult do so because they have "stockpiled some item information (letters, sounds, sight vocabulary, and phonics rules), but don't

know how to apply that information when reading continuous text" (Johnson & Keier, 2010, p. 19). Children are provided with texts that are matched to their instructional reading levels, thereby giving them multiple opportunities to be successful (Allington; Clay, 2005), while having some problems to solve in order to expand their repertoire of strategies to use on text.

## Setting and Participants

Madison Elementary serves 575 children in grades PK-2. The school is designated as Title I and is situated in an urban area of a mid-sized city in South Texas. The ethnic breakdown of the school is 85% Hispanic, 11% African-American, 3% White, and 1% other.

Thirty first grade students were chosen by classroom teachers to participate in the IHEART tutoring program during the spring 2019 semester. These students also received supplemental instruction from their classroom teachers based on Star Reading (computerized assessment) scores. Assessment data for 26 of the 30 children are reported here, as four children's parents did not consent to data-sharing. Of these children, 85% were Hispanic and 15% were Black. None of the students had been retained in kindergarten, and 19% were retained in first grade. The students attended an average of 14 tutoring sessions over 10 weeks.

Ten teacher candidates served as volunteer tutors for 10 weeks. Seven of these tutors (six undergraduate and one graduate) provided consent to participate in the study. Of these, all were female, and three identified as Hispanic, two as White, one as Black, and one as two or more races. Four of the undergraduate students sought Early Childhood through 6th (EC-6) grade certification with a reading emphasis, one sought Grades 4-8 math certification, one sought all-level special education certification, and the sole graduate student was enrolled in the Master's and Certification program (EC-6 certification). These tutors taught an average of 16 lessons over 10 weeks. Lessons were delivered in a small room at the school that is reserved solely for the IHEART program.

The lesson plan (Appendix A) is modeled after the Reading Recovery© lesson structure. All materials were provided and housed in the tutoring room. Grant monies were used to purchase books and other early literacy materials. The program coordinators provided a training session for tutors at the beginning of the semester and sent intermittent instructional videos to tutors on how to use materials.

Of the eight first grade teachers at the school, six provided consent to participate in the study. At the time of the study, four of these teachers had taught at

the school three or fewer years and two had taught at the school for 12 or more years. The principal was in her fourth year at the school.

The first three authors are all faculty members at the same university and teach reading and general education courses. All three have extensive classroom literacy teaching experience. The fourth author is one of the undergraduate IHEART tutors who had served in the program for two years at the time of this study.

## Data Collection Procedures

To gauge the impact of the tutorial sessions on children's reading, the authors administered pre- and post- assessments of five Observation Survey of Early Literacy Achievement tasks (Clay, 2013): Letter Identification, Word Test (sample of high frequency words), Hearing and Recording Sounds in Words (phonemic awareness), Concepts About Print, and a running record on a first reading of a text using the Developmental Reading Assessment (DRA). All data were shared with the principal and classroom teachers. These tasks were administered individually and utilized a standard, scripted administration (see D'Agostino, 2012 for reliability and validity information of the Observation Survey).

The tutors completed a researcher-developed survey (Appendix B), and three participated in a focus group interview (see Appendix C for interview protocol) with the first author so they could share their thoughts related to the program as well as suggestions for enhancing the program. Six classroom teachers completed a survey (Appendix D) for the same reasons, and the first author conducted an individual interview with the school principal (Appendix E) to gain her insight on the program.

Tutor sign-in sheets and lesson plans were also collected in order to tally the total number of sessions the tutors taught and the total number of sessions in which the children participated.

## Data Analysis

In order to answer research question one, paired sample *t-tests* (Urdan, 2016) were used to determine if there were significant differences in children's pre-/post- performance on numerically scored assessments. Each child's pre- and post-assessment was also reviewed side-by-side in order to record growth that could not be attained by quantitative analysis.

To answer research questions two and three, descriptive statistics were used to display the results from the Likert scale items on the tutor and teacher

surveys. We conducted a careful reading and holistic coding of all open-ended tutor survey items and focus group interview transcripts. We then read through all items and transcripts again, this time performing open coding (Saldaña, 2013). Our initial codes were grouped into themes. The same process was followed while analyzing the teacher survey open-ended items and the principal interview transcripts.

The understandings gained from these initial processes were verified via peer-debriefings to maintain accuracy and integrity of the data. Triangulation across data sources was used to confirm emerging findings and help ensure validity.

## Findings

During the spring (2019) semester, we formally collected data on the IHEART program a streamlined version of IHEART and collected formal data on the program. First presented here are quantitative data from the children's assessment results. Then, we share qualitative findings derived from the tutors' survey and focus group interview responses, teacher survey responses, and principal interview responses.

### Assessment Data

**Concepts About Print.** A paired samples t-test was conducted to evaluate the growth in students' awareness of early concepts of print. There was a statistically significant increase from pre-test ($M$ = 14.00, $SD$ = 2.76) to post-test [$M$ = 15.58, $SD$ = 2.44, $t(25)$ = -2.96, $p<.05$] (see Table 1). On the pre-assessment, 81% of the children knew where to start reading, which way to go, and how to return sweep to the next line of print. On the post-assessment, this number grew to 96%. Eighty-one percent matched voice to print on the pre-assessment, and this number increased to 88% on the post-assessment. Thirty-one percent differentiated between a letter from a word on the pre-assessment, moving to 41% on the post-assessment.

**Hearing and Recording Sounds in Words.** A paired samples t-test was conducted to evaluate the growth in the number of phonemes students heard and recorded. There was a statistically significant increase from pre-test ($M$ = 26.54, $SD$ = 9.98) to post-test [$M$ = 31.35, SD = 5.36, $t(25)$ = -4.07, $p<.001$] (see Table 1). Most of the children (81%) assessed at the beginning of the intervention and all children assessed at the end of the intervention made correct use of the space on the blank sheet of paper they were given (i.e.,

directionality - top-to-bottom; left-to-right; return sweep). Forty-six percent of the children improved their use of spacing between words, moving from no spaces to some spacing or minimal spacing to adequate spacing. In the area of letter formation, 88% moved from poor to fair formation or from fair to good or very good formation. Fifty-eight percent of students accurately heard and recorded beginning, middle, and ending sounds on both the pre- and post-assessment, and 35% only heard and recorded either beginning and middle or beginning and ending sounds on the pre-test, but heard and recorded beginning, middle, and ending sounds on the post-assessment.

**Instructional text level (running record).**    A paired samples t-test was conducted to evaluate the growth in students' instructional text levels. There was a statistically significant increase from pre-test (*M* = 2.81, *SD* = 1.17) to post-test [*M* = 3.88, *SD* = 1.31, *t*(25) = -7.38, *p*<.001] (see Table 1). On the text level reading assessment administered prior to the intervention, about half the children used their finger to point to the word, demonstrating their proficiency with one-to-one matching. During the same assessment after the intervention, most children were one-to-one matching. Regarding strategy usage on the pre-assessment, half the children relied primarily on the illustrations in the text to read the print, while the other half used the illustrations and visual information obtained through looking at the words. On the post-assessment running record, most children (81%) were using both meaning and visual cueing systems to read the text.

**Letter Identification.**    A paired samples t-test was conducted to evaluate the significance of growth in students' letter identification scores. There was a statistically significant increase from pre-test (*M* = 50.69, *SD* = 3.11) to post-test [*M* = 52.27, *SD* = 1.80, *t*(25) = 3.42, *p*<.05] (see Table 1). As numerical scores on this task improved, there was a decrease in the number of common letter confusions, such as p/q, b/d, B/D, and I/i. Most of the children referred to the graphemes presented to them as either "letters" or "ABC's" during both pre- and post-administration. Those students who named the letters fluently during the pre-test also named them fluently during the post-test.

**Ohio Word Test.**    A paired samples t-test was conducted to evaluate recognizing a sample of high frequency words. There was a statistically significant increase from pre-test (*M* = 6.85, *SD* = 3.60) to post-test [*M* = 11.58, *SD* = 2.66, *t*(25) = -9.94, *p*<.001] (see Table 1). The purpose of this assessment is to obtain a small sample of what high frequency words the child knows; all that is presented here is the number of words each child read correctly and completely.

**TABLE 1**
Paired Samples T-Tests for Pre- and Post-Observation Survey Tasks

| Measure (n=26) | Pretest M (SD) | Posttest M (SD) | t | p |
|---|---|---|---|---|
| Concepts About Print | 14.00 (2.77) | 15.58 (2.44) | –2.96 | <.05* |
| Hearing and Recording Sounds in Words | 26.54 (9.98) | 31.35 (5.37) | –4.07 | <.001* |
| Instructional Text Level | 2.81 (1.17) | 3.88 (1.31) | –7.38 | <.001* |
| Letter Identification | 50.69 (3.11) | 52.27 (1.80) | –3.42 | .002* |
| Word Test | 6.85 (3.60) | 11.58 (2.66) | –9.94 | <.001* |

*Note: p<.05 was considered significant*

## Tutor Responses Regarding the Program

Results of tutor responses on the Likert-scale portion of the tutor survey can be found in Table 2 and were overall positive. Responses collected from the open-ended questions of the survey and the focus group interview transcripts revealed the following themes: lesson planning, using information learned about the reading process in their reading courses, growth in their tutees' reading, collaboration with other tutors, and developing their teaching styles.

**Lesson planning.** One tutor shared how the experience "to lesson plan and tutor students each week has better prepared [her] for [her] future as a teacher." Six tutors indicated that writing each lesson plan took time and that

**TABLE 2**
Tutor Survey Items (n=9)

| Item | *Mean | Std. Deviation |
|---|---|---|
| My students' reading improved as a result of my work with them. | 1.78 | .44 |
| I enjoyed planning lessons for my students. | 1.56 | 1.33 |
| If given the opportunity, I would be a reading tutor again at Madison Elementary. | 1.33 | .71 |
| The IHEART program coordinators helped me to work with my students. | 1.22 | .44 |
| I enjoyed being a tutor at Madison Elementary this semester. | 1.11 | .33 |
| The regular emails and videos from the IHEART program coordinators were helpful. | 1.11 | .33 |

*Note.* *1=Strongly agree, 2=Agree, 3=Disagree, 4=Strongly disagree, 5=Don't know

they dedicated the time needed in order to be fully prepared to work with their students. In fact, preparation came up often, as the tutors stated that they would tell future tutors to always be prepared and to arrive to the tutoring room early to set up lesson materials. They wrote how their focus for each lesson was to "make [the activities] engaging" for students and that, with the coordinators' "guidance," they were able to construct activities.

**Connecting university course learning to tutoring.**  The tutors shared how they "appreciated the opportunity" to put into practice strategies they had learned in their university reading courses to plan instruction "based upon students' needs." They expressed how the "hands-on experiences" with guided reading, viewing the instructional videos created by the coordinator, and receiving coordinator feedback helped them to better understand reading intervention. Three tutors specifically addressed running records and how they felt "comfortable" taking them, because they had learned the process in a reading course and were now able to use them for authentic purposes. One commented how "cool" it was that they were able to take them on blank paper now, unlike their classmates who were not tutoring who were still using running record forms with pre-printed text. One tutor suggested that future tutors should view the guided reading videos provided and pay close attention to the coordinators' feedback, as this helped her understand that children should read the entire text to themselves and not read chorally with one another. This experience boosted another tutor's "confidence" and helped her realize that she wants to continue her education and become a reading specialist. The following quotes embody what the tutoring experience meant for these tutors:

> I feel like going into a lecture in a class could only teach you or get you prepared so much for what you're going to experience in a classroom.

> It's one thing to learn about how to do guided reading or learn about how to do assessments or instruction. But it's another thing to actually implement it with your own students.

> This is invaluable...I feel like if everyone did this [tutored], they would be way more prepared when they go into a classroom. This experience lets us apply what we've been learning, before we're thrust out into field basing or student teaching. We get to dip our feet into the water before we are thrown in.

**Growth in children's reading.**    Tutors expressed how the experience of working with children in this context was "rewarding" and "fulfilling," stating that they had witnessed growth in their students' decoding strategies and knowledge of letters, sounds, and high frequency words. One tutor indicated that the most important thing she learned was "how to become more aware of what the students were having trouble with while reading" so that she could use this information to plan instruction. Several tutors discussed how reading progress can be incremental and that they learned to "celebrate small accomplishments," realizing that "slow progress is progress" and the need to work within the "different ways in which students learn" because "every student can be successful given the proper tools." They were excited when they raised the text level of guided reading books during lessons because they knew they were witnessing reading growth in their students.

**Collaboration.**    Several tutors, when asked to provide advice to future tutors, addressed collaboration. One stated, "Talk with fellow tutors to gather ideas on what to do during sessions." Another added that they should "be open to suggestions." Yet another said that she "learned a lot from the other tutors [who were already in the tutoring room]" when she entered. She would observe them and "try to do that on [her] next lesson plan."

**Teaching Style.**    The tutors discussed how they had "meaningful, positive" experiences while "growing as a teacher" and "learn[ing] from the children." This included, for several, not "giv[ing] up as it [tutoring] gets easier and more seamless with experience." Tutors said that they were "grateful for the chance to develop a teaching style" and that they learned more about themselves through reflecting on each lesson. The tutoring experience also helped one tutor "prepare for field-basing" and validated another's decision to become a teacher. Four of the tutors wrote how they learned to "go with the flow" and be "flexible," "patient," and "consistent" in lesson planning and execution, since some things will not go according to plan.

## Teacher and Principal Responses Regarding the Program

Results of teacher responses on the Likert-scale portion of the teacher survey can be found in Table 3 and were mostly positive in support of IHEART. Responses collected from the open-ended questions of the survey revealed the following themes: growth in children's reading, the need for communication, and strengths of the program.

**TABLE 3**
**Teacher Survey Items (n=7)**

| Item | *Mean | Std. Deviation |
|---|---|---|
| The IHEART tutorial program is a positive experience for my students. | 1.57 | .71 |
| My students are happy when they return to class after each tutorial session. | 1.57 | .71 |
| I have noticed a positive difference in my students' reading since they started attending tutorial sessions. | 1.29 | .71 |
| My students want to attend their tutorial sessions each week. | 1.29 | .71 |
| I like that the tutors plan their own lessons for students. | 1.29 | .71 |

*Note.* *1=Strongly agree, 2=Agree, 3=Disagree, 4=Strongly disagree, 5=Don't know.

The teachers whose students were seen in IHEART responded that they saw growth in their students' reading overall, saying that their students "benefitted from the small group pull-out lessons" and displayed more "confidence in reading." They indicated that they would like for the coordinators to continue sharing the assessment data collected at the beginning and conclusion of the program each semester.

Teachers expressed several positive feelings about IHEART and its tutors, such as, "The tutors are friendly and truly like working with the students," "They're doing an amazing job," and "We love having them on our campus!" Other comments indicated that the students enjoyed IHEART as well. Teachers commented, "My students are always happy when going with their tutors as well as when they come back" and "My students look forward to their sessions."

The interview with the principal revealed that she appreciated several facets of the program. First, she mentioned how helpful it was to have assistance with small group instruction in order to meet some of the requirements for RTI, since supplemental assistance is not available at the school. She shared that many of the children need a more personalized learning setting so that they can "get the attention that they need" and so the tutors can "build relationships" with the students. The principal also spoke on behalf of the teachers, echoing what they wrote on their surveys—that they appreciated the tutors and the consistency of the tutoring schedule, especially since the tutors receive training to write their own lesson plans and prepare their own materials so that the teachers do not have to "take time to give them [the tutors] extra things to do." When asked

what she saw as benefits of the program, the principal discussed benefits for both the children and the teachers, stating, "It helps the children to be confident" and "It's [the tutoring experience] so beneficial for them for the future because they're going to have that experience of already delivering lessons to kids before they do their pre-service teaching."

## Tutor, Teacher, and Principal Suggestions for the Program

We asked the tutors, teachers, and principal what suggestions they had to help improve, grow, and sustain IHEART. All mentioned that they would like for more communication to occur between all parties involved. One teacher stated how she would appreciate a "daily or weekly update on students' progress so [the teachers] know what to follow up with in the classroom." This aligns with other teachers' comments that they would like for the tutors to communicate with them regarding what is occurring in tutoring sessions and where tutors are noticing "improvements" or a "decline" in student achievement. The teachers also suggested that tutors communicate with one another so that they could ask each other to "cover" for them if they are not able to tutor. One of the tutors agreed there was a "lack of communication between the tutors and the teachers" and suggested that the teachers and tutors meet more often to find out what each is working on with the children. The teachers echoed this and said that they would like to meet with the tutors at the beginning of each semester.

One tutor suggested that in addition to reviewing the lesson plan at the beginning of each semester that the coordinators also spend more time showing the tutors the assessments and what the data for each means so that "we're all on the same page." The tutors requested that the coordinators keep filming and posting instructional videos, because they were "really helpful" to see the lessons. They also thought it was a good idea to start requiring tutors to observe one another so they can "get other ideas" and "bounce ideas off each other" because "you can only get so much out of your [university] classes."

## Discussion

The purpose of this study was to gauge the impact of teacher candidates' reading tutorial sessions with first grade children by collecting and analyzing data related to the children's response to lessons and the tutors', teachers', and principal's feedback in regard to the program. Impact of instruction on students' reading task performance and the benefits of a tutorial program for children, the school, and tutors will be discussed.

## Impact of Instruction on Students' Observation Survey Task Performance

Although it is difficult to pinpoint the exact impact of tutors' instruction, we did analyze pre- and post-assessments to see if there was any significant growth on each measure. Previous studies have shown that volunteer tutors can have significant impact on the reading achievement of their tutees (Fitzgerald, 2001; Jung et al., 2011; Lindo et al., 2018; Piasta & Wagner, 2010; Pullen et al., 2004; Spear-Swerling, 2009; Valentine et al., 2004). To answer the first research question (What effects does the implementation of reading tutorial sessions have on first grade students' early literacy task performance?), data were collected in the form of five tasks from the Observation Survey of Early Literacy Achievement (Clay, 2013). Statistically significant growth occurred on every measure, indicating that this group of children expanded their item knowledge (i.e., letters, words, concepts about print) as well as application of this knowledge (i.e., phonemic awareness and reading continuous text). After conducting a thorough comparison of each child's assessments, it is evident that the children served in IHEART demonstrated more sophisticated ways of working with print from beginning to end of the program. On the Concepts About Print post-assessment, more children differentiated between a letter and a word, exhibited stronger directionality on text and matched one-to-one. Many children improved their formation of letters on the Hearing and Recording Sounds in Words post-assessment and heard and recorded more beginning, middle, and ending sounds. By the end of the tutoring sessions, more children were attending to print and using and integrating all three cueing systems (meaning, syntax, and visual) to problem-solve during the reading of instructional level texts. From pre- to post-testing of letter identification, there was a decrease in the number of common letter confusions (e.g., b/d and p/q). IHEART tutors are trained to work within these areas of instruction, and some of this growth might be contributed to this, as other studies have shown that using trained tutors in a structured setting is effective (Invernizzi et al., 1997; Lindo et al., 2018; Morris, 2006).

## Benefits of IHEART for Children, the School, and Tutors

To answer the second research question (What do the tutors, teachers, and principal see as benefits of IHEART?), data from surveys and focus group interviews were analyzed. The tutors and teachers indicated that they noticed growth in their students' reading performance and felt that IHEART program involvement contributed to this. The principal discussed how the utilization of small groups helped the tutors build relationships with students and individualize instruction

in order to meet their needs. Input from the tutors revealed that they were excited about the experience of writing lesson plans and using the materials provided to practice strategies they learned in their university courses (Massey & Lewis, 2011). The principal commented that having the tutors plan their own lessons was not only important to help them meet the challenges of teaching readers who struggle (Hoppey, 2013; Al Otaiba et al., 2012), but also that this process made it easier for the classroom teachers since they did not have to use what little free time they had to write lesson plans and provide materials.

The tutors also discovered that having the responsibility of planning their own lessons afforded them the chance to learn about themselves as teachers and develop a teaching style (Barrio & Combes, 2015; Worthy & Patterson, 2001). Perseverance, diligence, and flexibility were evident in their responses on the tutor survey and during the focus group interviews. Collaboration with other tutors was another theme that appeared several times (Assaf & Lopez, 2012; Murawski & Hughes, 2009). Tutors mentioned that working with others (e.g., arriving early or staying late to listen in on other tutors' lessons and talking with other tutors during these times) helped them to plan engaging lessons for their students.

## Implications for Practice

The responses collected from the data sources helped to inform the subsequent semesters of IHEART. Immediately following the semester of this study, we began to seek ways to improve communication between the coordinators, tutors, and teachers. We implemented the use of an app, Band, where all parties can easily post notices and helpful tutoring ideas. The next step in using this app is to figure out the best way tutors can share with the teachers what they are working on each week with students and how the students are responding to instruction.

The tutors' responses to the survey and interview regarding collaboration also have implications for IHEART. Collaboration during this particular semester was informal, as tutors casually observed another tutor's lesson while they were preparing in the same room for their lesson. It would be beneficial to implement a formal method for tutor collaboration, such as scheduling times the tutors might work with each other to plan lessons and observe one another and provide feedback.

Although the assessment data (pre- and post-) are shared each semester with tutors and teachers, there is much work to be done in this area. Time during the initial training workshop could be spent on studying the data obtained from the administration of the beginning of semester assessments. The coordinators might also include a more focused study of these results during a meeting with teachers before tutoring commences.

This study has implications for preparing tutors to meet the challenges of providing reading intervention to striving readers. In order to create meaningful links between university reading course content and the implementation of reading instruction in an authentic setting, we need to provide more professional learning opportunities for tutors. These may be presented as brief video demonstrations of strategies used during tutoring sessions that are later posted in the communication app. The IHEART coordinators might also visit tutors more frequently and on a pre-determined schedule to observe lessons, provide oral and written feedback, demonstrate instructional strategies, and co-teach with tutors. Borrowed from the stellar professional development system of Reading Recovery©, IHEART coordinators, other instructors from the university, and even seasoned tutors might demonstrate "live" lessons for tutors, including a discussion beforehand and a debriefing session afterwards.

In order to determine the effectiveness of the tutoring sessions on both children's reading achievement and tutors' growth as reading interventionists, an experimental study with a control group needs to be conducted. We also plan to assess tutors' content and pedagogical knowledge related to reading instruction in an intervention setting before and after they tutor for one semester while participating in professional learning opportunities and compare their growth as teachers of reading to teacher candidates who are not tutoring in the IHEART program.

## Limitations

During this semester of collecting and analyzing formal data related to IHEART, several limitations existed. First, the program is confined to one school setting with a small sample size of tutors, teachers, and first grade children. Second, this study did not utilize a control group of children with whom to compare assessment results. Third, the low average of tutoring sessions was a result of both low student attendance (which is a present concern of the elementary school site in general) and low tutor attendance in some cases. Finally, we realize that some tutors are stronger than others in lesson plan design and implementation and that some tutors had taken more reading courses than other tutors prior to their tutoring experience.

## Conclusion

The IHEART tutors experienced the rewarding opportunity of working with striving readers in a reading intervention setting. As part of the program, they

engaged in professional learning that helped to prepare them to enter their field-based courses, clinical experiences, and eventually the teaching profession. At the time of the writing of this paper, IHEART is in its fourth semester and is highly supported by the campus principal and teachers, as well as the district administration. We are continuing to collect data and solicit input from tutors and teachers to make the program more effective for the children it serves. This study supports the call that teacher preparation programs should include more and earlier opportunities for TCs to work in an authentic reading intervention setting (Bean & Lillenstein, 2012; Harvey et al., 2015; Hurlbut & Tunks, 2016) in order to allow them to implement pedagogical strategies with students who need reading support. These field-based opportunities help preservice teachers to build a bridge between their learning in courses and authentic experiences in partnership schools.

## Acknowledgement

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# APPENDICES

## APPENDIX A
## LESSON PLAN STRUCTURE

| Component | Description | Possible Materials | Time Allotment |
|---|---|---|---|
| High-frequency word reading and writing | Children practice reading and writing known or partially known high frequency words. | Small dry-erase boards<br>Word cards<br>Magnetic letters | 2 min |
| Familiar Reading | Children reread a book that was new during the previous lesson. | Book from previous lesson | 5 min |
| Letter Identification and Formation | Children work to build fluency with letters by sorting and discriminating by letter feature. | Various writing surfaces<br>Small dry-erase boards<br>Magnetic letters<br>Games | 3 min |
| Guided Reading | Children orally read an entire text that is at their instructional reading level. | New book | 10 min |
| Phonological Awareness and/ or Phonics Instruction | Children work with sounds and letters through word play. | Picture cards<br>Word cards<br>Magnetic letters<br>Games | 10 min |

# Appendix B
# Tutor Survey

*Likert scale items*

1. I enjoyed being a reading tutor at Madison Elementary this semester.
   *1 – Strongly agree   2 – Agree   3 – Disagree   4 – Strongly disagree*
   *5 – Don't know*

2. My students' reading improved as a result of my work with them.

3. The IHEART program coordinators helped me to work with my students.

4. I enjoyed planning lessons for my students.

5. If given the opportunity, I would be a reading tutor again at Madison Elementary School.

6. The regular emails and videos from the IHEART program coordinators were helpful.

*Open-ended items*

7. What is the most important thing you learned from this experience?

8. What advice would you give a friend who is going to be a reading tutor at Madison Elementary School?

9. What would you like the IHEART program coordinators to know about your experience as a tutor at Madison Elementary School?

10. What would you like the principal to know about your experience as a tutor at Madison Elementary School?

# Appendix C
# Tutor Focus Group
# Interview Protocol

Tell me about your experience tutoring your children this semester.

What did you learn about literacy instruction? literacy assessment?

What would you do differently if you were to tutor other students in the future?

What did you learn about yourself?

What advice would you give a friend who was going to participate in this IHEART?

# Appendix D
# Teacher Survey

*Likert scale items*

1. The IHEART tutorial program is a positive experience for my students.
   *1 – Strongly agree   2 – Agree   3 – Disagree   4 – Strongly disagree*
   *5 – Don't know*

2. My students want to attend their tutorial sessions each week.

3. My students are happy when they return to class after each tutorial session.

4. I have noticed a positive difference in my students' reading since they started attending tutorial sessions.

5. I like that the tutors plan their own lessons for students.

*Open-ended items*

6. What suggestions do you have for improving the IHEART program?

7. What feedback would you like to provide to the IHEART program coordinators?

8. What feedback would you like to provide to the tutors?

# Appendix E
# Principal Interview Protocol

1. What effects has the IHEART program had on your students?
2. Is it helpful that the tutors plan their own lessons? Why or why not?
3. What suggestions do you have for improving the IHEART program?
4. What feedback would you like to provide to the IHEART program coordinators?
5. What feedback would you like to provide to the tutors?

# DOG DAYS OF LITERACY: EFFECTS OF A DOG-ASSISTED LITERACY PROGRAM ON ELEMENTARY STUDENTS' LITERACY ATTITUDES AND SKILLS

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### Abstract

*The government recently declared a "student achievement crisis" in literacy education. While the science of teaching reading movement is gaining momentum, more research is needed on effective (and innovative) literacy interventions that also consider motivation and engagement, as these elements are closely associated with greater student achievement in literacy. This mixed-methods study reports an investigation of the effects of a dog-assisted literacy program (DLP) on second grade students' attitudes towards reading and on their reading levels. Results indicated that while the DLP did not have an effect on students' attitudes towards reading, it did have a statistically significant effect on students' reading levels.*

*Keywords:* early literacy, literacy intervention, dog-assisted literacy program, mixed- methods

## Introduction

Recently, the literacy achievement (or lack thereof) of our nation's students has been in the headlines. In fact, the government and literacy professionals have declared a "student achievement crisis" in literacy education, as only 35% of our

nation's fourth grade students performed at or above the proficient level on the 2019 National Assessment of Educational Progress (NAEP) reading assessment (Green & Goldstein, 2019; Myracle et al., 2019). Average NAEP reading scores in fourth-grade declined in 17 states. While the accountability and high-stakes movements have attempted to improve our students' literacy achievement, these movements have not produced the desired results. In response to low literacy levels among elementary students, various publishers and programs have promised to promote literacy development through their research-based programs; however, most of these programs focus narrowly on skill development while ignoring motivation, engagement, and attitudes towards reading. While the science of teaching reading movement is gaining momentum, more research is needed on effective (and innovative) literacy interventions that also consider motivation and engagement, as these elements are closely associated with greater student achievement in literacy (Petscher, 2010).

## Animal-Assisted Programs

There is a long history of using trained therapy dogs in educational and therapeutic settings. There are several different types of animal-assisted programs, which differ in their structure and purpose (Lane & Zavada, 2013; Shaw, 2013). Three key animal-assisted programs include Animal-Assisted Activities, Animal-Assisted Therapy, and Animal-Assisted Education. The following are descriptions of each of these programs:

1. Animal-Assisted Activity (AAA): AAA is a loosely structured program in which the purpose of the interaction with the animal is to meet broad goals such as companionship, comfort, motivation, or recreation. An example of an AAA is when a trained dog visits sick patients in a hospital. This program usually relies on volunteers and spontaneous timing (Shaw, 2013).

2. Animal-Assisted Therapy (AAT): AAT is a more structured and individualized program designed to meet the needs and goals of individuals. AAT programs are often facilitated by trained professionals for the purpose of therapy. The activities during AAT are highly structured with specific goals and outcomes (Shaw, 2013).

3. Animal-Assisted Education (AAE): AAE is a structured program administered by an educational professional for the purpose of meeting specific academic or educational goals (American Veterinary Medical Foundation, 2017).

Specific to animal assisted programs with dogs, there are dog-assisted literacy programs (DLP). DLPs can fall anywhere along the continuum of the animal-assisted programs listed above. Typically, they fall within the AAE framework. DLPs can be structured in a variety of ways, but generally, students spend time with the dog in the classroom or in a one-on-one setting during literacy activities. School-based DLPs typically offer a regular schedule and are integrated into the existing curriculum. The purpose of DLPs is not to supplant a school's literacy curriculum; instead, they are often used to supplement or complement the current research-based curriculum and offer an alternative intervention for reading instruction (Jalongo, 2005). Within the DLPs, students practice reading aloud to the highly trained dogs. The rationale behind DLPs is that literacy activities can cause anxiety and trepidation for some students. Some research has suggested that therapy dogs can help reduce this anxiety by being "nonjudgmental listeners unable to criticize or correct" (Kirnan et al., 2018, p. 104).

## Current Investigation

Given the need to find innovative ways to improve the literacy skills of our young students, the purpose of this present study was to investigate the effects of a DLP on the reading attitudes and reading levels of second grade students at a suburban elementary school. Another purpose of this study was to investigate the perceived benefits of a DLP according to teachers. This study is based on the following research questions:

1. What effects does a DLP have on students' attitudes towards reading? Is this effect significantly different than that of students who do not participate in the DLP?

2. What effects does a DLP have on students' reading levels? Is this effect significantly different than that of students who do not participate in the DLP?

3. How do teachers perceive the benefits of a DLP on the literacy attitudes and reading levels of their students?

### Research on Dog-Assisted Literacy Programs

Research on the effects of DLPs on children's literacy achievement has been conducted in a variety of educational settings including public libraries, school libraries, after-school programs, and individual classrooms. These studies include a variety of conditions, structure, populations, and methodology. While some

of the studies have focused on academic outcomes, other studies have focused on the social, psychological, and physiological effects of the dogs. Worth noting is that many of the studies on DLPs are anecdotal or observational in nature and have very small sample sizes, precluding the use of inferential statistics. In addition, with few exceptions, most studies on DLPs do not use a control group. As Kirnan, Siminerio, and Wong (2016) note, "Studies without a control group are open to various alternative explanations…[including] improvement in reading to occur through normal development and education" (p.649).

## Early Studies of DLPs and Therapy Dogs

Overall, early studies of DLPs with young children reported increased reading abilities, attitudes, and confidence (Heyer, 2007; Kaymen, 2005; Newlin, 2003; Paradise, 2007; Smith, 2009; Smith & Meehan, 2010). Smith's (2009) study found statistically significant effects of a DLP on second grade students' oral fluency scores while Newlin's (2003) study found that reading 20 minutes a week with the dog "improved [the students'] reading skills by at least two grade levels" (p. 43). Beyond academic effects, several of the early studies explored the influence of dogs on young students' reading behaviors including attitudes and confidence (Heyer, 2007; Paradise, 2007). These studies generally found a positive effect on reading attitude, enthusiasm, and confidence. Additional studies on therapy dogs in a variety of settings have reported positive social, psychological, and physiological effects. These effects included reductions in stress and anxiety, increased happiness and contentment, lowered blood pressure, improved cardiovascular health, and increased sense of emotional well-being. (e.g. Friedmann et al., 2000; Johnson et al., 2008; Nimer & Lundahl, 2007; Robbins, 2006; Wermer, 2008). These measures are not directly related to literacy; however, they can have an influence on students' academic achievement.

## More Recent Research on DLPs

While early studies of DLPs were mostly positive, more recent, rigorous studies have reported mixed results. A randomized control study that measured the reading rate, accuracy, and comprehension of third grade students found that the experimental group that read to the dog had statistically significant differences on reading comprehension scores compared to the other three groups; however, there were no significant effects on reading rate or accuracy (LaRoux et al., 2014). Another mixed-methods study of the impact of a DLP on children's reading skills and attitudes towards reading found statistically significant effects on end-of-year reading scores for kindergarten; however, no significant differences were found

for grades 1 through 4 (Kirnan et al., 2016). This same study reported increased positive attitudes and enthusiasm for reading across all grade levels. A follow-up study by one of the same researchers found that the statistically significant effects of a DLP on reading scores reported in the earlier article persisted for kindergarten students who participated in a second year of the program as first graders (Kirnan et al., 2018). Likewise, second graders who were in their second year of DLP participation also showed significant mean differences in their reading scores. The researchers further analyzed the data to see if the DLP specifically had an effect on EL students' reading levels and found that ELs who participated in the DLP did have significantly higher reading scores compared to ELs who did not participate in the DLP (Kirnan et al., 2018).

## Research on DLPs and Upper Elementary

Studies that have focused exclusively on upper elementary grades typically have found no significant differences for students who participate in DLPs (Booten, 2011; Peterson, 2008). Booten's (2011) study on the effects of a reading dog on fifth grade students' reading achievement and attitudes found no differences. Some researchers have suggested that the upper elementary readers "have less room and opportunity for growth" and have already established their "habits and attitudes towards reading" (Kirnan et al., 2018, p. 650). In addition, younger students are in the beginning stages of forming their attitudes and developing reading behaviors, "making it easier to influence them relative to children who have been reading for several years and may strongly associate reading with anxiety and/or failure" (Kirnan et al., 2018, p. 113).

## Systematic Review of the Literature on DLPs

Results from a systematic review of the published literature on reading to dogs showed a variety of effects on measures of cognitive processes, confidence, anxiety, social support, and engagement (Hall et al., 2016). The authors found 48 qualifying articles for their review. Of these articles, over half were anecdotal in nature or were based on interview or observation data. Only eight of the articles used a control condition and standardized measures. Because most of the articles did not have control conditions or standardized measures, definitive conclusions about the effects of dogs were hard to make. Nine research articles that measured the effects of dogs on cognitive processes found a variety of results including positive attitudes towards reading and school, improved memory and concentration, fewer instructional prompts needed, fewer errors on cognitive tasks, and increased completion of tasks. Three other studies found that dogs may

improve self-esteem and increase confidence of participants; however, several confounding factors from these studies were noted. The literature on dogs' effects on anxiety is neither sufficient nor insufficient to make a bold claim on whether dogs reduce anxiety in children. While some of the studies found that dogs had a calming effect on children, others found that dogs increased arousal and inattention in the learning environment. The effects of dogs on social support is largely under-explored in the literature; however, the available literature generally provides evidence that dogs provide social support for students and improves children's feelings of support during reading. Finally, studies on the effects of dogs on engagement have mostly found positive effects on students' motivation and engagement behaviors, but these effects were mediated by the participants' previous history and interactions with dogs. Overall, Hall, Gee, and Mills' (2016) systematic review of the literature found that "reading to a dog has a positive impact on the learning environment in which reading is practiced. However… the quality of this evidence is poor" (p. 17). Even with a limited number of high-quality research articles, Hall, Gee, and Mills (2016) suggested that DLPs are generally effective. They noted that more research is needed using control groups to determine best practices and why they might be effective. Regardless of the setting, conditions or methodology, the research has been generally positive, suggesting that reading with dogs increases student interest and enthusiasm, improves self-esteem, reduces disruptive behaviors, and leads to improvements in reading and writing skills.

## Theoretical Framework

Based on the nature of this study and based on the previous literature, a theoretical framework centered on affective learning theory (Krathwohl et al., 1964) and on Vygotsky's (1978) social learning theory seemed most relevant for investigating how a DLP influences students' literacy attitudes and achievement. Affective learning theory assumes that learning cannot be separated from emotion while Vygotsky's theory assumes that both teaching and learning are highly shared and interactive activities.

# Methods

## Research Design

Based on the nature of the research questions, this study was conducted using a mixed methods approach. As Teddlie and Tashakkori (2009) note, "[Mixed-methods] research provides better (stronger) inferences [and] provides the opportunity for a greater assortment of divergent views" (p. 33). In this study,

quantitative methods were used to compare the reading attitudes and EOY reading scores of the participants while qualitative methods were used to uncover themes in the perception of the benefits and challenges of a DLP. Analyzing both quantitative and qualitative data provided a context for the use of the DLP and provided a wealth of information that could not have been gleaned from just the quantitative data.

## Participants

The subjects of this study consisted of a convenience sample of approximately 20 students in two second grade classes and approximately 10 teachers at an elementary school in the southern United States. This sample was chosen as the school already had a reading therapy dog on campus full-time. The student participants were male and female, between the ages of 6 and 9, and were diverse in race/ethnicity and SES. Approximately half of these students were in a treatment group that received therapy dog intervention for literacy, and half of the students were in a control group that did not receive the therapy dog intervention. The control group was a naturally occurring group that came about because one teacher was allergic to the dog and did not participate in the program. In order to account for possible variations due to teacher quality and effectiveness, the control group teacher who was allergic was matched with a teacher in the same grade who provided a similar level of literacy support. According to the principal of the school, both the control and treatment teacher were equally effective teachers who scored similarly on their teacher evaluations and whose students scored similarly on standardized district literacy assessments.

## Procedure

The procedure for this study is outlined in Figure 1. This study was approved by the researcher's Institutional Review Board, and all participants and their guardians were advised of their rights and signed an informed consent form and an assent form. Before the study was conducted, the researcher also received approval from the principal and the school district superintendent.

## Description of DLP Treatment

The DLP in this study was implemented at an elementary school in the southern United States in the spring of the 2017-2018 school year. To better control for the novelty effect, the DLP was not studied until the 2018-2019 school year. The elementary school is a Title 1 school in a mid-size suburb. The researcher was an observer and did not implement, manage, or manipulate the therapy

**Figure 1.** Flow chart showing the steps and procedures of the study.

dog intervention; rather, this study explored evidence of the effectiveness of the existing program.

Henry was the dog in the DLP studied. He is an 80-pound mixed breed dog who was on the euthanasia list at a local shelter when the school principal rescued him. Because of his calm demeanor, the principal quickly realized he had potential as a therapy dog. She trained Henry, and he received the Canine Good Citizen designation from the American Kennel Club. The principal approached the local school board about bringing Henry to school every day with her for the purpose of academic and social-emotional benefits. The school board agreed to the arrangement, and created a 21-page contract outlining the agreement. Each day, Henry typically spent up to six hours in the classrooms, usually during literacy intervention times. He would visit the classrooms during their small group instruction times and stay around 45 minutes. There was very little structure to Henry's time in the classroom. He was off leash and would wander throughout

the classroom, often going up to or walking near individual student or groups. He would also often lie down in the middle of students reading on the floor.

# Data Sources

## Measure of Academic Progress (MAP)

The MAP Growth is a widely-used computer adaptive achievement test that measures students' progress in a variety of subject areas (MAP, 2020). It is a norm-referenced test that provides a measure of student growth over time. For the purpose of this study, teachers provided the researcher with beginning-of-the-year (BOY) and end-of-the year (EOY) MAP reading scores. Scores were reported on a RIT (Rasch Unit) scale, a stable, equal-interval scale. Typical MAP reading scores for the spring of second grade are between 184 and 196.

## Benchmark Assessment System (BAS)

The BAS is a popular literacy assessment that teachers administer one-on-one with students to determine their instructional reading levels (BAS, 2020). During the assessment, the student reads a leveled fiction and non-fiction book, while the teacher observes and makes notes about the student's reading behaviors. From this data, the teacher is able to determine the student's approximate instructional reading level. The teachers provided the researcher beginning-of-the-year (BOY) and end-of-the year (EOY) BAS instructional reading levels as part of the analysis for this study. Typical BAS reading levels for the spring of second grade range from L to N.

## Elementary Reading Attitude Survey

The Elementary Reading Attitude Survey is a norm-referenced, validated survey, designed to measure young students' attitudes towards academic and recreational reading (McKenna & Kear, 1990). The survey uses four pictorial representations of Garfield that range from very happy to very upset. Respondents circle the Garfield that represents how they feel about 20 statements regarding reading. The researcher trained the two participating classroom teachers on administration of the Elementary Reading Attitude Survey. Participating students completed the survey the first month of school for baseline data and again the last week of school.

## Classroom Observation

The researcher observed each of the classrooms for an hour during the spring semester of the study. The purpose of collecting observational data of the

classrooms during the literacy intervention time was to observe and note teacher and student behaviors. In addition, the researcher observed and noted the behaviors of the dog when in the treatment classroom. Shortly after both observations, the researcher created a research memo that contained reflective notes about the classrooms and the student and teacher behaviors. The memos noted behavior counts and emerging patterns, insights, and connections in the observational data.

## Teacher Survey

At the end of the school year, a Google Forms survey was sent out to all teachers who participated in the DLP. Ten teachers signed the consent form and completed the survey. The survey included nine open-ended questions related to their perceptions of the academic and social-emotional benefits and challenges of the DLP. After the responses were collected, the researcher then analyzed them for patterns and themes. The responses were also used to provide a deeper understanding and context of the benefits, challenges, and perceptions of the DLP.

## Data Analyses

To help answer the research questions, a series of *t*-tests and one-way ANOVAs were conducted to check for differences between the treatment and control groups on both reading attitude and academic data. Follow-up analyses of covariance (ANCOVA) controlling for BOY reading attitude scores and reading levels were also run. Levene's test and normality checks were conducted and the assumptions were met. Because the students were not randomized, the ANCOVA analysis allowed the researcher to control for the initial individual differences in BOY attitude scores and reading levels in order to isolate the effects of the DLP. In addition, the interview and observation data was analyzed utilizing thematic qualitative data analysis to identify patterns and themes.

## Findings

### Reading Attitude

Students' BOY and EOY raw scores from the Elementary Reading Attitude Survey were converted to norm-referenced percentages for second grade. A one-way ANCOVA was conducted on the percentages for academic reading and recreational reading to compare the effects of the DLP on students' attitudes towards reading while controlling for the students' BOY scores. There was no significant difference in attitudes towards recreational reading $F_{(1, 16)}$ = .892, $p$ = .359 or in

attitudes towards academic reading $F_{(1, 16)}$ = .126, $p$ = .727 between the students who participated in the DLP and students who did not.

## Reading Levels

The researcher used both BOY and EOY scores from the MAP and BAS reading assessments to evaluate the effects of the DLP on students' reading levels. The use of a standardized measure (MAP) combined with a subjective measure (BAS), provided a more complete and reliable estimate of the DLPs effect on students' reading levels. After controlling for BOY reading levels, the effect of the DLP remained with $F_{(1, 16)}$ = 7.039, $p$ = .029, partial $\eta^2$ = .31 based on the MAP data (see Table 1).

An analysis of the scores for the BAS also revealed a significant positive effect on students' EOY reading levels, and this effect was also retained, even after controlling for BOY reading levels, $F_{(1, 16)}$ = 22.36, $p$ = .0000, partial $\eta^2$ = .58 (see Table 2).

**TABLE 1**
**ANCOVA Results for DLP Students Versus Control Group on EOY MAP Reading Levels**

| Dog or No Dog | Type III Sum of Squares | df | Mean Square | F | Sig | Partial Eta Squared | Observed Power |
|---|---|---|---|---|---|---|---|
| Control/ Treatment | 177.88 | 1 | 177.88 | 7.04 | .017* | .31 | .70 |
| Error | 404.30 | 16 | 25.27 | | | | |

*Notes.* $R$ square= .622 (adjusted $R$-square = .575)

*$p$ < .05

**TABLE 2**
**ANCOVA Results for DLP Students Versus Control Group on EOY BAS Reading Levels**

| Dog or No Dog | Type III Sum of Squares | df | Mean Square | F | Sig | Partial Eta Squared | Observed Power |
|---|---|---|---|---|---|---|---|
| Control/ Treatment | 11.90 | 1 | 11.90 | 22.36 | .000* | .58 | .99 |
| Error | 8.52 | 16 | .53 | | | | |

*Notes.* $R$ square= .704 (adjusted $R$-square = .667)

*$p$ < .05

Because of the small sample size, the researcher also ran non-parametric analyses. These analyses revealed the same patterns of significance as the ANCOVA analyses.

## Qualitative Results

### Survey Data

The responses from the ten teachers who returned the survey about the DLP were analyzed using thematic qualitative analysis to identify patterns and themes. The SAGE Encyclopedia of Qualitative Research Methods defines thematic analysis as a "data reduction and analysis strategy by which qualitative data are segmented, categorized, summarized, and reconstructed in a way that captures the important concepts within the data set" (Given, 2008, p. 868). The responses were divided into individual thoughts and ideas and then coded. Five themes emerged from these codes. These themes included: (a) Positive behaviors, (b) healthy emotions, (c) increased motivation/engagement, (d) beneficial literacy behaviors, and (e) life skills. While the responses about the DLP were overwhelmingly positive, one respondent expressed a challenge of having the dog in the classroom saying, "The students took a long time to settle down when Henry came into the classroom. In my opinion, it would take some time for the students to have him not disrupt the students learning." Overall, the teachers' responses suggested that there were several benefits of the DLP that could not be captured in the quantitative data. Examples of the themes and responses can be found in Table 3.

## Discussion

The principal findings of this study include (a) the DLP did not have a statistically significant effect on the students' attitudes towards academic or recreational reading; (b) the DLP did have a statistically significant effect on students' EOY reading levels and achievement even after controlling for individual differences in BOY reading levels and was able to explain either 31% (MAP data) or 58% (BAS data) of the variance in group differences; and (c) teachers reported several academic and social-emotional benefits of the DLP including positive behaviors, healthy emotions, increased motivation/engagement, favorable literacy behaviors, and life skills. This study provides insight into the effects, benefits, and perceptions of a DLP on young children's reading attitudes and achievement. By including a control group in the design, the researcher attempted to address concerns in the previous literature that the effects of the DLP were due to normal development and education and not the DLP itself. Somewhat surprisingly, the DLP did not have an effect on students' attitudes toward reading. Attitude is a

**TABLE 3**
**Themes and Quotes from the Teacher Survey on the DLP**

| Theme | Example/Quote |
| --- | --- |
| Positive Behaviors | "I watched Henry with one of the students in pre-kindergarten who was yelling and loud…when he saw Henry, I took his hand, helped him pet down Henry' back and he stopped yelling." |
| Healthy Emotions | "When a student is sad or in distress, [Henry] goes up to them and starts pressing against them getting their attention. The student starts petting him, and starts calming down." |
| Increased Motivation/ Engagement | "I have seen students who are more reserved open up to Henry and read to him. In the classroom, the same student would not read to the teacher or to a peer." |
| Beneficial Literacy Behaviors | "The students want to read longer if the dog is in the classroom. The dog creates engagement which helps the students want to read more." |
| Life Skills | "Students who once were afraid to go anywhere on campus independently, will now go readily with Henry. This is a critical life skill that I could not have taught as easily without Henry." |

complex construct, and the literature suggests that there are a variety of influences on students' attitudes toward reading including self-efficacy and interest in books (Baker & Wigfield, 1999; Worthy, 1996). While it is challenging to hypothesize why the DLP did not have a greater effect on the students' attitudes, one explanation could be that the dog did not provide any praise or feedback, limiting the dog's influence on students' self-efficacy. In addition, the classroom teacher had more control and influence over the classroom library and over which books students were allowed to choose, limiting the dog's influence on students' interest in their books.

On the other hand, the DLP did have a statistically significant effect on students' EOY reading levels, even after eliminating the influence of the BOY reading level covariate. These findings were consistent across two different reading achievement measures. Analysis of the teacher surveys also revealed several important themes and benefits of the DLP.

While the quantitative data provided valuable information about the DLP, the observational data and teacher survey provided potential insight into *why* the DLP had a significant effect on the students' reading levels. It has been well-established in the literature that students' affect can have a profound effect on their achievement in the classroom. While there are several components of affective learning theory, the attentional and motivational components, in particular, have been linked to increased learning and memory (Pekrun, 1992; Seli,

et al., 2016). The teacher survey provided several examples of positive emotions, improved attention, and increased motivation related to the DLP. One teacher noted, "…[Henry] helps calm students who may not have strong reading skills because he has no judgment and they know this." Another teacher remarked, "…the students have gained confidence in their ability to read. When they read to Henry, they are able to practice and hone their skills, which in turn, builds their confidence as they move forward."

Observations of the treatment classroom while Henry was in there confirmed the teachers' responses. In the treatment classroom, the students were generally engaged, smiling, on task, and seemed motivated to read. While observing the classroom when Henry was present, there was one student, Evan (pseudonym), who was off-task. While the teacher was conducting her small group literacy intervention, she had to redirect Evan three times. After the third time, Evan sought out Henry and sat down next to him and a group of his peers with a book in hand. Evan, who was previously off-task and a little disruptive, leaned up against Henry and read his book for the next ten minutes. At one point, he even showed Henry a picture from his book and then discussed the book with his peers who were sitting near him. This interaction between the child and his peers supports Vygotsky's theory that assumes that learning is a highly social and interactive process.

In the control classroom across the hall, the researcher observed a similar context. The teacher was working with small groups of students for literacy intervention while the other students participated in various literacy tasks. Like the treatment classroom, the control classroom had a student, Sam (pseudonym), who was off-task quite a bit. During the classroom observation, the teacher had to stop and redirect Sam ten times. Sam was on task very little of the time, and the researcher did not observe him engaging in any literacy behaviors during the time observed. Based on observational and interview data, the researcher hypothesizes that the DLP's positive effect might be attributable to minimized disruptions in the classroom, increased time on task (particularly by normally disruptive students), increased motivation/engagement, and increased social interaction around literacy.

## Conclusion

One purpose of this study was to explore the effectiveness of a DLP as a literacy interventions. Given that so many of our nation's students are struggling readers, we need to consider interventions that motivate and engage our students with literacy. While this study did provide evidence that a DLP can have a statistically

significant effect on young students' reading levels, the sample size was small. These results may not generalize to other populations and contexts. In addition, literacy is a complex construct, and the students' reading levels could have been influenced by variables not accounted for by the researcher or other historical events. Additional research is needed using larger sample sizes. Future research studies on DLPs should also consider the effects on subgroups, such as students in special education, students with dyslexia, and English learners.

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