Texas Association for Literacy Education
Yearbook

Volume 3:
Inspiring and Transforming Literacy

December 2015

Editors

Elda E. Martinez      Jodi Pilgrim      Laurie A. Sharp
Texas Association for Literacy Education

Yearbook

Volume 3: Inspiring and Transforming Literacy

Editors

Elda E. Martinez, Ed.D.
The University of the Incarnate Word
San Antonio, TX

Jodi Pilgrim, Ph.D.
University of Mary Hardin-Baylor
Belton, TX

Laurie A. Sharp, Ed.D.
Tarleton State University
Stephenville, TX
Copyright 2015 Texas Association for Literacy Education

Photocopy/reprint Permission Statement

Permission is hereby granted to professors and teachers to reprint or photocopy any article in the Yearbook for use in their classes, provided that each copy made shows the copyright notice. Such copies may not be sold, and further distribution is expressly prohibited. Except as authorized above, prior written permission must be obtained from Texas Association for Literacy Education to reproduce or transmit this work or portions thereof in any other form or by another electronic or mechanical means, including any information storage or retrieval system, unless expressly permitted by federal copyright law. Address inquiries to Elda Martinez at the following address:

The University of the Incarnate Word
ATTN: Elda Martinez
4301 Broadway, CPO 293
San Antonio, TX. 78209
taleyyearbook@gmail.com

ISSN 2374-0590 online

Cover Design: Elda Martinez and Frances Gonzalez-Garcia, 2014
Texas Association for Literacy Education Board

Executive Committee 2015-2016

President
Roberta Raymond, Ed.D.
University of Houston-Clear Lake

President Elect
Robin D. Johnson, Ed.D.
Stephen F. Austin State University

Vice President
Laurie A. Sharp, Ed.D.
Tarleton State University

Secretary
Jill Culmo, Ed.D.
Dallas Independent School District

Treasurer
Sandra Murillo Sutterby, Ed.D.
Texas A&M University-San Antonio

Board Members 2015-2016

Mary LaFleur
Karen Sykes, Ed.D.
Alida Hudson
Kathy Stephens, Ed.D.
Jake Hollatz, Ed.D.
Teddi Martin, Ph.D.
Elda E. Martinez is the Director of Teacher Education and is a professor at the University of the Incarnate Word in San Antonio, Texas. Elda earned a Masters of Arts in Teaching from Trinity University and a Doctorate in Educational Leadership from Columbia University, Teachers College. She completed ten years of classroom teaching in both general education and special education settings. Elda’s work in teacher preparation includes instruction in special education and assessment as well as research in instructional technology as well as teacher induction and retention.

Elda has been a member of TALE since its foundation in 2012.

Jodi Pilgrim is an associate professor at the University of Mary Hardin-Baylor in Belton, Texas. She received her doctorate in Reading Education at the University of North Texas and currently teaches literacy courses for undergraduate and graduate students. Jodi’s passion is ensuring struggling readers receive the instruction and motivation they need to experience success in the classroom. She is an active member of the International Reading Association and the Texas Association of Literacy Education. Jodi’s personal research interests include digital literacy and teacher preparation.

Jodi has been a member of TALE since its foundation in 2012.

Laurie A. Sharp is currently an assistant professor at Tarleton State University in Stephenville, Texas. She works with undergraduate students seeking initial teacher certification and graduate students seeking professional certification for Reading Specialist. Prior to being at Tarleton, Laurie taught in public schools in Florida and Texas. Laurie serves as an active leader and member in several professional and community organizations, such as the Texas Association for Literacy Education, Professors of Literacy and Teacher Education, and International Literacy Association. Laurie also attends to an active scholarly agenda that highlights topics related to education and literacy among learners of all ages.

Laurie has been a member of TALE since its foundation in 2012.
2015 Yearbook Review Board

Sara Lisa Avrit, M.Ed.  
Quinlan Independent School District

Christie Bledsoe, Ed.D.  
University of Mary Hardin-Baylor

Terri Cearley-Key, M.Ed.  
Texas State University

Marilynn Cook, M.S., MRT, ET/P  
Port Aransas Independent School District

Amy Cummings, Ph.D.  
University of Texas, Rio Grande Valley

Carol J. Delaney, Ph.D.  
Texas State University

Carol W. Fetters, Ph.D.  
Innovations with Solutions Consulting, LLC

Shannon Fuller  
East Central Independent School District

Janet M. Groff, M.Ed.  
Northside Independent School District

Teddi Martin, Ph.D.  
University of North Texas

Roberta D. Raymond, Ed.D.  
University of Houston-Clear Lake

Judy Trotti, Ph.D.  
University of Mary Hardin-Baylor
# Table of Contents

**Inspiring and Transforming Literacy**  
*Dr. Roberta Raymond*  

**Chapter One**  
Fostering Close Reading in the Elementary Classroom Using Patterned Texts  
*Stephanie Grote-Garcia & Crystal Frost*  

**Chapter Two**  
Relationships between Inservice Teacher Characteristics and Self-Efficacy Beliefs for Teaching Elementary Reading  
*L. Karen Estes-Sykes*  

**Chapter Three**  
Assisting Preservice Teachers with the Process of Evaluating and Integrating Technologies in Order to Transform Literacy Practices  
*Susan Szabo, Susan Williams & Debra Lee*  

**Chapter Four**  
Becoming a Reading Arsonist among Preservice Teachers  
*Laurie A. Sharp*  

**Chapter Five**  
Why Should We Go? Exploring the Impact of a Literacy Conference on Preservice Teachers’ Literacy Lives  
*Robin D. Johnson*  

**2016 Yearbook Call for Manuscripts**
Preface

Inspiring and Transforming Literacy

The third annual conference for the Texas Association for Literacy Education (TALE) convened at the Sam Houston State University Woodlands campus in The Woodlands, Texas. We had a wonderful mix of educators and preservice teachers from across the state of Texas and beyond. Our annual conference is a time for colleagues to collaborate and share ideas and experiences. This year’s conference theme was *Inspiring and Transforming Literacy*. The keynote speakers, Donalyn Miller and Steven Layne, provided inspiration and shared their transformational narratives. In addition, we held over 50 sessions where members shared their research, best practice strategies, and literacy ideas.

Volume 3 of the TALE Yearbook continues the conference theme of *Inspiring and Transforming Literacy* by sharing a sampling of articles from our presenters and conference attendees. The first section contains a diverse group of articles, which tie together through the connection to student learning. The second section shares the voices of several preservice teachers.

As we prepare for our 2016 conference, February 12-13, 2016 in San Antonio, Texas, we hope this yearbook provides readers a time for reflection, remembrance, and inspiration. Additionally, we encourage you to share your stories, learning, and research from the upcoming conference in the next TALE Yearbook.

Enjoy!

*Dr. Roberta Raymond*

*TALE President*
Chapter 1

Fostering Close Reading in the Elementary Classroom
Using Patterned Text

Stephanie Grote-Garcia
University of the Incarnate Word

Crystal Frost
University of the Incarnate Word

Abstract

The Common Core State Standards (CCSS) place a high focus on close reading — a form of strategic reading associated with the gradual release of responsibility model, text complexity, and text dependent questioning. However, all readers should be provided this opportunity to dig deeper. One method of presenting this opportunity in elementary classrooms is to use patterned books (e.g., circle tales and add-on patterned text) as instructional materials. Patterned books present layers of complexity. At the height of their complexity, patterned books present “hidden messages” that can be uncovered when their structure is closely examined. In this article we discuss close reading as an instructional practice for all classrooms. Next, we explore the use of patterned text as an ideal tool for modeling and implementing various components of close reading in the elementary classroom. Finally, we illustrate the application of using patterned text for close reading.

With the widespread adoption of the Common Core State Standards (CCSS) in forty-three states, four territories, and the Department of Defense Education Activity (CCSS Initiative, 2015), close reading has rapidly become a hot topic in literacy (Cassidy & Grote-Garcia, 2014). However the CCSS, a production of the National Governors Association Center for Best Practices and the Council of Chief State School Officers (2010) is not the only agency focusing on close reading—“an instructional routine in which students critically examine a text, especially through repeated readings” (Fisher & Frey, 2012, p. 179). Many non-CCSS states, such as Texas, have also included a focus on close reading.
Repeated readings are often described as a feature of close reading; however, it is important to note that close reading involves much more than simply rereading a text. Namely, close reading presents an invitation for readers to examine the deep structures of text, such as “the way the text is organized, the precision of its vocabulary to advance concepts, and its key details, arguments, and inferential meanings” (Fisher & Frey, 2012, p. 179). In addition, such deep examinations also invite readers to reflect upon the author’s purpose, consolidate text information to formulate opinions, and make connections among the author’s ideas and other texts.

Although many associate close reading with older students, close reading can be fostered in any classroom. In fact, Stephanie Harvey (2015) reminds us that at its core, close reading is really strategic reading. To illustrate this discussion, we have chosen to examine the standards adopted by Texas, the largest state that did not adopt the CCSS. Texas has two sets of instructional standards. First, their grade-specific standards are called the Texas Essential Knowledge and Skills (TEKS) (Texas Education Agency, 2012). In addition to these grade-specific standards, Texas has adopted their own Texas College and Career Readiness Standards (CCRS) (Texas Higher Education Coordinating Board & Texas Education Agency, 2009). The TEKS and the CCRS do not directly use the label close reading; however, both sets of Texas standards do provide opportunities for students to examine text closely. For example, the TEKS require Texas third-grade students to “identify explicit cause and effect relationships among ideas in texts” (Reading/Comprehension of Informational Text/Expository Text section, 2012, para 3). So, where is the close reading? Close reading is encouraged when text-dependent questions are asked. The term explicit, as used in the identified TEK, implies text dependency. Likewise, the CCRS are written to imply text dependency as captured in the following standard: “evaluate the use of both literal and figurative language [in the text] to inform and shape the perceptions of readers” (Texas Higher Education Coordinating Board & Texas Education Agency, 2009, p. 3).
In this article we discuss close reading as an instructional practice for all classrooms. Next, we explore the use of patterned text as an ideal tool for modeling and implementing various components of close reading in the elementary classroom. Finally, we illustrate the application of using patterned text for close reading.

**What is Close Reading?**

Close reading is described by Fisher and Frey (2013) as a “form of guided instruction in which the teacher questions, prompts, and cues the learner” (p. 16). The following three concepts are often associated with close reading: gradual release of responsibility, text complexity, and text dependent questioning. Here, a brief description is provided for each of these three instructional concepts.

**Gradual Release of Responsibility**

The gradual release of responsibility model of instruction (Pearson & Gallagher, 1983) requires a shift of responsibility within the classroom. More specifically, it requires that the teacher shift from assuming “all the responsibility for performing a task… to a situation in which the students assume all of the responsibility” (Duke & Pearson, 2002, p. 211). Such a shift in responsibility happens over time (e.g., days, weeks, months).

Fisher and Frey (2007) have documented that the gradual release of responsibility model of instruction is an effective approach for improving literacy achievement. In addition, Kong and Pearson (2003) report that it can improve literacy outcomes for emergent multilingual students (i.e., English Language Learners) and Lloyd (2004) has documented that it can increase reading comprehension in general. Fisher and Frey (2013) describe close reading as a “gradual release of responsibility, not a comprehensive literacy instructional effort” (p. 16). In other words, close reading is a way to scaffold literacy instruction when reading complex text.
Text Complexity

Not all texts are worthy of this level of attention. The selected text must be complex if a reader is going to engage in deep examination. So, how is text complexity measured? There are three areas of consideration when identifying text complexity — qualitative dimensions (e.g., levels of meaning and structure), quantitative dimensions (e.g., word length and frequency), and reader and task considerations (e.g., background knowledge and motivation to read). Together these three areas of consideration create a complex text. This triangulation is emphasized by Stephanie Harvey (2015) who reminds us that “complexity goes way beyond text level” (p. 31). In other words, simply increasing the lexile level does not create a complex text.

Text Dependent Questioning

During close reading, students re-read complex text to dig deeper into the meaning and to interact with specific parts of the text. Students also answer text-dependent questions. Such questions invite students to return to the text to find text-based evidence to support their answers. Text-dependent questions often address multiple skills such as text structure, author’s purpose, and cross-text analysis — not just key details. Text dependent questions can be thought of as critical tools for empowering and encouraging students to examine text closely.

What are Patterned Texts?

Now that close reading has been discussed, let’s turn our attention to patterned texts. Patterned texts contain “purposefully crafted conversations that are organized in predictable patterns” (Grote-Garcia & Durham, 2013, p. 45). Examples of common patterns found in children's picture books are add-on, circle-tale, repetitious, and rhyming (citation?). Each of these patterns are described further in Table 1. Also provided in Table 1 are lists of books and instructional practices for each pattern. These featured texts are recognized by the International Reading Association (recently renamed International Literacy Association) as books “children really enjoy reading” (2011, p.1). They can be found on the Children’s
Choice Reading Lists (IRA, 2011; IRA, 2012; IRA, 2013; and IRA, 2014). Although there are various patterns that authors use to organize their texts, and each of these patterns provide opportunities for close examinations using text dependent questions (e.g., What story events contributed to the story pattern? What additional meaning did the text pattern bring to the story and what story events support this additional meaning?), for the sake of clarity and depth of our discussion, we focus primarily on circle-tale patterned text.

Table 1

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Description</th>
<th>Examples</th>
<th>Connections to Literacy Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add-on</td>
<td>A cumulative pattern in which events are repeated with the introduction of one new event</td>
<td>Emberley, R. &amp; Emberley, A. (2009). <em>There was an old monster</em>. New York: Scholastic, Inc. Norma, K. (2012). <em>I know a wee piggy</em>. New York: Dial Books.</td>
<td>… read repeated text to build automaticity in word recognition … perform a close reading to evaluate how the text structure contributes to the story plot</td>
</tr>
<tr>
<td>Repetitious</td>
<td>Features a repeated phrase or sentence</td>
<td>Bjorkman, S. (2012). <em>Dinosaurs don’t, dinosaurs do</em>. New York: Holiday House.</td>
<td>… choral read repeated phrases to build word recognition, fluency, and prediction skills</td>
</tr>
</tbody>
</table>
Circle-Tale Patterned Texts

Circle-tale patterned texts are artistically and purposefully crafted so that the main character or characters experience a great adventure that terminates back at the original origin citation. For example, in *Silly Doggy!* Stower (2011) tells the story of a fictional character named Lily who finds a bear rummaging through the trash. Lily, unaware that the animal is a bear, shouts “Doggy!” Lily then takes Doggy on a series of adventures including a bus ride to the park. When Doggy is eventually returned to the zoo, Stower ends this adventure with Lily finding a tiger and shouting “Kitty!” — leading readers to believe a second adventure is beginning. Table 2 lists additional examples of circle-tale patterned texts. Again, the featured texts are recognized as books “children really enjoy reading” (IRA, 2011, p.1) and can be found on the *Children’s Choice Reading Lists* (IRA, 2011; IRA, 2012; IRA, 2013; and IRA, 2014).

Table 2

**List of Circle-Tale Patterned Text Featured on the Children’s Choice Lists**

<table>
<thead>
<tr>
<th>Year of Children’s Choice List</th>
<th>Book Publication Information</th>
</tr>
</thead>
</table>
How Can Circle-Tale Patterned Text Support Close Reading?

Readers use a number of strategies in order to understand text. Some of these strategies include activating prior knowledge, generating questions, drawing inferences, making predictions, and identifying the structure of the text (NICHD, 2000; Pressley, 2002; Smolkin & Donovan, 2002). With over thirty-five years of research (e.g., Kintsch, Mandel, & Kozminsky, 1977; Mandler & Johnson, 1977; Thorndyke, 1977) suggesting that comprehension is enhanced when texts are organized into well-known structures, it seems reasonable to suggest using patterned text in the classroom. And in fact, patterned text has been used to scaffold comprehension, as seen in Grote-Garcia’s and Durham’s (2013) discussion, readers of circle-tale patterned books can increase their recalling of story events by participating in activities that explicitly draw their attention to the story structure….a linear timeline does not accurately reflect the story structure [of circle-tales]. Instead, consider creating a retelling that is circular in nature with a ‘timecircle’ (creatively named by a second-grade reader). Timecircles assist readers with rebuilding the story events in circular patterns to retell the rounded structure and to explore the author’s purpose for writing in this pattern (p. 48).

Past applications of using pattern text in the classroom have used the gradual release of responsibility model to enhance comprehension. In the example above, Grote-Garcia and Durham (2013) provided explicit instruction in the circular story structure (teacher led), provided a timecircle for students to identify the circular pattern with guidance from the teacher (less teacher responsibility), and then provided additional opportunities for students to read circle-tales on their own (student led).

Complexity of Circle-Tale Patterned Text

As stated earlier — not all text need to be read with the intensive attention that close reading demands. Harvey (2015) expresses this realization very well,
I don’t need to read my daily dose of *The Onion* closely. I cry with laughter and sail through. But hand me Stephen Hawking’s *A Brief History of Time* (Bantam) and I can’t simply reread the incomprehensible words; I need strategies to hurdle the background knowledge gap (p. 30).

What Harvey is describing is that a text must be complex if the reader is going to deeply examine it. Reflecting upon this idea, elementary teachers may wonder, what texts present this level of complexity? We propose that circle-tale patterned texts do. Why? To illustrate our reasoning, we have selected a specific text — *City Dog, Country Frog* by Mo Willems (2010). In this text Willems tells the story of City Dog, who repeatedly runs out to the country during each change of season to visit his friend Country Frog. At the onset of the tale, the two characters meet in the spring as Country Frog sits on a rock. When City Dog questions Country Frog about his actions, Country Frog replies that he is waiting for a friend, but “you will do” (Willems, 2010, p. 4). Each of City Dog’s seasonal journeys is accompanied by familiar phrases and repeated sentences until Country Frog is not found during the winter visit. The story’s circular pattern is then made very clear as City Dog sits alone on Frog’s rock in spring and Country Squirrel approaches him. Country Squirrel asks City Dog “What are you doing?” (Willems, 2010, p. 50). City Dog then replies with a froggy smile, “Waiting for a friend...But you’ll do” (Willems, 2010, p. 50 & 54).

One can take a literal approach to examining Willems’ story by mapping out the story events in a timecircle, as suggested by Grote-Garcia and Durham (2013). This is an effective way to increase comprehension. One can also move past retelling the surface story events and deeply examine how the story structure adds complexity to this story. For example, following a read aloud of *City Dog, Country Frog* a third grader and emergent multi-lingual student named Samantha (pseudonym), was asked to map out the story events in a timecircle (see Figure 1). Following this mapping activity, Samantha was asked to continue the story. Although she could have completed this task in writing, we chose to have her tell us the story orally. We also gave her a full 24 hours to think about her story.
Samantha’s continuation of the story followed Willems’ (2010) original circular structure of City Dog making seasonal journeys to the country to visit Country Squirrel and it ended with Country Squirrel meeting City Cat. After she told us her story, we asked her why she chose to introduce City Cat as a new character. She replied with, “The pattern helped me think of that,” It was at that point that we realized that pattern books can also function as mentor text for creative writing. The complexity of circle-tales is even more evident with their invitations for text dependent questions. To fully understand how circle-tales can be used as tools for close reading, let us examine how these types of text provide opportunities for text dependent questions.

**Invitations for Text-Dependent Questioning**

Fisher and Frey (2013) suggest that “text-dependent questions should be kept in the teacher’s metaphorical back pocket, only to be brought out when the conversation falters, or when students are
ready for a deeper dive into the text” (p. 16). Our work with Samantha presented an opportunity for this “deeper dive,” as illustrated in the condensed conversation below:

Author: “The author of this book, Mo Willems, made his story into a pattern. What story pattern did he create?”

Samantha: “It was a circle.”

Author: “How do you know it was a circle?”

Samantha: “At the beginning, City Dog ran to the country. It was spring and he met Country Frog. They played together. Then they played again and again. In the winter Frog was gone so Dog was sad. But, then it was spring again and Dog made a new friend named Country Squirrel.”

Author: “I noticed that you mentioned spring and winter. Did the author mention other seasons.”

Samantha: “Yes, he talked about all of them because Dog and Frog would play in all the seasons. But, not winter. Frog was missing in winter. That is why Dog met his new friend Country Squirrel.”

Author: “Sometimes a pattern can help us find a hidden message in the story. Think about the characters of the story and the story pattern. Do you think the author has a hidden message for you?”

Samantha: “Maybe.”

Author: “Since the book is about a friendship, can you think of a hidden message about friendship?”

Samantha: “Maybe the author wanted us to know that the friendships we have now will help our next friendships.”

Author: “I am going to take your idea and turn it into a statement. Let me know if the following statement is the same as your idea: ‘Our friendships of today, influence our friendships of tomorrow’?”

Samantha: “Yes, can we write that on a poster?”

This conversation with Samantha illustrates that pattern books, particularly circle tales, present opportunities for readers to dive deeper into the text.
Conclusion

The CCSS place a high focus on close reading — a form of strategic reading that is associated with the gradual release of responsibility model, text complexity, and text dependent questioning. However, all readers should be provided this opportunity to dig deeper. In this article, we have proposed that one method of presenting close reading in elementary classrooms is to use patterned books as instructional materials. Patterned books present layers of complexity to engage the reader. At the height of their complexity, patterned books present hidden messages that can be uncovered when their structure is closely examined, as in the case of Samantha shared earlier.

When using patterned books as a tool for close reading, it is necessary to engage the reader with text-dependent questions. In fact, we like to describe such questions as critical tools for empowering and encouraging students to examine text closely. Through these types of questions, readers identify text structure, author’s purpose, and cross-text analysis. All of which can lead to discovering a hidden message. We encourage you to introduce your students to patterned text and to use them as instructional tools in your classroom.
References


Children’s Books


Relationships between Inservice Teacher Characteristics and Self-Efficacy Beliefs for Teaching Elementary Reading

L. Karen Estes-Sykes
University of Mary Hardin-Baylor

Abstract

This study describes correlations between participants’ sense of efficacy for teaching reading and certain teacher characteristics. Participants were inservice teachers from seven different elementary school campuses in central Texas. Teacher characteristics found to correlate with a higher sense of efficacy for teaching reading included five years or more teaching experience, as well as five years or more teaching reading. Additionally, currently teaching reading or attending professional development within five years prior to the study were characteristics correlated with higher degrees of self-efficacy for teaching reading. With the nation’s emphasis on students’ achievement in reading and the accountability system in place for teachers and schools, this study provides insight into factors related to self-efficacy toward teaching reading.

Learning to read at grade level is considered a primary focus of the elementary school curriculum. Commonly considered a key predictor of an individual’s level of success throughout life, the ability to read garners considerable attention among educational theorists, researchers, and practitioners. Given this attention, a multitude of instructional approaches continue to be offered as the solution to the purported inadequacies of literacy instruction. As such, teacher practices and views regarding the most effective means of reading instruction continue to vary in classrooms (Taylor, Peterson, Pearson, & Rodriguez, 2002).

The National Reading Panel Report (National Institute of Child Health and Human Development, 2000) reviewed experimental research that explored the effectiveness of various strategies in teaching
reading. The Committee found direct, explicit, systematic instruction in phonics and phonemic awareness, were determined to be the foundation for effective reading instruction. Additionally, the Committee cited specific instruction for improving fluency, vocabulary, and comprehension as critical components of literacy practices.

With implementation of scientifically-based practices a key element when learning to read, further research has shown effective teachers to be highly significant in regard to student achievement in reading (Taylor, Peterson, Pearson, & Rodriguez, 2002). In fact, more effective teachers have been found to teach explicit skills, actively engage students in authentic reading and writing tasks, and encourage use of strategies more often than their less effective colleagues (Pressley, Wharton-McDonald, Allington, Block, Morrow, Tracey, Baker, Brooks, Cronin, Nelson, & Woo, 2001). The ongoing movement to improve literacy among elementary-aged students in Texas has placed a greater degree of accountability upon teachers and schools than previously experienced. Combined with a nationwide emphasis on reading improvement since the implementation of No Child Left Behind (2002), public schools are clamoring to attract and retain the best elementary reading educators available. Within this context, highly effective reading teachers are in great demand. As administrators seek to identify these individuals and universities seek to prepare reading teachers for the future, attempts to further define the elements that constitute a highly effective reading teacher remain constant. Since research suggests the crucial element to successful literacy instruction is not any one specific approach or methodology (National Institute of Child Health and Human Development, 2000), and the effective teacher appears to be the key as to whether or not children learn to read at an appropriate grade level in the elementary school (Allington, 1977; Taylor, Peterson, Pearson, & Rodriguez, 2002; Cole, 2003), further defining the effective teacher is paramount.

Among elementary teachers, certain teacher characteristics such as years of experience teaching, level of education, and age have been found to correlate with student achievement, classroom
management, and student dropout rates (Martin & Shoho, 2000; Okpala, Smith, & Jones, 2000; Fetler, 2001; Maxwell, McWilliam, Hemmeter, Ault & Schuster, 2001). Characteristics such as degree of ego development and an expressed belief of being well-qualified to teach have shown a significant relationship to both student achievement and students’ degree of interest and curiosity about certain subjects (McNergney & Satterstrom, 1984; Brunkhorst, 1992). Additionally, a teacher’s sense of efficacy for teaching has been found to correlate with student achievement (Armor et al., 1976; Ashton, Webb, & Doda, 1983; Ashton & Webb, 1986; Ross, Hogaboam-Gray, & Hannay, 2001). Subject-specific measures of a teacher’s sense of efficacy have added a degree of precision to the construct (Ritter, Boone, & Rubba, 2001; Milson & Mehlig, 2002, Brenowitz & Tuttle, 2003; Martin & Kulinna, 2003; Estes, 2005). The purpose of this study was to examine if certain teacher characteristics affect a teacher’s sense of efficacy for teaching reading.

**Theoretical Framework**

A potential key to identifying the highly effective reading teacher may lie within the theoretical construct of self-efficacy. As opposed to self-esteem, self-efficacy describes one’s perceptions of capability. Self-efficacy impacts “human functioning because it affects behavior not only directly, but by its impact on other key determinants, such as goals and aspirations, outcome expectations, affective proclivities, and perception of impediments and opportunities in the social environment” (Bandura, 1997, p. 2).

Noting efficaciousness specifically for teaching began with the publication of a RAND study examined the success of various reading programs in California (Armor et al, 1976). Since that time, numerous instruments designed to measure a teacher’s sense of efficacy for teaching have been developed. Two threads of research are the backbone for these instruments. Several instruments have been grounded in Rotter’s (1960, 1966) theories of social learning and generalized expectancies of
reinforcement, while others have been designed based on the more integrative approach of Bandura’s (1977, 1982, 1986) social cognitive theory.

Gibson and Dembo (1984) applied Bandura’s theory to the construct of teacher efficacy and developed the Teacher Efficacy Scale (TES). Among numerous studies utilizing the TES, the research explored whether “high- and low-efficacy teachers exhibited] differential patterns of teacher behaviors in the classroom related to academic focus, feedback, and persistence in failure situations” (p. 576). Findings indicated low-efficacy teachers spent less time devoted to academic tasks, had differences in student grouping, seemed less flexible in regard to interruptions of the routine, and were more critical of students’ wrong responses than their high-efficacy colleagues.

As teacher efficacy research has progressed, instruments have become more subject-specific to address assertions that context-specific efficacy measures are more appropriate, particularly in regard to occupations which require multi-contextual tasks, such as teaching (Bandura, 1997; Smith & Fouad, 1999; Pajares, 2003). Instruments to measure a teacher’s efficacy for teaching specific subjects, such as computer science, science, character education, and reading (Ritter, Boone, & Rubba, 2001; Milson & Mehlig, 2002; Estes, 2005) have proven effective in adding precision to the construct of teacher efficacy.

The purpose of this study was to examine if certain teacher characteristics affect a teacher’s sense of efficacy for teaching reading. Characteristics explored included the total number of years a teacher has taught, the total number of years a teacher has taught reading, a teacher’s level of education, certificate specialization, and participation in professional development designed to improve reading instruction.

Method

Participants

Seven public elementary schools in central Texas were selected to participate in this study. These schools were located in urban, rural, and suburban areas and included schools that had varied
performance on state-mandated standardized tests. Additionally, the schools participating in this study had diversity in ethnicity, economically disadvantaged, and limited English proficiency among students. Teachers (N=142) from selected campuses who participated in the study taught students from Early Education (EE) through fifth grade.

**Instruments**

According to Bandura (2001, p. 1), “the efficacy belief system is not a global trait, but a differentiated set of beliefs linked to distinct realms of functioning.” Global measures have limited predictive value, therefore the Efficacy Scale for Teachers of Reading (EST-R) was designed to measure a teacher’s beliefs about his/her ability to teach reading and to effect reading achievement outcomes for his/her students (Estes, 2005). In addition to the EST-R, the final questionnaire used in the study included a variety of demographic questions/prompts. These descriptive statistics were included to identify certain teacher characteristics for analysis. Gender, ethnicity, age range, and current level of education were included in the questionnaire, and participants were asked to report their current teaching assignment, which included grade level taught, whether they taught a self-contained or regular education class, and whether or not they taught reading. Participants were asked to report if they had attended professional development related to reading improvement within the last five years. Certification(s) held, the state where issued, level, and specialization were a part of the questionnaire. Finally, years of teaching experience altogether, years taught in their current assignment, and total years of experience teaching reading were a part of the questionnaire.

**Data Collection and Data Analysis**

The EST-R and demographic questionnaire were distributed by the researcher at campus-level faculty meetings. Current teachers in attendance at the faculty meeting were provided an opportunity to participate in the study. Other faculty meeting attendees, such as counselors, teacher’s aides, and administrators, did not participate in the study. Participation was voluntary, and volunteers completed
and returned the survey at the faculty meeting. The researcher collected all surveys before leaving the campuses. Teachers who did not attend the faculty meetings were not contacted.

Surveys collected were organized by participating campuses. Data were then coded numerically using an ordinal scale for each response. Responses to negatively stated prompts on the EST-R were coded inversely to provide consistency in scoring. Data analysis began with descriptive statistics to accurately reflect the sample. Analysis of variance (ANOVA) was used to examine the significance of teacher characteristics in relation to teacher efficacy scores. Higher EST-R scores indicated greater self-efficacy, meaning teachers strongly believed they were effective teachers of reading. A lower EST-R score indicated a teacher did not believe as strongly they were effective at teaching reading. For example, a teacher with an EST-R score of 70 held a stronger belief in his/her ability to teach reading than one who scored a 55. Therefore, researchers analyzed data to determine if certain teacher characteristics may attribute to higher self-efficacy scores.

Results

With a range of EST-R scores between 19 and 95, the participants sampled had a mean EST-R score of 70.429577. Upon collection and analysis of the data, it became apparent certain teacher characteristics included in the survey, but not specifically included in the research questions, had no influence on a teacher’s sense of efficacy for teaching reading. These characteristics included age, gender, ethnicity, current grade-level taught, whether one taught in a self-contained, regular education classroom, and whether one held certification from the State Board of Educator Certification in Texas as opposed to certification from another state. Findings related to further exploration of teacher characteristics is described in the following section.
Total Years of Teaching Experience

Initial analysis of data collected from the EST-R and demographic survey indicated the number of years a teacher has taught altogether did not have a significant effect on a teacher’s sense of efficacy for teaching reading. However, further analysis of data by dividing participant’s responses into two subsets representing those who had taught less than five years and those who had five years or more teaching experience was highly significant (see Table 1). Those with four years or less teaching experience (n=37) had a mean EST-R score of 68.0270, while those who had five years or more experience teaching (n=105) had a mean EST-R score of 71.2952 (see Table 2).

Table 1
Analysis of Variance with Subsets Representing Those Who Had Taught Less than Five Years as Compared to Those Who Had Five Years or More Teaching Experience

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>292.2287</td>
<td>292.220</td>
<td>5.7926</td>
<td>0.0174</td>
</tr>
<tr>
<td>140</td>
<td>7062.8206</td>
<td>50.449</td>
<td></td>
<td></td>
</tr>
<tr>
<td>141</td>
<td>7355.0493</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2
Mean EST-R Score of Those Who Had Taught Less than Five Years as Compared to Those Who Had Five Years or More Teaching Experience

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Participants (n=132)</th>
<th>Mean EST-R Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Five Years</td>
<td>37</td>
<td>68.0270</td>
</tr>
<tr>
<td>Five Years or More</td>
<td>105</td>
<td>71.2952</td>
</tr>
</tbody>
</table>
Years of Experience Teaching Reading

With regard to years of experience teaching reading, the highest mean EST-R score was among respondents who had more than twenty years of experience teaching reading. Initial analysis of the data from the EST-R and demographic survey indicate the total number of years a teacher has taught reading does not significantly affect a teacher’s sense of efficacy for teaching reading. Approaching statistical significance, the findings reflect a pattern of increasing efficacy beliefs as years of experience teaching reading increase with some exceptions.

Again, when the data was divided into two subsets reflecting those who had less than five years of experience teaching reading and those who had taught reading for more than five years, mean EST-R scores were notably different. Respondents with five years or more have a higher mean EST-R score, 71.6701, than those who have less than five years’ experience teaching reading with a mean EST-R score of 68.6389.

Table 3

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Participants (n=132)</th>
<th>Mean EST-R Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Five Years</td>
<td>36</td>
<td>68.6389</td>
</tr>
<tr>
<td>Five Years or More</td>
<td>97</td>
<td>71.6701</td>
</tr>
</tbody>
</table>

Additional analysis of the data when participant responses were divided into two subsets reflecting those who had less than five years of experience teaching reading and those who had taught reading for five years or longer does show a high degree of statistical significance (see Table 4).
Table 4

*Analysis of Variance with Subsets Representing Those Who Had Taught Reading for Less than Five Years as Compared to Those Who Had Five Years or More Reading Teaching Experience*

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>241.2436</td>
<td>241.244</td>
<td>4.8832</td>
<td>0.0289</td>
</tr>
<tr>
<td>131</td>
<td>6471.7489</td>
<td>49.403</td>
<td></td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>6712.9925</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Professional Development Designed to Improve Reading Instruction

The data collected showed attendance within the last five years at professional development specifically related to improving reading instruction had a significant effect on a teacher’s sense of efficacy for teaching reading (see Table 5). One-hundred eight teachers reported attending such professional development and had a mean EST-R score of 71.5093. The 31 teachers who had not attended such professional development had a significantly lower mean EST-R score at 63.9355 (see Table 6).

Table 5

*EST-R Score by Attendance within the Last Five Years at Professional Development Specifically Related to Improving Reading Instruction*

<table>
<thead>
<tr>
<th>Professional Development Attendance</th>
<th>Participants (n=139)</th>
<th>Mean EST-R Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>108</td>
<td>71.5093</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>66.9355</td>
</tr>
</tbody>
</table>
Table 6

*Analysis of Variance for EST-R Score by Attendance within the Last Five Years at Professional Development Specifically Related to Improving Reading Instruction*

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>241.2436</td>
<td>241.244</td>
<td>4.8832</td>
<td>0.0289</td>
</tr>
<tr>
<td>137</td>
<td>6471.7489</td>
<td>49.403</td>
<td></td>
<td></td>
</tr>
<tr>
<td>138</td>
<td>6712.9925</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Findings**

Some demographic data collected that were not specifically included in the research questions were found to correlate with a teacher’s sense of efficacy for teaching reading. The number of years taught in one’s current teaching assignment and whether or not one taught reading in his/her current teaching assignment were found to have a significant effect on a teacher’s degree of efficacy for teaching reading. There is a clear delineation of EST-R group means showing increasing efficacy for teaching reading the longer participants reported teaching in their current assignment. The group EST-R mean was higher than the overall mean EST-R score beginning with those participants who reported five or more years of experience teaching in their current assignment. Those participants who reported teaching in their current assignment for longer than ten years reported the highest group EST-R mean at 74.9583, considerably higher than the overall mean EST-R score of 70.429577 (see Table 7). Those teachers who reported teaching longer in their current assignment had a significantly higher EST-R score than their colleagues who reported fewer years in the same assignment (see Table 8).
Table 7

*EST-R Score by How Many Years Taught in Current Assignment*

<table>
<thead>
<tr>
<th>Years Taught in Current Assignment</th>
<th>Participants (n=141)</th>
<th>Mean EST-R Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year</td>
<td>33</td>
<td>68.484</td>
</tr>
<tr>
<td>One year</td>
<td>7</td>
<td>68.2857</td>
</tr>
<tr>
<td>Two-four years</td>
<td>48</td>
<td>69.1667</td>
</tr>
<tr>
<td>Five-Nine years</td>
<td>25</td>
<td>71.4800</td>
</tr>
<tr>
<td>Ten years</td>
<td>4</td>
<td>70.7500</td>
</tr>
<tr>
<td>More than ten years</td>
<td>24</td>
<td>74.9583</td>
</tr>
</tbody>
</table>

Table 8

*Analysis of Variance for EST-R Score by Years Taught in Current Assignment*

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>766.5098</td>
<td>241.244</td>
<td>2.6138</td>
<td>0.0198</td>
</tr>
<tr>
<td>135</td>
<td>6598.2860</td>
<td>48.876</td>
<td></td>
<td></td>
</tr>
<tr>
<td>141</td>
<td>7364.7958</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further, those teachers who reported teaching reading in their current assignment had a group mean EST-R score of 71.0775 as compared to their colleagues who did not currently teach reading with a significantly lower group mean EST-R score of 64.0000 (see Table 9). Whether or not a teacher was currently teaching reading was highly significant in regard to a teacher’s sense of efficacy for teaching reading (see Table 10).
Table 9

*Mean EST-R Score and Whether a Teacher is Currently Teaching Reading*

<table>
<thead>
<tr>
<th>Currently Teaching Reading</th>
<th>Participants (n=141)</th>
<th>Mean EST-R Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>129</td>
<td>71.0775</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>64.0000</td>
</tr>
</tbody>
</table>

Table 10

*Analysis of Variance EST-R Score and Whether a Teacher is Currently Teaching Reading*

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>591.5719</td>
<td>591.571</td>
<td>12.2275</td>
<td>0.00006</td>
</tr>
<tr>
<td>140</td>
<td>6773.2248</td>
<td>48.380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>141</td>
<td>7364.7958</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Findings from descriptive data indicated certain teacher characteristics relate to a higher sense of efficacy for teaching reading. The number of years of teaching experience was found to be significant in the present study. Those teachers who had taught five or more years had a higher degree of efficacy for teaching reading than those teachers who had taught less than five years. Additionally, those teachers who had five or more years of experience teaching reading had a significantly higher degree of efficacy for teaching reading than those teachers who had less than five years of experience. Of particular interest is the recurring theme of five years of experience. Demonstrated in both years of total teaching experience and years of reading teaching experience, this time period appears to hold special importance. In a climate where numbers of teachers become disillusioned with the difficulty of teaching, as well as
high-stakes assessments, and choose other paths early in their careers, particular attention to this data should be given.

To date, the educational system in Texas has done little to retain teachers. Salaries in the state are on a leveled system which neither rewards teachers for meritorious job performance nor recognizes the value of the job in itself (Texas Education Agency, n.d.). Teachers can often make more money in other fields, and with few intrinsic rewards in the difficult early years of teaching, many potential master teachers leave education. Research (Stanulis, Fallona, & Pearson, 2002; Pomson, 2005; Wolfe, 2004) indicates, as a result of the nature of public school teaching, many teachers feel isolated and therefore, may never have the experiences necessary to reach a high degree of efficaciousness for teaching because they leave the profession.

Further, since experience significantly impacts a teacher’s sense of efficacy for teaching reading, preservice experience becomes paramount. Field-based teacher preparation programs provide preservice teachers with valuable classroom experience that translates into greater effectiveness once certified and in the profession. Such preparation programs may increase the likelihood teachers will enter the field with higher degrees of efficaciousness for teaching and therefore, may be more likely to remain in the profession.

The data in the present study indicate teachers who are currently teaching reading have a higher degree of efficaciousness for teaching reading than their colleagues who are not teaching reading at this time. With high-stakes assessment, schools are creatively using personnel in an attempt to meet the needs of students at risk of failure. Some strategies include using elective teachers to teach reading to small groups of at-risk students. Typically, elective teachers include those trained to teach physical education, music, computer, art and/or other non-core content areas. Given the present findings, those teachers may have a lower degree of efficacy for teaching reading. Therefore, they are less likely to persist to achieve desired results. Better staffing choices for these situations should be explored.
Finally, the present study indicates teachers who remain in the same assignment for longer periods of time have a higher degree of efficacy for teaching reading than their colleagues who have taught for fewer years in the same assignment. Traditionally, teachers have been encouraged to change grade levels or subject matter in order to prevent burn-out. However, this study reflects such choices may impede a teacher’s overall effectiveness. Conventional wisdom holds the longer one practices a task, the better one becomes at that task. In hindsight, it seems obvious educational professionals would assume this holds true for teachers. Alternate methods to decrease a teacher’s sense of burn-out should be explored. Further, teachers who become grade-level or subject matter specialists through years of experience and effort toward innovative productivity should be rewarded.
 References


Cole, A.D. (March 12, 2003). It’s the teacher, not the program. *Education Week*. 

---

*Texas Association for Literacy Education Yearbook. Inspiring and Transforming Literacy, Volume 3*

Estes-Symes, pp. 17-34

©2015 Texas Association for Literacy Education

ISSN: 2374-0590 online


Assisting Preservice Teachers with the Process of Evaluating and Integrating Technologies in Order to Transform Literacy Practices

Susan Szabo
Texas A&M University - Commerce

Susan Williams
Texas A&M University - Commerce

Debra Lee
Texas A&M University – Commerce

Abstract

Teachers are continually bombarded with a plethora of technologies and told by administrators to incorporate them into their lessons. However, teachers do not always know what to do with all these technologies and professional development is not always available. Thus, this action research study explored 1) preservice teachers’ access to various technologies while they were completing their student teaching experience in K-6 classrooms; 2) their comfort level in selecting, evaluating, and using appropriate apps; and 3) their ability to recognize where apps fit within Bloom’s six cognitive levels.

Students today are radically different than the students of the past that our educational system was originally designed to teach. Today’s students are considered digital natives as a result of growing up with technology (Prensky, 2001). As our society advances in technology use, the demand for classroom technology integration increases, as technology has the potential to increase academic opportunities (Gilakjani, 2014). However, there is a right way and a wrong way to use technology in the teaching/learning process (Gulbahar, 2007). The wrong way would be to build a lesson around the technology because it looks fun and engaging or to use technologies in every lesson. The right way is to
infuse the technology seamlessly into instruction. In 2009, the International Reading Association (IRA), now known as the International Literacy Association (ILA), issued a position statement asserting that:

To become fully literate in today’s world, students must become proficient in the new literacies of the 21st century technologies. The IRA/ILA believes that literacy educators have a responsibility to integrate information and communication technologies (ICT’s) into the curriculum, to prepare students for the futures they deserve. (n.p.)

As a result, the integration of digital technologies into literacy instruction and equipping students with literacy skills needed for reading, writing, and communication in digital environments is a priority for many literacy teachers (Hutchison & Reinking, 2011). The IRA (2009) stressed the importance of integrating information and communication technologies (ICTs) into current literacy programs. In addition, the International Society for Technology in Education (ISTE, 2009) created guidelines for teachers to incorporate technology into their classroom (ISTE, 2015).

As preservice teachers begin to explore the possibilities of integrating technologies into their classroom instruction, it is important to examine how the iPad can help preservice teachers and mentor teachers meet curriculum goals and foster literacy development (Hutchison, Beschorner & Schmidt-Crawford, 2012). This action research study examined the results of a class assignment that had several required activities that all preservice teachers had to complete. The activities were designed to help these preservice teachers explore both their mentor teacher’s use of technology and the technologies found within the classroom that they were assigned to do their student teaching. The following questions led this research:

1. How many iPads are in the classroom?
2. In what subjects are the iPads being utilized the most?
3. What is the main use of iPad in the classroom?
4. How often are iPads used for instructional purposes?
5. What is the mentors’ level of comfort using iPads?
6. What is the preservice teachers’ level of comfort using iPads?
7. What cognitive level of Bloom’s do literacy apps fit?

**Literature Review**

Today, technology has become an integral part of our lives (Coppola, 2004). “No one sees more clearly than educators how the technologies we use in our daily lives influence how students learn” (Stevens, 2015, para. 1). The literature review provides information on using technology in the classroom, using Bloom’s Taxonomy to level technology and iPad apps as learning tools.

**Classroom Technology**

Teachers are encouraged to create meaningful learning experiences that integrate technologies seamlessly into the lesson. However, teachers need to be technology savvy and wise consumers of the plethora of technologies available in order to create meaningful lessons. Research shows that technology fosters learning, facilitates faster learning at deeper levels, creates better retention, and can be used to differentiates instruction (Jonassen, Howland, Marra, & Crismond, 2008; Marshall, 2002; Smith & Throne, 2007). However, not all classroom technologies engage learners, facilitate thinking, or support higher-order knowledge construction (Jonaseen et al., 2008).

**Using Bloom’s Taxonomy to Determine Cognitive Level of Apps**

Bloom’s Taxonomy contains a list of verbs that was created to determine the knowledge level a student exhibits with learning outcomes. There are six cognitive levels, and these levels are hierarchical in nature with the higher levels at the top (Bloom, Hastings, & Madaus, 1971). However, Schrock (2012) suggested that each of Bloom’s cognitive processes should be seen as interlocking gears, or cogwheels. This visualization portrays the interacting ability of cognitive processes as learners progress through various cognitive processes during the process of learning. In doing so, teachers have the potential to envision learning experiences that allow for technology integration.
Table 1 shows the verbs that are used to describe the six levels of the cognitive process. Bloom et al.’s (1971) verbs are geared toward describing the paper/pencil learning skills. In comparison, Schrock’s (2012) verbs are geared toward describing the technology skills and abilities.

Table 1  

Cognitive Levels and Verbs

<table>
<thead>
<tr>
<th>Student Outcome Levels</th>
<th>Verbs by Bloom et al. (1971)</th>
<th>Verbs by Schrock (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remembering</td>
<td>Describe, Name, Recite, List, Find, Tell, Recall</td>
<td>Bookmarking, Recalling, Word Processing, Mind Mapping, Searching, Listing</td>
</tr>
<tr>
<td>Understanding</td>
<td>Explain, Compare, Outline, Translate, Predict, Discuss, Restate, Summarize</td>
<td>Annotating, Categorizing, Explaining, Blogging, Subscribing, Tweeting</td>
</tr>
<tr>
<td>Applying</td>
<td>Show, Complete Use, Classify, Examine, Illustrate, Solve, Implement</td>
<td>Interviewing, Simulating, Illustrating, Demonstrating, Presenting, Editing</td>
</tr>
<tr>
<td>Analyzing</td>
<td>Compare, Examine, Identify, Categorize, Contrast, Investigate, Sort, Debate</td>
<td>Structuring, Organizing, Outlining, Deconstructing, Mashing, Surveying</td>
</tr>
<tr>
<td>Evaluating</td>
<td>Solve, Criticize, Appraise, Conclude, Justify, Judge, Rate, Choose, Prioritize, Check</td>
<td>Posting, Networking, Conferencing, Collaborating, Critiquing, Posting, Moderating</td>
</tr>
<tr>
<td>Creating</td>
<td>Create, Invent, Plan, Compose, Construct, Design, Imagine, Generate</td>
<td>Animating, Mixing, Video Editing, Videocasting, Storytelling, Podcasting</td>
</tr>
</tbody>
</table>

Technology is a Learning Tool

Technology has changed both teaching and learning. To help teachers support students’ use of technology, many states have created technology standards that provide clear guidelines for the skills and knowledge students need to understand in order to be successful in the digital age (Fox, 2005). Research has shown that technology used can be beneficial in helping to increase students’ educational productivity (Bryom & Bingham, 2001; Clements & Sarama, 2003; Kulik, 2002; Waxman, Connell, & Gray, 2002).
However, this can be very challenging and without strong teacher knowledge on how to use and to integrate various technology apps into lessons, precious instruction time can be wasted (Coppola, 2004). Technology does not belong in every lesson just because there is a tool available (Schwartz, 2014). When designing lessons, teachers must first ensure that state standards are being addressed to meet instructional goals. Teachers should also design lessons that are engaging to students in the classroom. Once these conditions are met, teachers should then consider if the use of technology adds value to the lesson. The following questions may assist teachers in determining the value of infusing technology into planned lessons: Will the use of technology make the lesson better? Will the use of technology make the lesson more engaging? Will the technology app save the teacher or students’ time and/or energy if it is used with this lesson? If the answer to these questions is no, then technology is not needed for this lesson. Favorable responses to these questions support the integration of technology.

Effective instruction is dependent upon instructional design, rather than availability of technology (Bulger, Mohr, & Walls, 2002). Technology should assist teachers with more meaningful effective instruction (Cassidy, 2014). Similar to reading, writing, and talking, technology has the potential to enhance the learning experience. Using technologies provide a way to change the classroom into a collaborative work environment where both teachers and students share knowledge and have grand conversations where the curriculum objectives comes alive (Tinzmann et al., 1990).

Methods

An action research study was conducted among preservice teachers enrolled in a university-based teacher preparation program in Texas. At this university, student teaching is a year-long experience. During the first semester, preservice teachers are called interns and are in the K-6 classroom two days a week and in the university classroom one day a week. During the second semester, preservice teachers are called residents and are in the K-6 classroom five days a week and in the university classroom only eight days throughout the semester. During this year-long experience, preservice teachers spend half of
their placement with mentor teachers in early elementary classrooms (i.e., Kindergarten – Third Grade) and the other half with mentor teachers in upper elementary classrooms (i.e., Fourth Grade – Sixth Grade).

Setting

The school district in which the study was done was a large suburban independent school district in Northeast Texas where 73% of the students received free-and-reduced breakfast and/or lunch. All preservice teachers were placed in Title 1 schools to gain experience with diverse student populations.

Participants

Twenty-eight preservice teachers participated in this study: twenty-six females and two males. This study explored preservice teachers’ experiences with technology in their assigned K-6 classrooms during their internship experiences.

Procedure

To achieve the purposes for this study, preservice teachers were given a university-based assignment to learn more about their mentor teacher and the availability of technology in the classroom. The first part of the assignment entailed the completion of a Technology Survey in collaboration with their mentor teachers. The survey contained the following questions:

1. Is there classroom access to iPads? Yes or No
   a. If yes, how many are available for use by students?
2. What subjects are the iPads utilized?
3. What apps are consistently used?
4. What is the main use of iPads? Check all that apply.
   a. Teacher productivity
   b. Classroom management
   c. Stations
d. Assessment

e. Games for reinforcement

f. Student learning

g. Other

5. How much are iPads used in your classroom? (Rating of 1 Never to 10 Daily)

6. Rate your level of comfort using iPads for instruction on scale 1-5

   (1 = uncomfortable; 2 = somewhat comfortable; 3 = comfortable; 4 = very comfortable; 5 = I’m a Pro)

   a. Rating for mentor teacher ____

   b. Rating for preservice teacher ____

For the second part of the assignment, preservice teachers engaged in several collaborative seminar activities. During the seminar activities, preservice teachers (a) explored iPad literacy apps already in use in the classroom, (b) found iPad reading apps on their own, (c) evaluated each iPad app using a rubric tool (see Figure 1), (d) explored the English Language Arts (ELA) curriculum to determine the best use of iPad apps, and (e) determined the cognitive level of each iPad app.

**Seminar Activity**

One of the assignments given during seminar was designed to help preservice teachers get acquainted with their mentor teacher, to find out what technologies are used in the classroom, and determine how the mentor teacher uses these technologies. This information was intended to help the preservice teachers as they plan and teach lessons during their student teaching. During the seminar, both Bloom’s (1971) and Schrock’s (2012) Taxonomies were reviewed, as well as sample question stems (see appendix). This allowed preservice teachers to become aware of the specific question stems and verbs associated with each cognitive level. The preservice teachers created folders on their iPads for each of the six cognitive levels (i.e., remembering, understanding, applying, analyzing, evaluating and creating) that they would use to place the technologies.
Next, the preservice teachers were assigned homework. First, they researched the list of literacy apps used by their mentor teachers, if any. Second, the preservice teachers were asked to explore different/new literacy apps they found on the web. Third, using the stem questions, they were to determine the cognitive demand for each app and place them in the respective folder on iPad. In addition, the preservice teachers used the App Evaluation Criteria Rubric (see Figure 1) to determine if the apps were useful and added value to the lesson.

During the seminar class, the preservice teachers worked in grade-level collaborative groups to discuss iPad apps. The students examined the apps in relation to stem questions the app addressed and discussed the rating of the app from the App Evaluation Criteria Rubric. The preservice teachers and the seminar instructors had to agree both with the placement of the app in the correct cognitive level folder and the rating on the App Evaluation Criteria Rubric.

Instruments and Materials

Technology survey. The survey consisted of seven questions that elicited preservice teachers’ responses with a Likert-scale, a checklist, and questions requiring short answers.

List of literacy apps. As previously described, a list of iPad apps was generated and categorized by grade level.

Preservice teachers were then placed in grade-level groups and used the English Language Arts TEKS to determine if identified iPad apps were appropriate for supporting students’ understanding of grade-level skills and knowledge.
Figure 1. App Evaluation Rubric

<table>
<thead>
<tr>
<th>Intended user: Is the app meant for students to use independently or with a teacher or parent? Teacher-utility apps are meant for teachers to use in planning or delivering instruction.</th>
<th>Yes</th>
<th>Somewhat</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth and depth: Is the content accurate and research-based? Are activities varied, with multiple levels of complexity? Is there scaffolding to support learners of different abilities?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User-friendliness: Is it intuitive? Can the user move easily between tasks? How do teacher-utility apps improve teaching quality or save time and effort? Are oral or written instructions readily available? Do web-links enhance the content?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Images and sound: Are the illustrations, graphics and sound attractive and engaging? Do they enhance content, or detract from it?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback: Is the feedback timely, specific, and motivating? Is feedback delivered at multiple levels?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engaging: Do the activities promote involvement? Are there motivating goals and attractive rewards? Are activities interactive and challenging and do they involve problem solving? Are student apps fun and enjoyable, compelling students to want to use them again and again?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Analysis

Data from the Technology Survey were analyzed with simple tallying which were reported as percentage. With respect to data generated from the App Evaluation Criteria Rubric, apps that scored a 5 or 6 were placed in the appropriate Bloom’s folder on their iPad. Preservice teachers then incorporated these apps into several planned lessons during their student teaching experience.

Results

RQ 1 - How many iPads are in the classroom?

Researchers found that 26 of the 28 mentor teachers had access to iPads in their assigned classroom. As seen in Table 1, the data showed that 11 (39%) mentor teachers in kindergarten through
second grade indicated that they only had access to five or fewer iPads while the same number of mentor teachers in first grade through sixth grade reported they had a class set of iPads.

Kindergarten mentor teachers had access to five or fewer iPads in the classroom. However, this number increased as the grade level increased, as fourth-sixth grade mentor teachers had a class set of iPads. In addition, the two teachers who indicated they did not have iPads in their classroom (one mentor teacher in first grade and one mentor teacher in second grade) did not have them because of choice, as the other mentor teachers in those grade levels had iPads in their classrooms.

Table 1

Number of iPads in the Classroom

<table>
<thead>
<tr>
<th>Number of iPads</th>
<th>K</th>
<th>1st</th>
<th>1st/2nd</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1-5</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6-10</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11-15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>16-20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20+</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total Number of Teachers</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

RQ2 - In what subject areas are the iPads being utilized the most?

Findings showed that iPad usage was most common among mentor teachers during ELA instruction, as 22 (41%) of the mentor teachers indicated usage. Eight (15%) mentor teachers reported they used iPads during math lessons. Seven (13%) mentor teachers reported that they used iPads during science, while nine (17%) mentor teachers indicated iPad usage during social studies.

Further examination of Table 2 showed that of the five Kindergarten teachers, two reported using the iPads in ELA and math, two reported using it in Science and none used iPads during social studies. The nine first grade teachers used the iPad in all subject areas except science. The one first/second grade
split teacher only used iPads during ELA. Third grade teachers only used iPads during ELA and math lessons while fourth, fifth, and sixth grade teachers used iPads in every subject area.

Table 2

Content Areas and Grade Levels for iPad Usage

<table>
<thead>
<tr>
<th>Subject</th>
<th>K</th>
<th>1st</th>
<th>1st/2nd</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Science</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Studies</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total Number of Teachers in Grade Level</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

RQ3 - What is the main use of iPad in the classroom?

Findings from the Technology Survey suggested that all the teachers used iPads for various reasons. Four (8%) mentor teachers indicated they used the iPads for teacher productivity, five (10%) used it for classroom management, 14 (27%) used it during work stations, seven (13%) used if for both assessment and games that reinforce skills and 15 (29%) used iPads for student learning. There was a place for mentor teachers to report other uses, but nothing was written.

Further examination showed that very few teachers used iPads for teacher productivity or for classroom management (Table 3). However, K-3 teachers reported they used iPads at stations for reinforcement activities while fourth-sixth grade teachers did not have work stations. Finally, the one teacher who had a split first/second grade level only used the iPad during workstations.
Table 3

*How iPads Were Used (Check all that apply)*

<table>
<thead>
<tr>
<th>iPad Usage</th>
<th>K</th>
<th>1st</th>
<th>1st/2nd</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Productivity</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stations</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Assessments</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Games for Reinforcement</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student Learning</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total Number of Teachers</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**RQ 4 - How often are iPads used for instructional purposes?**

On the Technology Survey, preservice teachers and mentors were asked to mark only one response on the checklist indicating the frequency of iPad usage for instructional purposes. Although data showed varying uses for iPads in the classroom, six (21%) of the mentor teachers reported that they never used their iPad for instructional purposes.

Further examination of Table 4 showed eleven (39%) teachers used technologies one time per day while three (11%) teachers stated they used technologies more than one time per day. The other six (21%) teachers reported they used their iPads once a week to once a month.
Table 4

**iPads Usage**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>K</th>
<th>1&lt;sup&gt;st&lt;/sup&gt;</th>
<th>1&lt;sup&gt;st&lt;/sup&gt;/2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt;</th>
<th>4&lt;sup&gt;th&lt;/sup&gt;</th>
<th>5&lt;sup&gt;th&lt;/sup&gt;</th>
<th>6&lt;sup&gt;th&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1x month</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2x month</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1x week</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2x week</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3x week</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Daily</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>More than once daily</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Number of Teachers</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**RQ5 - What is the mentors’ level of comfort using iPads?**

Mentor teachers ranked their comfort level towards using iPads with a Likert-scale that used the following categories: 1=Uncomfortable; 2=Somewhat Comfortable; 3=Comfortable; 4=Very Comfortable; and 5=I’m a Pro! Only primary elementary teachers rated themselves Uncomfortable and Somewhat Comfortable while only upper elementary teachers rated themselves as a Pro. Two (8%) mentor teachers rated themselves as I’m a Pro, while two (8%) mentor teachers said they were Uncomfortable using iPads. Findings revealed that 11 (42%) mentor teachers rated their comfort level with iPad use as Very Comfortable while six (23%) reported they felt Comfortable, and five (19%) said Somewhat Comfortable.
Table 5

Teachers Self-Reported Comfort Level

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>1st</th>
<th>1st/2nd</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncomfortable</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Somewhat Comfortable</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Comfortable</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Very Comfortable</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I’m a Pro</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

Total Number of Teachers 5 9 1 4 2 2 2 3

RQ 6 - What is the preservice teachers’ level of comfort using iPads?

Preservice teachers rated their own comfort with use of the iPad using the same Likert-scale categories that mentor teachers used. The majority of preservice teachers rated their own comfort level with iPads as either Comfortable or Somewhat Comfortable (see Table 6). Three (11%) of the preservice teachers rated their comfort level as Uncomfortable and no preservice teachers selected I am a Pro.

Table 6

Preservice Teachers Self-Report Comfort Level

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>1st</th>
<th>1st/2nd</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncomfortable</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat Comfortable</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Comfortable</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Very Comfortable</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>I’m a Pro</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Total Number of Preservice Teachers 5 9 1 4 2 2 2 3
RQ7 – What cognitive level of Bloom’s do literacy apps fit?

Preservice teachers explored a number of literacy iPad apps that were used in their mentor teachers’ classrooms, researched on their own, and identified during collaborative working groups during their university seminar. Through these efforts, preservice teachers determined the respective cognitive level for each app as reported below.

**Remembering.** This level is simple recall of facts or information. Remembering means that one can retrieve relevant knowledge from long term memory. Preservice teachers categorized many of the free literacy apps in the Remembering cognitive category since users were prompted to select an answer or find matches (see Table 7). However, literacy apps at the Remembering cognitive level were interactive and focused upon foundational literacy content.

Table 7

**Apps and Literacy Sites for Remembering Cognitive Level**

<table>
<thead>
<tr>
<th>Name of App or Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starfall.com</td>
<td>The basics of reading- Features interactive books and phonics games; including Long O Picture Hunt and Long Vowels Matching</td>
</tr>
<tr>
<td>StarfallABC.com</td>
<td>Phonics games for each letter of the alphabet</td>
</tr>
<tr>
<td>Sight Word Matching</td>
<td>Helps students recognize and match high frequency sight-words</td>
</tr>
<tr>
<td>Literactive.com</td>
<td>Works with beginning reading skills</td>
</tr>
<tr>
<td>Literacy center.net</td>
<td>Helps students learn their colors, letters, writing and words</td>
</tr>
<tr>
<td>Augmented Reality (AR) ABC Flashcards App</td>
<td>This is a free interactive app that helps students learn their letters and names of animals.</td>
</tr>
<tr>
<td>Spelling City</td>
<td>Works with one’s own spelling list: Dolch sight words, multiple meaning words, onset/rime words, and compound words</td>
</tr>
<tr>
<td>Smarty Pants School</td>
<td>Tests and develops early reading skills (e.g., letter knowledge, phonological awareness, phonemic awareness, and phonics)</td>
</tr>
</tbody>
</table>
**Understanding.** At this cognitive level, students are putting the learning into their own words.

Understanding means that one can construct meaning from different sources of information. Preservice teachers described literacy apps at the *Understanding* cognitive level as interactive and focused upon the explanation of ideas or concepts into one’s own words, the retelling of events, or the provisions of examples (see Table 8).

**Table 8**

*Apps and Literacy Sites for Understanding Cognitive Level*

<table>
<thead>
<tr>
<th>Name of App /Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prezi</td>
<td>Helps present information Similar to PowerPoint.</td>
</tr>
<tr>
<td>MyHistro.com</td>
<td>Allows students to create sequential timelines for history</td>
</tr>
<tr>
<td>Mural.ly</td>
<td>Allows students to create sequential timelines</td>
</tr>
<tr>
<td>Mindmapper</td>
<td>Organizes and groups ideas around content being learned</td>
</tr>
<tr>
<td>Socrative</td>
<td>Used for quizzes, exit slips, or poll questions and provide feedback to teachers</td>
</tr>
<tr>
<td>Corkboard.me</td>
<td>Allows students to write notes, exit slips and paste to central corkboard for the whole class to see.</td>
</tr>
<tr>
<td>Doodle Buddy</td>
<td>Allow one to paint, draw, scribble, and/or Sketch their understanding of text</td>
</tr>
<tr>
<td>Trading Card Creator found at readwritethink.org</td>
<td>Allows students to add picture and write short summaries about picture.</td>
</tr>
</tbody>
</table>

**Applying.** Students operating at this cognitive level can use the materials or their understandings in a new situation and apply the information or rules. Apps at the *Applying* level means that the information can be used in creative ways to show one’s understanding (see Table 9).
Table 9

**Apps and Literacy Sites for Applying Cognitive Level**

<table>
<thead>
<tr>
<th>Name of App/ Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animoto.com</td>
<td>Allows you to create a video of skits, plays, art, or music creations to show of what has been learned</td>
</tr>
<tr>
<td>ScreenChom</td>
<td>Allows for placement of pictures that show connection with other ideas</td>
</tr>
<tr>
<td>Haiku Deck</td>
<td>Helps user create presentation or telling a story</td>
</tr>
<tr>
<td>Idea Flip (formerly Idea )</td>
<td>Mind mapping that allows for ideas to be connect</td>
</tr>
<tr>
<td>Bookabi</td>
<td>Allows use of story grammar to create stories</td>
</tr>
<tr>
<td>Puppet-Pals-hd at itunes.apple.com</td>
<td>Allows students to create their own understanding of story; provides animation and audio</td>
</tr>
</tbody>
</table>

**Analyzing.** Analyzing helps students to determine what is relevant and irrelevant, fact from fiction, and to determine relationships and/or biases. The *Analyzing* apps helps to examine critically the presented information (see Table 10).

Table 10

**Apps and Literacy Sites for Analyzing Cognitive Level**

<table>
<thead>
<tr>
<th>Name of App/ Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whiteboard Lite</td>
<td>Allows students to work together and share a drawing</td>
</tr>
<tr>
<td>Popplet.com</td>
<td>Allows students to create a mind map to capture facts and create relationships between them</td>
</tr>
</tbody>
</table>

**Evaluating.** Evaluating is the ability to judge materials/information on certain criteria. This helps students to judge the information’s reliability. *Evaluating* apps help the user check for accuracy,
correctness and critique solutions (Table 11). This cognitive level has repeated apps, as some apps can be used at multiple levels of the taxonomies. Therefore, it is important to work through each program to see how they are designed.

Table 11

**Apps and Literacy Sites for Evaluating Cognitive Level**

<table>
<thead>
<tr>
<th>Name of App/ Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>VoiceThread</td>
<td>Allows students to share their ideas</td>
</tr>
<tr>
<td>Audioboo</td>
<td>Allows students to record up to 3 minutes of comments</td>
</tr>
<tr>
<td>PrimaryWall.com</td>
<td>Allows groups of children to work collaboratively using different points of view</td>
</tr>
<tr>
<td>Corkboard.me</td>
<td>Allows students to write notes, exit slips and paste to central corkboard for the whole class to see</td>
</tr>
</tbody>
</table>

**Creativity.** Apps at this level help students to create a product to demonstrate their learning. The *Creativity* apps are interactive and help the student to design a product composed of ideas to produce a solution (Table 12). This cognitive level also has repeated apps, as some apps can be used at multiple levels of the taxonomies. It is important that teachers become familiar with each program to see how they are designed and how each program can be used at different levels.
Table 12

Apps and Literacy Sites for Creativity Cognitive Level

<table>
<thead>
<tr>
<th>Name of App/ Website</th>
<th>Description of App/Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pic Collage</td>
<td>Imports photos to create a collage</td>
</tr>
<tr>
<td>StoryKit</td>
<td>Creates an electronic book</td>
</tr>
<tr>
<td>Story Creator</td>
<td>Free app where students can collaborative document editing app, as it allows users to work together in separate locations</td>
</tr>
<tr>
<td>Trading Cards</td>
<td>Free app where student can create trading cards with elaborate pictures and description of characters in order to write their own narrative stories</td>
</tr>
<tr>
<td>PiratePad.net</td>
<td>Free app where students can collaborative document editing app, as it allows users to work together in separate locations</td>
</tr>
<tr>
<td>Prezi</td>
<td>Helps present information Similar to PowerPoint</td>
</tr>
<tr>
<td>MyHistro.com</td>
<td>Allows students to create sequential timelines for history</td>
</tr>
<tr>
<td>Mural.ly</td>
<td>Allows students to create sequential timelines</td>
</tr>
<tr>
<td>Animoto.com</td>
<td>Allows you to create a video of skits, plays, art and or music creations to show of what has been learned</td>
</tr>
<tr>
<td>ScreenChom</td>
<td>Allows students/teachers to import PDF/pictures that show how the information learned is connected with other ideas</td>
</tr>
</tbody>
</table>

Discussion

Preservice teachers found that evaluating educational technologies before using them enabled them to see that not all technologies perform as advertised. Preservice teachers had to critically analyze the content to make decisions on whether the program would help reinforce the content they wanted taught in an engaging way. Preservice teachers learned that there are free and low-cost apps that can be valuable in helping students learn. Most importantly, a preservice teacher learned that just because something is labeled as “educational” or advertised to teach a specific skill, does not always mean it is accurate.
Teachers must evaluate carefully the benefits of using technology in their classrooms and never make an assumption based on the app description. Preservice teachers’ noted that within the lower cognitive levels, technologies were interactive computer-based skill and drill worksheets. However, they were considered more entertaining, and the preservice teachers felt that these apps would keep students engaged longer. Preservice teachers also noted that the technologies categorized within the higher cognitive levels could also be used for teaching and/or presenting a lesson. Thus, a teacher could potentially model how to use these higher order apps before students complete inquiry projects and present what they learned to class. In addition, the apps at the higher cognitive levels could also be used at several cognitive levels. Upon further examination and comparison of these results, it was found that two cognitive levels had the least examples of technologies – analysis and evaluation. This may be true for all technologies as these two cognitive levels require a user to use metacognitive skills.

Completing the Technology Survey with their mentor teachers helped preservice teachers to understand that not all teachers have the same access to technology and that all teachers are not comfortable using the iPad. Two preservice teachers who rated themselves as Uncomfortable with using iPads were actually placed with two teachers who rated themselves as I’m a Pro!, so these preservice teachers were hoping to learn and become more comfortable with the use of the iPad throughout their student teaching experiences.

Implications

Previous research (e.g., Smith & Greene, 2013) has demonstrated the importance of providing opportunities for preservice teachers to use technology as part of a student teaching experience. Therefore, it is important to not only model ways to incorporate technology into instruction but to create opportunities that provide preservice teachers with practice in evaluating the plethora of technologies available. Not all technologies are designed well, and it is both important to evaluate how a specific technology tool achieves its purpose, aligns with curriculum objectives, and reinforces use of cognitive
skills. The “full potential of technology is only realized when it is used effectively and in ways that connect to the curriculum of the classroom and support creativity and critical thinking” (Gilakjani, 2014, p. 151).

Preservice teachers need to be provided with various activities that help them choose appropriate technologies wisely in order to improve the quality and effectiveness of instruction with students. This knowledge, both content knowledge and pedagogical knowledge, is important, as research has shown that it is the knowledge one has that can predict what will happen in the classroom (Baker, Herman, & Gerhart, 1996; Trafimow & Sheeran, 1998). Therefore, it is important that university teacher educators incorporate learning experiences that help preservice teachers learn about effective technology integration as part of thoughtfully designed lessons that build students’ foundational knowledge and cognitive skills.
References


## Appendix

### Knowledge
- What happened after . . .?
- How many . . .?
- Who was it that . . .?
- Can you name the . . .?
- Described what happened at . . .?
- Who spoke to . . .?
- Can you tell why . . .?
- Find the meaning of . . .?
- What is . . .?
- Which is true or false . . .?

### Comprehension
- Can you write in your own words . . .?
- Can you write a brief outline . . .?
- What do you think might happen next . . .?
- Who do you think . . .?
- What was the main idea . . .?
- Who was the key character . . .?
- Can you distinguish between . . .?
- What differences exist between . . .?
- Can you provide an example of what you mean . . .?
- Can you provide a definition for . . .?

### Application
- Do you know another instance where . . .?
- Could this have happened in . . .?
- Can you group by characteristics such as . . .?
- What factors would you change if . . .?
- Can you apply the method used to some experience of your own . . .?
- What questions would you ask of . . .?
- From the information given, can you develop a set of instructions about . . .?
- Would this information be useful if you had a . . .?

### Analysis
- Which events could have happened . . .?
- If . . . happened, what might the ending have been?
- How was this similar to . . .?
- What was the underlying theme of . . .?
- What do you see as other possible outcomes?
- Why did . . . changes occur?
- Can you compare your . . . with that presented in . . .?
- Can you explain what must have happened when . . .?
- How is . . . similar to . . .?
- Can you distinguish between . . .?
- What were some of the motives behind . . .?
- What was the turning point in the game . . .?
- What was the problem with . . .?

### Synthesis
- Can you design a . . . to . . .?
- Why not compose a song about . . .?
- Can you see a possible solution to . . .?
- If you had access to all resources how would you deal with . . .?
- Why don’t you devise your own way to deal with . . .?
- What would happen if . . .?
- How many ways can you . . .?
- Can you create new and unusual uses for . . .?
- Can you write a new recipe for a tasty dish?
- Can you develop a proposal which would . . .

### Evaluation
- Is there a better solution to . . .?
- Judge the value of . . .?
- Can you defend your position about . . .?
- Do you think . . . is a good or a bad thing?
- How would you have handled . . .?
- What changes to . . . would you recommend?
- Are you a . . . person?
- How would you feel if . . .?
- How effective are . . .?
- What do you think about . . .?
Becoming a Reading Arsonist among Preservice Teachers

Laurie A. Sharp
Tarleton State University

Abstract

The theme for TALE’s 2015 annual conference was Inspiring and Transforming Literacy. The two keynote speakers at this conference, Donalyn Miller and Steven Layne, spoke clearly to this theme in relation to reading for enjoyment. Donalyn shared her quest with determining answers to the question, “What are the habits of lifelong readers?” Similarly, Steven advocated that teachers have the power to commit “reading arson” as they foster positive reading climates within their schools. As I listened to the messages articulated by these two amazing and accomplished professionals, I was compelled to transform my own literacy practices with preservice teachers. Before I left this conference, I pledged to become a reading arsonist by promoting the three habits of lifelong readers that Donalyn described:

1. Provide preservice teachers with time to read.
2. Enable preservice teachers to self-select reading material.
3. Create a space for preservice teachers to share books and readings with others.

Teachers are extremely influential with modeling personal reading habits among their students. As teachers express their passion for reading, enthusiastically share appropriate excerpts of their favorite part of a book, engage in animated dialogue about books, and model reading at moments of down time, they communicate the value of reading, as well as sheer enjoyment for reading. As teachers continuously engage with these behaviors, they ignite sparks of fire within their students that result in flash fires when two combustible materials converge: a reader with a good book.

Effective literacy teachers must be readers and writers themselves (Draper, Barksdale-Ladd, & Radencich, 2000). Draper et al. reported that agreement with this supposition necessitates that teacher education programs look beyond the literacy habits and attitudes of preservice teachers and examine how

Texas Association for Literacy Education Yearbook: Inspiring and Transforming Literacy, Volume 3
Sharp, pp. 60-66
©2015 Texas Association for Literacy Education
ISSN: 2374-0590 online
they themselves model literacy practices. Draper et al. posited that teacher education programs emphasize the importance of future teachers to promote literacy among their future students. However, they questioned: Are literacy behaviors being similarly promoted within preservice teachers? Kaya (2014) contended that effective literacy teachers teach reading skills and develop “a love for reading” within their students (p. 43).

Literature has suggested that many preservice teachers arrive at their respective teacher education programs as “unenthusiastic readers” (Applegate & Applegate, 2004, p. 556) who have “limited experience in reading for pleasure” (Bixler, Smith, & Henderson, 2013, p. 249). Nathanson, Pruslow, and Levitt (2008) shared findings that reiterated this sentiment among graduate students, of which many were practicing teachers. Nathanson et al. cited that “college reading courses should tap into not only the minds and competencies of students but their hearts as well” (p. 319).

**Inspiring and Transforming Literacy after the Conference**

After the TALE Conference, I reflected on my own teaching practices with preservice teachers and asked myself: *Am I tapping into the hearts of preservice teachers and instilling a love of reading for pleasure?* I myself am an extremely avid reader. However, I could not honestly say that I was intentional about sharing this passion with preservice teachers. I knew it was time for me to assume my responsibility as a reading arsonist and encourage preservice teachers to make time for reading for pleasure.

To achieve this purpose, I adapted Donalyn Miller’s (2014) *40 Book Challenge*, which “rests on the foundation of a classroom reading community” that is intended to “expand students’ reading lives” (para. 10). I did not want preservice teachers to view this as an assignment, graded task, or required component for the course in which they were enrolled. Likewise, I did not want preservice teachers to
accept this challenge in the hopes of earning extra credit. Rather, I wanted preservice teachers to view this opportunity as a personally rewarding challenge that motivated them to enjoy the act of reading.

In order to create space where preservice teachers could share books and readings with others, I created a blog on my Weebly website (http://drlaurieasharp.weebly.com) and invited preservice teachers to participate throughout the semester (see Figure 1). Then, I went to the library and checked out several books so that I, too, would participate alongside preservice teachers.

Once the fall semester commenced, I sent all preservice teachers enrolled in my courses an online survey. I created this survey using a Google Form, and it served as a mechanism for preservice teachers to introduce themselves to me (see Figure 2). As shown in Figure 2, one of the questions asked preservice teachers to name the book that they were currently reading for enjoyment.
Once I reviewed each preservice teacher’s submission, I created and emailed preservice teachers a personalized audio message based upon their responses. If preservice teachers named a specific book that they were reading for enjoyment, I complimented them and encouraged them to continue reading and...
participate in the reading challenge. On the other hand, if preservice teachers indicated that they were not currently reading for pleasure, I verbalized personal benefits associated with reading for pleasure, as well as the importance of future teachers modeling reading for enjoyment among their future students. Within the body of each email I sent to preservice teachers, I included the following message:

Hi, [preservice teacher’s name]!

Welcome to my class! Please listen to the attached audio file for a personal message related to your survey. Also, I am challenging all preservice teachers to accept a personal reading challenge. Please go to my website, The Literacy Educator (http://drlaurieasharp.weebly.com), and access The Literacy Educator Blog. Post a comment that (a) identifies what you are personally reading and (b) sets a goal for you to engage with personal reading this semester. Then, throughout the semester, post updates as to your reading status.

I look forward to a great semester!

Dr. Sharp

In order to prompt participation from preservice teachers on the blog, I made the first post:

Currently, I am reading *The Calligrapher’s Daughter* by Eugenia Kim. I love reading literature from diverse perspectives! I am early on in this book (page 48 of 375) and have set a goal for reading 30 minutes - 1 hour every day.

At three weeks into the fall semester, the blog already had 93 posts. A quick inventory of the posts showed 35 people (including myself) were participating in the reading challenge at that time. Participants had each made one initial post that indicated what they are reading, as well as a reading goal that they had set for themselves. Several of the posts were updates regarding participants’ status with their personal reading challenge, while other posts created dialogue among participants.
In reading the blog’s posts, I can already sense sparks of fire igniting among several preservice teachers. As a teacher educator, I am also beginning to see benefits associated with the creation of an experience that is encouraged, not assigned. Through this reading challenge, preservice teachers are empowered when they choose to participate, select their own books, and become an active participant within a reading community. I have become a reading arsonist among preservice teachers who will continue igniting sparks so that the fire of reading for enjoyment continues to blaze brightly.
References


Why Should We Go?
Exploring the Impact of a Literacy Conference on Preservice Teachers’ Literacy Conference

Robin D. Johnson
Texas A&M University - Corpus Christi

Abstract
Conferences are a potential way to support preservice teachers and their early professional development. Following the 2015 TALE conference, preservice teachers from Corpus Christi, Texas were asked about the conference’s impact on their learning. This chapter highlights the reflections of these preservice teachers.

Article II, Section 3 of the Texas Association for Literacy Education (TALE) Bylaws states that one core value of the organization is that “literacy professionals are committed to serving the learners in this state … through leadership in the design of programs and in support of preservice and inservice teachers, other literacy leaders, and teacher educators (higher education)” (TALE, 2015). I feel strongly that the TALE conference is an important way to support preservice teachers and their early professional development.

Currently, I teach and mentor preservice teachers and reinforce the importance of self-initiated professional development. When presenting the option of attending the conference to my preservice teachers, undoubtedly, I get the usual questions about cost, location, and length. One question that stood out to me the most was, “Why should I go?” I was taken aback at first by this question, but knowing these students and the desire they had for learning new instructional techniques on their way to accomplishing their goal of becoming a teacher, I decided to probe further. I did not believe that these undergraduate students were perpetuating the What’s in it for me? culture that affects many young...
professionals in our society. Therefore, I asked these students what they meant by their question. Their reply was that because they did not have their own classroom, yet they did not know if they would be able to implement anything they learned right away. They did not want it to be a sit-and-get experience without practical application.

In spite of this concern by some, TALE did have many preservice teachers who made the decision to attend the 2015 Literacy Conference held at Sam Houston State University. After the conference, I overheard preservice teachers from my institution, Texas A&M University – Corpus Christi, discussing their experiences at the 2015 TALE conference and decided to interview three preservice teacher attendees. I wanted to determine aspects of the conference which were beneficial to preservice teachers and what they would share with other preservice teachers who were unsure about attending conferences in the future. The two interview questions I asked were:

1. How did attending the 2015 TALE conference impact you?
2. What reasons for attendance would you give preservice teachers who asked why they should go to a future TALE conference?

All three preservice teachers mentioned the address given by keynote speaker Steven Layne.

Preservice Teacher One said:

*Steven Layne's talk about being on fire for literacy really made an impact on me. I loved how passionate he was about literacy and reading, and it definitely inspired me. I loved the "hot reads" idea, and that is what gave me the inspiration to come up with Must Read Mondays for the Texas A&M University – Corpus Christi Student Reading Council page on Facebook. With his story about the school gathering for the weekly hot read, I realized that literacy can't just come from the classroom - it has to come from the community. Reading has to be a community priority.*
Preservice Teacher Two shared:

Upon returning from the conference, I immediately created my own "Hot Read" sign, that Steven Layne told us about, and incorporated it into the classroom where I was student teaching. My students were so surprised and asked me, "Mrs. Bush, you read?" I found the students really wanting to read what I was reading, and I could see how Mr. Layne's suggestions helped me ignite a passion for reading.

Preservice Teacher Three stated:

Steven Layne made a really strong impression on me, and I was able to walk away from his presentation feeling I like I could actually make a difference in a child's life.

For two of the preservice teachers, a conference session on guided reading impacted them the most as they returned to work with a group of students they were tutoring. They both attended “How to Make the Most of Your Guided Reading Groups,” presented by Jennifer Burchfiel from Irving ISD.

Preservice Teacher Three said:

The presenter gave us really helpful tips and taught us how to plan an effective guided reading lesson. For instance, she told us to use sticky notes in our guiding reading plan and place them on the cover of the teacher's copy of the book for easy reference. This idea is much more practical than flipping through our lesson plan that's on an 8x11 piece of paper. What I really liked about her session was that she actually engaged us in her presentation. She gave us each a book and several sticky notes and had us practice writing our guided reading lesson plans on them. Best of all, the instructor at the lesson gave each of us a free children's book! Once I got back to Corpus Christi, I immediately applied what I learned from that session into the tutoring I was doing at [the primary school]. I planned my guided reading lesson using only sticky notes and executed my very first guided reading. To my surprise, it went smoothly! My guided reading with my small group went really well, and I think it was because of the session I went to at TALE.
As an aside, she added:

*What was really funny was that while I was doing a guided reading with my small group, so was [Preservice Teacher One]! When I looked over to her table and saw that she too had sticky notes on her guided reading book, I was really excited! We had a quick laugh over that funny coincidence and went back to our lessons.*

One of the preservice teachers mentioned discovering a new favorite book to share with students. Preservice Teacher One told me that another session that impacted her was about culturally diverse books being used in the classroom. She shared:

*I ended up discovering one of my most favorite pictures books, *One*, by Katherine Otoshki. They provided a very wide variety of titles for culturally and socially diverse books.*

All three preservice teachers mentioned the overall community and networking they saw take place among the educators who attended the conference, regardless of what their grade level or years of experience. Preservice Teacher Three ended her interview with what I believe is one of the important goals of TALE as an organization and the purpose of the annual conference, stating:

*The TALE conference played a huge factor in helping me grow as a preservice teacher. All in all, I am really glad that I went to the TALE conference because I learned some new methods to teach literacy that weren't taught in my college classrooms so far.*
Preservice Teacher One knew exactly what she would tell other preservice teachers who were unsure about attending a future conference saying:

*I would tell them that it is worth the time! It is a great opportunity to meet in-service educators and learn more about the profession. I was able to learn more about literacy and become even more passionate about it.*

The 2015 TALE conference not only inspired and transformed the literacy instruction of these three preservice teachers in attendance, but it also ignited the desire to inspire and transform the literacy lives of their future students.
References

2016 Yearbook Call for Manuscripts

All presenters at the 2016 conference on February 12-13, 2016 (at the University of the Incarnate Word) are invited to submit manuscripts based on their presentation for possible publication in the 2016 Yearbook. The theme of the conference and the title of Yearbook is *Literacy Research and Practice*. Conference presentation does not guarantee publication. To be considered, a manuscript must be previously unpublished and not currently under consideration with another publication.

The 2016 Yearbook will be a peer-reviewed publication available online in fall 2016. Preference will be given to papers that address the theme of the conference.

**Submission Requirements**

**Style:**

The content, organization, and style of manuscripts must follow the *Publication Manual of the American Psychological Association (6th edition).*

**Format:**

Length: 2,000 to 4,000 words double-spaced

Abstract: 75-150 words

Title Page: Must include author(s) name(s), full title of conference presentation, manuscript title, email addresses, phone numbers, affiliations, and date of submission

Tables and Figures: Must be prepared as per APA guidelines and embedded within the manuscript (not in a separate file).

Photographs: It is the author’s responsibility to obtain any needed releases/permissions for photograph/image use.

**Note:** Do not include names or affiliations on any other pages other than the title page.

**Special Note:** Authors must remove identifying information from their manuscripts to ensure a fair review. Specifically, if you cite your own work (and state in the paper that it is your work), you should cite it as “author (date)” rather than giving your name. Please do this in both the text and the reference list.

**Procedures:**

Send an electronic copy of the title page and the manuscript in a .doc (or .docx) format to taleyearbook@gmail.com. The two files should be sent together and should be named with the same abbreviated title of the manuscript. Please include the words “TALE 2016 Yearbook” in the subject line of the email. A confirmation of receipt will be sent by email. If a confirmation receipt is not received, please send an inquiry to the email address above or to the announced editor directly (eemartin@uiwtx.edu).

**Deadline:** May 30, 2016

Are you interested in serving as a reviewer for the 2016 Yearbook? Let us know at taleyearbook@gmail.com