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We deeply appreciate their efforts.

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Foreword

Norma Zunker

In the changing world of education, in which assessments and standardized testing are ruling the way we implement information to our students, I chose to focus on the future leaders of schools. We want leaders in the field who will look to research for their directions in instruction and doing what is best for the education of their students. *Preparing effective leaders for tomorrow’s schools* focuses on research that covers various educational ideals for the educator.

The Consortium for Education Development, Evaluation, and Research (CEDER) at Texas A&M University-Corpus Christi issued a call for proposals for its eighth yearbook to various university Colleges of Education and educational leaders in the various associations, both national and international, that focus on educational innovations and research. As editor, I was fortunate to receive 51 manuscripts by 72 different authors. With such a large amount, the decision was made to have three peer reviewers for each manuscript. Each manuscript was peer-reviewed by an editorial board consisting of professors from around the nation and world. The manuscript submissions were narrowed down to 17. These selected manuscripts are ordered sequentially in the yearbook by the grade level on which they focus. Manuscripts range from kindergarten to high school to working with English Language Learners. I hope you benefit from the research printed and are able to influence the future for the students in schools.
Planning for play environments with pre-service teachers

Sharryn Larsen Walker
Janet Spybrook

Abstract
Teacher candidates enrolled in either a course on teaching early literacy or teaching preschool children with developmental delays collaborated to create inclusive, literacy-embedded play centers at a local children’s museum. Through a case study approach, this article describes the project and highlights ways in which the teacher candidates planned for the creation of the centers. The data revealed that the teacher candidates integrated course content and relevant research as they made decisions during the planning process. As undergraduate teacher education does not often provide experiences for pre-service teachers to create physical environments, the findings support the need for this opportunity to be included as part of undergraduate teacher education curricula.

Planning for play environments with pre-service teachers
Creating effective spaces for learning to occur in classrooms has long been held as important, yet there has been little research focused on the impact the physical environment has on learning (Atwood, & Leitner, 2001). Seating arrangement, physical classroom design, and a variety of spatial configurations are recommended considerations for teachers as they set up their classrooms. While the creation of the physical environment has been deemed just as important to classroom learning, there have been few opportunities for teachers in training to create physical learning environments within their undergraduate preparation programs (Spybrook & Walker, 2012).
To provide pre-service teachers with the opportunity to create a learning environment as an additional field experience, two teacher educators teamed up to have the teacher candidates enrolled in their courses create Inclusive Literacy-Embedded Play Centers (ILEPC) at a local children’s museum. This service-learning project required the teacher candidates to incorporate the course content into their teaching as they planned and constructed the centers, and then made modifications after the centers had been opened at the museum. Their understandings of play, of the creation of inclusive, literacy-embedded play environments, and of child development influenced the choices they made in the planning, construction, and modification process of this project.

The use of play is sometimes questioned as important in early childhood curricula (Pellegrini, 2009; Roskos, Christie, Widman, & Holding, 2010; Zigler & Bishop-Josef, 2004), yet it has been part of the curriculum since the 19th century (Saracho & Spodek, 2003). Play has been viewed as important in various curricular areas including mathematics (Baroody, 2000; Kamii, Miyakawa, & Kato, 2004), science (Baldwin, Adams, & Kelly, 2009; Melben, 2000; Yoon & Onchwari, 2006), social studies (Serriere, 2010), and the arts (Niland, 2009; Wiggins, 2007; Zimmerman & Zimmerman, 2000). More specifically, play has been used to support literacy development in young learners (Owocki, 1999; Roskos & Christie, 2004).

Children can enhance their literacy skills through their play engagements (Saracho & Spodek, 2006). For instance, through play, connections between oral language and written language are made, while an understanding of narrative story is solidified. The use of literacy tools and functions of print are often central to literacy-embedded play centers, environments in which young children can practice their fledgling literacy skills (Owocki, 1999; Roskos & Christie, 2004). Additionally, children who engage in sociodramatic play are able to recognize environmental print placed within the play scenarios (Vukelich, 1994), and their literacy development is affected by the level of adult interactions within play scenarios.

Dramatic play has a strong effect on literacy development (Bodrova & Leong, 2003; Bredekamp, 2004) and is enhanced as adults scaffold
the interactions (Morrow & Schickedanz, 2006; Tsao, 2008). However, the level of adult interaction affects the quality of play. While teachers most often assume the roles of observer, stage manager, or co-player (Bredekamp, 2004) during interactions, adults who are reciprocal in their behavior promote more symbolic play in children (Morrow & Schickedanz, 2006). Symbolic play promotes literacy by developing the representational skills necessary for reading and writing (Singer & Lythcott, 2004). Yet, teachers’ beliefs about play’s influence on literacy development affects ESL learners (Moon & Reifel, 2008). The ways that adults scaffold the play within environments designed to promote literacy affect literacy development as well.

Children’s literacy skills are enhanced by their interactions in literacy-rich environments (Farran, Aydogan, Kang, & Lipsey, 2006). Developmentally appropriate environments include room arrangements so that books are within a child’s reach (Segal, 2004), as well as literacy props that are introduced into centers (Moore, 2008). Both of these considerations have been described as impetus for voluntary literacy behaviors to occur during free-play periods (Morrow & Rand, 1991). Introducing literacy materials into themed centers increases play behaviors, makes the play more interactive, and increases the number of literacy interactions in the classroom (Farran, et al., 2006). Most of the research about the introduction of literacy materials into play environments has been conducted in preschool and early elementary classrooms. Yet, pre-service teachers are rarely provided the opportunity to create learning environments as part of their preparation programs.

Method

Participants, setting, and planning
Concerned about the lack of opportunity to create physical learning environments for those majoring in teacher education at a rural university, the authors investigated ways they could infuse service-learning projects as field experiences within their courses. Because previous courses had completed projects for the local children’s museum, the authors approached the director about the possibility of a group of pre-service
teachers enrolled in either a developmental preschool special education course or early literacy course creating play environments for the museum. The museum director noted that many of the exhibits were in need of updating, and that she would support the creation of new exhibits. The project was supported by a corporate grant.

A total of 33 pre-service teachers (28 females and 5 males) participated in the project. Some were special education majors enrolled in a preschool curriculum course for children with developmental delays, while others were elementary education or early childhood education majors enrolled in an early literacy course. A majority of the teacher candidates were of European-American descent, with one of African-American descent and one of Asian-American descent participating in the project.

The local children’s museum was the site in which the play environments were created. The museum space was a large room divided into smaller sections by partitions and cabinets. The pre-service teachers were randomly placed in groups so that a representative from each course was in each group. In order to understand the workings of the museum and to assist in the planning process, the teacher candidates met with the director. During this interview, the pre-service teachers gleaned information about the parameters of their exhibit creations, as well as what materials were readily available for use. As approved by the museum director, each group chose one of the following topics as the theme of their ILEPC: a camp site, a sensory cabinet, a veterinarian clinic, an aquarium, a grocery store, and a rainforest reading area.

Using a variation of Owocki’s (1999) framework for literacy-embedded play centers and ideas for accommodations from Johnston, McDonnell, and Hawken (2008), the groups planned their centers. The following components were included in each plan: objectives, supported by state preschool standards; a center description; activities to build schema; vocabulary related to the theme; a materials list; roles of those playing in the centers; a description of literacy experiences enhanced by the center; accommodations for diverse learners; ways to assess use of the center; assessment strategies; tips for parents as they play with their children; and an itemized budget (Walker & Spybrook, 2011).
The teacher candidates then met with their groups to plan the exhibit. After the plans were approved by the instructors and the museum board of directors, the teacher candidates purchased materials and built the exhibits (Walker & Spybrook, 2011). The exhibits were constructed during the museum’s closed hours over a three-day period and were open to the patrons two weeks after the plans received final approval.

**Data collection and analysis**

Once the centers were open to the public, each teacher candidate was required to observe the one she or he helped to develop for a 30-minute period during the first week. During this observation, the teacher candidates took notes about evidence of use of the play center, the types of play observed, and the interactions between parents and children. After the initial observations were made, the group members met to share what was observed and what needed to be modified within the center. Then each group member observed again within the next two-week period. Additionally, class time was devoted to discussion of what was observed in the centers after each set of observations was completed. The teacher candidates used these notes to write their final papers for the courses in which they were enrolled.

A case study methodology was used to explore the pre-service teachers’ understandings of creating inclusive, literacy-based play environments within a museum setting. This was deemed appropriate, as a case study has been defined as an “intensive, holistic description and analysis of a single entity, phenomenon, or social unit” (Merriam, 1998, p. 34). The use of the case study methodology also supports the reporting of the “chronology of the events or the day-to-day rendering of the activities within the case” (Creswell, 2007, p. 75).

It is recommended that several data sources are used in a case study approach (Creswell, 2007). For this study, data submitted by the teacher candidates included the exhibit plans, the brochures explaining the exhibits, and the candidates’ reflective papers submitted at the end of the course. Additionally, the instructors’ before and after observation notes and photographs of the museum spaces were included as a data set.
Planning for play environments with pre-service teachers

In order to identify the patterns of thoughts and concepts about the experience, the instructors read and reread the data. This constant-comparative method (Merriam, 1998) entailed identifying similar words and phrases, which then became an initial list of categories (Coffey and Atkinson, 1996). This list was reread and reread, referring back to the data in order to refine the ideas and concepts, creating additional categories and subcategories. Three major themes were teased from the data (Spybrook & Walker, 2012) in what Creswell (2007) described as a “cross-case analysis” (p. 75). However, for the purposes of this paper, only the data related to one theme will be presented. That theme in the form of a question is: How did these pre-service teachers plan for an appropriate play environment for all children within the museum setting, including accommodations and literacy?

There are several limitations to the data analysis of this study. First, the data were collected over a 3-month period, contained within a course-quarter system. Completing this project with additional groups of teacher candidates in future quarters would add to the data set. Next, although 33 pre-service teachers participated in the project, the instructors knew which candidates were responsible for the creation of each ILEPC. To protect against bias, the instructors completed the data analysis after the course grades were posted. The use of the constant-comparative method also protected against bias as the data were read and reread in order to clarify the participants’ reflections of the experience.

Findings

In their final papers about this project, the pre-service teachers analyzed and reflected on components of creating ILEPC. Four subthemes within the major theme, “How did these pre-service teachers plan for an appropriate play environment for all children within the museum setting, including accommodations and literacy?” were revealed. The pre-service teachers were cognizant of organizing themselves to plan and create the centers; they considered the literacy and life practices within the play centers; they weighed the necessity of the types of materials included; and finally, they were conscious of the importance of arranging the physical space.
Organizing for, planning, and creating ILEPC

As a first step, teacher candidates were assigned randomly to groups. All groups met at the Children’s Activity Museum (CAM) with the director, as reported by a teacher candidate, “so that the students could learn a little about the museum, who would be visiting the centers that were created, and what the rules were in designing the individual centers.” At the first meeting, the groups measured the area in which the center would be assembled, inventoried materials currently available at the museum, and discussed ideas for centers with the director.

The next step involved the written planning using a template provided in class (Walker & Spybrook, 2011). One candidate described a portion of the planning process by stating, “[o]ur team met a variety of different times at the university and at the museum to go over various aspects of the project.” The written plan template contained sections common to other lesson plans required in the elementary and special education programs, as well as those more specific to this assignment. For instance, an itemized list of materials and budget was necessary to this project plan. A pre-service teacher acknowledged portions of this format when writing, “This group then met individually, each filled out a small part of the plan for the LEPC. This plan had information such as the Washington State Early Learning and Developmental Benchmarks, materials, parent pointers, and itemized budget.”

Before construction of the ILEPC could begin, each plan was reviewed by both of the instructors and forwarded to the CAM director for her review and subsequent approval by the Board of Directors. Each group plan was evaluated for content and educational value for children in the community, as well as safety and building constraints. One group changed its plan after the original meeting at the museum, as noted in one reflection, “After much thought we [the sensory group] decided to turn the big wooden dresser with various sized-drawers and cabinets at the museum into a ‘sensory center’.” All plans were approved, some with suggestions on improvements to safety or materials that could be used.
Teacher candidates then gathered the materials for the project. In most cases, this involved using the materials list to shop at local department stores. One candidate described a shopping trip by writing, “Our group started getting supplies for the store when two group members spent a Saturday in Yakima shopping for food, cash register, baskets, books and bookshelves.” Another described, “Our group talked in our first meeting what all we wanted to include in the center. From that point we went out and started to purchase materials.” In some cases, donations for paint and lumber were solicited from local hardware stores. Care was also taken to insure materials were developmentally appropriate, when one candidate shared, “We wanted to be sure that everything in the grocery store was too large for a child to swallow, the children had enough space to move; everything was low enough for children to reach.”

The construction phase varied for the groups. Most groups met on a Sunday and Monday, the two days the museum was closed, to construct their center, as reported by a candidate, “Since we really could only go
to the museum for two days, our plan was to have as much done before we went to the museum as we could. Before we got to the museum we had two bookshelves built, the awning, and the checkout stand ready to go.” Additionally, the teacher candidates spent time on tasks they had not experienced in the past: “Once we got to the museum we painted everything, put the food on the shelves, screwed everything onto the floor so that it would not fall over on a child, and made our ‘Market’ sign. We went back a few times to add details.” The details were often the most time-consuming part of the process, when one reported, “We spent a majority of our time making picture labels with the names of the foods in English and Spanish. Next, we had to put Velcro on each.”

Figure 2

**Literacy and life practices within the play centers**

When creating ILEPC, the pre-service teachers made careful decisions about the types of literacy and life practices they included. Several of the centers included role cards as part of the space. The role cards were
included “so that the children could read about the role they chose to play in the center” and for “children who cannot talk but could act out and participate in the role-play.” Still another suggested the role cards include pictures so that children could see what roles were available, “even if they could not read the words.”

Careful decisions about the ILEPC providing opportunity to practice life skills were also included. Interactions in the grocery store provided children the opportunity to plan a grocery list, shop for food, assume the role of clerk or customer, and use money skills. The camping center afforded the visitors the opportunities to set up a camp site, plan for a camping trip, and learn about the outdoors. The veterinarian clinic was a place where children could participate as a member of an office setting, provide care and customer service to others, and practice the language used in this setting.

Figure 3
The teacher candidates also created a list of vocabulary that might be used in each of the centers. This list was displayed on the “parent pointers” posters hung in each ILEPC. This notice was included to encourage the children and their adults to use the words in their play scenarios. For instance, “veterinarian, stethoscope, and examination” were displayed in the vet clinic, while the words, “cash register, grocery, and market” were some of the words shown in the market.

**Types of materials included in the play centers**
The teacher candidates carefully considered the types of materials they would include in each ILEPC. They contemplated the size of the materials, the types of technology and literacy materials which would enhance the center, and the languages used by the patrons.

For issues of safety and usability, the size of the materials included was an important consideration. One group chose items for the market because “they would be too large to swallow.” Modifications were made to another center after the initial observations because the writing instruments were deemed too small for some of the children to use effectively.

Some of the groups included technology in their ILEPC, while all included literacy materials. A “talking” electronic cash register was included in the market, while a CD player with books on CD were included in the reading rain forest and veterinarian clinic. These were provided so that children with limited sight, non-readers, or English language learners (ELLs) could participate in the exhibit. Literacy materials included in all of the centers were books related to the theme of the ILEPC, writing instruments, money, washable markers, and laminated paper. Each ILEPC also included environmental print such as exhibit name signs, advertisements, schedules, charts, lists, and theme-related posters.

Because the CAM is situated in a community with a growing Spanish-speaking population, the teacher candidates included signage in both English and Spanish. Books of both languages were available in each center, and pictures in American Sign Language were included in at least one of the centers. Incorporating multiple languages into their classrooms is a practice teachers are encouraged to do. Including
text in a variety of languages in the ILECP was a way for the teacher candidates to accommodate the diversity of the museum patrons, while participating in an effective classroom practice.

**Figure 4**

**Arranging the physical space of the play centers**

When creating any learning environment, layout of the physical space is important. The teacher candidates measured the space for the ILEPC on their first visit to the museum. The structures they built or accessed were made to fit the space, while considering the safety and building requirements of the CAM. For instance, the larger structures had to be bolted in a way to meet earthquake standards, yet not ruin the integrity of the museum space. Each of the centers had to be wheelchair accessible, while having items “low enough for all children to reach.” The camping area had a wood fort with stairs and attached arm rails so that a child with limited mobility might be able to access the second level.
Through this course project, these pre-service teachers were able to work collaboratively to build learning environments. Their course reflections revealed ways in which they planned and organized themselves for the experience, their thoughts about the supporting of literacy practices within the play, the inclusion of materials, and the arrangements of the physical space. The inclusion of this authentic experience added to their ability to connect theory to practice (Spybrook & Walker, 2012).

**Discussion**

Practicum experiences are a way for pre-service teachers to integrate course knowledge with real-world experiences (Koc, 2012). Through the application of knowledge, teacher candidates benefit from planning, implementing, and reflecting on their teaching in authentic situations (Zeichner, 2010). They also are provided experiences in collaborating with their peers, instructors, and in this case with a community entity. The collaboration with the CAM supports Zeichener’s notion that when
pre-service teachers participate in community-based field experiences, they learn how to be more successful teachers in their own communities. The pre-service teachers in this project showed how they planned, implemented, and reflected on the integration of their knowledge of creating an inclusive, literacy-embedded play environment. Likewise, when teacher educators are able to carefully coordinate coursework with field experiences, they are better able to successfully prepare teachers for the real world. The teacher educators were able to establish a place for the pre-service teachers to create these environments, thereby providing an opportunity for reflection upon one’s work.

The examination of environment as the “third teacher” in a classroom is supported in research about the Reggio Emilia approach to learning (Inan, 2009; Strong-Wilson & Ellis, 2007). In this approach, it is believed that the environment contributes to a child’s learning through the aesthetics and organization of space, the interactions supported between those using the environment, and the encouragement of active learning. Specially, Inan (2009) identified domains of the environment that encourage literacy in the Reggio Emilia approach. Those elements include an open, multifunctional environment that encourages literacy across space and time; a responsive, themed environment that is challenging and informative; knowledge that is hands-on and socially constructed by those interacting in the environment; and an environment that reflects real-life experiences and supports individual and group play. These elements of the environment are considered safe and supported by adults who help scaffold the learning.

Although the teacher candidates in this study were not specifically studying the Reggio Emilia approach, they included many of the elements of the “third teacher” in the environments created at the CAM. Each ILEPC was a themed, multifunctional environment that encouraged literacy engagements. The engagements were hands-on and socially created by the children as they interacted in real-life environments. Each ILEPC supported individual and group play and many times the play was supported by adults (Spybrook & Walker, 2012).

Researchers have long supported the integration of play with literacy as a way to further development (Morrow & Rand, 1991; Neuman,
Much of the early focus of this research was in the area of physical classroom design with the inclusion of literacy tools and materials. More recently, Roskos and Neuman (2011) suggest that the classroom environment is always a teaching concern and the creation of one is both an art and a science. They also suggest that the topic of physical classroom design is included in most every reading methods textbook and is addressed in undergraduate teacher education.

The discussion of the effects of the physical classroom environment upon student achievement is important in teacher education. Research supports the inclusion of accessible literacy tools and materials in the classroom as it increases children’s engagement with books and writing implements (Neuman, 2004). Physical arrangement affects classroom behavior (Guardino & Fullerton, 2010), supports the literacy development of at-risk kindergartners (Nielsen & Monson, 1996), and increases the engagement of children with special needs in general education classrooms (Genisio & Drecktrah, 1999). While the topic may be presented within course reading materials and lectures—and there are reported positive effects of the physical classroom arrangement—the opportunity to create such an environment is rarely included in undergraduate teacher education curricula (Bouley-Picard, 2005). These authors suggest that teacher educators should provide field placements that support the integration of coursework in an authentic setting. More specifically, as a way to strengthen teacher education programs, teacher educators should find placements that provide pre-service teachers the opportunity to create quality learning environments.
Planning for play environments with pre-service teachers

References


The changing role of play opportunities in schools: Perceptions of experienced kindergarten teachers

Judy Burdett
Kathleen Fite
Jennifer Beck

Abstract
As a result of increasing academic standards, kindergarten classrooms have experienced a reduction in the use of play opportunities to facilitate children’s learning. This paradigm shift in the delivery of education to young children contradicts child development theories that support the value of play for social, emotional, cognitive, physical, and creative growth. Reducing play opportunities in the classroom limits learning opportunities. This study analyzed the oral histories of three retired veteran kindergarten teachers, with 25 to 30 years experience, to investigate their perceptions of the changing and often limited role of play in the learning process over their years of experience. The subjects were interviewed individually and as a group using explorative and open-ended questions. Four themes were identified: (a) the importance of teacher preparation to emphasize early childhood development and the philosophy of play, (b) influences of historical and environmental factors, (c) integration of play and academics, (4) and a shift of the allowance of play in the kindergarten classroom.
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**Background**

The importance of using play for teaching and learning has been supported in theory and research for many years. The literature reflects the importance of play for socialization, cognitive development, and psychological growth (Rogers & Evans, 2008; Wood, 2005; National Agency for Education, 2008; Lee & Goh, 2012; Miller & Almon, 2009). Parten (1932, 1996) reported that children develop socially as they advance through a defined sequence of play. Carlsson-Paige, 2008, reports “The social and emotional skills considered vital for success in school begin to build in the early years and to a large extent, they develop through play.”

Piaget (1962) described the development of play and its relationship to social-psychological development. Meece and Daniels (2008) reference Piaget and emphasize that through play children come to know the world, master their environment, and help develop “abstract thinking, problem solving, perspective taking, and persistence” (p. 162). Montessori made strong connections between play opportunities and learning (Britton, 1992). Lev Vygotsky (1933), a social cognitive theorist, wrote that play served as a foundation for developing skills necessary for social, personal, and learning activities (Leong and Bodrova, 2001).

In addition, Smilansky (1968) reported a connection between play and symbol development; therefore, play supports the beginning stages of language and reading development. Frost, Wortham, & Reifel, 2001, also note that play allowed children to form connections between objects and symbols, which can support children’s literacy. Play, where children have choices and are free to experiment, allows children to move through developmental stages that scaffold learning.

The role of play as a valuable part of the curriculum has become de-valued as teachers have had to respond to federal and state mandates and the results of high-stakes testing. In the early 1980s, some states initiated accountability systems for pre-kindergarten–12th grade in the areas of academics, attendance, and dropout rates (San Miguel, Garza, &
Gibbs, 2000). In 1993, the legislature adopted Senate Bill 7 establishing criteria to create an accountability system for district performance on the Texas Assessment of Academic Skills (TAAS). In 1997, the Texas Essential Knowledge and Skills (TEKS) were approved establishing new curriculum standards.

An intensive educational reform mandate was the No Child Left Behind Act. The purpose of NCLB was to ensure that “all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach at a minimum, proficiency on challenging state academic achievement standards and state academic assessments” (NCLB, 2002, p. 1). With high-stakes testing “We are cultivating a culture of mediocrity and sameness and abandoning traditional ideas of creativity, ingenuity, ethical behavior, and imagination that make cultures and countries great” (Frost, 2007, p. 230). Although NCLB did not mandate the testing of kindergartners, schools perceived the pressure to accelerate academics (Ferrandino, 2004). The involvement of accrediting agencies, legislatures, and the national government in mandating standards, curriculum, and accountability measures required schools to demonstrate productivity. “Politicians, not educators, are framing the U.S. education system and radically changing the culture of education, and standardized tests are becoming the curriculum of the schools” (Frost, p. 226). It is important that we not ignore the voices of experienced teachers and what they see as best for the educational system.

**Purpose**

The purpose of this study was to investigate the perceptions of three retired veteran kindergarten teachers regarding how play was embedded or removed from the curriculum over the course of their 25+ year careers (Beck, Burdett, Mitchell & Ramirez, 2006). The rationale for the study was a perceived paradigm shift from teaching children through play, where children were given choice and open opportunities, into a more structured curriculum with limited free play opportunities. The perceptions of these educators can help teachers and administrators recognize the importance of play in the learning process how its role in the curriculum has become devalued. Creative or free play offers children...
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the opportunity to engage in activities that have the potential to increase their capacity for learning. In this study, “play” was researched and defined as unstructured play with free choice of props and activities, with or without adult guidance (Fagen, 1981; Smith, 1982).

Methodology
An oral history approach was used to research how three retired veteran teachers used play as an integral part of their kindergarten curriculum. The medium for data gathering was the interview process; conversation served as the research tool (Gudmundsdottir, 1996); and explorative and open-ended questions guided the dialogue. The interviews were tape recorded by one interviewer while a second interviewer hand wrote comments in a field log. During the interviews, each teacher was asked to recall her use of play experiences in the kindergarten classroom and how the experiences changed during her career. Each teacher’s perception of play as a learning tool and a medium for the child’s social development was also investigated.

Participants
The participants for the study included a cohort of three retired white females, who were veteran kindergarten teachers, aged 50 years or older. Two of them at the time of the study had been retired from the district two years and one was still teaching on a retire/rehire provision. Throughout their careers they taught in the same school district and were recruited to a common new school from their previous schools because of their experience and expertise. They taught at the new school until they retired from the district. These teachers were selected for the study because of their shared historical perspectives, years of teaching, and grade-level experiences of incorporating play into the kindergarten curriculum.

Procedures
The interview process was a viable methodology for gathering in-depth information about the teachers’ feelings, attitudes, and values regarding play in their classrooms. The open-ended, explorative questions used for
the interview captured a wealth of information. The qualitative design offered a rich description of the teachers’ feelings and their interpretations of the progressive and cumulative effects of curriculum mandates that influenced how play opportunities were offered to children. The interview questions were piloted before use to insure that they were clear and would yield the information requested. Before the actual interviews, the researchers met to discuss the questions and the protocol for the interviews. The overarching question addressed was the use of play in the kindergarten classroom at the beginning, middle, and end of each teacher’s career.

The interview questions were derived from the revisions of a comprehensive list of questions used in a pilot interview with a teacher whose background was similar to that of the teachers studied. The pilot study allowed the researchers to develop strategies to use while interviewing the participants. Further, specific questions were chosen that elicited responses associated with the topic of play as seen over the course of the participant’s career. The interviews requested information about the teachers’ educational backgrounds, years of experience, and location of schools, in addition to other pertinent information. They were asked how play had been used in their classrooms, how they perceived the amount and nature of play changed over their years of teaching, and to what they attributed the changes.

Each teacher was interviewed once independently for approximately one hour. One of the teacher interviews was conducted on a school campus and two teacher interviews were conducted off campus. To triangulate the data collection, a group interview lasting approximately one hour was conducted after the individual interviews were completed. The researchers were in contact throughout the data collection by phone and email to insure that protocol was followed and that data was collected in a uniform way. During the group interview component, a member check, the teachers were asked to further explain themes or comments previously shared. Two audio-recording devices were used to collect the data for all of the interviews. One device was a backup to ensure the interviews were captured. A second researcher took notes during the interviews to use to verify the transcription notes. The interviews were
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transcribed using voice recognition software. The interview transcriptions and researcher field notes were analyzed for consistency in comments documenting reoccurring themes about play in the curriculum and reasons for changing how play had been used.

Data analysis

The two researchers who conducted the interviews reviewed the transcriptions to ensure accuracy. All four researchers initially involved in the study reviewed the transcriptions and through discussion coded the first three pages of the first interview together to ensure inter-rater reliability. They were looking for what they considered to be references related to play. The group developed an initial list of 23 codes during this process. Each researcher then independently coded the remaining 10 pages of the transcription of the first interview. The remaining interviews were coded by two of the researchers who were in conversation with each other by phone and email to insure accuracy of work across the project.

The group reconvened one week later for a full day of analysis. Initially, the group compared their coding of the first interview and agreed upon an additional 14 codes. A final review of the coded transcriptions then occurred and the researchers recorded the frequency of each code by posting them on a blackboard. The codes were then placed into four categories, or groups, based on frequency: occurring 20 or more times, 15-19 times, 10-14 times, or 9 or fewer times. Additional discussion by the research group hypothesized correlations based upon researchers’ comments, proximity of codes, and frequency of codes. The codes were categorized and grouped into six themed clusters: history/environment, parent/society, centers, play, techniques, and reasons for change. The categorized clusters were more general descriptors identified by the group upon reflection of the themes.

Additional dialogue occurred among the researchers on the relationship between clusters. The clusters were then assigned into one of four themes: the development and implementation of play philosophy, “techniques” learned through play, the use of centers, and the reasons for change in play within the kindergarten classroom. The themes were
written on the blackboard with the clusters listed below each appropriate theme title. After additional discussion, the researchers agreed to proceed with the six clusters and four correlated themes as a guideline.

<table>
<thead>
<tr>
<th>Codes (37)</th>
<th>Clusters (6) Clusters may support more than one theme.</th>
<th>Themes (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration, personal/professional history, teacher knowledge, classroom environment</td>
<td>Environment/History</td>
<td>Play Philosophy</td>
</tr>
<tr>
<td>Team teaching, small group, large group, curriculum, units, Free-play, structured, blocks, house keeping, role-playing</td>
<td>Techniques</td>
<td>Techniques to learn through play</td>
</tr>
<tr>
<td>Math center, science, language arts, computers Free-play, structured, blocks, house keeping, role-playing</td>
<td>Academic Centers *Play &amp; Play Centers</td>
<td>Centers</td>
</tr>
<tr>
<td>Child readiness, administration, mandates, parent/society Role model, discipline, Administration, personal/professional history, teacher knowledge, classroom environment</td>
<td>Reasons for change Parent/Society Environment/History</td>
<td>Reasons for change in play</td>
</tr>
</tbody>
</table>

*Play & Play Centers applicable to two themes: techniques to learn through play and centers.
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Table 2
Frequency of codes

<table>
<thead>
<tr>
<th>20 plus</th>
<th>15-19</th>
<th>10-14</th>
<th>5-9</th>
<th>4 or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2-class environment</td>
<td>T16-housekeeping</td>
<td>H4-historical/ background</td>
<td>E1-environment/ campus</td>
<td>R5-retirement</td>
</tr>
<tr>
<td>T12-techniques</td>
<td>P22-play philosophy</td>
<td>A8-administration roles</td>
<td>E3-environment/ classroom</td>
<td>A6-administration roles</td>
</tr>
<tr>
<td>T17-math centers</td>
<td>P30-parents/society</td>
<td>A7-attitudes</td>
<td>A7-attitudes</td>
<td>M11-mentoring</td>
</tr>
<tr>
<td>P36-play</td>
<td></td>
<td>T10-training</td>
<td>M9-mandates</td>
<td>A7-attitudes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C37-centers</td>
<td></td>
<td>A14-academics centers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T25-100% free play</td>
<td>U13-units</td>
<td>B15-blocks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S26-small group instruction</td>
<td>L18-language arts</td>
<td>H20-home rugs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T31-teacher knowledge</td>
<td>L28-large group instruction</td>
<td>R21-recess</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C23-students/readiness/pre-preparation</td>
<td>C33-computers</td>
<td>D24-discipline</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D27-discovery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R29-role play</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G32-games</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N34-new teacher preparedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S35-science</td>
</tr>
</tbody>
</table>
for presenting findings from the coded transcription. The field notes for the individual interviews and the group interview were analyzed for supporting evidence of the themes and clusters. (See Tables 1 & 2). After all the data was collected and analyzed, the researchers met the three teachers to ensure that the information collected was correct.

<table>
<thead>
<tr>
<th>School</th>
<th>Teachers</th>
<th>Years of Service</th>
<th>Description of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>Susan, Jane</td>
<td>5-7 years</td>
<td>Open classroom design, kindergarten only for first 5 years, progressive principal, team teaching model, Montessori philosophy</td>
</tr>
<tr>
<td>School B</td>
<td>Susan, Jane, Molly</td>
<td>7 years</td>
<td>Open classroom design, kindergarten thru 2nd grade, overcrowded classrooms, limited room for centers, required reading curriculum</td>
</tr>
<tr>
<td>School C</td>
<td>Susan, Jane, Molly</td>
<td>16 years</td>
<td>Open classroom design, kindergarten thru 2nd grade, overcrowded classrooms, limited room for centers, required reading curriculum</td>
</tr>
</tbody>
</table>

**Findings**

Four themes emerged from the data analysis: philosophies of play, historical and environmental factors, integration of play and academics, and how play changed within the kindergarten classroom. The results are reported using Susan, Jane, and Molly as pseudonyms for the three participants. The initial three schools the women worked at will be known as School A, School B, and School C. The teacher’s real names are not used. (See Table 3).
Childhood development and the philosophy of play value

The subjects’ philosophy of the play value was shaped by their teacher preparation at a regional university that had a long history of training public school teachers. Exposure to Piagetian theory (1962) influenced their understanding about the importance and value of children’s play in successful development. Susan made several statements that expressed her philosophy about play and learning. She paraphrased Piaget stating that the work of a child is play. Jane repeated similar statements including “There is always something to learn from play. Even if it’s just something like fishing that is a recreational sport; we can gather food; and there would be a safety talk of what to watch out for.”

Molly and Jane discussed play as a window into the family situations of their students. Molly shared stories about how children with limited play experiences may have difficulty engaging in play. She also stated, “If children don’t play here, they don’t play.” She was referring to the fact that they may often play organized sports or activities without the opportunity to freely choose what they play; and they may lack the opportunity or skills to engage in play with others or by themselves. She expressed a concern children are being raised as “little adults and not as children” and are being exposed to information they may not understand. An example given was when, instead of role-playing mommy and daddy as they are in their homes, they may choose a less conventional play theme such as “visiting a parent in jail.” Susan, Jane, and Molly believe play is important for the development of children because it provides segue to future learning and understanding.

The teachers incorporated play for developmental, academic, and pragmatic reasons. Based on years of comparing children’s beginning to end of year development, they agreed children developed social, physical, and cognitive skills through play-based centers. Here children would interact with one another, manipulate props, and create solutions based upon academic units of study. The teachers were freed to work with small groups of students, while others were free to choose from play-based centers. These master teachers learned to integrate play into the required, evolving curriculum and to embed play opportunities in a variety of activities, so as not to catch criticism for allowing the play
opportunities instead of focusing only on academic skills. From dressing up, dancing, making objects from clay, or developing a store to sell jewelry the children made, the teachers were partners in the students’ learning.

**Influence of historical or environmental factors**

The historical and environmental factors drawn from the analyses were: the educational background of the teachers, support of the administration, a team teaching model, and design of the open classroom. Susan, Jane, and Molly stated that exposure to the teachings of Jean Piaget (1962) in their college classes was the foundation for their constructivist educational philosophies. They reported that their understanding of the important role of play in child development was critical to the organization of the instructional curriculum and the establishment of their expectations for students. Piaget’s descriptions of how young children learn through play were reflected in the teachers’ observations of their students’ during play. During the group interview, the teachers expressed concern that many new teachers have not been exposed to the teachings of Piaget in their teacher preparation programs.

Early in Susan and Jane’s careers, two events simultaneously occurred that reinforced the use of play strategies in their teaching. First, their progressive-minded principal endorsed the Montessori (North American Montessori Teachers Association, 2006) philosophy and training and provided critical and timely guidance, facilitating appropriate professional training and identifying resources and pathways for continuing education. Second, Susan and Jane participated in a team teaching model with experienced teachers. Both women recognized this collaborative opportunity as a factor in their skill development for creating more engaging curricula. They reported that mentoring by their progressive principal and participation in a team teaching model contributed to their inclusion of play in the curriculum and commitment to life-long, self-directed learning.

The final factor contributing to play-based teaching strategies was their use of an open classroom design. School A was “at the forefront [of the district’s open classroom] movement, when the walls came down,”
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said Susan. The open classroom design created an environment in which novice teachers could observe instruction in other areas of the classroom and interact with colleagues. The teachers watched each other and learned new techniques for working with students. “When you are a beginning teacher this [open classroom] is excellent” said Susan. However, this type of environment may not always foster educational excellence when too many children and teachers are in the same classroom. At School B the teacher-to-student ratio increased when the “administrators and school leaders [thought], ‘The more space, the more students they can shove in;’ and they wonder why it is noisy,” Jane said. Their desire to be in self-contained, individual classrooms increased as time passed. In School C each teacher had a traditional classroom setting. Ironically, Susan moved her desk to the side of the classroom to create a large open space similar to that found in the open classroom design.

Integration of play and academics

The lesson plan used by these teachers was divided into units based around themes that provided the content and context for stories, poems, show-and-tell, field trips, art projects, and centers. Some examples of units shared by the teachers included dinosaurs, ocean, underwater life, and fantasy. They incorporated several instructional “techniques” to integrate play and academics. Large and small group instructions were repeatedly mentioned in the teacher interviews. Whole class instruction was used for the initial teaching of a new concept. Direct instruction for small groups of children enhanced concept mastery. Susan said, “Even when you pull the children for direct instruction you are using [play] materials and manipulatives.” Once a concept is mastered, students had independent practice in the centers. Dimensions of play were integrated throughout the curriculum and instruction.

The teachers learned to effectively integrate meaningful play into the curriculum through trial and error over the years. Susan and Jane shared that they became very involved in their units and used instructional themes. The teachers planned academic and play-based centers. They would change the centers based on the unit being studied. Examples of play-based centers that supported the units were blocks and
trucks to support math and science; and, fantasy or dress up to support art, reading, and writing. Each center contained specific manipulatives including figurines, dress-up clothes, books, and objects used for play. “Learning occurred as play occurred,” said Jane. Centers provided opportunities for small groups of children to learn through peer interaction. The centers organized the children, reinforced lessons, enhanced classroom management, and maximized teaching effectiveness throughout the day. Additional suggestions of units and centers are listed in Table 4.

<table>
<thead>
<tr>
<th>Table 4 Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic: Math/Science</strong></td>
</tr>
<tr>
<td>Colored blocks can be sorted by color, counted, stacked, add blocks to groups, subtract blocks from groups, make pairs, count like money, placed in order to match example</td>
</tr>
<tr>
<td><strong>Academic: Reading</strong></td>
</tr>
<tr>
<td>Create plays for the students to act out characters, use interactions to teach lessons to improve social skills, read to one another, read books that support academic unit</td>
</tr>
<tr>
<td><strong>Academic: Language Arts</strong></td>
</tr>
<tr>
<td>Used guided discovery to incorporate the lesson plan into the center activity. (Project Read, Leap Frog)</td>
</tr>
<tr>
<td><strong>Play: Free Play</strong></td>
</tr>
<tr>
<td>The main focus was not academic.</td>
</tr>
</tbody>
</table>

Susan, Jane, and Molly found the use of centers improved their classroom management. As academic requirements for kindergarten increased, teachers “pulled” small groups of students together for direct instruction while the rest of the students continued working in play-based centers. As they became experienced master teachers, the three
participants enhanced their classroom management, integration of play-based centers, and engagement of students through themed units. They acknowledged that during their careers there was a gradual paradigm shift to a curriculum with increasing focus on academic skills, resulting in less time for play in the centers.

Paradigm shift of play in the kindergarten classroom
Susan, Jane, and Molly identified several factors that contributed to the decline of free play opportunities in kindergarten classrooms. They felt their administration pressured them to be more academically focused in response to mandated testing and accountability (TAKS, TAAS, NCLB). Susan shared comments such as “We had to have math at a certain time; language arts at a certain time,” whereas before, “children played all day.” This reflected that the students had opportunities all day to socialize and learn through their play. The teachers shared their frustrations of being required to teach a particular lesson for a specific amount of time rather than being allowed to use their profession judgment to adapt lesson content and length to the needs and interests of the children, thus making the activity more developmentally appropriate. Administrators became stricter in enforcing set academic schedules. Teachers interpreted the message from the administration as a need to be academically “exceptional.” These kindergarten teachers were forced to change their centers and provide fewer opportunities for free play.

As the curriculum and academic mandates forced greater expectations for learning in upper grades, teachers in lower grades also felt the pressures of high-stakes testing. Molly said, “We are no longer teaching kindergarten, we are teaching first grade.” She quantified the demands as having to teach the lessons of a whole year and cramming them into a semester. The issue of pressure from upper grade teachers was most prevalent in School C that included a wider range of grades and was exposed to greater accountability.

Another factor contributing to the decline of play opportunities was the lack of theory-based training of new teacher training. The teachers believed current teacher education did not have the same emphasis on Piaget and child development theories. Based on conversations with
new teachers, they thought new teachers were being taught academic components isolated from child development theories; with the push for academics during their early years of teaching, they do not recognize the importance of integrating theory with practice. According to Susan “TAAS killed play and the final nail in the coffin was NCLB.” The new teacher often focuses on the accountability mandates instead of the value of play-based learning. Susan said she would “do what I was required [what the administration said to do]…then the students would go to centers.” Her observations reflected that she believed many new teachers lacked the experience and confidence to successfully integrate academics and play.

Findings overview

Play has been identified as an effective component of child development for cognitive, psychological, and social growth. The development process prepares children for the educational structure within schools; yet, the use of play as a valuable vehicle of development has been challenged. Even with educational research findings that play is effective; it has been challenged as schools were faced with accountability and school improvement mandates. The purpose of kindergarten classrooms seems to have changed from having lessons, learned through play, that form a basis to read, write, and perform mathematics to learning to reading, write, and compute through the use of more teacher-directed instruction.

The decreased popularity and availability of open-classroom designs has influenced the availability of informal mentoring through observation. Each of the teachers mentioned the value of early experiences to learn from veteran teachers and one another in the open classrooms; they learned new activities and ways of presenting materials to the students. Molly did speak highly of the opportunity to learn from mentors at her school. However, as she neared retirement, she no longer wanted to be a mentor and have another responsibility added to her increasingly stressful job. The issue of added stress and burnout deflates the creativity of the teacher as well as the willingness of veteran teachers to mentor new teachers.
The students’ lack of readiness to play was the final factor influencing a reduction in play in the kindergarten classroom. In the beginning of Susan and Molly’s careers, student interactions in the play centers, specifically housekeeping and role-playing, included activities such as cooking and playing mommy. Gradually, students began to show less interest in cooking utensils and babies (dolls). A concerning example was where students were putting items on layaway and pretending they were in jail by locking themselves up. Susan reported that you could learn about society from what was being acted out in the centers.

**Discussion**

Limitations to the study were: there were only three teachers interviewed; they were from the same school district; and they were of similar age, experience, ethnicity, and socioeconomic status. However, the findings can be insightful for teacher and administrator preparation. First, and perhaps most influential, is the need to teach educators more about child development and the relevance of play theory, thus providing teachers opportunities to establish a deep knowledge base laden with child development theories and best practices.

Master teachers can mentor less experienced teachers, educate them about useful learning theories, and model effective teaching strategies. Susan, Jane, and Molly shared that other teachers could benefit as they did from teaching in an open classroom environment early in their careers, and also that a strong mentoring relationship with a master teacher enhances learning and hones classroom skills. Training programs should tap into the knowledge and expertise of our experienced teachers.

Although principals are prepared for many administrative and managerial tasks related to an elementary school campus, they need to better understand that establishing a developmentally appropriate foundation in the kindergarten classroom (Snigoski, 1994) is of great benefit. Because kindergarten is the gateway into school and the higher grades, it is sound practice to have a strong program in which children begin their learning. Administrators should be helped to understand how play is educational and developmentally appropriate for the child (Ediger, 1992).
Although there are seminal theories, such as that of Piaget, there is a need for ongoing research that is pertinent to the kindergarten teacher, the college professor, and school administrators. Because the importance of play in the kindergarten classroom is being challenged by academics and a subject-centered curriculum (Ediger, 1992), there needs to be more information for educators regarding the importance of play to development and learning.

**Conclusion**

Pressure from administrators for children to meet higher educational standards, high-stakes testing, a lack of theory-based training, the removal of opportunities to learn through play from the curriculum, the reduction in opportunities for mentoring, and a basic lack of readiness to play are factors that have influenced changes in the kindergarten classroom. This paradigm shift in the delivery of education to young children contradicts the child development theories that support the value of play for social, cognitive, and psychological growth. Reducing play in the classroom results in children less prepared for future grades, thus limiting learning capabilities. We can learn a lot about children and learning by listening to the voices of our experienced teachers; their suggestions should be incorporated when we look at curriculum revisions and what is best for children.

Play is a fundamental component of who we are as humans. The value of play in young children offers the extraordinary opportunity to develop valuable skills through social interaction, critical thinking, and physical movements. The authors encourage additional research to be conducted to capture teacher voices describing the existence of, or lack of, play experiences in the classroom. We need to hear these teachers who have come to understand learning and development firsthand and listen to how they suggest the curriculum should be structured to enhance what is developmentally appropriate for children.
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References


Learning to spell proficiently: Best practices from a spelling bee champion

Evan Ortlieb

Abstract

Whether child, adolescent, or adult, people of all ages are plagued by the spelling of words. After years of intrigue as to what separates proficient spellers from struggling spellers, a study was conducted to investigate the specific spelling practices used by masters of the English language. What better way to search for answers than seeking out the best speller in the country, Sukanya Roy, the winner of the 84th Scripps National Spelling Bee? Through having rich discussion and answering a series of questions, Sukanya provided insight into the life and studies of a spelling bee champion. Interview questions related to her personal background, reading behaviors, and spelling behaviors. Students, teachers, and researchers alike can glean valuable information related to becoming a better speller and teacher of spelling from the contents of this interview.

Learning to spell proficiently: An interview with the 84th Scripps Spelling Bee champion

There are good spellers and then there are struggling spellers. It does not take long for a classroom teacher to recognize in which category students fit. Though it seems poor spellers are cursed from having some
sort of innate ability, spelling skills can be taught and mastered by just about any student. So what separates good spellers from bad spellers? Are there specific practices that good spellers use to become masters of the English language? These questions emanated from the investigator noticing consistent spelling errors in his introduction to reading education course for pre-service teachers. Interchanging words such as “it’s” for “its” and “defiantly” for “definitely” was commonplace.

Although everyone makes an occasional spelling mistake, these trends of poor spelling that persist through adulthood need to be reversed. The following conceptual framework provides background information regarding underlying problems of poor spellers and current instructional strategies for spelling. The researcher sought to expand knowledge of current trends in spelling instruction by exploring spelling mastery and revealing insights to spelling success by interviewing the greatest adolescent speller in the United States, Sukanya Roy, winner of the 2011 Scripps’ National Spelling Bee Competition, to determine her reading and spelling behaviors, word analysis techniques, and quest for spelling superiority.

Conceptual framework

Underlying problems

The English language is a “melting pot” of languages (McAlexander, Dobie, & Gregg, 1992), borrowing heavily from other languages such as German, French, and Latin (McPherson, 1984). English is often construed as one of the most difficult languages to learn because it is less acrophonic, that is spelling does not always correspond with pronunciation. The alphabet contains 26 letters but those letters are represented by over 40 speech sounds, which creates irregular spellings of words (Hellman, 2006). The addition of affixes to base words often increases difficulty for novice readers and writers (Horn, 1967).

Phonics instruction is used to improve beginning readers’ pronunciations by instilling the alphabetic principle—printed letters and letter combinations correspond to speech sounds heard in words (Hellman, 2006). Although Horn (1967) and McPherson (1984) agree that pro-
nouncing words correctly is an important step in learning to spell them, there is not sufficient evidence regarding how the teaching of phonics may increase a person’s ability to spell correctly.

Other causes of misspellings are one’s inexperience with reading and writing, apathetic attitudes toward writing (past or present), and learning disabilities (Horn, 1967; McAlexander, Dobie, & Gregg, 1992); these must be promptly addressed to benefit the reader. One’s inexperience with reading and lack of exposure to print are the most noted causes in the corpus of research that address the underlying problems with spelling (Maughan et. al, 2009). Others attribute spelling difficulties to invented spelling, though as McPherson (1984) confirms, there is no evidence that invented spelling reinforces that behaviors will persist.

Maughan et. al (2009) conducted a study of 2,334 children ages 9–10. They compared the spelling of poor readers to normally developing readers in childhood and later did a follow-up study in adulthood, finding that gender, IQ, and family social background did not have an influence on adult spelling problems. On the other hand, former education/training and out-of-school reading did significantly affect spelling ability. Poor readers had limited exposure to print and reading, preferring leisure activities that were not reading-related. During follow-up interviews, spelling problems found in adolescence continued to persist in adulthood.

**Spelling instruction**

Horn (1967) believed that it is much more efficient to study words in lists rather than in context because word lists are learned more quickly, remembered for longer, and easily transferred into context. Whether learning Dolch sight words or making words by adding affixes to roots, learning spelling words that are commonly occurring in the English language has far-reaching benefits (Ediger, 1998).

Other researchers disagree, claiming that spelling is best learned implicitly and improved through writing, particularly creative writing (Gentry & Henderson, 1980; McAlexander, Dobie, & Gregg, 1992; McPherson, 1984). Increasing spelling awareness through language experience strategies encourages students to look for spelling patterns
Deemphasizing standard spelling is also purported to be a component of effective spelling instruction. Gentry and Henderson (1980) recommend teachers encourage children to spell the best they can and not hold them to adult spelling standards. “Too much emphasis on correct spelling, especially in the lower grades, may discourage children from writing” (Horn, 1967, p. 13). Using this philosophy, teachers refrain from correcting spelling errors until the final stage of writing, and then respond appropriately to the progress of one’s writing (Gentry & Henderson, 1980; McAlexander, Dobie, & Gregg, 1992; McPherson, 1984).

A wealth of research also supports the notion that time allocation for classroom spelling instruction should be short (Horn, 1967; McAlexander, Dobie, & Gregg, 1992). Findings support that there should be a maximum of 75 minutes per week for explicit spelling instruction; researchers caution that increasing the time beyond the 75 minutes per week does not result in better spellers. These suggestions are based on the theory that children progress through five stages toward becoming conventional spellers: emergent spelling, letter name-alphabetic spelling, within-word pattern spelling, syllables and affixes spelling, and derivational relations spelling (Bear, Invernizzi, Templeton, & Johnston, 2008).

**Student Interest in spelling**

As the emphasis of spelling words correctly entered into curriculums, so did finding ways to motivate students. Educators wanted to create a more intrinsic appeal by including games, contests, devices, and working for extra credit (Horn, 1967; Invernizzi & Hayes, 2004). The spelling bee was one of the school activities or contests used to motivate students. This was perceived as an opportunity for good spellers to display their ability to memorize the correct spellings of words (McPherson, 1984).

In 1925, the Louisville Journal established the national spelling bee (Henkin, Harmon, Pate, & Moorman, 2008). Maguire (2006) later discovered that spelling bees were a unique subculture. Participants maintained similar characteristics: a) were avid readers who frequently
studied spelling outside of school and all year long, b) enjoyed studying words, c) came from two-parent families, d) were frequently homeschooled, e) thrived on praise and recognition, and f) were immersed into an environment of learning. He furthered that although there are some spellers who use one strategy or another, the best spellers study etymology and word roots (Henkin, Harmon, Pate, & Moorman, 2008).

Method/discussion
A qualitative investigation ensued to determine not only how to develop spelling abilities but how to obtain spelling mastery. The researcher conducted an in-depth interview with the 84th Scripps National Spelling Bee Champion, Sukanya Roy. Data were audio recorded before being transcribed verbatim to maintain authenticity. This in-depth interview was crafted to probe the ideas of the national spelling bee champion regarding her study methods, word analysis techniques, and pursuit of spelling improvement. Her spelling practices were then compared and contrasted with current classroom instructional approaches in spelling as well as existing best practices in literature. Complying with IRB requirements, a consent form was issued and signed by her father. The following set of questions and answers reveals background information, reading behaviors, and spelling behaviors of Sukanya Roy, providing a framework for understanding how she obtained complete mastery of spelling of the English language.

Getting to know Sukanya Roy

Tell me about yourself.
Well, I like learning and being outdoors with nature, whether it is in my backyard or hiking somewhere. I have been active in my school psychology club too. I can play the piano and violin as well.

What are your favorite subject areas?
I pretty much like them all, but my favorite is foreign language. I began taking foreign language in 7th grade when my school introduced us to six languages by spending several weeks on each language throughout the year, including German, French, Latin, Spanish, Russian, and Chi-
nese. Then, in 8th grade, I chose German because it was really interesting and the teacher was funny. Next year though, the high school I will be attending doesn’t offer German, so in 9th grade I will opt for French.

_How do you learn outside of school? Experiences, online search engines, and/or from other ways?_

Most of my learning comes from experiences, some from discussions with others, and I only search on the Internet for things for which I am really interested.

_Why is spelling important? What motivated you to study spelling words?_

Spelling is important—you can learn a lot about different languages because language patterns like Greek and Latin roots; can learn history, and culture from some words; some words are Dutch words refer to Indonesian. My goal wasn’t necessarily to win, but to try my best.

_How has your family/friends/teachers influenced your success?_

Everyone has been so supportive and encouraging. Sometimes my family helped me study by quizzing me and infrequently, reading words aloud to me when my eyes were tired.

**Reading behaviors**

_At what age did you begin reading? Who taught you? Do you consider yourself a good reader?_

My parents began reading bedtime stories to me when I was two; at around age 3-4, I could read independently. Yes, I consider myself a good reader and I love doing it.

_Were you taught to read via phonics skills or through sight words in literature?_

I don’t remember those specific terms but I do remember my teacher telling us to build words related to sound/letter manipulation like cat and hat. I also had authentic reading opportunities in reading class.

_How much time do you read per day on average? What do you read?_

Outside of school, I read for an hour in addition to studying spelling
three hours each day on average. I like both fiction and nonfiction; I love the Harry Potter series. And for non-fiction, pretty much anything goes but I especially like authors such as Malcolm Gladwell and his books: Blink and Tipping Point. I prefer print books to e-books based primarily on availability. I would read e-books but don’t have access to many.

*Do you read/speak other languages besides English?*
I speak Bengali. In addition, I can read, write, and speak German to a limited proficiency.

*Do you exhibit characteristics of having word consciousness, meaning you are intrigued in learning new words? Can you provide me with an example?*
When I was studying for the spelling bee, I definitely tried to learn new words as often as possible. Now, I don’t necessarily seek them out but do like learning new words. For instance, when I read a menu and I see a new word, I think oh wow, that’s a new spelling word.

**Spelling behaviors**

*When did you first become interested in spelling and spelling bees?*
I first entered a spelling bee in elementary school. I continued participating in small ones until 5th grade, where I made it to regionals. Then, in 6th grade, I made it to the Scripps National Spelling Bee Competition. And I won it this year, my third time at nationals.

*Who taught you how to spell well proficiently? Did it come easily?*
My father suggested that I start with studying Greek and Latin roots. From there, I kind of took charge and learned all other languages of word origin including the other primary ones like French, Spanish, German, and Italian. I tackled those first and then gradually into the less prevalent languages like Chinese, Japanese, and Hebrew. Then, I eventually studied the relatively obscure languages, as they relate to the English language, like Ivatan, Czech, Polish, Māori, Welsh, Irish, and Persian.
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Take me through your mental process of spelling a word such as /fən-tə-ˈchə-nə/ (fantoccini). Do a think aloud of determining the spelling of this word.

Ok, the first thing that comes to mind is it sounds Italian so I would ask for country of origin. The second thing is that I know the definition of the word from seeing it before that it has something to do with puppets, so I would ask for the definition. I think it means a puppet show actually. And then I would determine if it was an adjective or a noun, but in this case I know it is a noun. If it were a word like /trɪ-kə-tə-məs/ (trichon-mous), then I would ask for the part of speech because I know that adjectives normally end in –ous. Then I would stop and think for a little bit...the word is Italian. For Italian spelling patterns the /ch/ sound is either cc or c, because I have studied it enough times. It is rarely spelled with a -ch. Then I would think over it again to make sure I am going to say it right. If I wasn’t absolutely sure of the word, I would ask him to use it in a sentence to verify the spelling. And then I would think about it one more time before spelling it.

What strategies do you use to determine the spelling of unknown words?
Do you visualize the spelling of words?
Visualizing does help; I sometimes trace the words on my hand. This helps me focus a little more plus you can start over if you get distracted. If the word is completely unknown or I don’t get the pronunciation the first time, I will say the word aloud. Then I will ask if there are any alternate pronunciations because sometimes the second pronunciation is more phonetic. For example, last year one word that came was juvia, pronounced /jū-ˈvəh/. The alternate pronunciation was /hū-ˈvəh/ so it was obviously spelled j-u-v-i-a.

How did you improve from your performances in 2009 and 2010?
I studied word roots and language patterns more effectively. In 6th grade, I got the word /pɪk-ər/ (Piqueur). It is actually a person who has hunting dogs and trains them. I knew basic Latin and Greek roots but that was about it. I asked for the country of origin and the definition, but failed because I went with what it sounded like. French words are often
embellished in their spelling. When you misspell a word it will stay with you for-e-ver! Somehow when you misspell in practice, it just doesn’t work that way. It’s funny that I would continually get some words wrong and I would pretend that they were words called at Scripps.

*Do you ever over think how to spell a word?*

In the beginning of sixth grade, words like \ä-bəl\ (abel and able) would challenge me. Other instances were French words where I wasn’t sure if there was an e in the middle of the word like the spelling of the French word pronounced /ən/ (un) has like 15 different spellings. No I don’t over think anymore.

*What is your preparation/routine? How has it changed through the years?*

I come home and do my homework first. Then I take a break before studying in the evening and on weekends. As the competition neared, I shortened my breaks and increased my studies. I spent on average, though, about 3 hours per day and about 15–20 hours in a given week. Still I went out with friends, just less often when the competition was nearing. The CDROM version of the dictionary that Scripps gave us was particularly helpful.

*Do you learn/review groups of words at a time during your studies?*

I began grouping words by proceeding from language to language, reviewing all the words in each separately. Then I went back to my troubled spots—tricky words that were spelled unconventionally or didn’t follow language patterns, or words from less frequently used languages: Māori (spoken in New Zealand), Welsh, Irish, Czech, and Polish.

*What would you have done differently in your approaches to spelling instruction?*

I’m not sure I would have done anything differently. I don’t think I pushed myself too hard. I would have worked harder in the summers of 2010 and 2011. That way, I would not have panicked once school
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started. The stress got to me a little bit like oh my gosh, I only have three more months left.

How can you improve your spelling? What other learning goals do you have?
I don’t have too many plans for spelling; perhaps I will watch next year’s event, but I’m not allowed to compete anymore. For future plans, maybe I will compete in the AARP National Spelling Bee. A friend at the Scripps competition told me about it. Of course, I want to keep my grades up by studying anything interesting in every subject area; I don’t want it to be so narrow. I love to travel so I am considering majoring in international relations in college, but nothing is certain at this point.

What advice might you lend others who do not spell proficiently?
 Mostly just read a lot. Even if you don’t learn all the words, you will see them a lot so it will be harder for you to forget. And if you are really having trouble, you could practice the spelling of the word. You could also study language and linguistics for improvement.

What is the biggest reason others cannot spell as proficiently?
Lack of practice. They may not study extensively. People choose to devote their time to all kinds of things like sports, music, and extracurricular activities, which I hope to get more involved in during high school.

What is your greatest weakness as a speller? What aspects of spelling can stump you?
I think that I have managed to take care of all my weaknesses this past summer, so none, really. My greatest weakness used to be if I heard a word and didn’t know it, I would completely panic. That actually happened to me the first two times at nationals; one year, I received a Persian word that confused me. Being there more than once helped me this year.

Is there anything else you would like to tell me?
At the national spelling bee, I have gotten to know most of the kids.
We’re all friends and we are really just competing against the dictionary. We don’t want anyone to go down or anything.

**Discussion**

Preparing for a national spelling bee takes immense dedication and persistence if one is to achieve the distinct honor of winning the competition; yet, the interests, attitudes, and effective preparatory practices of Sukanya Roy can be mimicked by classroom teachers in their quest to implement best practices of spelling instruction.

**Interests**

The cultivation of interest toward spelling may seem daunting when considering notions of spelling instruction from our own childhood that include: writing a word five times, using it in a sentence, and saying the word aloud; moreover, advances in spelling have stalled as the topic is not currently receiving attention in the field of literacy (Cassidy & Ortlieb, 2011; Cassidy, Ortlieb, & Shettel, 2010/2011). Very few students yearn at the opportunity to complete those exercises that were never research based. Sukanya sought out words because of her profound interest in learning about culture, history, and language; a myriad of students could be motivated toward learning content through the study of spelling within all content areas. Whether historical texts or current newspapers, children are drawn to stories (Doll & Gough, 2003); words are at the crux of efficacious learning opportunities (Hiebert & Kamil, 2005).

**Attitudes**

Templeton (1991) purported “for most students an inductive or exploratory approach is appropriate; for severely struggling spellers who are working at an appropriate developmental level, a more deductive, systematic, and direct approach often is preferred” (p. 187). However, if all students are to increase their spelling abilities, developing and maintaining word consciousness is paramount (Samway, 2009). Children are inquisitive by nature; harnessing this personality trait toward spelling can be achieved through broad exposure to genres/varied print, opportunities to reflect and study text beyond just the reading of material, time
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allotted for students to share newly learned words with one another/post on the classroom word wall, and promotion of student writing using ‘spicy’ words found in previous readings. Just like vocabulary, spelling words are learned from multiple exposures; attitudes toward spelling are fostered through numerous instances of intriguing word interactions.

**Practices**

Fostering a strong foundation in the English language begins with examining the phonemic and morphemic word elements. However, once phonics skills are mastered, all students must be exposed to structured regimens of word study, particularly in the most commonly occurring etymologies of words in the English language: French, German, Greek, Italian, Latin, and Spanish. There is a strong evidence base for explicit instruction of word parts at the middle and high school level (Bear, Invernizzi, Templeton, & Johnston, 2007; Rasinski, Padak, Newton, & Newton, 2008). In the early elementary grades, Author (in press) determined that the systematic instruction of word parts through varied experiences for students to learn Greek and Latin prefixes, bases, and suffixes resulted in statistically significant gains for advanced learners. By learning selected word parts and strategies for deciphering words, students can connect word spellings to their existing schemas through word acquisition activities that are inclusive of vocabulary and contextual study.

Cognate and contextual analysis are also seminal toward spelling mastery. Lubliner and Hiebert (2011) found that cognate instruction affords students advantages in word formation and comprehension of English academic texts. Examining word origin and recognizing the similarities of cognates (i.e., ‘rose’ in English and ‘rosa’ in Spanish—flower) allows spellers to understand the historical and storied nature of words in the English language. Not providing a context from which to learn the spellings of words is like only reading words in isolation; a task that becomes trivial and only applicable in remote instances.
Conclusion

The makings of a spelling system began during the 15th century when Caxton sought to standardize spelling (McAlexander, Dobie, & Gregg, 1992; McPherson, 1984). Since then, superb spellers like Sukanya Roy have utilized a structured regimen of studying standardized patterns of the English language to refine their spelling abilities toward mastery. Learning high frequency spelling patterns is critical toward spelling development; knowing the etymology of a word and what language it was borrowed from provides the student with a narrow pool of potential spellings of the word.

Characteristics of the spelling bee champion include that she is widely read, learns through experiences, studies commonly occurring etymologies connected to the English language, examines word parts, recognizes spelling trends and patterns, identifies and remediates her weaknesses, makes connections to schema, visualizes, and heightens her intensity as competitions near. She has utilized methods of good readers and learners toward spelling mastery; her success may lie in her activation of schemata from extensive study and language analysis. Her expertise is truly inspirational; now that these components to spelling mastery have been revealed, it is our task, as educators, to instill many of these same characteristics within our students by beginning structured and sophisticated systems of spelling study.
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Improving the literacy needs of academically at-risk male students

Toni Chapa

Abstract

The purpose of this qualitative, multiple case study design was to explore the literacy experiences and perceptions of male students attending an alternative high school. A phenomenological approach was used to capture the essence of their literacy experiences. Ten male seniors in high school were each selected on the basis of purposeful sampling in which the student participants met specific criteria and were recommended for this study by their English teacher. Data sources included three in-depth interviews with each participant, as well as interviews with their senior English teacher. Student records were also obtained from the school office, including the students’ transcripts and attendance information to triangulate the data; member checks and peer review were employed to verify the results. A thematic analysis resulted in the identification of the following core themes: a) a need for variety of texts, b) balanced rigor, c) an environment that provides choice with a relevant purpose, and d) personalized instructional support. Implications of the study are discussed, along with recommendations for future practice and research.

Improving the literacy needs of academically at-risk male students

The number of school-age males reportedly falling behind in school in the United States has raised questions over the past several decades. Data on national tests and studies show boys have been falling behind
girls in several areas, including literacy (Alloway, 2000; Center on Education Policy, 2010; National Center for Education Statistics, 2007; Rampey, Dion, & Donahue, 2009). The data on boys’ lack of academic achievement raises several questions about the gender gaps in literacy and public education. Since the early 1900s, the boy crisis has been documented with boys scoring lower than girls on national assessments (Gates, 1961; Rivers & Barnett, 2006, Sadowski, 2010).

There are several reasons why students might become disengaged from school. Studies indicate that students can become bored with a curriculum that fails to provide rigor and relevance (e.g., Bridgeland, Dilulio, & Morison, 2006; Jerald, 2006). Other cases suggest that one of the factors that contribute to higher dropout rates is low expectations for struggling students (Jerald, 2006). Additional reasons for student disengagement include a lack of supportive adults and a sense of not belonging (Blum, 2005). It has also been pointed out (Snow, Porche, Tabor, & Harris, 2007) that students in secondary schools move from the small community they knew in elementary school and enter large middle schools and high schools where they become disengaged from this crowded school environment and begin to experience academic failure.

**Alternative schools**

For students who are disengaged from school for any of these and other varied reasons, alternative schools may meet the needs of these students. Although alternative schools are not new in the United States, there are now various models of alternative schools designed to provide a range of educational experiences. According to the National Dropout Prevention Center/Network (NDPC/N, n.d), “the most common model of alternative school operating today to serve youth in at-risk situations is designed to be part of a school district’s comprehensive dropout prevention program” (p. 2). Hoffman (2009) stated that in the 2006-07 school year, there were over 6,638 schools focused on some form of alternative education; this number does not include vocational schools. One year later, data for the 2007-08 school year reported a total of more than 500,000 students enrolled in over 10,000 alternative schools and programs operated by school districts alone (Carver, Lewis, & Tice, 2010).
This rapid growth of alternative settings has spurred increased attention to the alternative schools and their characteristics and effectiveness (Kochhar-Bryant & Lacey, 2005). Although this information points to evidence that the need for alternative schools is on the rise, this can also lead to an over-reliance on alternative schools without addressing the real causes of the problem.

There are several assumptions about why students might become disconnected from school (Blum, 2005; Snow, et al., 2007). Some studies indicated that students are bored with a curriculum that fails to provide rigor and relevance (Jerald, 2006; Tomlinson & Doubet, 2005). Similarly, Yazzie-Mintz’s (2006) High School Survey of Student Engagement (HSSSE) reported that a great majority of the students are bored every day in class. In fact, only 2% of a total of 81,499 respondents reported that they have never been bored in high school. This report included 110 schools in 26 states across the United States. One common belief is that low expectations for struggling students are one of the factors that contribute to higher dropout rates (Jerald, 2006). Another reason for disengagement is the loss of connection or belonging, as well as the lack of supportive adults (Blum, 2005; Wells, 1996; Yazzie-Mintz, 2006). While all of these reasons may certainly be factors affecting students today, we gain a deeper understanding of the complexity of adolescent literacy through the perceived experiences and voices of the students.

A recent qualitative study (Bland, Church, Neill, & Terry, 2008) of dropout recovery centers in six different counties of central Kansas was conducted to discover why students drop out of school along with why students had been successful in this particular alternative setting. Researchers in this study interviewed 24 former high school dropouts who had graduated from one of the Kansas centers. Both the students and teachers reported that the reason for students’ success at these centers was a positive, caring environment. All groups recognized the sense of community and lack of competition at the centers. Small class size and personalized instruction were also important factors for success. A self-paced environment, a flexible schedule, and the use of technology accommodated individual learning styles.
It is important for schools to study the issues affecting students and to “examine their role in inadvertently pushing students out of school” (p. 36). It is estimated that about 1.23 million students drop out annually in our country – or a stunning 7,000 each day (Editorial Projects in Education, 2008; National Center for Educational Statistics, 2002; Wise, 2008). According to the San Antonio-based Intercultural Development Research Association (Johnson, 2007), almost 50% of dropouts in Texas are Hispanic. Nationwide, the rate increases to 58% (Editorial Projects in Education, 2008).

Males are more likely than females to drop out of school. We also know that boys are more likely to have low achieving literacy rates. Therefore, researchers and educators need a better understanding of boys’ literacy experiences, particularly those who have enrolled in an alternative high school. This study can assist educators and policy makers in understanding why male students have left their high school to attend an alternative campus. In addition, the voices of male students can shed light on not only how these students use literacy, but also on how they view literacy based on their experiences both in school and out of school.

**Purpose of the study**

The purpose of this qualitative study was to explore the literacy experiences of 10 male students attending an alternative high school. Given the increase in the number of alternative schools and the need to examine their effectiveness, along with the existing gender gap in literacy, there is a need to determine the literacy experiences of males who graduated from an alternative high school. A multiple case-study design was used to investigate the reading and writing experiences of male students and will fit with other studies that have also attempted to gain insights into students’ literacy practices. This phenomenological inquiry focused on 12th grade male students who withdrew from their high school to attend a local alternative campus. These participants’ experiences can best be understood from their own lived experiences. It is through our understanding of the students’ perspectives that educators and others can address the underachievement issues facing students, especially males.
Research questions
The following questions guided the research study. First, how do male students attending an alternative high school describe their literacy experiences? Second, how can schools better meet the needs of male students?

Method
This phenomenological study was conducted using a naturalistic approach (Lincoln & Guba, 1985) with qualitative data collection methods and analysis. Phenomenology seeks to capture the essence of the lived experience (Merleau-Ponty, 1962; Moustakas, 1994; Van Manen, 1990). Therefore, a phenomenological approach best supported the exploration of literacy experiences of male students enrolled in an alternative high school.

The semi-structured interview approach also allowed follow-up questions to student responses while using the interview questions as a guide. It was important to provide an appropriate balance for the participants to allow them to feel comfortable sharing details about their literacy experiences during the interview process (Seidman, 2006).

Participants
The 10 participants in this study were male students in their senior year in an alternative high school. A purposeful selection of participants with similar characteristics served to provide information for this study. Students were identified and recruited by their English teacher based on the following criteria: (a) were male students; (b) had grade level status as junior or seniors in high school; and (c) had not been referred to a disciplinary campus, (d) did not have a history of grade retention, and (e) were not identified as needing special education services. The students were also not enrolled in the researcher’s classes.

Each student was approached individually about participating in this research study. The 10 students and their English teacher received a consent form describing the purpose of the study and their role as participants, followed by a brief description of this study. Participation in the study was voluntary and was kept strictly confidential. Students
were also asked to choose a pseudonym to avoid any potentially adverse reaction to their participation.

**Setting**
The study was conducted at Alternative High School (pseudonym) located in a large urban school district in South Texas. The alternative school is advertised to the public as a school of choice, and there is currently a waiting list of students wishing to enroll at this school. The curriculum is compacted, which allows students to receive a year’s credit in a core subject in one semester of 18 weeks. Electives can be completed within a nine-week period.

The attendance area of the alternative high school includes a large, low-to-middle income, Hispanic community of Mexican origin. According to the 2009-2010 campus profile of the Academic Excellence Indicator System (AEIS), the AEIS report indicated that 78% of the students were economically disadvantaged, and only 2% were classified as being Limited English Proficient (LEP). The total student population was comprised of approximately 221 students from 8th grade through 12th grade; 85% were Hispanic, 5% were African American, and 10% were white. The mobility rate was 89%. The percentage of grade 11 students passing the English Language Arts portion of the Texas Assessment of Knowledge and Skills (TAKS) was 83%, which was 10 percentage points below both the state and district averages. The English Language Arts test is a combination of reading and writing. Alternative campuses in Texas have the option to be evaluated under the state’s Alternative Education Accountability (AEA) procedures, which provide a different set of standards than those used for regular schools. Under AEA, the campus received an “Academically Acceptable” rating, which is considered the highest rating for an alternative campus in Texas (Texas Education Agency, 2010).

**Data collection procedures**
A three-phase interview process allowed the researcher to gain insight into the lived experiences of the participants (Seidman, 2006). The interviews were conducted during a four-month period at the alternative
high school. All of the student interviews took place at the alternative campus. Each interview lasted approximately 30-45 minutes; a member check was conducted during the third follow-up meeting to clarify the participants’ responses. Member checks allowed the researcher and students to examine the transcripts and provided the students with the opportunity to make any changes, corrections, and deletions (Lincoln & Guba, 1985).

This also permitted the researcher to ask further questions to gain a better understanding of the participants’ experiences. Multiple sources of data were collected to provide a basis for triangulation as analyses were conducted and the cases were transcribed. For example, data was obtained primarily from audio-taped, semi-structured interviews with student participants, as well as interviews with their English teacher. Student documents and a researcher’s journal were used to assist the researcher with data analysis. Student records obtained from the school office included the students’ transcripts and attendance information.

**Student interviews**

During four months of the academic school year, three semi-structured interviews were conducted with the participants. This semi-structured format facilitated the opportunity to acquire further information through additional questioning. The researcher relied on a digital voice recorder and a researcher’s journal during the interview. For the interviews, each participant either chose or was given a pseudonym for identification, and student record information was aligned with data from interviews. The information was recorded on a table and was incorporated into the results of the study.

The initial interview was held at the beginning of the study to gather information about the participant’s expectations, questions, beliefs, and experiences. The interviews began with general informal conversations to discover information about the students and allow flexibility in encouraging them to freely share their experiences (Patton, 2001). Then the researcher proceeded with specific, open-ended questions regarding the students’ attitudes toward reading, computers, writing, and school.
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The interview questions served as a guide and were adapted for this study (Merriam, 1998; Moje & Tysvaer, 2010) and are included below:

**Interview questions for students**

**Reading**

- Thank you for meeting with me today.
- Tell me something about your reading habits.
- How often do you check out books from the library?
- Tell me something about your home reading habits.
- Are you a good reader? Why do you think so?
- Tell me about the reading habits of some of your friends.
- Tell me about a good memory you have of a teacher teaching you how to read.
- Tell me about a book you have read recently.
- What material(s) would you prefer to read? Show student a variety of reading materials (newspaper, magazines, poetry, email, Internet, books of different genre…)
- How would you describe the experience of reading when you’re reading something enjoyable?

**Computers**

- How often do you use a computer?
- If you use the Internet, tell me about your favorite websites.
- (If student is taking an online course) Describe what the online course is like for you.
- (For students enrolled in a computerized reading program). Describe what the reading program was like for you.

**Writing**

- Tell me about your writing in school?
- Tell me about your writing outside of school?
- What helps you really want to write something?
- What keeps you from wanting to write something?

**School**

- Why are you attending an alternative high school?
- What would the ideal classroom be like for you?
• What would you say to someone who said that students here at the alternative high school didn’t care about school?

**English teacher interviews**

Separate interviews were held with the students’ English teacher, providing a context for the students’ experiences and performance in the classroom setting. Specific information about the students’ literacy experience from the teacher’s perspective served to validate other sources of information from student interviews, attendance records, and academic transcripts.

The participants’ English teacher was interviewed about students’ literacy experiences in the classroom. Audio-taped interviews with the English teacher were also conducted at the alternative campus. Ten interviews, scheduled in four separate sessions, were digitally audio-recorded and manually transcribed. During the interviews with the English teacher, the researcher attempted to capture the students’ overall literacy experiences in the classroom setting. Member checks were held with the teacher after each interview session to confirm understanding of the teacher’s responses.

**Data analysis**

The procedures for analyzing this phenomenological study entailed transcribing verbatim audio-taped interviews using the constant-comparative method (Glaser & Strauss, 1967). The researcher began with an open-coding system to reduce the data into focused themes to identify the phenomena under study (Strauss & Corbin, 1998). Structured coding was then used to match the four research questions guiding this study, utilizing in-vivo coding to preserve the participants’ voices and language (Charmaz, 2006; Saldana, 2009).

A structured coding system facilitated the development of core themes associated with each of the four research questions. After reading and rereading the transcribed interviews, the researcher highlighted key words and quotes that either stood out or were repeated across the study. The individual transcripts were analyzed using the constant-comparative method to develop categories. Throughout the process of comparing and
categorizing data, information was labeled and coded within emerging themes that described the students’ experiences and perspectives.

Data analysis began early on during the collection of data and continued for several months after the interviews. After gathering data from the “within-case” analysis, a cross-case analysis was conducted to search for patterns in the form of themes that cut across the students’ individual experiences (Merriam, 1998; Patton, 2001). Several charts were then created to organize the data in a structured manner as the researcher began to interpret the meanings of the students’ responses. A peer debriefer is an objective expert in the field who reviews a sample of the transcripts with the researcher and offers insights and suggestions (Lincoln & Guba, 1985) to enhance the credibility of the study. A peer debriefer’s critical eye allowed the researcher to gain a deeper perspective of some of the literacy experiences. The peer debriefer was a doctoral student in curriculum and instruction and was employed by the school district as a secondary literacy coach. After meeting with the peer debriefer, emerging themes were kept on a wall chart for reference and reflection during analysis.

**Results**

After within-case and cross-case analyses, the researcher analyzed the data for patterns in the form of themes and categories. The most commonly identified themes elicited from the interviews were the need for (a) a variety of texts, b) balanced rigor, (c) an environment that provides choice with a relevant purpose, and (d) personalized instructional support. In addition to the interview transcripts, other data used for this study include teacher interviews, student documents, and the researcher’s journal.

**Research question 1: Need for a variety of texts**

As the participants described their literacy experiences, the majority of the students expressed that their reading in school was limited. Eight of the 10 participants in this study shared that they had not checked out books unless assigned for a grade. Nine of the 10 participants in this study indicated that they had read more books in elementary school
although they had been exposed to prepackaged, computerized reading programs to motivate them to read. Justin remembered being paid a dollar for every book he read for one week when he was in elementary school. Other students recalled the points and prizes associated with a reading program. However, their responses indicated that incentivized reading does not necessarily encourage students to read or promote the love of reading books and other materials. Researchers warn that extrinsic motivation based on incentives is short-lived and disappears once the incentives are no longer offered (Guthrie & Wigfield, 2000; Wigfield, 2004). In fact, grades can become a hindrance to reading for enjoyment. Lenters (2006) suggested that “giving space to ungraded, independent reading in secondary schools may help widen some adolescents’ conception of literacy” (p. 143).

The 10 participants shared limited reading and writing experiences in terms of materials and approaches to learning that failed to provide variety.

I missed out on some of the good reading in high school. In ninth grade, what were you supposed to read? I read Night about six times between 8th grade and 10th grade; I read it like six times because it was a requirement. I could probably act that book out if I had to. (Allen, High School Senior)

Three of the participants also agreed that there should be more reading in high school. Joe reflected, “I think the teachers should make us read a little more; I think it would do us all a favor.” Two of the 10 students also recommended more exposure to a variety of genres; they shared a situation in which they personally discovered an appreciation for particular books when their teacher introduced them to new genres. Allen recalled, “I didn’t like historical books until it was required reading.”

The need for a variety of texts resulted in a disconnect between the students’ in-school and out-of-school literacy experiences as the young men shared their literacy experiences from elementary school to high school. Kelly Gallagher (2009) pointed out that students need a wide and balanced diet of high-interest texts as well as required academic
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texts because, although students can read the words, they do not have the prior background knowledge to comprehend the texts.

b) Need for Balanced Rigor
While the participants in this study believed that self-paced instruction was important, only two students, Bob and Ted, indicated that they were personally successful with the online course because they were self-motivated. Four of them concurred that the online curriculum used at the school was not challenging. For instance, Ike stated that some of the questions were ridiculous, Joe disliked the worksheets that accompanied the online course, and Blue complained about the repetition.

When I first started it (the online curriculum), I liked it just because it was going on my own pace, and I was able to do it on my own. I didn’t have to wait for other people to finish in order for me to go on. But then as I kept using it, it was just basically the same thing over and over every day; it gets boring. (Blue, High School Senior)

The lack of variety and balanced rigor was evident in students’ in-school literacy experiences. In response to questions about their reading and writing experiences, one student shared about having to write definitions for a grade, while another student complained about scanning the textbook for answers “to get it over with faster.”

Research question 2: Need for an environment that provides choice with a relevant purpose
The students’ recommendation for an environment that provides choice with a relevant purpose was a recurring theme for all 10 participants. More specifically, three of the students did not believe that their teachers had implemented a plan that took their learning styles and needs into consideration. Andres stated, “They ask us, but they don’t put it into action.”

Newkirk (2009) clarified the differences between constrained and unconstrained choices. Choice is not a “free-for-all” design, but rather a learning environment facilitated and guided by the teacher. A respectful environment is one where the teacher knows the students and meets their learning needs and learning styles.
d) Need for Personalized Instructional Support

Five of the 10 students also mentioned the importance of teacher rapport with students. Although teacher rapport overlaps with the theme of relationships, the positive relationship with teachers is also tied to a classroom environment that provides the support that students need to be successful in school. DJ agreed: “The ideal classroom would include maybe multiple teachers to have more of a one-on-one approach; be more personal than just instruct the entire class.”

At a normal school, lecture is a big part of it. You really need to focus on speakers and stuff. At this school [alternative high school], it’s more like they give you the information on paper, like more visual stuff. They (regular high schools) think they’re helping you more, but in a way they kinda don’t. They talk a lot. Honestly, I don’t see myself as a dumb student. I can do a lot of my work. I know I can do the work. But I’m just not in the right environment. At [home school], the teachers there are a trip. They don’t really seem to care, but then again [home school] is so overpopulated, it’s hard for them to care about every single student. (Ted, high school senior)

All 10 students recommended having small classes and personalized instructional support. In addition, all 10 students recommended the need to work at their own pace, which provided them with the opportunity to work independently as they completed their high school education.

Discussion

The semi-structured interviews of 10 high school male students indicated a disconnect between students’ in-school practices and their out-of-school literacy experiences. In-school literacy experiences were narrow, and there was a decline in secondary reading. The participants mentioned that required reading was limited in high school; self-selected reading in school seemed to be nonexistent as students described their literacy experiences. While students were assigned skills-based activities at school, they were reading online articles, news stories, magazines, and books of interest for personal enjoyment and for information at home. Outside of school, the participants were writing for a variety of
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purposes, including communicating with others, entertaining siblings, and writing poetry.

In a study of adolescent’s literacy practices in school and outside of school, Moje et al. (2008) examined the literacy practices of adolescents using a sociocultural lens to define the texts young people choose to read and why. The researchers reported that although reading novels were linked with academic achievement, literacy practices outside of school are just as important for both school achievement as well as for young people’s personal development and should not be compromised.

Limitations and suggestions for future research
This study was conducted at one alternative high school to gather information from 10 male students and their English teacher through interviews and student documents. Generalizations cannot be made to a broader population based on these factors. However, the information provides educators and others with a deeper understanding about male students’ literacy practices. This study could be replicated with a large population of male students in regular high schools. Further research can help to generalize to a broader population sample to expand and deepen our understanding of males’ literacy practices.

Conclusion and implication for practice
This study sought to explore the literacy experiences of male students attending an alternative high school. Attending to the diverse needs of students will help educators to better serve all students. Furthermore, it is important that schools do not stereotype genders, which can lead to regulating reading, as that would jeopardize the efforts to engage all learners. Similar to Smith and Wilhelm’s (2002) study, the young men interviewed had not experienced a feminized school culture. Although a few of the boys used gendered constructions in their language when referring to their literacy practices, the feminization of school was not the case. The findings of this study provide educators and school administrators with an understanding of males’ literacy experiences in an alternative high school, which can guide efforts to improve current policies and practices. School administrators and teachers will need to reexamine
how local policies and practices should be changed to better serve the needs of individual students. This study displayed the importance of alternative schools; however, we must also ensure that alternative school settings do not become what Snow et al. (2007) describe as a “bandage to a gaping wound” (p. 135).

Researchers have discovered that there is a correlation between reading habits and dropping out of school. As teachers become more pressured with high-stakes testing, the approach to literacy becomes limited to mechanized instruction and skill-based approaches to teaching, which only leads to student boredom and an increase in drop outs (Karp, 2003; Meier, 2004). Teachers and school librarians will continue to need more training in accessing a variety of resources. An ideal classroom and school libraries would be well-stocked with not just books, magazines, graphic novels, and computers with book-marked web sites (Sturtevant, Boyd, Brozo, Hinchman, Moore, & Alvermann, 2006) but digital and audio books as well. In addition, school teams can serve to enhance the literacy support that high school students need to be successful in reading diverse texts (Brozo & Fisher, 2010; Deshler, Schumaker, & Woodruff, 2004; Fisher, 2007; Gewertz, 2010). At a much broader level, young people need learning environments outside of school that can serve their special interests (Heath, 2012).

The challenge for us as educators is to bridge the gap between students’ in-school and out-of-school literacy practices. As schools progress in this 21st century, they will need to connect both male and female adolescents to broader opportunities that support them in their learning both in school and out of school.
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References


Content analysis of Latino award-winning children’s literature

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Abstract

Latinos are still underrepresented in children’s literature and continue to add to the literacy fabric of America’s history. The researchers examined 31 Latino award-winning books to determine the quality of the current representation in literature and whether or not stereotypes or sociotypes existed in these books. Using a modified list of Louise Derman-Sparks stereotypes, a checklist was created to assess each book for the 10 stereotypes. The investigators did not find evidence of stereotypical portrayals in these books and feel that this is evidence that Latino award-winning children’s books have improved the portrayal of Latino culture over the last few decades.

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The fabric of America’s history in literacy has certainly been woven by the hands of many cultures over the course of time. Some of these hands have belonged to European immigrants. It is the hands of the diverse Latino that have not only played a key role, but have also been here long before the United States was even a nation. Although “Hispanics” or “Latinos” have been conveniently lumped together, this diverse ethnic group created a literature in North America even before the founding of
the United States. Kanellos (2002) affirms that Hispanics in the United States have significantly contributed to literature and culture. Starting with the Spanish colonization, Franciscan priests were the first to establish a culture of literacy and a European language, Spanish, in the South and Southwest from Florida to California (Kanellos, 2002). Historically, Latinos were not only instrumental in establishing a literate world in the Western hemisphere, they were also the first to introduce institutions of literacy such as schools and libraries (Kanellos, 2002). The first university in North America was founded in 1551, Universidad Nacional Autónoma de México (National Autonomous University of Mexico) located in Mexico City. Nonetheless, from this early period to the present, Latinos have been marginalized by mainstream literary culture in the United States.

Latinos and Hispanics are culturally diverse groups of people who have origins in Spain, Latin America and the Caribbean islands. In the past decade, the terms “Latino” and “Hispanic” have been used interchangeably to identify an ethnically diverse group living in the United States. In this paper the word Latino is used to describe this population; however terms such as “Hispanic” or “Chicano” have also been used when drawing on other sources. Further, the term “American” is used when referring to people living in the United States.

The rise in birth rates among Latinos and an increase in immigration are changing the demographic makeup of United States. Despite the fact that Latinos are becoming the majority minority, the bulk of children’s books that are being published today continue to feature characters that are middle class whites (Pirofski, 2010). In 2008 the U.S. Census Bureau predicted that by 2050 Latinos will make up more than half of the U.S. population and half of all U.S. children will be of Latino origin. Data from the 2010 U.S. Census reported that the Hispanic or Latino population increased 43% from 2000 to 2010. Latinos make up 16% of the U.S. population. The Mexican population is the largest Hispanic group in the U.S. (U.S. Census Bureau, 2010). It grew 54% in 2010 accounting for 31.8 million occupants. Puerto Ricans were the next largest Hispanic group with an increase of 36%. They grew from 3.4 million to 4.6 million in 2010. A 44% increase in the Cuban population makes

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them the third largest Hispanic group. In 2010 they were 1.8 million Cuban residents. This shift in demographics reveals a great need for Latino representation in children’s and young adult books.

Latinos have continued to add to the literacy fabric of America’s history, particularly in children’s literature in the last decade of the 20th century. As a reaction to marginalization they experienced in the 20th century, they have challenged the traditional American culture. One way that Latinos have challenged and added to this literacy fabric is by creating three children’s book awards that specifically depict Mexican-Americans and Latinos: the Pura Belpré Award (Association for Library Service to Children, 2009), the Tomás Rivera Mexican American Children’s Book Award (Texas State University, 2009) and the Américas Book Award (Consortium of Latin American Studies Programs, 2009).

All children deserve high-quality books that value and authentically reflect their own traditions and culture. The Latino awards were created by educators and librarians to commend authors and/or illustrators, for accurate and genuine Latino representation in children’s and young adults’ books. Since their founding in the 1990s, recognition for Latinos has been more prominent.

Preceding the three Latino awards, the American Library Association created the John Newbery Medal in 1922. This award was the first literary honor given to authors whose contributions were distinguished in American literature for children. Shortly after in 1938 the Randolph Caldecott Award was launched to honor artists for best illustrated picture book of the year. Both awards are given annually to authors and illustrators. Since their formation the Newbery and Caldecott awards have set the standards for high quality children’s and young adult books. Teachers, librarians and parents have held the award-winning books in high esteem and have used them to measure other children’s literature. It is a privilege for authors and illustrators to receive a Newbery or Caldecott award.

In 1927, just five years after the literary award was created, the Newbery Medal was bestowed to Smokey, the Cowhorse. This was the first award book which featured a Latino character, although it was only a minor character (Gillespie, Powell, Clements, and Swearingen, 1994).
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It took almost 30 years for other books with Latinos, in this case major characters, to receive the Newbery Medal; *Secret of the Andes* (1953) and *And Now Miguel* (1954) (Gillespie, Powell, Clements and Swearingen, 1994). A decade later another children’s book with a Latino character, *I, Juan de Pareja* (1965), won the Newbery Medal. While these are milestones for Latinos in children’s literature, these books could hardly be considered pioneer. Their content was about places and people in Spanish-speaking countries or regions; therefore, Latino characters had to be included. Furthermore, these three Newbery Award winners were written about, but not by Latinos (Gillespie, 2001). Although Latinos are making strides in children’s literature, the number of books published that represent the Latino culture does not match the census numbers.

Other researchers that have investigated the portrayal of Latinos in children’s literature found that the few Hispanic characters that did appear in children’s literature were stereotyped as poor, desperate, dependent, and lacking ambition (Rocha and Dowd, 1993, Ramirez and Dowd, 1997 and Nilsson, 2005). Ramirez and Dowd (1997) noted that although more Latino books have been published for children and young adults from 1990 to 1997, and the portrayal of Latinos has improved over time, there are still remnants of stereotypes in literature for youngsters. These depictions of Latinos in children’s literature inspired this paper’s research to determine whether the recent books published had changed the stereotypical depiction of Latinos.

Louise Derman-Sparks, author of the book *Anti-Bias Education* asserts that stereotypes in children’s books affect the readers’ self-perception and perceptions of others around them. Derman-Sparks and Olsen Edwards (2010) argue that when such stereotypes are seen over and over again, children eventually accept these perceptions as reality. Therefore, it is critical that teachers of Latino children use children’s literature that portrays the Latino characters realistically and in a non-stereotypical manner.

This study evaluates Latino award-winning literature for stereotypes in gender, illustrations, protagonist, age, language, racism, social economic status, traditional roles, food and clothes as defined by Louise Derman-Sparks (1989). She has devoted much of her research to mak-
ing people, especially young children, aware of the prejudices, biases, and racism in our society that eventually affect children’s perceptions of humanity. Derman-Sparks’ goal is to educate society, beginning with children, by providing them with the necessary tools to combat prejudice, bias, stereotypes and the “isms” generated by society. Literature is a tool with which to educate these young children. It is a mirror that reflects our own lives and experiences (Bishop, 1990). One way to ensure the quality and appropriateness of children’s literature is to evaluate it for stereotypes and biases. As educators search for quality literature that represents diverse backgrounds, there is a societal need to continue to evaluate children’s literature for these types of stereotypes and biases as investigators Rocha and Dowd previously did.

To evaluate the Latino award-winning books that have received these three awards, the researchers used the following question to guide this inquiry: Do the award-winning books by and about Latinos contain stereotypes?

**Review of the literature**

With an unprecedented increase in Latino population in the United States, evaluating Latino characters in children’s books is timely. Throughout the 20th century, researchers have become more interested in the character representation of African-Americans, Native Americans, Asian/Pacific Islanders and the fastest growing ethnic group, Latinos (Sims Bishop, 1990). For this reason, it is essential that young children be exposed to culturally relevant literature where diversity is embraced.

Prominent and respected books like the American and international children’s collected works, *1001 Children’s Books You Must Read Before You Grow Up* (Eccleshare, 2009), mention the importance of Latino authors and books:

“The beloved classics are here, but the guide also takes a global perspective and includes the increasingly diverse contributions from African-American and Latino authors and illustrators – not to mention important books from around the world.”

Investigators interested in equal representation of characters in children’s literature understand this importance and the need for Latino
representation. Three studies have been instrumental in evaluating different aspects of children’s books, by and about Latinos, and teachers have integrated these titles into the classroom as part of their reading curriculum.

Rocha and Dowd (1993) analyzed children’s books specifically looking at the portrayal of Hispanic females in non-fiction children’s books K-3 from 1950 to 1969 and Ramirez and Dowd (1997) looked at portrayals from 1970 to 1990. Both studies concluded that in children’s books, Hispanic women were emotional, enjoyed celebrating holidays, loved dancing and were not concerned with the future. Living in the present, dancing and celebrations were stereotypical of the women characters in the books they evaluated. They also found that women tended to wear their hair in traditional style, such as braids, no bangs, pulled back in a bun, thick and long. The women did not aspire to become professionals, to be self-sufficient or to reach autonomy, but rather lived for the present.

In another study, Nilsson (2005) analyzed 21 studies about the portrayal of Latinos in children’s literature from 1966 to 2003. Nilsson reported that of the 64 books surveyed for stereotypes in 1975, she found only one which included a Mexican American, and it was only a minor role. Nilsson also noted that Latino characters were portrayed in stereotyped, constricted minor roles and sometimes negatively, especially in books for young audiences. In her research, Nilsson found that some of the studies indicated that females were stereotyped more often than males and stereotyping actually decreased as the years progressed, although it was still evident in some of the books evaluated. For example, a 1972 study on Puerto Ricans by the Council on Interracial Books for Children showed females in subordinate roles, stereotypes in gender, race and class, and an overall colonial viewpoint unfavorable to Puerto Ricans. However, a 1982 study by Adams, Nilsson found that Latino roles were improving with gender, age, and socioeconomic status.

One of the earliest publications to take notice of the discrepancies among character representations in children’s literature between whites and blacks was Nancy Larrick’s 1965 article, published in the *Saturday Review*, “The All White World of Children’s Books,” Larrick’s article
stated that the portrayal of light-skinned characters in books teaches the child with a fair complexion that he or she is superior. Moreover, she adds that the “gentle doses of racism” are fed through books.

Culturally relevant books should positively reflect children’s identities, home language, and cultures of others whether the culture is represented in the population at hand or not. Children’s literature that provides a multicultural perspective allows children to learn firsthand about themselves and their peers. When teachers integrate multietnic literature in their repertoire it benefits other students of different ethnic backgrounds (Valadez, 2009). These books help children shape emerging images of themselves, others, and society as a whole (Beaty & Pratt, 2007). Conversely, when copious amounts of books are sold that do not represent a true picture of certain groups, readers rely on the stereotypes depicted in the literature.

**Latinos in the classroom curriculum**

In Texas, these types of books have become part of the state curriculum in many public and private schools. It is not surprising that Texas teachers have embraced literature with Latinos as the main characters since many students are of Latino or Hispanic heritage. The U.S. Census Bureau (Texas Quick Facts, 2009) reported that 36% of Texas residents were of Hispanic or Latino origin. It makes sense to expose students to literature in which they can relate to the protagonists. However, many teachers are still resistant to cultural exposure or do not know how or where to begin to include culturally relevant books in their classrooms.

In a South Texas study, Valadez (2009) found that some elementary school teachers in a predominately Latino population included children’s books by Latino authors in their Language Arts curriculum as part of the mandated Texas Essential Knowledge and Skills (TEKS). They identified Carmen Lomas Garza, Pam Muñoz Ryan and Gary Soto as favorite authors. While incorporating Latino books in the curriculum helps students become aware of Hispanic culture, Valadez (2009) noted that not all teachers were prepared or willing to make this commitment. She reported that much of the literature for children read in today’s classrooms still portrays middle-class European Americans who are typically
monolingual English speakers. Results showed that some of the Latino teachers who teach Latino children continue to use European-American literature and could not identify “books that reflect their own heritage” (Valadez, 2009, p. 8). Furthermore, some of the statements made by the participating teachers revealed that they did not know how to choose culturally authentic literature or simply did not want to be involved in racial issues. Some only read books by or about Latinos in specific times of the year like Hispanic Heritage Month or during Christmas to show how Christmas is celebrated around the world. Valadez, states that this limitation inadvertently places the Latino as the “other” (Valadez, 2009) and not as part of the American culture.

Stereotypes and sociotypes
A stereotype is a mental category that is based upon exaggerated and inaccurate generalizations about a group of people that tend to be unfavorable (Irvine, 2001). An example of a stereotype can be that all Latinos function on the mañana philosophy. This philosophy means that things that need to be done today get put off until tomorrow (mañana), therefore little gets done. This is an inaccurate generalization and not based on reality. On the other hand, a sociotype is an accurate characterization of social groups that is based on empirical data. These descriptions tend to be narrower categories and more specific than stereotypes (Irvine, 2001).

Methods
Award-winning children’s books were evaluated for stereotypes that could potentially perpetuate bias and prejudice against the Latino Culture. This study focused on the three awards given to children’s books that depict the Latino culture. These awards were the Tomás Rivera Mexican American Children’s Book Award, the Américas Book Award for Children’s and Young Adult Literature, and the Pura Belpré Award.

Each award has separate and unique criteria for selecting the book of the year. The Tomás Rivera Award was established in 1995 by the Texas State University College of Education in San Marcos, Texas (Texas State University, 2009). It is given annually to honor the most
distinguished author or illustrator in children’s or young adult literature who specifically depicts the Mexican-American experience. (Winners of the Tomás Rivera Awards are listed at http://www.education.txstate.edu/c-p/Tomas-Rivera-Book-Award-Project-Link/Winners.html).

The national Consortium of Latin American Studies Program (CLASP) created the Américas Book Award in 1990 for Children’s and Young Adult Literature to go beyond the multicultural-international boundaries of the Americas (Center for Latin American, 2009). It was created to recognize literature that portrays Latin America, the Caribbean, or Latinos in the United States. Award books can be written in Spanish or in English. (The Américas Award and commended books are listed at http://www4.uwm.edu/clacs/aa/index.cfm).

The Pura Belpré Award is “presented to a Latino/Latina writer and illustrator whose work best portrays, affirms, and celebrates the Latino cultural experience in an outstanding work of literature for children and youth” (Association for Library Service to Children, 2009). This esteemed award, appropriately named after the literary legacy, storyteller, author and librarian Pura Belpré, is awarded by the Association for Library Services to Children (ALSC) and the National Association to Promote Library Services to the Spanish-speaking community (REFORMA). (For a complete list of the Pura Belpré winners see http://www.ala.org/alsc/awardsgrants/bookmedia/belpremedal/belprepast).

Selection of literature
A total of 50 books were originally chosen to be analyzed by the investigators; 25 from the Américas winning booklist, 16 from the Tomás Rivera award list, and 9 from the Pura Belpré award-winning list. The books varied from picture books to chapter books to trade books ranging from emergent to young adult level. The three award-winning booklists were compiled into one master list. It was noted that some of the book titles appeared more than once; nine books were chosen twice. The list was then narrowed to include only the award-winning books from 1993 to 2009 which excluded the honored books. As we pursued the investigation, we also discovered that some of the books were unavailable or out of print; therefore, they were not included in this study. Most of the
Content analysis of Latino award-winning children’s literature

books that were inaccessible were from the Américas award-winning list. A final count of 31 books were randomly assigned between the investigators.

**Evaluation instrument for stereotypes**

Ten stereotypes were identified by Derman-Sparks in *Anti-Bias Curriculum*: gender, illustrations, protagonist, age, language, racism, social economic status, traditional roles, food and clothes. These stereotypes from Derman-Sparks’ book, in combination with Rocha and Dowd’s (1993) work and various others were used to create a checklist to follow as we examined each book. The modified instrument was shown to professors of children’s literature to check for true validity. Their feedback was used to further refine the instrument. The finalized instrument was used as a checklist of 10 categories. The categories included gender, protagonists’ ethnicity, protagonists’ age, language used in the text, racism towards the protagonist or by the protagonist, socioeconomic status (SES), traditional roles, illustrations that depicted stereotypes, food and dress. A category for Newbery Award recipients was added to determine if any of the books had received this pinnacle award.

This study follows a content analysis approach. Content analysis is used as a tool for analyzing text for relationships and meaning in a contextual body. In this design, data is quantified, coded, and then analyzed to extract inferences about the content. The investigators read each book on the established list. After each book was read, it was coded (see Table 1) for stereotypes. Investigators’ comments from the checklist were noted as qualitative data. The investigators met regularly after every three or four books to discuss the results until all books were evaluated and coded.

**Reliability**

Creswell (2007) stresses the importance of intercoder or interrater reliability “based on the use of multiple coders to analyze” data (p. 210). He stresses that ‘reliability’ often refers to the stability of responses to multiple coders of data sets. (p. 210). To establish a trustworthy interrater reliability we chose the book Tomás and the Library Lady by Pat Mora to evaluate and compare coding results. Each investigator individually
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<tr>
<td>Gender</td>
<td>1. Male; 2. Female; 3. Other; 4. N/A</td>
<td>Is the protagonist male, female or other such as an animal, an object, or n/a?</td>
</tr>
<tr>
<td>Protagonist Age</td>
<td>1. 0-12 years old; 2. 13-19 years old; 3. 20 years old and older; 4. Entire life</td>
<td>How old is the protagonist at the time of the story?</td>
</tr>
<tr>
<td>Language Used</td>
<td>1. Spanish only; 2. English only; 3. Spanish and English; 4. Slang</td>
<td>What language does the protagonist speak in the story?</td>
</tr>
<tr>
<td>Racism</td>
<td>1. Yes; 2. No 3. N/A</td>
<td>Is there evidence of racism toward the protagonist or is the protagonist being racist?</td>
</tr>
<tr>
<td>Socio-Economic Status</td>
<td>1. Low income; 2. Medium income; 3. Affluent; 4. N/A</td>
<td>What is the socio-economic status of the protagonist?</td>
</tr>
<tr>
<td>Traditional Roles</td>
<td>1. Yes; 2. No; 3. N/A</td>
<td>Is the protagonist or other characters portrayed in traditional Latino roles such as men working, women cooking, and children avoiding eye contact with adults?</td>
</tr>
</tbody>
</table>

*Continued on following page*
assessed the book using the same instrument. We then met to discuss the outcomes and found that our coding data was consistent.

After establishing reliability, each investigator evaluated two more books, and we met again to discuss the process. Thereafter, we met after evaluating three or four books. One investigator collected all of the data as each coding was completed and created an Excel file to compile all of the information. See Table 2 for the results.

### Data results

Ten categories were identified to evaluate the Latino award winning books for stereotypes: gender, age, protagonist, language, racism, SES, traditional roles, illustrations, food and dress. After gathering the data and assessing the results from these books that have received one or
Table 2
Latino award winning books from the Tomás Rivera Award, Pura Belpré Award, and Américas Book Award from 1993 to 2009

<table>
<thead>
<tr>
<th>Category</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>15 Females; 12 Males; 4 Other</td>
</tr>
<tr>
<td>Protagonist Ethnicity</td>
<td>13 Mexican National, 5 Mexican American, 1 Latino: South &amp; Central America, 10 Caribbean: Cuba, Puerto Rico and Dominican Republic</td>
</tr>
<tr>
<td>Protagonist Age</td>
<td>13 0–12 years old; 6 13–19 years old; 3 Entire life</td>
</tr>
<tr>
<td>Language Used</td>
<td>0 Spanish only; 4 English only; 27 Spanish and English</td>
</tr>
<tr>
<td>Racism</td>
<td>19 Yes, racism towards protagonist; 11 No; 1 N/A</td>
</tr>
<tr>
<td>Socio-economic Status</td>
<td>18 Low income, 10 Medium income, 2 Affluent, 1 N/A</td>
</tr>
<tr>
<td>Traditional Roles</td>
<td>25 Yes, protagonist depicted in traditional role, 2 No, 2 Not sure, 1 N/A</td>
</tr>
<tr>
<td>Illustrations</td>
<td>16 Yes, illustrations depict stereotypes, 5 No, 10 N/A</td>
</tr>
<tr>
<td>Food</td>
<td>25 Yes, food is mentioned or part of the story, 3 No, food is not mentioned, 3 N/A</td>
</tr>
<tr>
<td>Dress</td>
<td>20 Yes, the protagonist is depicted in traditional or stereotyped clothing, 2 No, 4 Not sure, 5 N/A</td>
</tr>
<tr>
<td>Newbury Medal, Newbury Honor or Caldecott</td>
<td>1 Newbery Honor</td>
</tr>
</tbody>
</table>
Content analysis of Latino award-winning children’s literature

more of the Latino awards, the Pura Belpré, the Tomás Rivera, and the Américas Award, the investigators found the following from each category.

**Gender, age and ethnicity**
Results revealed that the main characters were mostly female (48%), while male characters represented 39%. Four of the 31 books had either multiple main characters or did not have main characters, such as books of poems. The majority of the main characters, 42%, were Mexican nationals living in the United States, while 32% came from the Caribbean (Cuba, Puerto Rico or Dominican Republic). Sixteen percent were Mexican Americans born in the U.S. while one main character lived in South America. There were no African-American or white Non-Hispanic characters. The main characters tended to be 12 years old or under (42%) or 20 years-old and up (29%). Nineteen percent were between the ages of 13 to 19. Of the 31 books examined, three were about the characters’ life from infancy to young adult/adult.

**Socioeconomic status**
A large number, 58%, of the characters lived in low-income households in rural areas. They were depicted as farm workers or lived in similar settings. The characters in books like *The Circuit* by Francisco Jiménez and *Esperanza Rising* by Pam Muñoz Ryan were undocumented migrant workers, while the family in the book *The Color of My Words* by Lynn Joseph lived in poverty in the outskirts of the city in the Dominican Republic. Thirty-two percent were middle-class families like in *Too Many Tamales* by Gary Soto, *José! Born to Dance* by Susanna Reich, and *The Composition* by Antonio Skármeta. Two books portrayed the main characters in affluent families: *Before We Were Free* by Julia Alvarez and *Under the Royal Palms* by Alma Flor Ada. These two books took place in the characters’ home countries, Dominican Republic and Cuba.

**Language**
Most of the books evaluated, 87%, included Spanish words or phrases. In Ryan’s book, *Esperanza Rising*, two Mexican proverbs were trans-
lated from Spanish to English and craftily placed before chapter one:

“Aquel que hoy se cae, se levantará mañana.” [He who falls today, may rise tomorrow:] “Es más rico el rico cuando empobrece que el pobre cuando enriquece.” [The rich person is richer when he becomes poor, than the poor person when he becomes rich.]

Another example, My Land Sings, Stories from the Río Grande by Rudolfo Anaya, offers an English/Spanish glossary at the end of the book, while other books like The Tequila Worm by Viola Canales wrote the Spanish word in italics and relied on the context to describe its meaning. The latter appeared to be the most popular when including both languages. The authors interjected a Spanish word usually in italics and either immediately translated the word or provided the meaning in the context. For example, in the book by Amelia Lau Carling, Mama and Papa Have a Store, one sentence directly translates the word ciego, “El ciego, the blind man, sells lottery tickets.” In the same paragraph Carling relies on the context for meaning such as, “When Mama and Papa let me have five centavos, I buy enough to fill my pockets.” Other books were written in both English and in Spanish where most often one page was in English and the next page was the translation in Spanish. An example is the book, A Movie in My Pillow/ Una película in mi almohada by Jorge Argueta. Four books were written exclusively in English like Joseph’s books, The Color of My Words and The Face at the Window.

Racism

More than half of the books in the three award-winning lists, 61%, alluded to racism towards the main character or members of their social group. The authors of these books are from diverse ethnic backgrounds and the characters experienced racism in various places, suggesting that racism is prevalent worldwide. The researchers also found evidence of racism tied into social class biases. Some books with racism toward Mexicans or migrant workers are Breaking Through by Francisco Jiménez and Downtown Boy by Juan Felipe Guerrera. Similarly, The Poet Slave of Cuba by Margarita Engle, The Mermaid’s Twin Sister by Lynn Joseph, and My Name is Celia by Monica Brown expressed racism and social biases because of the characters’ dark skin or social status.
Illustrations and dress
Illustrations that exemplified the characters in a traditional setting where their heritage is represented constituted 52% of the books, while 16% had no illustrations. An example of these illustrations are Yuyi Morales’ books, *Just a Minute: A Trickster Tale and Counting Book* and *Just in Case: A Trickster Tale and Spanish Alphabet Book*, which illustrate the characters in bright, colorful places often seen in traditional Mexican gatherings for special occasions. Morales’ main character, Señor Calavera, a skeleton, draws on the strong influence of skeletons in the Mexican and Mexican American culture. Likewise in Lomas’ book, *In My Family/En Mi Familia*, the paintings demonstrate real life situations from her Mexican American heritage growing up in South Texas. Illustrations in books like *The Composition*, *Too Many Tamales*, *José! Born to Dance*, and *Mama and Papa Have a Store*, portray more middle-class Latino families.

Depictions of low-income status were subtly found in some picture books but did not appear to have a negative effect on the story. Two examples of such books are Mora’s *Tomás and the Library Lady* and Argueta’s *A Movie in My Pillow*. In Soto’s *Chato’s Kitchen*, the main character, Chato, is a cool male cat from East Los Angeles who personifies a Chicano in traditional low rider clothing. He wears a white muscle shirt, pants up to the waist with a wide belt, and a bandana around his head. His friend, Novio Boy, represents the good-looking low rider and wears a necklace with a cross.

Traditional roles
Nearly all of the characters, 81%, were displayed in traditional roles while 63% were seen in traditional clothing. The most traditional role was the female cooking the meals and the males performing labor either at their job or around the home. An example is in Carmen Tafolla’s book *The Holy Tortilla and a Pot of Beans*; a collection of short stories describes how all of the cooking is done by the women. On the contrary, Soto’s *Chato’s Kitchen* shows a cool male cat cooking for his friends.
Food

Food was a major component for 80% of the evaluated books. Six books did not mention any type of food. Preparing food or eating was central to most of the families in the books. Again, *Chato’s Kitchen* centers around food as he prepares a meal with different items for his friends. The book describes the ingredients and the delicious aroma of the different meals prepared. *Doña Flor: A Tall Tale about a Giant Woman with a Great Big Heart* by Pat Mora describes the women making tortillas. Even books with a more serious theme like Margarita Engle’s *The Poet Slave of Cuba* and *The Surrender Tree: Poems of Cuba’s Struggle for Freedom* mention food. As Rocha and Dowd found in their study, eating was synonymous with festive gatherings which usually involved food, music and dancing.

Discussion

Stereotypes were not found to be prevalent in the award-winning literature for children and young adults. The categories used to evaluate each book revealed that some of the findings stemmed from actual cultural practices common with many Latinos. Many of the award-winning books are memoirs of the authors’ childhood. The authors are older and grew up in a time when Latinos in United States were not well-received or respected as in today’s time. The customs and traditions the authors grew up with were from their own experiences, stories told to them from their elders or customs brought over from their heritage country. One could even consider these to be sociotypes rather than stereotypes because they are based on real life.

Sociotypes can dangerously become stereotypes when Latinos are portrayed in unfavorable ways and it is assumed that ALL Latinos live this way. These traditional depictions of Latinos could potentially be construed as stereotypes if seen over and over again in children’s books. If Latinos are only seen in images of the past or as one culture then the reader is cheated of the vast diversity in which Latinos truly live. While the award-winning books exhibit the richness in the Latino culture, more diverse and quality books are needed. An example in which diversity and contemporary issues are considered is in *Barrio: José’s Neighbor*.
hood by George Ancona. This book shows José’s diverse neighborhood in San Francisco where they speak Spanish and Chinese, celebrate a variety of holidays and pay tribute to a teacher who died of AIDS.

Latinos are appearing more realistically in television now more than ever before (Market, 2004) and we believe that the same is true for Latinos in children’s literature. While we embrace our cultural backgrounds and appreciate the stories told to us from our abuelos, we must also remember that it is important to represent Latinos as realistically as we would in European-themed books. We need more books that also show Latinos in modern times with realistic issues that could be shared by any racial or ethnic group. For example the plot in Too Many Tamales by Gary Soto could easily take place in any cultural or ethnic setting, qualifying it as contemporary. This would be a great start for any teacher who wants to introduce children’s literature that represents Latino culture. The same can be said for books like Becoming Naomi León by Pam Muñoz Ryan. Writing books that depict the author’s heritage is a way to identify and affirm Latino culture.

It was noted that several authors received more than one of the three awards for either narrative or best illustrated picture books for the same titles. Some of these authors were, Yuyi Morales for Just a Minute: A Trickster’s Tale and Counting Book, Carmen Lomas Garza for In My Family/En Mi Familia, Julia Alvarez for Before We Were Free, and Victor Martinez for Parrot in the Oven. Other authors who have received two of the three Latino awards over the years are Pat Mora, Juan Herrera, Judith Ortiz Cofer, Benjamin Alire Sáenz, and Lynn Joseph. Additionally, two authors have been awarded all three Latino awards in different years for different books. These are, author and illustrator Yuyi Morales for the book previously mentioned and for Just in Case: A Trickster’s Tale and Spanish Alphabet Book, and Francisco Jiménez for Breaking Through and The Circuit.

One reason for repeat winners may be that the amount of quality Latino literature available is grossly underrepresented. Notably, Latino-themed books have been recognized in influential textbooks, but in contrast are ghettoized to the multicultural literature section or included as the token Hispanic book or author. The Norton Anthology of
Children’s Literature (2005) refers to Alma Flor Ada under the “School Stories” category for domestic fiction while Pat Mora is categorized under Verses. Galda (2010) recognizes Martínez’s 1996 Latino award winning book Parrot in the Oven: Mi Vida, in her textbook Literature and the Child. These two examples are confirmation that in the entire textbook only a sliver is dedicated to Latinos. This represents the lack of awareness of Latino literature. For these reasons Latinos continue to be the “other” in many circumstances.

Although none of the 31 books listed in the prize winning Latino Award Books has received the Newbery Medal since 1960, Engle’s book The Surrender Tree: Poems of Cuba’s Struggle for Freedom was named Newbery Honor book in 2009.

More Latino related books based on sociotypes and not stereotypes are needed to represent the fastest growing population in the U.S. Young Latinos should be encouraged to become writers. Equally, young non-Latino writers should be encouraged to include Latinos in other genres like mysteries and science-fiction.

Our research reflects the research of Higgins (2002) in which Mexican-Americans are portrayed more often in picture books, while other Latino subgroups are represented more in higher level reading books. Gender inequality was also evident, with twice as many females as main characters than males. A possible explanation could be that of the 31 award-winning authors, 20 were females and 11 were males. This may also suggest why gender bias has declined in recent books as mentioned in Ramirez and Dowd (1997). We have seen much progress in Latino representation in children and young adult literature. Latinos have come a long way from being portrayed in stereotypes in books like From Lupita’s Hill by Bettie Forsman published in 1973. In the first chapter alone, Latino stereotypes—gender, clothing, and extreme poverty—can be found:

Still, tingling, lying awake but with her eyes closed, she felt sure that the magic dress would come true. It was still nearly blinding her eyes with its glory… “when I wear it, I’ll be able to do anything!” she whispered over and over again in her thoughts. “I’ll be the most important person in San Felipe—in the whole state of Guanajuato!...
Even in all of Mexico!” she thought, then tingled terribly, for, to her Mexico seemed the whole world itself … Her hand reached down and found that the sarape that covered her and her little sisters had been kicked to the foot of their straw mats. Other than this, she noticed nothing, not her small windowless room, or that she was wearing the same faded dress from the day before. (p. 5)

Although this scenario may be true for many peasants living in poverty in Mexico or any Latin American country, it does not represent the many Latinos living in the United States who may or may not speak Spanish or have ever visited Mexico or any other Latin American country. Stereotypes and images such as these can be detrimental to Latino children. They can produce misconceptions about this ethnic group because they do not represent the vastly different lives that Latinos can experience. This reinforces Derman-Sparks’ (1989) argument that readers who do not coexist with Latinos may perceive these myths to be true.

Stereotypes in any form are negative images of people who are seen as undesirable due to some aspect of their character, disposition or physical appearance. For many years Latinos have been associated with such stereotypes and it has created an adverse tension in society. It all comes down to perception. How we perceive others and how others perceive us can build walls or bridges. A goal for the 21st century should be to make changes, move forward and go beyond the status quo in children’s literature. Most importantly, Latinos should be portrayed for what they are, part of the American fabric and not as the “other.”

**Limitations**

This study used the stereotypes identified by Derman-Sparks (1989) to create the data collection instrument and establish coding categories. Had the data been coded using a different list of stereotypes and categories for coding, the findings may have varied from those reported. Although the researchers established trustworthy inter-rater reliability, the instrument used for data collection was developed by the researchers. The findings of this study could be subject to other interpretations. The researchers acknowledge that there may be other ways to interpret,
synthesize, and report the study findings. Furthermore, the interpretations of this study are influenced by the views of the researchers.

**Recommendations for further research**

As noted, the depiction of Latinos in children’s literature has improved over time; however, there is still a need to evaluate literary books for children to ensure quality literature for not only Latino children but for all children. Other possible studies are to investigate the number of books where Latinos are either the author or the main character. Given that Latinos will be the largest ethnic group in United States and that much of the children’s literature still recounts middle-class, European-themed story plots, there is a constant need to continue to assess all children’s literature for equal representation. This study, which explicitly addressed the award-winning books for stereotypes specifically for Latino characters, can be used as a catalyst to evaluate other children’s books for stereotypes for any underrepresented marginalized groups.

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Emotional intelligence skills and school characteristics

Sandy Labby
Fred C. Lunenburg
John R. Slate

Abstract
We analyzed 13 emotional intelligence skills (Nelson, Low, & Vela, 2003) for 157 principals from Texas elementary, middle, and high schools, with respect to their school’s accountability rating (i.e., exemplary, recognized, academically acceptable, and academically unacceptable); with respect to their school level (i.e., elementary, middle, or high); and with respect to their school location (i.e., rural, suburban, or urban). Statistically significant differences in emotional intelligence skills were revealed as a function of school level, with principals at elementary schools reporting better stress management skills than were reported by principals at middle schools. Moreover, differences were present as a function of school location, with principals in urban schools having higher emotional intelligence scores on assertion than principals at either suburban or rural schools. Principals at urban schools had higher time management scores than did principals at suburban schools. Implications are discussed.

Emotional intelligence skills and school characteristics
The No Child Left Behind Act of 2001 (Public Law 107-110) sets demanding accountability standards for schools, school districts, and states, including new state testing requirements designed to improve education. For example, the law requires that states develop both content standards in reading and mathematics and tests that are linked to the
standards for grades 3 through 8, with science standards and assessments to follow. States must identify adequate yearly progress objectives and disaggregate test results for all students and subgroups of students based on socioeconomic status, race/ethnicity, English language proficiency, and disability. Moreover, the law mandates that 100% of students must score at the proficient level on state tests by 2014.

Federal auditors have recently documented that the number of schools facing federal sanctions is growing. Nationwide, 4,509 schools serving more than 2 million children - or about 8% of all federally funded schools - have failed to bring enough students to grade level for four or more consecutive years (Ramirez, 2007). Most of these schools are in low-income, racial-minority and ethnic-minority districts in California, Illinois, Michigan, New York, Pennsylvania, and Texas. Researchers have been challenged to go beyond socioeconomic status in the search for school-level characteristics that make a difference in student achievement.

The role of the principal has become increasingly more complicated and difficult over the past century. Leadership involves numerous professional responsibilities and duties. Principals must create a safe, nurturing school climate conducive to “producing students who can excel and compete in today’s challenging global economy” (Stephens & Hermond, 2009, p. 1). This complex undertaking involves the ability to focus on the mission, lead with purpose, demonstrate flexibility in adapting to change, work toward closing achievement gaps, and manage staff, students, and parental concerns (Walker & Carr-Stewart, 2006). These tasks require principals who are well prepared with outstanding leadership skills and heightened emotional awareness.

Marzano, Waters, and McNulty (2005), in their meta-analysis research of leadership responsibilities, determined that 21 leadership practices positively influenced student achievement. Researchers (e.g., Goleman, Boyatzis, & McKee, 2002; Hartel, Ashkanasy, & Zerbe, 2009; Sala, Druskat & Mount, 2006; Stein, 2007; and Weisinger, 2007) have linked various emotional intelligence skills to effective leadership practices showing increased organizational performance. Leithwood, Seashore Louis, Anderson, and Wahlstrom (2004) noted that leader-
ship was “second only to teaching among school-related factors in its impact on student learning” (p. 3). These researchers and their findings provide insight into valuable leadership practices and skills that promoted organizational success and positively impacted student academic performance. Such awareness and practices are necessary to meet the challenges associated with the No Child Left Behind Act of 2001.

**Background of the study**

Leithwood et al. (2004) proposed that there were two key factors contributing to student success. First, “leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school” (p. 7). Second, “leadership effects are usually largest where and when they are needed most” (p. 7). These four authors stressed that “many other factors may contribute to such turnabouts, but leadership is the catalyst” (p. 7). Therefore, effective school leadership positively impacted student achievement and academic success.

The challenge, set forth by the United States federal government, is to raise academic achievement. Administrators and teachers expect students to meet and exceed the minimum standards designated by their respective state governments. Students are expected to absorb vast amounts of knowledge, synthesize their learning, and apply it to real-life scenarios. These higher-level, cognitive processes create stress and anxiety in students. While our society demands more rigorous academic competency and higher accountability standards, an organization’s success is equated to effective leadership. Successful leadership is not just about professional and technical expertise or intellectual talent. It includes an assortment of emotional skills, social abilities, and flexibility to changes within the work environment (Bar-On, Maree, & Elias, 2007).

**Statement of the problem**

It is an enormous task for school administrators to assume and to also ensure that “no child is left behind.” Researchers (e.g., Bass & Bass, 2009; Daft, 2008; Goleman, 1998; Kerr, Garvin, Heaton, & Boyle, 2005) have documented the presence of positive relationships between
effective leadership and emotional intelligence. However, a lack of evidence exists regarding the emotional intelligence skills of school administrators and how those skills relate or transcend the academic achievement of the students enrolled at their schools.

**Significance of the study**

In this study, the focus was on public school administrators from elementary schools, middle schools, and high schools representing urban, suburban, and rural school districts in Texas. School administrators completed an emotional intelligence inventory. Thirteen emotional intelligence skills of school principals were investigated regarding their unique contribution to the overall academic success of the students enrolled at the respective administrators’ schools. Because the accountability system in Texas maintains that principals are responsible for student academic success in their respective schools, it was only fitting to focus attention on those emotional intelligence skills that have contributed to student academic success and thus school accountability ratings.

**Emotional intelligence**

Emotional intelligence, the ability to monitor and discriminate one’s own feelings and emotions and the feelings and emotions of other persons, is used to guide one’s actions and thoughts (Salovey & Mayer, 1990). Nelson and Low (1999a) identified four general skill components that define emotional intelligence. Each component is comprised of specific emotional intelligence skills. Intrapersonal development includes the emotional intelligence skills of *self-esteem* and *stress management*. Self management in life and career includes the emotional intelligence skills of *drive strength*, *time management*, *commitment ethic*, and *change orientation*. Personal leadership skills include the emotional intelligence skills of *comfort*, *empathy*, *decision making*, and *leadership*. Interpersonal communication under stress includes the emotional intelligences skills of *assertion*, *aggression*, and *deference*. 
Purposes of the study
The purpose of this study was threefold: (a) To examine differences between principals employed at schools rated as Exemplary, Recognized, Academically Acceptable, or Academically Unacceptable on 13 emotional intelligence skills: self-esteem, stress management, drive strength, time management, commitment ethic, change orientation, comfort, empathy, decision making, leadership, assertion, aggression, and deference; (b) To examine differences between principals as a function of school level (i.e., elementary, middle, and high) on 13 emotional intelligence skills; and (c) To examine differences between principals as a function of school location (i.e., rural, suburban, and urban,) on 13 emotional intelligence skills.

Research questions
The following research questions were addressed in this study: (a) What are the differences between principals of schools rated Exemplary, Recognized, Academically Acceptable, or Academically Unacceptable on 13 emotional intelligence dimensions: self-esteem, stress management, drive strength, time management, commitment ethic, change orientation, comfort, empathy, decision making, leadership, assertion, aggression, and deference?; (b) What are the differences in emotional intelligence skills as a function of school level (i.e., elementary, middle, and high)?; and (c) What are the differences in emotional intelligence skills as a function of school location (i.e., rural, suburban, and urban)?

Method

Participants
Principals from 157 schools were surveyed for this investigation. The selection of participants began with Exemplary schools and Academically Unacceptable schools. To guarantee a non-proportional stratified sample somewhat equivalent to the distribution of school rankings and exceeding at least 23 schools, Recognized schools and Academically Acceptable schools were randomly selected from the TEA’s method of creating campus groups, totaling 157 middle schools. These campus
groups consisted of public schools that closely matched on six demo-
graphic characteristics, including percentages of black, Hispanic, and
white students, as well as students enrolled in special education, students
designated as Limited English Proficient, and students labeled as being
economically disadvantaged. From the schools whose principals agreed
to participate, 157 (89.2%) of the schools returned usable instruments.

Of these 157 principals, 71 were administrators at elementary
schools (45.2%), 42 were administrators at middle schools (26.8%),
and 44 were administrators at high schools (28.0%). Concerning school
location, 81 schools were rural in nature (51.6%), 59 were suburban
schools (37.6%), and 17 were urban schools (10.8%). The accountability
rating of the schools was as follows: 13 schools were Exemplary (8.3%);
69 schools were Recognized (43.9%); 71 schools were Academically
Acceptable (45.2%); and 4 schools were Academically Unacceptable
(2.5%). Because of the low number of principals from Academically
Unacceptable schools who completed survey forms, the Academically
Unacceptable accountability rating was not utilized in statistical
analyses.

Instrumentation
The survey, *Exploring & Developing Emotional Intelligence Skills: A
Personal Guide to Lifelong Emotional Learning*, was used in this study
as a measure of emotional intelligence skills (Nelson & Low, 1999b).
Consisting of 213 Likert-type items, four dimensions are created: (a)
intrapersonal development (i.e., self-esteem and stress management); (b)
self-management in life and career (i.e., drive strength, time manage-
ment, commitment ethic, and change orientation); (c) personal leader-
ship (i.e., comfort, empathy, decision making, and leadership); and (d)
interpersonal communication under stress (i.e., assertion, aggression,
and deference). Intrapersonal development consists of 50 emotional
skill items, self-management in life and career includes 49 emotional
skill items, personal leadership consists of 48 emotional skill items, and
interpersonal leadership under stress includes 18 emotional intelligence
skill items. Respondents selected their responses on a 4-point scale from
Very Frequently to Never as follows: Very Frequently (4), Frequently (3), Occasionally (2), or Never (1).

Cronbach’s coefficient alphas were calculated for each of the 13 Emotional Intelligence dimensions in this study. Depicted in Table 1 are the coefficient alphas and the number of survey items for each dimension. Cronbach’s coefficient alphas for this study ranged from a low of .70 for self-esteem and a high of .89 for the aggression and deference dimensions. As such, the internal consistencies of the 13 Emotional Intelligence dimensions were sufficiently high for research purposes.

<table>
<thead>
<tr>
<th>EI Scale</th>
<th>alpha</th>
<th># of survey items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertion</td>
<td>.73</td>
<td>18</td>
</tr>
<tr>
<td>Aggression</td>
<td>.89</td>
<td>18</td>
</tr>
<tr>
<td>Deference</td>
<td>.89</td>
<td>18</td>
</tr>
<tr>
<td>Comfort</td>
<td>.72</td>
<td>12</td>
</tr>
<tr>
<td>Empathy</td>
<td>.86</td>
<td>12</td>
</tr>
<tr>
<td>Decision Making</td>
<td>.80</td>
<td>12</td>
</tr>
<tr>
<td>Leadership</td>
<td>.83</td>
<td>12</td>
</tr>
<tr>
<td>Drive Strength</td>
<td>.84</td>
<td>25</td>
</tr>
<tr>
<td>Time Management</td>
<td>.88</td>
<td>12</td>
</tr>
<tr>
<td>Commitment Ethic</td>
<td>.79</td>
<td>12</td>
</tr>
<tr>
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<td>.82</td>
<td>12</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>.70</td>
<td>25</td>
</tr>
<tr>
<td>Stress Management</td>
<td>.85</td>
<td>25</td>
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</table>

**Procedures**

*Exploring & Developing Emotional Intelligence Skills: A Personal Guide to Lifelong Emotional Learning* (Nelson & Low, 1999a) was administered via SurveyMonkey to the principals of the 157 participating schools. The principals in each of these schools completed the survey, which was collected over a four-week period. After three electronic requests, 157 surveys were completed by principals. The value of any items on which principals did not respond was replaced with a series mean, using SPSS-PC Version 20.0.
Results
A multivariate analysis of variance (MANOVA) was conducted to determine whether differences were present in school principals’ 13 Emotional Intelligence dimensions (i.e., self-esteem, stress management, drive strength, time management, commitment ethic, change orientation, comfort, empathy, decision making, leadership, assertion, aggression, and deference) as a function of school accountability rating. Due to having data on only four academically unacceptable schools, data were analyzed for only three accountability ratings (i.e., exemplary, recognized, and academically acceptable). The MANOVA did not reveal any statistically significant differences in any EI dimensions as a function of school accountability rating, all ps > .05. See Tables 2 through 4 for the descriptive statistics for the EI dimensions by school accountability.

<table>
<thead>
<tr>
<th>EI Scale</th>
<th>M</th>
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<tbody>
<tr>
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<tr>
<td>Aggression</td>
<td>41.03</td>
<td>5.68</td>
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<tr>
<td>Deference</td>
<td>46.65</td>
<td>4.92</td>
</tr>
<tr>
<td>Comfort</td>
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<td>3.31</td>
</tr>
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<td>Empathy</td>
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Table 2
Emotional intelligence dimension scores for principals at exemplary schools
### Table 3
Emotional intelligence dimension scores for principals at recognized schools

<table>
<thead>
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<th>$SD$</th>
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<td>Aggression</td>
<td>41.30</td>
<td>4.88</td>
</tr>
<tr>
<td>Deference</td>
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<td>6.31</td>
</tr>
<tr>
<td>Comfort</td>
<td>45.63</td>
<td>2.07</td>
</tr>
<tr>
<td>Empathy</td>
<td>44.77</td>
<td>2.45</td>
</tr>
<tr>
<td>Decision Making</td>
<td>43.08</td>
<td>2.89</td>
</tr>
<tr>
<td>Leadership</td>
<td>44.51</td>
<td>2.68</td>
</tr>
<tr>
<td>Drive Strength</td>
<td>92.39</td>
<td>4.41</td>
</tr>
<tr>
<td>Time Management</td>
<td>42.81</td>
<td>3.42</td>
</tr>
<tr>
<td>Commitment Ethic</td>
<td>45.95</td>
<td>1.63</td>
</tr>
<tr>
<td>Change Orientation</td>
<td>30.47</td>
<td>3.25</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>87.58</td>
<td>3.53</td>
</tr>
<tr>
<td>Stress Management</td>
<td>67.67</td>
<td>5.93</td>
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</table>

### Table 4
Emotional intelligence dimension scores for principals at academically acceptable schools

<table>
<thead>
<tr>
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<th>$SD$</th>
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<td>Assertion</td>
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<td>4.53</td>
</tr>
<tr>
<td>Aggression</td>
<td>41.30</td>
<td>4.88</td>
</tr>
<tr>
<td>Deference</td>
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<td>6.31</td>
</tr>
<tr>
<td>Comfort</td>
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<td>2.07</td>
</tr>
<tr>
<td>Empathy</td>
<td>44.77</td>
<td>2.45</td>
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<tr>
<td>Decision Making</td>
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<td>2.89</td>
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<tr>
<td>Leadership</td>
<td>44.51</td>
<td>2.68</td>
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<tr>
<td>Drive Strength</td>
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<td>Time Management</td>
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<td>Commitment Ethic</td>
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<td>Self-Esteem</td>
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<tr>
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</table>
To ascertain whether differences were present in EI skills as a function of school level, a second MANOVA was conducted with the 13 EI skills as the dependent variables and school level (i.e., elementary, middle, and high) serving as the independent variable. A statistically significant difference was revealed for Stress Management, $F(2, 154) = 4.21, p = .017, n^2 = .05$, a small effect size (Cohen, 1988). Principals at elementary schools reported better stress management skills than were reported by principals at middle schools. No differences in stress management skills were revealed between high school principals and either elementary or middle school principals. See Tables 5 through 7 for the descriptive statistics for the EI dimensions by school level.

### Table 5

**Emotional intelligence dimension scores for elementary school principals**

<table>
<thead>
<tr>
<th>EI Scale</th>
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<td>4.81</td>
</tr>
<tr>
<td>Aggression</td>
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<td>5.03</td>
</tr>
<tr>
<td>Deference</td>
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</table>
Table 6
Emotional intelligence dimension scores for middle school principals

<table>
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<tr>
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Table 7
Emotional intelligence dimension scores for high school principals

<table>
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<th>EI Scale</th>
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</table>
Finally, a MANOVA was conducted to determine principals at rural, suburban, and urban schools differed in their EI skills. The overall analysis yielded a result that approached the conventional level of statistical significance, Roy’s Largest Root = .15, \( F(13, 143) = 1.64, p = .08, n^2 = .13 \), a moderate effect size (Cohen, 1988). Followup univariate analysis of variance (ANOVA) procedures revealed that principals at these school locations differed in the following EI dimensions: assertion, \( F(2, 154) = 3.26, p = .041, n^2 = .04 \); and time management, \( F(1, 154) = 3.38, p = .036, n^2 = .042 \). Scheffé post hoc procedures revealed that principals in urban schools had higher EI scores on assertion than did principals at either suburban or rural schools. Principals at suburban and rural schools did not report differences in their assertion EI scores. Principals at urban schools reported higher time management EI scores than did principals at suburban schools. Principals at rural schools did not differ in their time management EI scores from principals at either urban or suburban schools. Readers are directed to Tables 8 through 10 for the descriptive statistics for these groups.

### Table 8
**Emotional intelligence dimension scores for principals at rural schools**

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<tr>
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<th>( SD )</th>
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<td>Empathy</td>
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<td>Stress Management</td>
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Table 9
Emotional intelligence dimension scores for principals at suburban schools

<table>
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<th>EI Scale</th>
<th>M</th>
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<td>Assertion</td>
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<tr>
<td>Aggression</td>
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<tr>
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<td>4.54</td>
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<tr>
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<td>Empathy</td>
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<td>Leadership</td>
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Table 10
Emotional intelligence dimension scores for principals at urban schools

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<tr>
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<tr>
<td>Deference</td>
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<tr>
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</tr>
<tr>
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Discussion

**Accountability ratings**
Data analyses of principals’ emotional intelligence skills as a function of the school accountability ratings (i.e., exemplary, recognized, academically acceptable, and academically unacceptable) were reported. No differences were revealed in the principals’ ratings of their emotional intelligence skills of self-esteem, stress management, drive strength, time management, commitment ethic, change orientation, comfort, empathy, decision making, leadership, assertion, aggression, and deference as a function of the school accountability ratings of exemplary, recognized, and academically acceptable. Principals had similar views regarding all 13 emotional intelligence skills regardless of their accountability rating. Due to only four principals from academically unacceptable schools completing the survey forms, the academically unacceptable accountability rating was not utilized in the statistical analysis.

**School level**
Consistency in the ratings by principals from elementary schools, middle schools, and high schools were reported in the emotional intelligence skills of self-esteem, drive strength, time management, commitment ethic, change orientation, comfort, empathy, decision making, leadership, assertion, aggression, and deference. A statistically significant difference was revealed for stress management between principals of elementary and middle schools. Stress management “involves the self-regulation of emotional intensity and the use of cognitively derived coping strategies in difficult and high stress situations” (Nelson & Low, 1999a, p. 71). Elementary school principals reported better stress management skills than the middle school principals. The difference in the emotional skill profile for stress management indicates that on average, middle school principals felt they were having difficulty exercising healthy self-control during stressful situations. Young adolescents are more unpredictable, are experiencing hormonal changes which affect moods and social interactions with both peers and adults, and are frequently testing limits. Developing coping strategies is the key to positive stress management.
An ability to manage stressors leads to improved productivity and increased self-control over behaviors, feelings, and thoughts. Learning how to manage stress effectively through relaxation techniques will help in the handling of challenges, changes, and difficult situations (Nelson & Low, 1999a). No differences were revealed in stress management skills between high school principals and either elementary or middle school principals.

**Location**

With respect to assertion, principals from urban schools reported higher levels of assertion than principals from suburban and rural schools. Perhaps the principals from urban schools felt that they were facing more difficult student challenges due to drugs, poverty, and lack of parental involvement; thus, they had to assert themselves more with their staff to find ways to overcome these societal issues. Urban principals had to express and effectively communicate with intense emotions the magnitude of their plight to gain support to collaborate and problem solve. Nelson and Low (1999a) stated that “assertive communication is a way of talking to people that lets us express our thoughts” (p. 35). This skill is necessary when constructively dealing with and expressing strong emotions such as anger, fear, and grief.

Principals from urban districts reported higher levels of time management skills than principals for suburban and rural schools. Urban principals may perceive themselves as better managers of time because they efficiently delegate tasks to others in order to manage their responsibilities. Suburban and rural district principals may not view their task completion time as effectively productive. Chronic interruptions and reacting to the demands on their time interfere with efficient self management and create less productivity and more stress. It is important to be in control and manage responsibilities rather than being managed by them. Nelson and Low (1999a) stated that “in essence, effective time management is a self-managed and self-directed behavior that allows us to accomplish daily tasks with less effort and emotional intensity” (p. 58). The results of effective time management are balance and harmony in behaviors, feelings, thoughts, and life. The key to successful time
management is purposeful planning in the present for future activities. Time is a highly limited personal commodity. Therefore, our choices determine our quality of life. Creating a list of goals, prioritizing them, and purposefully managing their completion will lead to a more meaningful quality of life (Nelson & Low, 1999a).

**Implications and recommendations for further research**

Findings discussed herein may have implications for persons interested in the emotional intelligence skills of principals and the influences of those skills on the academic performance levels of their respective student population. The 13 highlighted emotional intelligence skills analyzed in this study are those essential skills for effectively and efficiently working with others and are required for meeting the demands and pressures of everyday living along with maintaining healthy relationships. Persons concerned and interested in those emotional intelligence skills, which are supportive of dynamic leadership as a means of successfully attaining high academic success, would find these results useful.

Such data also help demonstrate the need for emotional intelligence training among administrators in university leadership programs as a means of promoting and improving student achievement in their schools. The data obtained will guide universities into making informed, data-driven decisions regarding leadership courses offered and specialized program offerings that will impact the academic achievement of public school students. Information collected from the analyses of the demographic data and its relationship to the emotional intelligence skills provided insights into skills which impact leadership. Preparatory programs, both university and district based, may find the information useful in providing focused professional development for aspiring and current principals.

As with any study, limitations were present. One of the limitations was its design. In this study, we relied upon active principal websites and email links. Reliance on the Texas Education Agency database for accurate electronic access within school districts and across schools produced futile results in some cases. Having an accurate database of principals, email addresses, school level responsibility and respective...
school accountability rating would expedite the solicitation for participation process and may result in a higher percentage of participation. A more accurate database of principal information would allow for greater generalization of this study. The electronic survey did not allow for qualitative principals’ responses. This type of response may have provided insights and depth into the selection of specific Likert-scale responses. Narratives may present thematic topics which present emerging explanations or issues. Further research is suggested using qualitative research methods.
References


Abstract
Mathematics and literacy professions in the 21st century must help teachers develop an awareness that there is a relationship between mathematics and language arts, and by doing so, teachers help their students develop mathematical literacy. Mathematical literacy involves being able to perform, understand, and apply mathematics, not only in the classroom, but in everyday life. Using children’s literature to integrate literacy instruction with mathematics and other subjects promotes mathematical literacy and makes lessons more motivating. A growing population in 21st century schools, English Language Learners benefit from integration of content areas because of the natural repetition and contextualized scaffolding of key vocabulary and concepts. Picture books in the middle grades can be used to teach a variety of subject areas including mathematics to increase enjoyment, offer independent reading options, and foster a culturally diverse classroom. Teacher education programs and in-service professional development need to be deliberate about training that offers the best way to integrate mathematics and literature. To prepare effective teachers for tomorrow’s schools, educators must examine research in mathematical literacy.

Mathematical literacy for the 21st Century
Mathematical literacy involves being able to perform, understand, and apply mathematics, not only in the classroom, but in everyday life. To
prepare effective teachers for tomorrow’s schools, educators will have to examine research in mathematical literacy. Scores from National Assessment of Educational Progress (NAEP) demonstrate the need for mathematical literacy instruction to permeate every classroom. According to the Nation’s Report Card, in 2011, the average NAEP mathematics scores for 4th-grade and 8th-grade students were higher than their average scores in all previous assessment years. However, only 40% of 4th grade students and 35% of 8th grade students performed at or above the Proficient level. Difficulties in mathematics result from it being a “language” all its own, with its own vocabulary as well as its succinct text structure.

The Common Core State Standards Initiative (CCSSI) (2010) for mathematics suggested that there should be a focus on reading and writing within teachers’ content areas to ensure their students’ ability to read and write in mathematics. The Standards for Mathematical Practice from the CCSSI provide a framework for developing mathematical literacy. With high-stakes state tests, students face the kinds of problems that require the ability to read and write as well as demonstrate understanding of mathematical concepts and skills. “Instead of ‘naked computation,’ students are presented with word and context packed around numbers” (Friedland, McMillen, & Hill, 2011, p. 57.)

The National Council of Teachers of Mathematics’ Principles and Standards for School Mathematics (NCTM, 2000) considers curriculum connections so important in teaching mathematics that “Connections” is named and described as a separate process standard. These connections must be authentic rather than contrived. Instead of thinking about mathematics as being discrete bits of information to be memorized and retrieved with no understanding, children should learn to think about mathematical ideas as ways of expressing relationships. The NCTM Communication Standard states, “Students who have opportunities, encouragement, and support for speaking, writing, reading, and listening in mathematics classes reap dual benefits: they communicate to learn mathematics, and they learn to communicate mathematically” (p. 60). This standard also states that students learn through collaboration, discourse, and reading and writing in mathematics.
Reading in mathematics

In Wallace and Clark’s (2008) study of the integration of mathematics and literacy, three categories of reading stances emerged: (1) reading math problems, (2) reading mathematics such as trade books, and (3) “reading life,” which builds on the second category of reading mathematics. In the first stance, if students are reading problems without connections to prior knowledge or with few context clues, they will have difficulty understanding the problem. In the second stance, the “reading mathematics stance,” children use texts other than their textbooks in constructing knowledge about mathematics. Wallace and Clark recommend using children’s literature to integrate literacy instruction with mathematics and other subjects because of its ability to not only “spark excitement, but also to provide a context for learning, to introduce vocabulary and other abstract concepts, and to show how mathematics can be linked to other content areas” (p. 71). This “reading mathematics” is based on the social-constructivist theory of learning, which values multiple constructions of meaning as well as the process of construction, realizing that the learner brings unique experiences to the lesson in order to create meaning (Bruner, 1961; Vygotsky, 1978/1934). Teachers help students to make real-world connections with literature in mathematics by scaffolding the learning experience (Vygotsky, 1978/1934). “Reading mathematics” includes reading multiple texts as a way to supplement the textbook. Placing mathematics in a real-world context, children can learn “that real world mathematics problems can be ‘messy’ and have multiple solutions, and are not typically static, like those frequently seen in their textbooks” (Moyer, 2000, p. 248).

In the article, “But I Teach Math!,” Phillips, Bardsley, Bach, and Gibb-Brown (2009) described a situation in which mathematics teachers and literacy teachers believed they lived and functioned in separate worlds. Working collaboratively in a constructivist model, the teachers explored how mathematics and literacy skills and strategies could be integrated into the mathematics classroom to link classroom activities to high-stakes state tests. The teams of teachers reported that the vocabulary of the tests were at a higher level than students could read independently. Phillips et al. write that “suggested methods to incorporate in the
classroom included such things as a think aloud to aid students in understanding how to think through a problem or process, the use of graphic organizers, using roots to determine unknown words, understanding varied formats, understanding directional words, and giving students the ability to practice in small groups” (p. 470).

Draper and Siebert (2004) write, “Because mathematics learning and literacy are inseparably intertwined, we have come to see that every mathematics learning event is also a literacy event” (p. 953). Friedland, McMillen, and Hill (2011) compiled an annotated bibliography of literacy strategies for mathematics and found a need for mathematics and literacy educators to develop a common understanding of terms and strategies. For example, Polya’s (1945) four-step problem-solving plan suggests that students (1) understand the problem, (2) make a plan, (3) carry out the plan, and (4) check for reasonableness. This process is similar to the K-W-L strategy in which the students first identify what they Know about a topic, then what they Want to find out or Wonder about the topic, and finally what they have Learned about the topic. These similar strategies might be described by different names depending on whether the teacher is a mathematics or literacy educator.

Bosse and Faulconer (2008) explored the role purposeful reading and writing had in mathematics class, concluding that “[r]eading and writing about math is not the same as reading and writing in math” (p. 16). Their research outlined some techniques to promote successful integration of reading, writing, and mathematics. For example, the Sketch-to-Stretch reading strategy for integrating multiple representations involves students drawing nonlinguistic representations of what they understand from the mathematics text. “When students elaborate on knowledge, they not only understand it in greater depth, but they recall it much more easily” (Marzano, Pickering, & Pollock, 2001, p. 74). Hibbing and Rankin-Erickson’s (2003) research confirmed “that the strategic use of visual material can enhance reading experiences for reluctant and low-ability readers, and indeed, can help them become more proficient creators of internal visual imagery that supports comprehension” (p. 758).
Integrating mathematics using literature

Integrating literature into mathematics will promote mathematical literacy and make lessons extremely motivating. Using children’s literature to enrich learning in content areas such as mathematics provides opportunities for students to make text-to-self connections between subject areas and real life (Whitin, 2002).

Mink and Fraser (2005) described a one-year study of 120 students whose teachers participated in a program called Science and Mathematics Integrated with Literacy Experiences (SMILE). The purpose of the study was to determine the extent to which the implementation of Project SMILE positively influenced the classroom environment and student attitudes toward reading, writing and mathematics. This was accomplished by providing professional development workshops for the teachers and asking them to use the strategies with their students. The implementation of SMILE was found to have a positive impact on the students’ attitudes toward mathematics, students’ reading ability improved, and teachers became more secure with using children’s literature in their mathematics lessons.

Kinninburgh and Byrd (2008) found that reading books with mathematics-related social studies themes helped students draw connections between school subjects, making their school learning experience more cohesive and less compartmentalized. They found that combining reading and writing with mathematics and social studies helped students “find meaning and purpose in the mathematical principles being presented” (p. 34). Using two children’s books, the researchers successfully employed Reading Math & Social Studies (RMSS), reporting students’ greater understanding of the September 11th attacks and geometry using mathematical vocabulary and explanations of the event.

The notion of connecting learning within multiple disciplines is not new. Almost 100 years ago John Dewey (1938/1997) proposed that integrating the curriculum for students would not only make learning more relevant but also more interesting. Given the choice, students will elect to utilize their experience as a primary means of solving a problem; unfortunately, it is so often ignored in school education. Dewey’s ideas reflect contemporary significance for a number of reasons. The demands
and dynamics of a 21st century society dictate that teachers prepare their students for real-life problem solving. Because the world is not neatly organized into separate categories, the classroom instruction students receive should not be segmented into disciplines taught in isolation from one another.

**English language learners (ELLs)**

Mohr (2001) found that bilingual students benefit from integration of content areas because of the natural repetition and contextualized scaffolding of key vocabulary and concepts. The United States experienced phenomenal growth in the number of ELLs over the first decade of the 21st century. From the 1997-98 school year to the 2008-09 school year, the number of ELLs enrolled in public schools increased from 3.5 million to 5.3 million, or by 51% (National Clearinghouse for English Language Acquisition, 2011). Teachers must be able to embed literacy activities, such as building phonemic awareness, in contexts where ELLs have access to meaningful vocabulary (De Jong & Harper, 2005). ELL students should be using books to provide comprehensible units that foster conceptual understanding and academic vocabulary.

Remember that ELLs can understand far more language than they can produce, so spend considerable time inputting English via picture books, even with older students. Teachers should select books with illustrations that visually support and extend the concepts presented in print (Mohr, 2004, p. 22).

The visual-verbal connection is not only beneficial for ELLs, but also for special needs students. Just as young children are introduced to reading by associating pictures with the printed word, similar activities with ELLs and special needs students can build confidence and skills. For example, a teacher might introduce the book *Math Curse* (1995) by Jon Scieszka and Lane Smith, where a student sees everything in terms of a mathematics problem. This would offer a delightful tie-in to the everyday uses of mathematical skills.
Burns (2010) recommends using picture books for students who love to read “to experience the wonder of math in the same way they already enjoy the wonder of books. Plus, students whose first love is math will learn to look at books in new ways” (p. 38). Picture books can also help teachers who do not feel comfortable teaching mathematics by building on their strengths of teaching reading and language arts.

Middle school teachers can look beyond the recommended age group for which the book is recommended when searching for children’s literature to use in teaching mathematics. They should consider how the book could add to the mathematics curriculum in the grade they are teaching. Many books engage students that teachers might otherwise not consider because they have been designated for certain ages or grade levels (Whitin, 2002). “We have found that picture books intended for primary grades can be used effectively in upper grades to extend mathematical concepts that are abstract to students” (Kinniburgh & Byrd, 2008, p. 34).

In addition, picture books can be utilized in the middle grades to teach a variety of subject areas beyond mathematics to increase enjoyment, offer independent reading options, and foster a culturally diverse classroom. Abstract concepts in science, technology, and mathematics can be given more concrete and visual connections to students’ experiences by presenting the visual examples, models, and diagrams in a picture book on the topic of instruction. These fascinating drawings and simple explanations could be employed as a whole-class, concept-related introduction to the topic, both to provide a simple visual foundation on which to build more abstract ideas and to develop motivation for studying those ideas. *G is for Goggol: A Math Alphabet Book* (1998) by David Swartz is an excellent picture book for vocabulary development, helping to explain sophisticated terms such as a “goggol” as the number 10 with an exponent of 100, which is where the internet search engine “google” modeled its name. Mathematics picture books are also useful for presenting mathematical problems and puzzles and scientific investigations and experiments. For example, both *Anno’s Mysterious Multiplying Jar* (1999) by Masaichiro and Mitsumasa Anno and *One*
Grain of Rice: A Mathematical Folktale (1997) by Demi lead readers through seemingly simple progressions and end up with an example of a factorial number.

Overall, picture books can make invaluable contributions to any middle-level classroom. They can be used specifically for academic purposes, and they can provide popular options for free reading. In a sense, all early adolescents begin their academic careers with their early picture book experiences. It is entirely appropriate to continue to implement this rich source of learning and enjoyment as long as the appeal remains. The act of reading a children’s book aloud allows students to flash back to a time when learning was fun. Children’s literature can help learners value mathematics, encourage them to be mathematical problem solvers, and provide a meaningful context for them to communicate mathematically (Shatzer, 2008).

Teacher training for integrating trade books and mathematics

Many articles such as the one by Bintz and Moore (2002) describe several excellent trade books for mathematics and discuss when trade books may be used, but they do not include how to utilize these books in the mathematics classroom. Friedland, McMillen, and Hill (2011) found that “trade books associated with mathematics content do not facilitate or reinforce students’ comprehension of content area material unless incorporated into instruction purposefully and appropriately” (p. 63). Teacher education programs and in-service professional development need to be deliberate about training that offers the best way to integrate mathematics and literature. In fact, Friedland et al. (2011) concluded that “collaboration between development efforts can help bridge the gap between knowledge of literacy strategies and implementation of the strategies in mathematics instruction” (p. 64). Mathematics and literacy professions in the 21st century must help teachers become aware of a relationship between the two subjects, and that by doing so, they are helping their students develop mathematical literacy.
References
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Forgiveness education and the impact on teachers

Elizabeth D. Alderton

Abstract
Teacher learning and transformation is a complex process. The purpose of this study is to look at the classrooms and the teachers who participated in a professional development experience and then implemented a forgiveness education curriculum (Knutson & Enright, 2002). In this study, teachers showed evidence of changing and developing in the area of forgiveness, which in some instances had a positive impact on classroom situations. Results showed that there were many factors (teacher motivation and willingness, understanding of forgiveness, the curriculum and the professional development) influencing how a teacher understood and implemented the curriculum.

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Amy, a third year teacher in an urban school, has thirty-two first grade students whom she teaches and cares deeply about. The majority of the time, these children are considerate and nice to one another. At other times, she sees these children exhibit aggressive and hurtful behaviors. Sometimes these moments of conflict linger and cause issues that impact learning in the classroom. Amy is at her wit’s end and at times and does not know what to do or where to turn. She has taken measures to implement behavior management plans but is still not satisfied. To help, she has decided to implement a forgiveness curriculum to help her students, but will Amy also learn and benefit from it?
 Forgiveness

Forgiveness is an abstract, internal, and personal concept that is very different from a teacher learning different methodologies or learning about a concept such as the Pythagorean theorem in math. Instead, forgiveness is something that has an impact on how a teacher develops, changes, and learns.

Forgiveness as a concept is neither new nor uncommon in our society. While the topic can be traced back hundreds and thousands of years to various religious artifacts, the research on forgiveness is relatively new. Murphy (2002) views forgiveness as a moral virtue that occurs when you get rid of resentment. Margaret Holmgren’s (1993) contribution to defining forgiveness added the aspect that all people have intrinsic worth and are worthy of forgiveness, but not necessarily reconciliation. However, there are aspects missing for a comprehensive definition of forgiveness. This study draws on North (1987) and Enright (2001) in that when there is a true, deep hurt, forgiveness is an intentional process whereby someone overcomes resentment toward an offender and tries to see the offender as a person of intrinsic value by altering how they think and act toward him or her. The victim tries to offer kindness and compassion toward the offender even though the offender may not morally deserve such compassion. It must be realized that forgiveness is not in the realm of justice, but instead is in the realm of mercy.

It is essential to define what forgiveness is and what it is not. Forgiveness is not condoning or excusing an action. It is not justifying an action and it is not forgetting what has occurred. When forgiving, the offended actually works to realize that the offender has done something wrong. Finally, forgiveness does not necessarily mean there is reconciliation. A person can forgive someone who has wronged them without returning to that relationship (Enright, 2001). Forgiveness is really giving of oneself to another as an act of mercy.

Some forgiveness research dealing with adults has shown positive results (Coyle and Enright, 1997; Lin, Mack, & Enright, 2004; Hebl & Enright, 1993; Freedman & Enright, 1996, Waltman, Russsell, Coyle, Enright, Holter & Swoboda, 2009). Recently, there has also been research conducted regarding children and forgiveness. In one study
with adolescents who were extremely angry, Gambarino (2002) found that forgiveness was helpful in improving interpersonal relations and attitudes towards school, and in reducing anger. The results were still seen nine months after the intervention. Another study by Park (2003) looked at how female adolescents who were aggressive victims of peer abuse benefited from a forgiveness curriculum. The results for the experimental participants showed less aggression, anger, and delinquency, and fewer hostile characteristics.

Enright and the Human Development Group at the University of Wisconsin-Madison engage in research dealing with forgiveness education in elementary schools in Belfast, Ireland. These children are dealing with living in poverty and long term exposure to violence. Children in the experimental group showed a significant decrease in anger and less depression at the post-test than those children in the control group (Enright, Knutson Enright, Holter, Baskin, & Knutson, 2007). Children learning about forgiveness also “demonstrated significantly greater increases than control children in prosocial touching behaviors (e.g. hugging) over the course of the intervention” (Gassin, Enright, & Knutson, 2005, p.12). Based on the results of this study, this group implemented the forgiveness curriculum in urban schools in the United States (Holter, Magnuson, Knutson, Knutson Enright, & Enright, 2008).

**Forgiveness curriculum**

Dr. Robert Enright and the Human Development Study Group at the University of Wisconsin-Madison developed the first forgiveness curriculum for young children that was used in this study. The *Adventure of Forgiveness* curriculum includes 17 literacy lessons that are themed around Dr. Seuss books (Knutson & Enright, 2002). While these lessons have the concept of forgiveness in mind, they deal with inherent worth, moral love, kindness, respect, and generosity, which are all important aspects of forgiveness. Students learn about forgiveness, explore the concept through stories, and then try to apply what they have learned to their lives.

It must be realized that this curriculum was not intended to be a means of providing therapy for children. Instead, it was hoped that the
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curriculum provided students with tools to deal with the injustices, anger, and hurt that they may be experiencing on a daily basis. Learning to forgive is a developmental process that takes time and effort (Huang & Enright, 2000). The virtue of forgiveness can begin to be taught at a very young age as adults interact with each other and with children, especially in school settings. This teaching and modeling of forgiveness will in essence equip children with the necessary skills so they know how to forgive when they have a situation of their own requiring forgiveness.

While the curriculum implementation was occurring, teachers were learning and constructing knowledge with their students. Teachers had the opportunity to come to understand the concept of forgiveness, which could change their personal beliefs and inner selves. This research examined the ways in which teachers came to understand the concept of forgiveness and the extent to which this professional development opportunity influenced teachers and their classrooms.

Teacher change theory

When thinking about teacher learning and professional development, the idea is that some sort of change or transformation will take place in order to have a positive outcome for the students, the classroom, and the teacher. It is critical to look at theories of change to understand a teacher’s role in the change process.

Bell and Gilbert (1996) describe three precepts that should be taken into account when thinking about teacher change. The first precept is that in order for professional development and learning to be effective, teachers need to be willing participants rather than having something forced upon them. True learning occurs when a teacher is willing to change. Teachers need to actively process, develop, and grow as professionals, as it is not a passive process that just happens. According to McCormick and James, “effective change depends on the genuine commitment of those required to implement it, and that commitment can only be achieved if those involved feel that they have control of the process…Teachers will readily seek to improve their practice if they regard it as part of their professional accountability, whereas they are likely to resist change that is forced on them” (1983, p. 27). Change cannot be
forced on teachers if it is going to be long-term and effective. Instead, teachers need to see a need for the change. A second precept from Bell is that in order for change to be sustained at deeper levels, this would involve “modification or transformation of values, attitudes, emotions and perceptions which inform practice, and these are unlikely to occur unless there is participation in and a sense of ownership of the decision-making change process” (1999, p. 98). Finally, Bell (1999) states that internalization is necessary for the change to be a true change. Pseudo change can occur where there seems to be something happening, but in reality it is more cosmetic and temporary. Teachers may say one thing and try it out, but until a teacher truly changes their beliefs, nothing has really changed.

Viewing the teacher as a human being needs to be examined when thinking about how a person learns, grows, and truly changes within. Teachers are people, and people have internal layers, which include their values, beliefs, thoughts, knowledge and emotions, that impact how they teach. According to Palmer (1998), we teach who we are and what we believe in our hearts. Everyone has a skin, or an outside shell, that protects as well as conceals. However, on the inside there is much, much more. The inner spirit of a teacher is of particular importance because it impacts how a teacher acts in and out of a classroom. This inner spirit is affected by the context of the teaching situation, including the social realities of the children and the school. The inner spirit determines what teachers decide is relevant knowledge for themselves as well as their students, along with what teachers will be a change agents for. If a teacher truly believes in something he or she is learning, such as forgiveness, then it will have an impact on his or her inner beliefs, and as a result, on his or her classroom.

**Method**

In this study, the following research questions were examined:

1. After learning about and teaching a forgiveness literacy curriculum, what were the outcomes as seen in changes in the teachers and their classrooms?
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2. Was there a change in the discipline procedures they used?
3. Was there a change in the interactions between teachers and children?

Participants

The five teachers participating in the study were female adults teaching first grade in both public and private schools located in an urban area in a Midwestern state. These five teachers had between zero and three years of teaching experience (See Table 1), and each was in a different school. Four of the five participated in a three-hour professional development experience provided by two facilitators. (The fifth teacher chose not to attend the professional development experience and did not receive any training in forgiveness or in the curriculum.) These teachers volunteered to participate in this study during the first year they implemented the forgiveness curriculum.

Table 1
Teacher and student data collected

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Years Teaching</th>
<th># of students originally interviewed</th>
<th># of students additional data collected from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tali</td>
<td>1</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Laura</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Amy</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Jenny</td>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Molly</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Thirty first grade children from each of the five classrooms (six randomly selected from each classroom) were invited to join the study. Their participation consisted of providing answers to items on interviews, and all student participants were members of the classrooms of those teachers who had volunteered for the research project. All students in these classrooms, regardless of socioeconomic status, race, or religion, were invited to participate, and six from each classroom were
randomly chosen for a total of thirty students. All thirty students participated in the first interview, but due to absences and moving, the numbers changed at subsequent interviews (See Table 1).

In addition to the teachers and students, researchers interviewed principals, paraprofessionals, and workshop presenters as a way to triangulate data. The effects of the forgiveness education curriculum on children (Knutson and Enright, 2002, 2003, and 2004) were not investigated. Instead, this study focused on teacher professional development, the process of implementing the curriculum, and changes in the teacher and her classroom.

In each of the classrooms, the teacher delivered a forgiveness education program during the school year. The forgiveness curriculum had 17 lessons and each lesson was about 60-90 minutes in length. The program was made up of a series of discussions, activities, and assigned readings. The forgiveness education curriculum (Knutson & Enright, 2003) included such concepts as: all people have an inherent worth (even those who are unfair), the “humanity” in each person unites us all, and sustained anger can be harmful to oneself and to others.

**Data collection**

Data collection for this case study was accomplished through various avenues over a period of an entire school year (See Figure 1). Prior to the workshop, all participants were contacted by phone and by email. Participants did an initial survey prior to attending the professional development experience. The survey looked at the teacher’s understanding of forgiveness as well as use of forgiveness in their professional and personal lives. Four of the five participants attended a professional development experience where the concept of forgiveness was explored and the curriculum implementation was explained. After this, but before the forgiveness curriculum was implemented, all five classrooms were observed and a focused observation guide was utilized. The observation guide looked at the physical environment and at the interactions occurring in the classroom. At this point, teachers and six randomly selected students were interviewed from each classroom. The beginning observations and interviews provided a starting point for looking
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at initial understandings, beliefs, and classroom situations. After curriculum implementation had begun, each school was visited for a second time where teachers and classrooms were observed and the teachers and students were interviewed again. At various points in the school year, other people, such as paraprofessionals and principals, were interviewed so that additional perspectives could be gained for triangulation of data. Finally, at the end of the school year in May, a final round of observations and interviews was conducted at all schools. These subsequent interviews and observations helped construct a picture of the changes that occurred as the teachers developed and as the students learned about forgiveness.

The teachers, the classrooms, and the journeys

Tali
As a first year teacher, Tali was motivated and willing to learn about forgiveness. Personally, Tali thought “a forgiveness workshop and curriculum will help expand my teaching abilities beyond math and science and help me reach a new level with my students.” As for her students, she spoke of tools students could use, especially those students coming from difficult home situations. She stated: “I can think of a few students that come from difficult home situations in which a forgiveness program may help them deal with their emotions. They often say they do not want to talk about what is on their minds…this may help them open up.” It was obvious that Tali was motivated and felt a need for the professional development workshop and curriculum. She wanted to find resources to help her students and she chose to implement the curriculum.

Tali showed growth in terms of constructing new knowledge about forgiveness, which she attributed to attending the professional development workshop. It was evident that her understanding of forgiveness had expanded from before the workshop to the end of the school year. Originally, her definition was “I feel forgiveness not only means to forgive others from actions but to also deal with emotions that arise from the event in which forgiveness is needed” (survey). Subsequent definitions included “looking at different aspects of it, looking at respect, what
it (forgiveness) is not” (2nd interview). Her definition of forgiveness developed from utilizing the word forgiveness prior to the workshop, to being able to vocalize various aspects that “forgiveness” encompassed as the year progressed.

Tali did not delve deeper into the topic of forgiveness by reading additional material, nor did she deviate from the forgiveness curriculum.
In addition, Tail did not utilize any sort of a learning community, either at school or in her personal life. There was evidence of the forgiveness curriculum in her classroom in the form of student artwork and bulletin boards. During observations there was no evidence of terminology from the curriculum being utilized, between she and her students or among students.

In terms of behavior, Tali had a good class and there was no evidence of change in terms of procedures or actions as a result of the forgiveness curriculum. As for Tali’s personal and professional development, it is unclear that transformation has occurred as described by Bell (1996), where forgiveness has become a part of Tali. Instead, it is apparent that she was traveling the learning path and she may eventually arrive at that point. For Tali, the one conclusive finding was that she had constructed new knowledge about forgiveness.

A few of Tali’s students were able to support her thinking. The data from her students is found in Table 2. In simple terms, the results were as follows:

1. 2 out of 5 students reported a change in the teacher (one student didn’t complete the final interview)
2. 3 out of 5 students reported a change in the class as a whole

### Table 2
**Student perspectives on teacher and classroom change in Tali’s classroom**

<table>
<thead>
<tr>
<th>Student</th>
<th>Thought that the teacher had changed because of learning about forgiveness</th>
<th>Thought that the class had changed because of learning about forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>Yes “being good”</td>
<td>Yes “sitting quietly”</td>
</tr>
<tr>
<td>Child 2</td>
<td>No</td>
<td>Yes - Related to forgiveness curriculum</td>
</tr>
<tr>
<td>Child 3</td>
<td>Yes “she started to be nice”</td>
<td>Yes - “directions and stop calling names”</td>
</tr>
<tr>
<td>Child 4</td>
<td>NA (student didn’t answer)</td>
<td>NA (student didn’t answer)</td>
</tr>
<tr>
<td>Child 5</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Child 6</td>
<td>No</td>
<td>No - said yes, but couldn’t verbalize</td>
</tr>
</tbody>
</table>
Laura
Laura was in her third year of teaching and her personal life was her priority. When asked about why she participated in the study and implemented the curriculum, Laura said, “We were asked to do it by our principal for two years.” She implemented the forgiveness curriculum because she was asked to do so by an administrator. Additionally, she did not attend the professional development experience and was the only teacher in the study who chose not to complete the initial survey. At the time of the last observation in May, Laura had taught about half of the forgiveness curriculum lessons and she did not deviate from the curriculum. Laura did not read any additional material about forgiveness and she did not access a learning community. Very minimal change was evident in her understanding of forgiveness. In her classroom, a change in discipline procedures was not evident. Throughout all of the observations of the classroom and of the interactions between Laura and her students, never at any time was there any mention of terms associated with forgiveness or the curriculum. In addition, artifacts and evidence from the curriculum were not seen in the classroom in the form of artwork or bulletin boards. For Laura, time for fitting in all she had to teach was a factor and a positive result of implementing the curriculum was that it provided a framework for teaching religion to her students. The data from her students is found in Table 3. In simple terms, the results were as follows:
1. 1 out of 5 students reported a change in the teacher
2. 4 out of 5 students reported a change in the class as a whole

Amy
Amy was motivated and willing to implement the forgiveness curriculum because she wanted a new “tool” to help her students deal with anger. She was motivated enough to read additional material about forgiveness to help with her own understanding. Although she went through a period where she was unsure if the curriculum was going to work, by the end of the year she thought it was beneficial. She thought the professional development experience was good because it helped her understand forgiveness, and after she had taught the
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curriculum, she expressed suggestions for future workshops. One of her
suggestions was to have teams of teachers (a learning community), in-
cluding teachers who had already taught the curriculum, so new teachers
would have a chance to ask questions. Amy stated that she discussed the
forgiveness curriculum with her fiancé and other teachers in her school
who were also teaching it at the same time, so she herself did have ac-
cess to a learning community.

Amy deviated from the curriculum and made it meaningful to her
students. Evidence was found that she had changed the way she handled
discipline in the classroom and even in the discipline system she uti-
lized. In addition, Amy’s classroom showed evidence of the forgiveness
curriculum in the form of bulletin boards. While during observations
there was not evidence of terminology from the curriculum being used
in the classroom, both Amy and her paraprofessional stated that both
Amy and students in the class referred to it on a regular basis.

Amy felt that she personally had been thinking about forgiveness
more. She said that she was “trying to help them. I talk about it more
and think about it more.” She also felt that even though she was fortu-
nate and has not had to forgive anyone on a major issue, she now felt
that maybe with the “little things with other people who aren’t really
a part of my life, like when little things can happen when someone is
bumping into you or cuts you off or whatever. But I can see like with
the kids sometimes, I can get [upset at] some of the things they do,” and
that is where forgiveness helps (interview, May 11, 2006). Perhaps this
relates to the perceptions of the students in that 3 out of 4 of the stu-
dents interviewed felt that Amy had changed (See Table 4). One student
reported that Amy was “nicer and she tells us to be nicer.” Students also
perceived a change in discipline procedures in the classroom. Students
all reported that their cards were changed if they misbehaved before the
curriculum was implemented. At the end of the study, only one student
mentioned the card system as a form of discipline. When questioning
Amy about this, she stated that the card system was a school wide thing.
However, she now utilized “the bluies,” her own system that rewarded
students for good behavior, which she said worked better because it was
more positive.
Table 3
Student perspectives on teacher and classroom change in Laura’s classroom

<table>
<thead>
<tr>
<th>Student</th>
<th>Thought that the teacher had changed because of learning about forgiveness</th>
<th>Thought that the class had changed because of learning about forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>Moved</td>
<td>Moved</td>
</tr>
<tr>
<td>Child 2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Child 3</td>
<td>No</td>
<td>Yes “not getting in trouble”</td>
</tr>
<tr>
<td>Child 4</td>
<td>No</td>
<td>Yes “they are gooder”</td>
</tr>
<tr>
<td>Child 5</td>
<td>Yes “doesn’t yell”</td>
<td>Yes “they be nicer”</td>
</tr>
<tr>
<td>Child 6</td>
<td>No</td>
<td>Yes “they stop messing with people”</td>
</tr>
</tbody>
</table>

Table 4
Student perspectives on teacher and classroom change in Amy’s classroom

<table>
<thead>
<tr>
<th>Student</th>
<th>Thought that the teacher had changed because of learning about forgiveness</th>
<th>Thought that the class had changed because of learning about forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Child 2</td>
<td>Moved</td>
<td>Moved</td>
</tr>
<tr>
<td>Child 3</td>
<td>Yes</td>
<td>Yes “but still be bad”</td>
</tr>
<tr>
<td>Child 4</td>
<td>Moved</td>
<td>Moved</td>
</tr>
<tr>
<td>Child 5</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Child 6</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Jenny**

Jenny was very willing to implement the curriculum and learn about forgiveness so she could give her students another tool to help them in life. She felt that the professional development experience helped deepen her understanding of forgiveness, and she also took the time to explore the topic of forgiveness in greater depth by reading additional material.
Forgiveness education and the impact on teachers

She felt she understood the topic of forgiveness enough that she could modify the curriculum to meet the needs of students in her classroom. While evidence of the forgiveness curriculum was seen in the classroom in the verbal interactions that occurred and in artifacts such as artwork and books, there was no outward evidence of a change in discipline procedures. However, this was the only class that had students during interviews verbalize that the teacher now talked about Horton when someone was “not being good,” showing that Jenny was integrating the forgiveness curriculum into her discipline interactions.

During this study, evidence was found that pointed to a change in Jenny as a result of forgiveness. Possible factors that were seen to support her growth included learning communities, teaching the curriculum, and seeing benefits in students. Together, these components worked to impact Jenny as a person, and as a teacher, which had a positive impact on her classroom.

From the students’ perspectives, in general, they felt that learning about forgiveness had made a difference in the classroom. All students interviewed felt that Jenny had changed (See Table 5). The data was as follows:

1. 4 out of 4 students reported a change in the teacher
2. 3 out of 4 students reported a change in the class as a whole

Molly
Molly heard about the forgiveness curriculum from other teachers in her school and she was willing to develop in this area so she could help her students. She felt the professional development experience was very beneficial, and over the course of the year, she showed moderate signs of changing in her understanding of forgiveness and in her classroom. At the end of the study, Molly felt that forgiveness “is a choice and a gift that you give, and when you are ready to give it and it is a freedom.” She then stated that she now was where “it comes to the point of doing it all the time.”

A teacher learning community was not accessible to her due to time constraints, but Molly was motivated to read about the concept of forgiveness and even share her new knowledge with her family. While
Molly did not use a professional learning community, there was evidence that she did find a learning community that supported her growth within her family. At different times through the study, Molly talked about different people with whom she discussed forgiveness, including her husband, her sister, her mother, and her nieces.

In the classroom, Molly went above and beyond the curriculum and tried to infuse the concept of forgiveness on a daily basis through journaling, discussions, and literature. Her classroom showed evidence of the curriculum in the form of bulletin boards, artwork, and journal writing. Interactions in the classroom between Molly and her students as well as among students showed signs of the forgiveness curriculum during this study. Molly felt that the students were “nicer and more respectful” to each other. In addition, a change in how discipline was utilized was found in Molly’s classroom. Originally, Molly heavily relied upon a behavior system where cards were utilized when bad behavior was observed. By the end of the study, the card system was no longer in use.

When reflecting, she felt that teaching the curriculum made a difference for her students as well as for her personally. This professional de-

<table>
<thead>
<tr>
<th>Student</th>
<th>Thought that the teacher had changed because of learning about forgiveness</th>
<th>Thought that the class had changed because of learning about forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>Yes “she is nicer, talks about Horton”</td>
<td>Yes</td>
</tr>
<tr>
<td>Child 2</td>
<td>Yes “don’t have to yell no more”</td>
<td>Yes - “became a big group and started being friends”</td>
</tr>
<tr>
<td>Child 3</td>
<td>Moved</td>
<td>Moved</td>
</tr>
<tr>
<td>Child 4</td>
<td>Yes “changed her words”</td>
<td>Yes “by being friends”</td>
</tr>
<tr>
<td>Child 5</td>
<td>Moved</td>
<td>Moved</td>
</tr>
<tr>
<td>Child 6</td>
<td>Yes “she talks about Horton if they not being good”</td>
<td>No</td>
</tr>
</tbody>
</table>
Development experience and curriculum implementation began to change Molly as a person, which impacted her life as a whole.

From the perspective of the students, they too saw a change in some areas. In simple terms, the results from the students are as follows (See Table 6):
1. 4 out of 6 students reported a change in the teacher
2. 5 out of 6 students reported a change in the class as a whole

<table>
<thead>
<tr>
<th>Student</th>
<th>Thought that the teacher had changed because of learning about forgiveness</th>
<th>Thought that the class had changed because of learning about forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 1</td>
<td>Yes “by being nice”</td>
<td>Yes</td>
</tr>
<tr>
<td>Child 2</td>
<td>No</td>
<td>Yes - Related to forgiveness curriculum</td>
</tr>
<tr>
<td>Child 3</td>
<td>Yes “she started to be nice”</td>
<td>Yes - &quot;directions and stop calling names&quot;</td>
</tr>
<tr>
<td>Child 4</td>
<td>NA (student didn’t answer)</td>
<td>NA (student didn’t answer)</td>
</tr>
<tr>
<td>Child 5</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Child 6</td>
<td>No</td>
<td>No - said yes, but couldn’t verbalize</td>
</tr>
</tbody>
</table>

Findings and discussion

The first finding was that teaching a curriculum increased teachers’ knowledge in the area of forgiveness. When looking at how these teachers understood and implemented a forgiveness curriculum, four of the five teachers in this study discussed that the actual teaching of the curriculum made a difference in their own personal growth and development. For instance, Amy believed that the curriculum made her think about forgiveness more, and she felt that it helped with the: “little things with other people who aren’t really a part of my life, like when little things can happen when someone is bumping into you or cuts you
off or whatever. But I can see like with the kids sometimes, I can get [upset at] some of the things they do,” and that is where forgiveness helps (interview, May 11, 2006). The workshop presenter also stated this was what he believed to be the main avenue for teachers to truly learn about forgiveness. The concept of forgiveness was not new to any of the teachers as they all could provide a definition at the beginning of the study, but these teachers showed growth in their knowledge as the year progressed and they taught the curriculum in their classrooms with their students. For these teachers, they constructed knowledge in a context that was meaningful and relevant to them and as they saw the benefits in their classrooms. This finding is consistent with previously published literature (Bush, 2006; Borko & Putnam, 1996, 2000) stating that true meaning is constructed through meaningful interactions with the social and physical environment.

Another finding was that teachers who were willing to implement the curriculum and take the time to participate in the professional development experience showed more evidence of growth in their understanding of forgiveness than the teacher who did not attend a professional development workshop. McCormick & James (1983) found that teachers may actually resist change if it is forced upon them. In this study, the one individual who showed very little growth or development, both personally and in her classroom, was the teacher who stated that her principal wanted her to teach the curriculum. In contrast, the other four teachers who were personally motivated to teach the forgiveness curriculum, showed evidence of change and personal growth. Previous teacher professional development literature shows that it is important for teachers to be willing participants (Bell & Gilbert, 1996). They saw a need in their classrooms and they had a meaningful reason to grow and develop as teachers so they could help their students. One teacher also wanted to integrate the curriculum into the classroom because she had heard positive comments from other teachers in her building. Thus, the implication was that if teachers saw a need, if they were motivated, and if they were willing participants, they were more apt to learn and develop as professionals, which had an impact in their classrooms and themselves.
For the four teachers who attended the professional development experience, they all agreed that they personally started to learn about the concept of forgiveness as a result of the workshop. All four teachers believed that the section of the workshop that led participants on a guided walk of beginning to forgive someone in their own personal life was beneficial. These teachers all showed changes in their understanding of the topic of forgiveness that could be directly related to the workshop, because they filled out a survey prior to the workshop and they were interviewed after the workshop and prior to teaching the curriculum. The workshop presenters designed it in a way that invited teachers to come to understand the concept of forgiveness and to get the curriculum out into the schools. Thus, the professional development workshop did what the presenters intended, and a positive finding was that it had a beneficial impact on the teacher’s knowledge of the topic.

A fourth finding was that as some of the teachers truly developed and changed within, there were changes in themselves as well as in their classrooms. In the three classrooms with teachers showing the most evidence of growth and change in the area of forgiveness, the teachers as well as the students believed that the students in the classroom were now nicer to each other and were more forgiving. The classroom culture had changed in terms of how students interacted with each other. Students showed evidence of being nicer to each other, not fighting as much, and being more respectful. For example, Molly felt that her students were “nicer and more respectful” to each other after integrating forgiveness into the curriculum. In addition, the three teachers all showed evidence in changing how they interacted with their students. They now stopped and thought before deciding on how to handle a situation in their classroom and realized students had intrinsic worth. The teachers became more forgiving in how they dealt with situations on a regular basis, whether when dealing with individual students in the classroom or when dealing with disputes on the playground.

A fifth finding was that when teachers came to understand forgiveness, it changed how they interacted with students and how they handled discipline procedures in their classrooms. All of these teachers changed in some respect when it came to discipline. They all felt that they were
now more forgiving and felt that the forgiveness had impacted them in the area of discipline. For two of the teachers, this was evident in how the card system was utilized in their classrooms. These teachers as well as the students in their classrooms felt that the card system was not the major avenue for discipline, which was not the case prior to implementing the curriculum. Instead, all of the teachers felt that forgiveness had taught them to be more forgiving of the action and of the child.

Another finding was that having a learning community of some sort, including those outside of the educational setting, impacted teacher learning. Looking at learning communities in a broader sense, where individuals who are not teachers provide support for teacher learning adds a different perspective to teacher learning community literature. When thinking about teacher professional development, learning communities are a practice that can support teacher learning and growth, and should be considered when planning a professional development experience.

A final finding was that teachers in this study showed evidence of benefiting from the concept of forgiveness. As a result, coming to understand forgiveness impacted their personal lives, their teaching, and their classrooms. Molly, for instance, felt that forgiveness “is a choice and a gift that you give, and when you are ready to give it and it is a freedom.” She then stated that she now was where “it comes to the point of doing it all the time.”

This study provided a lens from which to view these particular teachers in a particular context. The results were that no two teachers were the same in how they came to understand and implement a forgiveness curriculum after participating in a professional development workshop. In addition, the outcomes in terms of changes both personally and in their classrooms also varied from teacher to teacher. Many factors, including teacher motivation and willingness, learning communities, understanding of forgiveness, the curriculum, and the professional development experience, all influenced these outcomes.

What can be learned is that these teachers represent the wide variety of different kinds of teachers who participate in professional development experiences, implement curriculums, and change as a result of what is occurring in their classrooms. Looking across the spectrum, we
can begin to see examples of the range of teachers in society, not in a generic sense, but in terms of the variations in how they learn and grow as teachers. In addition, the findings in this study confirm much of what is known about professional development and teacher learning. When designing professional development experiences, it is important to realize that teachers are unique learners, bringing with them all of their existing knowledge and experiences. No two teachers are alike as they construct new knowledge in social contexts.

This research provided some additional insight into the current forgiveness literature. This study specifically looks at teachers who have implemented a forgiveness curriculum and as a result, have changed. Future research looking at the long-term impact of teachers using a forgiveness curriculum would add to the body of literature. While it is important to note that there are many factors that may have contributed to the findings, the end result was that these teachers did show evidence of changing and developing in the area of forgiveness, which had a positive impact on them personally, on their teaching, and in their classrooms.
References
Forgiveness education and the impact on teachers


Building instructional literacy: Providing administrators with the foundation needed to construct frameworks for successful adolescent literacy instruction

Christina Joye Beard
Lynn Hemmer
Daniel L. Pearce

Abstract
Stagnating literacy rates have left many school administrators grappling for pragmatic solutions to impact student achievement scores on both federal and state assessments. Biancarosa & Snow (2006) suggest that as students move into middle and secondary grades where subjects are increasingly more complex, the importance of literacy skills begins to impact critical thinking on a daily basis. However, problems with adolescent literacy rates may not reside solely with the knowledge students and teachers possess about reading and writing. Currently, an emerging body of literature has focused on the explicit knowledge and perceptions held by administrators in instructional leadership roles. This paper draws upon on what is known about successful leadership practices that are associated with student achievement, but that also distinctively support effective reading programs. Together the theoretical suggestion is that instructional leaders, using both theory and practice, will build the competence and confidence needed to increase achievement in adolescent literacy.
Results of the 2011 National Assessment of Educational Progress (NAEP) testing reveal that while basic and proficient reading performance have remained the same since 2007, 33 percent of fourth grade students and 24 percent of eighth grade students continue to read below a basic reading level (The Nation’s Report Card, 2013). Even more alarming is the growing number of districts unable to meet passing rates to make Annual Yearly Progress (AYP) expectations. According to the Center on Education Policy, the national rate for schools failing to make AYP continues to increase as the No Child Left Behind Act’s 2014 deadline for schools to meet 100 percent reading proficiency draws closer (Usher, 2012). Consequently, the need to improve literacy rates for middle and secondary schools has left many districts grappling for pragmatic solutions in hopes of impacting adolescent achievement scores on both federal and state assessments.

Biancarosa & Snow (2006) suggested two reasons for these stagnating adolescent literacy rates. First, as students move into middle and secondary grades where subjects are increasing more complex, the importance of literacy skills begins to impact critical thinking on a daily basis. And second, as students get older they are less inclined to try and improve their reading skills. Although highly skilled communicators in tech-savvy environments outside the classroom (Moorman & Horton, 2007), today’s adolescents often read below grade level and possess limited academic vocabularies vital to sustaining literacy skills in the upper grades (NASBE, 2007). Additionally, teachers who struggle with factors related to achievement gaps, the increased pressure to prepare students for post-secondary work and study, and high dropout rates also effect overall adolescent literacy achievement (Salinger, 2007). What’s more, Rasinski & Fawcett (2008) maintained that in order to support increases in assessment expectations, teacher instruction at the secondary level tends to focus solely on content rather than reading skills, thereby perpetuating the problem. As a result, adolescents continue to lack the necessary literacy skills to meet proficiency rates while their teachers
struggle with instructional practices meant to support achievement standards set forth by the state and federal government.

However, problems with literacy rates may not reside solely with the knowledge adolescents and teachers possess about reading and writing. Currently, there is an emerging body of literature focusing on the explicit knowledge and perceptions held by administrators responsible for the instructional practices on their campuses. While a majority of the research references the effects of leadership practices on overall school achievement, recent studies focus on the effect administrators’ content knowledge and perceptions have on student outcomes, especially in the area of literacy (Butler, 2011; Jacobson, Reutzel, & Hollingsworth, 1992; Mackey, Pitcher, & Decman, 2006; Porter, 2001; Zeller, Bradshaw, & Haley, 2003; Zipper, Worley, Sisson, & Said, 2002). For example, Zipper et al. (2002) maintained that most secondary administrators have either limited or basic information on reading instruction, yet are “held accountable for the development, implementation, and evaluation of reading programs in their schools” (p. 3). And, Jacobson, Reutzel, & Hollingsworth (1992) concluded that elementary administrators, like their secondary counterparts, are aware of important reading issues but appeared to lack the confidence for choosing successful programs for implementation.

According to Patterson (2007), two factors, competence and confidence, are essential to an administrator’s resilience in times of adversity. Patterson insisted that an administrator’s strong sense of personal efficacy is a combination of both attributes, and a lack of either component can have drastic consequences. Therefore, what this developing body of research seems to suggest is that a contributing factor to overall school achievement may reside in the content-specific expertise and perceptions held by administrators in instructional leader positions, thus allowing them to make confident and insightful decisions concerning instruction. However, since administrators in middle and secondary schools are rarely afforded the opportunity to increase their understanding and proficiency in a specific content area, this presents a new challenge for instructional leaders and their districts.
In view of the possibility that administrators may need further assistance, this paper draws upon on what is known about successful leadership practices associated with student achievement, but also those practices that distinctively support effective reading instruction at the middle and secondary levels. By providing them with continual training and information, it is anticipated that administrators will ascertain both the knowledge and expertise in the areas of leadership and literacy to become more in tune with effective adolescent literacy instruction. Therefore, the purpose of this paper is to assist current middle and secondary administrators with building a knowledge base that includes both instructional and literacy frameworks. By bringing together two bodies of literature, educational administration and curriculum theory, an effort is made to support the use of “praxis and critical pedagogy” (Giroux, 2001) within the current conservative era of policy and politics in education to increase adolescent literacy proficiency.

This work is presented in two parts. The first section lays the foundation by presenting an overview of instructional leadership practices associated with overall student achievement. The guidance provided in this section serves as a basis for building an infrastructure for an instructional literacy framework in middle and secondary schools. The next section addresses specific practices associated with adolescent literacy achievement. Presented is research and practice-based knowledge allowing administrators to understand how others have used specific literacy practices to improve middle and secondary reading. More specifically, this section helps build the framework for successful adolescent literacy instruction. Together the theoretical suggestion is that instructional leaders, using both theory and practice, will build the competence and confidence needed to increase achievement in adolescent literacy.

Laying the foundation

As the school’s instructional leader, an administrator plays a vital role in the academic success of the campus. Wahlstrom, Louis, Leithwood, & Anderson (2004) maintained that both direct and indirect forms of leadership account for about a quarter of a school’s total effect on student learning. Furthermore, Waters, Marzano and McNulty (2003) suggested
a relationship exists between certain leadership practices and student outcomes, identifying evidence-based responsibilities significantly associated with achievement. Waters et al. stated that if administrators employed a leadership framework using the knowledge, skills, strategies, and tools based on specific leadership practices, they were more likely to impact student achievement. However, prior to laying down the foundation for an instructional framework, administrators should consider specific leadership models that support their present skills and ideologies, but also meet the specialized needs of middle and secondary schools.

Most leadership models require administrators to build upon good organization skills in order to support and encourage the work of other educators. However, Robinson, Lloyd, & Rowe (2008) found that the effects of an instructional leadership model focusing on teaching and learning had a positive influence on student outcomes. By definition, instructional leadership deliberately focuses on instruction merged with a strong purpose and commitment to student learning (Zepeda, 2003). Still, what sets instructional leadership apart is its balancing of administrative roles with the learning that takes place on campus. Key elements of an instructional leadership model include creating safe and collaborative environments, establishing goals and expectations, employing instructional awareness and involvement, and intentional professional development (Crum, Sherman, & Myran, 2010; Institute for Education Leadership, 2011; Jacobson, 2011; Wahlstrom et al, 2004; Robinson et al., 2011; Sanzo, Sherman, & Clayton, 2011; Supovitz & Poglinco, 2001; Waters et al., 2003). These tactical approaches adopted by the instructional leader help to lay a solid foundation in order to establish an infrastructure for an adolescent literacy framework.

**Creating safe and collaborative environments**

Research attests to the importance of safe and collaborative environments for practitioners to cultivate ideas that ultimately lead to improved student achievement (Hessee, 2011; Schilling, 2008). Instructional leaders are instrumental in establishing these environments where educators feel safe to collaborate with colleagues (>Bozman, 2011; Polhemus,
2010). However, the process for creating this environment can present challenges to the instructional leader, especially in middle and secondary schools where there is a perception that a lack of time, the teaching of multiple subject areas, and minimal teacher interactions impact collaborative opportunities (Berry, Smylie, & Fuller, 2008; Howe, 2011). According to Berry, et al. (2008) these challenges can be minimized by tactical approaches used by instructional leaders. For instance, underlying assumptions often propel the attitudes and motivations of the entire campus, thus creating the overall culture of the school. Determining the perceptions held by educators concerning the collegial setting is critical, especially when having to reshape any negative assumptions. This is especially important at middle and secondary campuses where educators tend to focus more on traditional forms of instructional practices that may unknowingly contribute to poor student performance and impact school culture (Newmann & Wehlage, 1993; Newmann & Wehlage, 1995). For example, there is growing support for the use of new literacies combined with teacher creativity to encourage content area literacy instruction at middle and secondary levels. These new literacies, defined by Bean, Walker, Wimmer, & Dillard (2009) as literacy practices that utilize multiple texts and involve the use of multimedia and the internet, may result in assumptions made by teachers who are apprehensive about technologically driven forms of instruction.

When administrators discover these viewpoints, and investigate their sources, they are better able to shape a new set of beliefs for the campus. Furthermore, to sustain these new beliefs it is essential for the instructional leader to model the collegial behavior by enlisting the help of faculty and staff to collectively determine what a collaborative campus might look like at the middle and secondary levels. To activate the process educators must feel safe asking questions concerning instructional practices or policies. With that said, because the success of collaborative environments weighs heavily on the comfort educators feel about voicing their concerns and inquiries, administrators must be clear and set boundaries while still encouraging teachers to collaborate or challenge the status quo. Ultimately, this newly established culture
sets the tone for the anticipated work that the instructional leader and his or her team will have in establishing goals and expectations.

**Establishing goals and expectations**

Another facet of instructional leadership in middle and secondary schools includes setting goals and expectations for teaching and learning utilizing instructional practices known to foster the explicit teaching of high student standards and provide high-quality instruction. Robinson et al. (2011) found that establishing goals and expectations was a leadership practice linked to student outcomes. Therefore, administrators working with a team approach should focus on clear, attainable goals that support subject-based expectations and state standards. Additionally, goals and expectations also depend upon specific instructional models employed by the school (e.g. student-centered verses teacher-centered) in an effort to increase student achievement. Working through preliminary ideas with framing questions administrators and team members can determine any nonnegotiable instructional practices intended to produce specific student outcomes (Lee, 2008). Goals and expectations would then be established to support a combination of both state standards and specific forms of instruction. In addition to creating these goals and expectations, tactical preparation must be made that includes which educators will be affected, an expected timeframe for implementation and evaluation, and the resources needed.

What’s more, middle and secondary schools frequently align goals and expectations to meet state and federal standardized testing requirements. Therefore, the decision to accept specific goals and expectations also relies heavily on the district’s middle and secondary proficiency rates. This is why it is also important for administrators to build in supports that aim to increase mastery of the expected outcomes, to “ensure that these goals remain a driving force behind the district’s actions” (Institute for Education Leadership, 2011, p. 13). And finally, administrators must make goal attainment important by following through with both the support and resources promised. Otherwise, it may be difficult to meet established goals and expectations within the necessary timeframe. With the establishment of these goals and expectations comes
the next foundational element of instructional awareness, encouraging administrators to remain involved in daily instructional practices.

**Instructional awareness and involvement**

An introductory approach focusing on increasing administrators’ instructional awareness and involvement includes an understanding of current curriculum theories and instructional practices. Included within this approach are engaging conversations that simulate both the surface-level knowledge and insights that help administrators recognize the systemic need to make informed and confident decisions concerning instructional practices. Supovitz & Poglinco (2001) stressed that successful administrators emphasize improvement based on a “distinct vision of instructional quality” (p. 1). Additionally, Wahlstrom et al. (2004) asserted that teachers often view administrators who combine a positive instructional climate with a hands-on approach as effective instructional leaders. However, they also suggested that while elementary principals tend to combine these two practices regularly, middle and secondary administrators claim to lack the time or ability to incorporate either practice (Wahlstrom et al., 2004). Because there is a strong correlation between student achievement and an administrator’s awareness of the “undercurrents in the running of the school,” instructional leaders must be vigilant in their attempts to monitor instruction (Waters et al., 2003, p. 4). Crum, Sherman, & Myran (2010) discovered that successful school leaders find ways to focus their time on the instructional activities within the building even though other administrative duties could prevent them from being visible in the classrooms. Furthermore, administrators must develop an ability to “use this information to address current and potential problems” to improve student achievement (Waters et al., 2003, p. 4). What this research indicated was that successful instructional leaders arranged their schedules to make time to stay involved and sought to continually improve the instruction at their campuses.

**Intentional professional development**

The unification between safe and collaborative environments, establishing goals and expectations, and instructional awareness intertwines these
three tactical approaches when administrators consider professional development for teachers. Jacobson’s (2011) examination of the effects of leadership on student achievement in schools with large at-risk populations observed that professional self-renewal emerged as a process central to sustaining success. A sufficient body of research exists supporting the effects of continued professional development of middle and secondary teachers linked to student achievement. Sanzo, Sherman, & Clayton (2011) studied what practices enabled middle school principals to facilitate high student achievement in a standards-driven school environment. Two common themes were facilitating professional development and leading with an instructional orientation (Sanzo et al., 2011). Also, Waters et al. found strong correlations between student achievement and an instructional leader’s ability to ensure that the faculty is aware of current instructional theories and practices, and then uses this information to make instructional decisions as a regular aspect of the school’s culture. Facilitation and instructional organization framed by current theories and practices helps to level the foundation of the instructional leader in preparation for building an adolescent literacy framework.

Overview
In an effort to increase student achievement, tactical approaches like safe and collaborative environments, establishing goals and expectations, and becoming instructionally aware and involved, allow administrators to strive toward increasing the instructional impact of teachers through intentional professional development. This foundation builds on the instructional leadership practices that support student outcomes that fall within the area of educational administration. The next sections aims to build an adolescent literacy framework based upon theoretical models and practices in reading that are deeply rooted within critical curriculum theory.

Building the framework
Theoretical models supporting literacy instruction seek to inform pragmatists and practitioners alike on a wide range of research and instructional practices. The duality administrators possess as agents of change
Building instructional literacy: Providing administrators with the foundation needed to construct frameworks for successful adolescent literacy instruction

(Waters et al., 2006) and curriculum leaders requires them to use these models to support an understanding that “school improvement means people improvement” (DuFour, 1991, p. 7). Furthermore, Giroux (2001) drawing from Gramsci (2001), insisted educators “provide opportunities for praxis and critical pedagogy” in order to guide curriculum decisions meant to narrow the achievement gaps resulting from a stratified society (as cited in Ylimaki, 2012, p, 314). Therefore, when constructing an adolescent literacy framework, instructional leaders must supply teachers with guidance through the combined use of theory and practice to mold all educators into professionals who ask questions and take chances that lead to deeper understandings and appreciations for literacy instruction. More specifically, improvements in adolescent literacy instruction rely heavily on administrators developing curriculum leadership based on theories and research-based practices with the intent to create schools that produce an autonomous yet democratic citizenry and still meet state and federal proficiency standards.

The first component in improving literacy at the secondary level involves administrators focusing their efforts on increasing their own knowledge, attitudes, and perceptions of literacy instruction appropriate for the middle and secondary levels (Butler, 2011; Mathewson, 2004; Porter, 2001; Robinson, 2005; Zeller et al., 2003; Zipper et al., 2002), the creation of a literacy leadership team (Elmore, 1999; Hallinger & Heck, 2010; Irvin, Meltzer, & Dukes, 2007; Irvin, Meltzer, Dean, & Mickler, 2010; King, 2002; Spillane, Halverson, & Diamond, 2004), and developing a literacy action plan (Irvin et al., 2010). Central to the literacy action plan is the use of authentic data-driven reading assessments, early identification and remediation programs, and the building of partnerships with parents and the community (Irvin et al., 2007; Irvin et al., 2010). Like the tactical approaches adopted by instructional leaders to lay a foundation, these critical curriculum theories and literacy practices build a framework that establishes the infrastructure supporting adolescent literacy instruction. The first step in this process is identifying the knowledge, attitudes, and perceptions administrators have in regards to literacy instruction at the middle and secondary levels.
Administrator knowledge, attitudes, and perceptions of literacy instruction

Traditionally, middle and secondary administrators are advised to acquire only a basic understanding of literacy instruction. Zipper et al. (2002) reported that of those secondary administrators they surveyed, none held an undergraduate degree in reading, but rather had acquired their current literacy knowledge through self education, a single undergraduate or graduate reading course, and/or professional development workshops. However, Butler (2011) found a significant correlation existed between administrators’ perceptions of their own knowledge of reading and the actions they took to support literacy programs. Similar characteristics were reported by Zeller et al. (2003) whose qualitative study categorized pre-service administrators’ attitudes toward reading, and their experiences with reading instruction. Through data analysis, Zeller et al. classified the pre-service administrators into groups of avid readers, positive readers, utilitarian readers, and reluctant readers. Zeller et al. concluded that avid and positive readers had “markedly different experiences and heard very different messages than utilitarian and reluctant readers” and suspected that these attitudes and experiences could impact their success as future instructional leaders in literacy instruction.

A major component of Ruddel & Unrau’s (2004) sociocognitive reading theory model maintained that a “teacher’s beliefs and prior knowledge” in relation to reading instruction “accounts for previous affective and cognitive conditions based on life experiences” which in turn influence the “flow and conduct of instruction” (p. 1466). Therefore, it could be argued that factors such as instructional beliefs and philosophies, conceptual knowledge representation, and instructional knowledge of reading (Ruddel & Unrau, 2004) usually associated with teachers is transferable to administrators holding instructional leadership positions charged with developing and overseeing literacy instruction. Additionally, when focusing just on administrators’ attitudes toward adolescent literacy instruction, their beliefs may affect their ability to develop effective literacy instruction. Mathewson (2004) defined reading attitude as having a tricomponent view “with evaluation as the cognitive component, feeling as the affective component, and action readiness as
the cognitive component” (p. 1434). When all three views are combined they are capable of revealing how one’s attitude influences the evaluation of content and purpose, their engagement in specific kinds of reading, and their motivation for initiating and sustaining reading (Mathewson, 2004). Correspondingly, administrators with indifferent attitudes toward adolescent literacy instruction, possibly resulting from a lack of explicit content knowledge, may have reservations about their own abilities to make confident decisions concerning effective literacy instruction (Jacobson et al., 1992; Key, 2005; Porter, 2001; Robinson, 2005). For example, when administrators perceive that the way to improve literacy instruction is tied directly to a growing need for more money, teacher training, and time in order to create and maintain effective reading programs (Key, 2005; Murphy, 2004), misconceptions may occur. In fact, an increasing number of districts struggling with literacy proficiency rates use these three perceptions as catalysts for requesting state and federal funds in order to purchase prescribed reading curriculums that limit both administrator and teacher autonomy, but require minimal background knowledge in reading (Beatty, 2011). However, research in this area suggested prescribed reading curriculums can be both ineffective and costly (Tyrrell, 2010). Instead, it is recommended that administrators focus on gaining explicit knowledge of literacy instruction to obtain the affective and cognitive conditions considered necessary to develop the competence required to change their attitudes and perceptions concerning effective adolescent literacy instruction. Once these evaluative measures are complete, an instructional leader should assemble a leadership team to continue building an effective literacy framework.

**Literacy leadership teams**

Even with a limited knowledge of reading instruction, most administrators universally agree that reading is a foundation for learning (Jacobson et al., 1992; Murphy, 2004; Zeller, et al., 2003; Zipper et al., 2002). But as high-stakes testing and school accountably increase in complexity, the position and duties of an instructional leader become more of a shared responsibility among central office personnel, principals, assistant principals, instructional coaches, and teachers (Elmore, 2000; King, 2002;
Spillane, Halverson, & Diamond, 2000). Created to provide a balanced system of personnel management and instruction, these new instructional leadership teams empower educators by including various kinds of professionals in the development, implementation, and sustainment of instructional frameworks. A study conducted by Hallinger & Heck (2010) revealed significant direct effects of collaborative leadership on change in a schools’ academic capacity, and some indirect effects on rates of growth in student reading achievement. With that said, administrators who recruit or assign educators with varied levels of experience and knowledge to literacy leadership teams can help eliminate misconceptions while generating interactions among faculty. These interactions can produce new ways of thinking about adolescent literacy instruction among faculty across the curriculum.

Irvin et al (2010) suggested that team members be strong proponents of high-quality adolescent literacy practices. Yet, as earlier stated, this does not imply that all members exclusively hold reading language arts backgrounds or have the same level of expertise. Research has long linked adolescent literacy achievement to content area learning and achievement scores (Buehl, 2007). Therefore, administrators should consider including teachers from other subject areas who understand the importance of content area literacy. By doing so, the observations, interactions, and cognitive restructuring taking place among team members ensure that the beliefs central to the literacy leadership team transfer across the campus. Also, selected team members should be considered school leaders by their peers (Irvin et al., 2007; Irvin et al., 2010).

Choosing educators who routinely mentor other teachers on campus further establishes well-formed teams, since teachers should already be comfortable with these colleagues observing their instruction throughout the school day (Irvin et al., 2007; Irvin et al., 2010). And finally, to engage educators in thoughtful conversations about critical curriculum theory and practice, members must show an interest in expanding their knowledge of literacy and learning by participating in study groups or professional development activities (Irvin et al., 2007; Irvin et al., 2010). By actively participating in a school’s improvement process, effective team members may encourage both teachers and students to
avidly contribute to the strengthening of the school’s adolescent literacy program. However, before a literacy framework can be fully established, administrators must work with the leadership team to devise a literacy action plan (Irvin et al., 2007; Irvin et al., 2010) based on a synthesis of authentic data driven reading assessments, the need for early identification and remediation programs, and the building of partnerships with parents and the community.

**Literacy action plan**

In accordance with Irvin et al. (2007) the purpose of creating a literacy action plan is to target specific literacy goals that support instructional improvements, build a literacy leadership capacity, and support teachers’ efforts to improve instruction. In order for this to happen, administrators must understand the complexities that can occur when a literacy leadership team sets out to create and implement a plan designed exclusively for middle and secondary campuses. For instance, Schmoker (2006) found that improvement plans have good intentions, but become “fragmented, complicated, and convoluted” when they don’t directly focus on curriculum implementation and instructional improvements (as cited in Irvin et al., 2007, p. 118). To avoid this practice, the team should focus its efforts on creating a plan that targets specific literacy goals that are “measurable, coherent, concrete, and comprehensive to teachers and administrators,” but are also applicable to the infrastructural practices of middle and secondary schools (Irvin et al., 2007, p. 118).

A further contributing factor to the plan’s success is an administrator’s ability to build a literacy leadership capacity (Irvin et al., 2007). Ennis (1962) defined the use of critical thinking in everyday life as “reasonable reflective thinking focused on deciding what to believe or do” (as cited in Noddings, 2012, p. 99). However, the application of this model of thinking can have adverse effects if assumptions are mistaken for valid arguments, leading to continual disagreements or misconceptions (Noddings, 2012). For example, assumptions related to students’ misuse of internet privileges may hamper the literacy leadership team’s decision to use new kinds of instructional methods that incorporate the use of technology or the internet to build literacy skills.
Thus, administrators and their teams should concentrate on differentiating between weak and strong critical thinking among team members and teachers while building a literacy leadership capacity throughout the campus. Paul (1982) suggested that examples of weak critical thinking often produce few changes in the dynamic thoughts or planning of a group, and instead result in an “oppressed-becomes-oppressor” environment (as cited in Noddings, 2012, p. 102). An example of this is the push for increased phonics instruction, which has resulted in a greater use of commercially produced, skills driven reading programs that in many ways lead to “teacher-stupidification” allowing for less autonomy and more accountability (Allington, 2002, p. 33). Such was the case in Crawford’s (2004) case study on the deskilling of teachers. Crawford tracked the first year teaching experiences of one of her former undergraduate students and showed that commercially-produced, skills-driven instruction altered the student’s educational philosophy and made the teacher dependent on the basal manual and directives (2004, p. 209).

In contrast, strong critical thinking employs dialogue to promote “pedagogical neutrality” that allows for multiples views and arguments to shape the conversation throughout the planning (Noddings, 2012). Though more ideal than weak critical thinking, the use of strong critical thinking models still require “certain propensities and intellectual virtues,” like knowledge building, to succeed in an educational setting (Noddings, 2012, p. 105). Therefore, Irvin et al. (2007) advised that the literacy action plan include opportunities for team members and teachers alike to view literacy demonstration lessons and engage in classroom-based research as a means to develop an explicit understanding of literacy instruction that results in improved planning and extends the leadership capacity of the school.

Irvin et al (2007) also maintained that middle and secondary teachers receive continued training and support throughout the literacy action plan’s development and implementation process. Spiro (2004) wrote specifically about the use of Cognitive Flexibility Theory (CFT) in its relation to the teaching of reading. According to CFT, when a person faces a new complex situation they bring together their prior knowledge and experiences to fit into the new circumstances (Spiro, 2004).
However, Spiro insisted that there is no randomization to this process, but rather, a clear determination of knowledge and experiences are chosen. Spiro went on to say that if teachers possess a “rich repertoire” of “knowledge and different prior-case experiences” from which they can “assemble a situation-sensitive approach,” it will result in better instructional literacy practices (Spiro, 2004, p. 655). Thus, it is crucial that the literacy action plan include opportunities for teachers to learn explicit strategies that support adolescent literacy instruction in order for teachers to make “situation-sensitive” decisions about instruction at these levels. Fittingly, Irvin et al (2004) suggested team members and teachers engage in literacy coaching, peer observations, and collaborative planning as opportunities to increase literacy instructional knowledge. Equally expressed was the suggestion that these educators also attend and present at local, state, and national conferences to extend their knowledge and collegial conversations outside the regular school environment (Irvin et al., 2007).

When literacy leadership teams can identify the purpose for creating a literacy action plan and understand the complexities that can occur during its creation and implementation, they are more aware of the kinds of changes necessary to generate increased literacy instruction at their middle or secondary schools. However, to develop an effective plan, an administrator and his or her team must still use authentic data-driven reading assessments, use early identification and remediation programs, and build partnerships with parents and the community.

**Authentic data-driven reading assessments.** Afflerback (2007) maintained that the use of reading assessments in general is “influenced by social and political forces” that seldom understand the reasons for assessment outside of “providing useful information” (p. 7). Because this implies that useful information can vary from person to person, Afflerback suggested that authentic reading assessments designed with a purposeful intent produce end results focusing on the “betterment of student reading” (p. 7). As a result, the use of authentic data-driven reading assessments can aid administrators and team members toward understanding how specific instructional practices contribute to student reading development, without focusing on just test proficiency.
Borrowing from cognitive, constructivist, and sociocultural theories, Shepard (2004) elaborated on the principles of a social-constructivist conceptual framework primarily based on instructional goals and stressed a more direct “connection between assessment and ongoing instruction” (p. 1621). Arguing against high-stakes testing and toward a more “assessment for learning” model, Shepard defended what he and others feel is a lack of authentic assessment data available to educators due to an increase in external accountability testing and the “onslaught of test-driven curricula” (2004, p. 1624). Likewise, Allington & Cunningham (2007) maintained that large-group achievement tests (e.g. norm-referenced reading achievement tests and state-sponsored performance-reference tests) become limiting sources of data when used inappropriately. Although useful when examining the performances of specific groups, Allington & Cunningham warned against the use of such assessments when making comprehensive “high-stakes” decisions about instructional practices, grade promotion, or retention (p. 159). Instead, Allington & Cunningham recommended the use of more “instructionally useful assessments,” which can include the use of universal screening assessments that are curriculum-based, diagnostic, summative, observational, or a combination of measures (p. 167). Specific examples of these assessments include Curriculum-Based Measures (CBM), informal reading inventories, standards-based benchmarks, and teacher observational checklists.

Data collected from universal screening assessments like those previously mentioned can be used by administrators and the literacy leadership team to determine instructional practices for specific groups, teachers, or students. Rogers, Winters, Bryan, Price, McCormick, House, Mezzarobba & Sinclair (2010) stated that when teams create student profiles based on these kinds of assessments, educators are able to make more informed instructional decisions. However, administrators and their teams must decide early on which formal and informal assessments to use for monitoring reading proficiency throughout the school year. Creating a calendar, accessible to everyone on campus, noting the days and times of testing, timeframes for scoring by teachers, and scheduled meetings for reviewing the data should all be included (Irwin et al.)
2007). Furthermore, team members must be able to clearly read the data results by drawing conclusions from the data, and they must avoid making mere assumptions. Although an administrator and his or her team might review the previous year’s state tests as an initial data source, ideally, new screenings should begin early in the school year to provide the literacy action team with more recent data (Irwin et al. 2007). More specifically, up-to-date data sets used as progress-monitoring tools enable team members and teachers to identify students that are at risk for not meeting grade-level standards and who may require remediation literacy instruction.

**Early identification and remediation programs.** Before discussing the kinds of remediation programs middle and secondary schools should consider, it is important to discuss why early identification of struggling readers is significant to adolescent reading proficiency. Although, identifying students with possible learning disabilities is routinely used in middle and secondary Response to Intervention (RTI) frameworks, administrators and literacy leadership teams should still identify students who struggle with reading difficulties but do not demonstrate the characteristic of being learning disabled. A major concern in adolescent literacy is a student’s ability to comprehend text (Carnegie Corporation of New Y., 2011; Cassidy & Grote-Garcia, 2012). Jackson & Cooper (2007) explained that middle and secondary students must be able to use a full range of highly specific to narrowly focused comprehension skills and strategies to guide them in their understanding of content area texts. For this to happen, students must be “literate in the disciplines to such a degree” that they internalize the content, process it using high levels of thinking, and apply it to real-world contexts (Jackson & Cooper, 2007, p. 250). However, if these processes are underdeveloped, or a disconnect exists between the information presented in the text and a student’s prior knowledge, reading difficulties can occur. If this situation is recognized early in the school year, the interventions teachers and other reading professionals use to resolve comprehension difficulties can result in increased overall reading comprehension. Allington (2006) pointed out that research in this area supports results showing that when older readers received expert, intensive instruction
they were able to make substantial gains in their reading proficiency. Therefore, once struggling readers are identified, an administrator and his or her team should design and implement a remediation program that meets the needs of students on campus.

As earlier stated, understanding how the mind constructs meaning from text during reading is essential for designing appropriate instructional practices in adolescent literacy frameworks. With that said, using strictly one type of instructional approach that emphasizes word decoding skills as the basis for the remediation program will not produce the same degree of reading proficiency that comes from using more varying interventions (Gilbert, 2011; Pilgrim, 2000). Instead, instructional designs should range from newly embedded content area instructional strategies to small group or individualized skills or strategies-based pull-out comprehension instruction. Duke & Pearson (2002) suggested that comprehension instruction be balanced using both the explicit instruction of strategies and a great deal of time devoted to reading, writing, and discussing text. Furthermore, they recommended the following six research-based individual strategies considered beneficial to developing comprehension: prediction/prior knowledge, think-aloud, text structure, visual representations, summarizations, and question/questioning (Duke & Pearson, 2002, p. 224). By incorporating these strategies into everyday instruction and providing adequate time to practice them during independent reading, writing, and group discussions, middle and secondary schools may see gains in reading proficiency.

Besides instructional practices, administrators and their literacy leadership teams should also consider using a mix of in-school, after-school, and summer programs. In-school programs are designed to meet the needs of students during school hours, while after-school and summer programs operate outside the regular school day and academic calendar. However, all three designs can share similar instructional practices, resources, and personnel. Choosing which resources to use for each design often mirrors the reading curriculum adopted by the middle and secondary campus. A common practice to support these designs is enlisting the help of parents, elementary teachers, graduate students, university professors, and community members. This practice presents a
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need for administrators and their literacy leadership team to build partnerships with parents and community members.

**Building partnerships with parents and community.** Tying together each component of the literacy action plan is the necessary involvement of parents and community members. Goldenberg (2004) stressed that a consensus among researchers suggested a link between students’ experiences outside the classroom and school success. For this reason, parents and community members ought to be invited to take part in the planning and implementation of the literacy action plan (Irvin et al., 2007). Included in this partnership are members of service and local government agencies, businesses, community-based organizations, post-secondary institutions, and religious or civic groups. Adelman & Taylor (2006) insisted that comprehensive intervention approaches that include school-community collaborations can be effective in preventing barriers related to issues of development, learning, parenting, teaching, and socialization. However, factors such as a lack of parental involvement in middle and secondary campuses (Irvin et al., 2007) and the complex interrelated problems schools currently face (Adelman & Taylor, 2006) can cause apprehension among educators in the overall success of these outside collaborative efforts.

Irvin et al (2007) suggested two main reasons for the lack of parental involvement in middle and secondary schools. The first resides with the notion that adolescents do not want their parents to know what is going on at school; and second, parents themselves are intimidated by the content at these levels (Irvin et al., 2007). Therefore, collaborative efforts that are outside of school and community-based may have more of an impact then onsite adolescent literacy projects. For instance, the eight writing and tutoring centers supported by Dave Eggars’ literacy project 826 National have had tremendous impacts on their local communities. A nonprofit organization, 826 National provides at-risk students in elementary through secondary schools with various writing programs designed to improve and stimulate students’ writing skills. Program incentives include after-school tutoring, teacher assistance, field trips, in-school projects, teacher collaborations, young authors’ publishing projects, writing workshops, and scholarships (826 National, Inc.,
n.d.). Eggars (2008) stated that although “it’s still school in a way,” the program attracts students and their parents because something psychological happens. Unlike school settings where students are aware of the stigmas associated with school-based tutoring programs, 826 National provides a neutral environment where students of various abilities, parents, and community members work collaboratively on writing projects that may or may not be related to school work.

Still, issues related to social stigmas are just some of many complex interrelated problems schools currently face, particularly middle and secondary schools. But, Adelman & Taylor (2006) suggested that when schools are viewed as effective and caring, they are accepted as integral parts of the community and have a positive impact. Furthermore, through effective collaboration, schools, parents, and community members can enhance academic performances, strengthen family and community life, minimize discipline problems, and increase staff morale (Adelman & Taylor, 2006). Doing so, though, requires “weaving together the responsibilities and resources of many participating stakeholders to create a unified entity” (Adelman & Taylor, 2006, p. 38). By providing parents and community members with the necessary training, time, and support needed for effective collaboration, administrators and their teams are capable of establishing the autonomous partnerships needed to accomplish the specific goals laid out in the literacy action plan (Adelman & Taylor, 2006; Allington, 2006; Irvin et al, 2007)

**Overview**

Administrators must create an environment where reading and writing are routinely practiced and embraced by students, teachers, parents, and the community. When they establish an adolescent literacy framework based upon their own knowledge, attitudes, and perceptions of literacy instruction, create a literacy leadership team, and develop a literacy action plan administrators are better able to build a structure capable of sustaining effective adolescent literacy instruction. Using a framework based upon theoretical models and practices, deeply rooted within critical curriculum theory, allows administrators and their teams to build an effective infrastructure to support adolescent literacy instruction.
Discussion

Patterson (2007) insisted that competence and confidence are needed to establish an administrator’s strong sense of personal efficacy, which in turn may affect student achievement. However, the challenges administrators face in middle and secondary schools rarely afford them opportunities to increase their understanding and proficiency with the specific instructional frameworks needed in the content areas. Partly to blame is the departmentalized nature of the education field that separates education administration from curriculum theory. Independently, each field possesses its own discrete use of praxis, and demonstrates reliable strengths. However, today’s administrators must have a critical understanding of both fields to “navigate within a broader, and increasingly conservative, political sphere” (Ylimaki, 2011, p. 305). Therefore, the purpose of this paper was to assist current middle and secondary administrators with building a knowledge base that includes both instructional leadership and literacy frameworks, drawing from the theories and practices of both fields.

By fusing the collective knowledge presented in this paper, three distinct benefits emerge for administrators and their middle and secondary adolescent literacy programs. First, when administrators demonstrate their knowledge and expertise of leadership practices, they have an opportunity to change the overall instructional culture of the campus. This is done through tactical approaches like creating safe and collaborative environments, establishing goals and expectations, becoming instructionally aware and involved, and fostering intentional professional development. These practices build a foundation essential for supporting student outcomes. Second, when administrators develop content specific expertise based on critical curriculum theories and practices, they are able to make confident and insightful decisions concerning instruction. Using a framework based upon theoretical models and practices, administrators and their teams are able to understand their own knowledge, attitudes, and perceptions of literacy instruction, create a literacy leadership team, and develop a literacy action plan to build a structure capable of sustaining effective adolescent literacy instruction. And third, by using a model of “praxis and critical pedagogy” (Giroux, 2001)
administrators can improve instruction by improving people, and still support the current conservative era of policy and politics. Sustaining this collective exchange of beliefs and values are those practices central to the literacy action plan. The use of authentic, data-driven reading assessments, the use of early identification and remediation programs, and the building of partnerships with parents and the community are vital in establishing an understanding that schools can develop effective adolescent literacy instruction without using a *teaching to the test* model, and still meet state and federal proficiency.

**Conclusion**

To support the merging of these fields, more research is needed to explore the influence administrators have on specific content areas, paying particular attention to the competence and confidence instructional leaders possess when making curriculum decisions that lead to positive student outcomes. Ylimaki (2011) maintained that “each field offers its own frame of reference, its own structure of knowledge that contributes to our understanding of curriculum leadership” (p. 343). Thus, by combining the literature of both fields it is possible that more innovative instructional frameworks may be designed for specific content areas and grade levels like the one discussed in this paper. Furthermore, additional research is needed to examine the effect of these new content and grade specific instructional frameworks on student achievement.

Though the purpose of this paper is to assist current middle and secondary administrators with building a knowledge base for instructional literacy frameworks, the authors also aim to promote a movement to increase guidance given to pre-service administrators in principal preparation programs and aid districts in professional development for the creation of keen curriculum leaders. Thus, changes in paradigms for what curriculum leaders must know and be able to achieve should be considered. To support this shift in paradigms, more research is needed on the initial and continuing training of administrators toward using research-based frameworks that highlight the combined use of educational administration and curriculum theory practices associated with student achievement.
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Building instructional literacy: Providing administrators with the foundation needed to construct frameworks for successful adolescent literacy instruction


Predictive validity of benchmark testing

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Abstract
Predictive validity of benchmark testing was examined. The study employed a two-step mixed methods model and was delimited to grade 5 students and outcome measures of achievement in reading and mathematics. The sample for the quantitative component of the study consisted of 2,416 5th graders. Qualitative data were obtained from a sample of administrators and 5th grade teachers. Bivariate associations between benchmark test scores and outcome measures were statistically significant. After adjusting for age, gender, and ethnicity, the validity coefficients remained statistically significant. Logistic regression showed that a unit increase in mathematics and reading benchmark test scores multiplied the odds of passing, rather than failing, the test by 13% and 11%, respectively. Based on the quantitative results, it is concluded that benchmark testing has predictive validity and may be used to estimate future test performance. Based on the qualitative results, it is concluded that administrators and teachers view benchmark assessment as useful indicators of students’ progress towards mastery of the state standards and effective in identifying potential instructional weaknesses.
Predictive validity of benchmark testing

In the current climate of educational accountability, many schools are developing assessment systems to monitor their students’ progress toward state standards throughout the academic year (Herman & Baker, 2005). Most states had some form of standards-based accountability in place when the No Child Left Behind (NCLB) Act was signed into law in 2002. The central mission of the NCLB is to narrow the achievement gap between differing groups and to get every student to grade-level proficiency by 2014. Students in Grades 3-8 and high school must meet grade-level targets in reading, writing, and mathematics each year. The NCLB measures accountability through Adequate Yearly Progress (AYP), which divides the student population into four groups: 1) economically disadvantaged, 2) special education, 3) limited English proficient students (also known as English Language Learners or ELL), and 4) students from major racial/ethnic groups (No Child Left Behind [NCLB] Act of 2001, 2002).

Schools are evaluated on the achievement status of their students. If a school fails to meet the AYP goals, corrective actions, such as the replacement of school staff, implementation of new curriculum, extension of the school day or academic year, parental choice options, and complete reorganization of the school are taken (Abrams & Madaus, 2003). Another penalty imposed on schools that do not meet the AYP goals is reduced federal funding for programs such as Special Education and Title I (No Child Left Behind [NCLB] Act of 2001, 2002).

Schools are under pressure to boost students’ test scores and have, therefore, relied on information from researchers, suggesting that if schools use the results of classroom assessments to adjust ongoing instruction, students not only master the content better, but also improve their performance on external achievement tests (Marshall, 2008). Because standardized assessments are the foundation of the current accountability movement, many schools are developing assessment systems to monitor students’ progress toward the respective state’s standards throughout the academic year. Available options include customized testing programs, automated scoring and elaborate reporting systems for multiple audiences and purposes, off-the-shelf products aligned
with existing state tests, and CDs and Web portals containing item banks from which educators can construct their own tests (Herman & Baker, 2005). Schools and districts need to be aware of the products marked as benchmark, formative, or interim tests, since assessments have led to the development of profit-motivated testing firms (Popham, 2006). The quality of the assessment is essential; thus, there is little sense in spending the time and money for elaborate testing systems if the tests do not yield accurate and useful information (Herman & Baker, 2005). If the information is flawed or erroneous, it is unlikely to provide the critical guidance for instruction or to support better decision making. The whole rationale for conducting the assessment falls apart and it merely creates the illusion that something is being done and people are paying attention (Herman & Baker, 2005).

The purpose of benchmark testing is to provide both accurate information about students’ progress toward mastery of standards and useful diagnostic feedback to guide instruction and improve learning (Herman & Baker, 2005). Benchmark data are collected frequently and systematically across an entire grade, content area or course; perhaps over an entire school district at several predetermined points in the year. Benchmarks should provide guidance for instructional adjustments, interventions, and professional development (Thomas, 2008). In order for schools to effectively implement benchmark testing, school leaders must determine the validity of benchmark tests by examining the following six criteria: alignment, diagnostic value, fairness, technical quality, utility, and feasibility (Linn, Baker, & Dunbar, 1991).

Aligning benchmark tests with state standards does not mean mimicking the content and format of annual state tests (Herman & Baker, 2005). It is believed that preparation with this strategy may boost scores for only a short term. Instead, it is recommended to: 1) enhance the diagnostic value of assessment results through initial item and test structure design; 2) ensure fairness of benchmark assessments for all students, including English Language Learners (ELL) and students with disabilities; and 3) test with high technical quality, which may provide accurate and reliable information about student performance (Herman & Baker, 2005). Utility represents that the data are user-friendly and guid-
Predictive validity of benchmark testing

ance is provided to show how to interpret and use the results. Benchmark testing should contribute to improving student learning and not detract from meaningful learning.

The primary role of a school district benchmark assessment is to predict student performance on the end-of-year state test and track grade-level expectations. The secondary purpose of benchmark tests is to provide diagnostic information. Benchmark assessments help educators adjust their instruction and offer administrators information to evaluate instructional programs. A study by Goertz, Olah, and Riggan (2009) focused on teachers’ use of data to make instructional adjustments and offered three suggestions: 1) assessments need to examine trends in relation to a content area; 2) research needs to be effective to determine the validity of assessments results; and 3) research needs to focus on the relationship among assessments. Benchmark assessments are designed to measure student academic achievement or academic weaknesses. Furthermore, benchmark assessment should reflect student performance on the end-of-year state test. Another significant use of benchmark assessments is that it provides district leaders information about curriculum deficiencies and strengths.

Purpose of the study
The primary purpose of the study was to examine the predictive validity of benchmark testing for grade 5 students in mathematics and reading. The study was delimited to grade 5 students, because in Texas, where the study took place, all fifth grade students must be proficient in mathematics and reading in order to be promoted to the next grade level. The secondary purpose of the study was to document the perspectives of school administrators and teachers regarding the effectiveness of benchmark testing.

Theoretical framework
The theoretical framework guiding the study was Benjamin Bloom’s concept of Mastery Learning, who developed the Learning for Mastery (LFM) method (Bloom, 1968). Mastery learning is based on the concept that all students can learn when provided with conditions that are
appropriate for their individual situations. Students must reach a predetermined level of mastery on one unit before being allowed to progress to the next. In a mastery learning setting, students are given specific feedback about their learning progress at regular intervals throughout the instructional period. The feedback helps students identify what they have learned well and what they have not learned well. Areas that are not mastered adequately are allotted the time needed to achieve mastery (Whiting, Burgh, & Render, 1995).

Bloom’s LFM requires two formative assessments for each unit of instruction. The purpose of the first assessment is to function as a diagnostic tool so that the instructor may adjust particular areas of the instructional unit in which students demonstrate difficulty in mastering the concepts. The students who fail to achieve mastery for the first formative assessment are given further instruction, using different instructional approaches. Bloom believed that varying instructional methods would help a larger percentage of students achieve, because effective learning may take place in various ways. The learners are assessed a second time to determine how far they have progressed. Meanwhile, students who achieve mastery in the first formative assessment will go on to learn concepts that are extended and built upon the unit of instruction, and their second assessment primarily revolves around the extended concepts. The purpose is to raise the bar higher while not leaving the rest of the class behind (Mikechanguh, 2007).

Bloom’s mastery learning model involves four components: 1) defining mastery, 2) planning for mastery, 3) teaching for mastery, and 4) grading for mastery. The key feature in the model is that frequent and targeted assessments are used formatively for guiding instruction. Consequently, school districts implement benchmark testing to improve student performance on the state’s assessments as mandated by the NCLB. Benchmark assessments are given and scored at the local level. Districts provide the schools with the results so that teachers may monitor individual student progress toward mastering the required standards by developing and implementing the proper classroom instruction strategies (Bulkley, Christman, Goertz, & Lawrence, 2010).
Method

Setting
The study took place in an urban South Texas school district. The district served approximately 38,000 students and began administration of benchmark assessments in the 2007-2008 school year. The 2011 district campus accountability rating consisted of 5 exemplary, 25 recognized, 24 academically acceptable, and 3 academically unacceptable schools, as well as 1 Alternative Education Accountability (AEA) academically acceptable school.

Design and procedures
The study utilized a mixed methods research design. Specifically, the Explanatory Sequential Model (ESM), which uses a two-step procedure to collect, analyze, and synthesize the data, was employed (Creswell & Plano Clark, 2011). Phase one of the ESM begins with the collection and analysis of quantitative data. Phase two involves collecting and analyzing qualitative data to better understand the quantitative results, followed by the synthesis of all results. Typically, the quantitative data are emphasized in the ESM.

The quantitative component of the study employed a correlational design (Gall, Gall, & Borg, 2007) to examine the predictive validity of benchmark testing. For the qualitative component of the study, two focus groups were conducted to contextualize, deepen, and amplify the understanding of the numerical data as they related to the perspectives of the participants (Tashakkori & Teddlie, 2003). The coding of qualitative data and inductive analyses were conducted under the theoretical perspective of interpretivism in an attempt to understand and explain the administrators’ and teachers’ social reality (Crotty, 1998). Interpretivism is the lens through which we view a situation where the problems and the research questions that are explored aim to understand specific issues or topics (Creswell, 2005).

The study was delimited to one school district in South Texas and the outcome measures of achievement in reading and mathematics achievement. Due to the non-probability nature of the sampling, external
validity was limited to the study participants. Due to the non-experimental nature of the investigation, no causal inferences were drawn. It was assumed that teachers who administered the benchmark testing followed the state’s mandated guidelines for testing. Furthermore, it was assumed that the benchmark data and outcome measures, obtained from the school district’s office of curriculum and instruction, were accurate. It was assumed that focus group participants could articulate their experiences with benchmark testing. The researchers remained academically rigorous with objectivity and subjectivity in both the quantitative and qualitative portions of the study, respectively.

Subject selection
For the quantitative component of the study, all grade 5 students \( N = 2,416 \) from the school district’s 39 elementary schools who took the 2009–2010 benchmark tests in March 2010 and end-of-the-year tests in reading and mathematics in April 2010 were included in the study. For the qualitative component of the study, there were six teachers and five administrators who participated in two focus groups.

Permission to conduct the study was obtained from the Institutional Review Board at the researchers’ university. Permission to use the quantitative data for the purpose of the study was obtained from appropriate school district administrators. Focus group participants signed consent forms.

Instrumentation and data collection
The required quantitative data were obtained from the school district’s office of curriculum and instruction. At the time of conducting the study, the Texas Assessment of Knowledge and Skills (TAKS) test was the statewide standards-based assessment program. The TAKS was designed and implemented in the spring of 2003 in accordance with state law and legislation (TEA, 2010). According to the TEA’s Technical Digest (2004), the TAKS test was designed to “measure the extent to which a student has learned and is able to apply the defined knowledge and skills at each tested grade level” (p. 11). The test was developed by Pearson Educational Measurement (PEM) under the guidance of the TEA to
comply with the federal NCLB Act of 2001. Psychometric properties of the TAKS have been published (Technical Digest, 2006, 2007). The school district also provided the researchers with demographic data on age, gender, ethnicity, socioeconomic status, and giftedness status of the subjects.

Focus groups were conducted to collect the qualitative data. In accordance with the ESM, quantitative results were used to develop the lead questions. The following lead questions directed the focus groups: Do you believe district benchmark tests improve student achievement on TAKS tests? Do you feel benchmark administration influences teachers to improve instructional practices? Do you feel the gains of benchmarking are worth the time spent in class? Is the practice of benchmarking essential to the academic success of your district? Are benchmark test scores accurate predictors of success? How are the results of benchmarks used for individual students? Are benchmark results the only way to assign students to tutoring or other intervention activities? The focus groups were audio-taped and transcribed.

Results

Quantitative
The non-probability sample for the quantitative component of the study consisted of 2,416 fifth graders. The majority of the students were Hispanic (79.70%), followed by Caucasian (13.20%), African American (4.30%), Asian/pacific islander (2.50%), and Native American (0.30%). The majority of the students (70.70%) was receiving free/reduced lunch and met the Texas criteria for being classified as economically disadvantaged. Nearly 5.60% of the students were gifted.

The benchmark measures of mathematics and reading were obtained, using a released TAKS test from the previous year. The data were in the form of the proportion of the questions answered correctly. For mathematics, the data ranged from .18 to 1.00 ($M = .77, SD = .18$). The range of the scores for reading was from .14 to 1.00 ($M = .80, SD = .15$).
There were two types of outcome measures, namely, TAKS proportion of correct answers and pass or fail binary scores. With respect to mathematics, the average score was .81 ($SD = .17$), and 85% had passed the test. With respect to reading, 87% had passed the test with the average score of .84 ($SD = .14$).

Bivariate associations between benchmark test scores and outcome measures for mathematics and reading were .79 and .66, respectively, and statistically significant at the .01 level. After adjusting for age, gender, and ethnicity, the correlation coefficients were .77 and .65 for mathematics and reading, respectively, and were statistically significant at the .01 level. The mean difference effect sizes between those who passed the mathematics and reading tests and those who did not on the basis of the benchmark test scores were 3.25 and 2.69, respectively, favoring those who passed both tests. Logistic regression showed that a unit increase in mathematics and reading benchmark test scores multiplied the odds of passing the test rather than failing the test by 13% and 11%, respectively.

**Qualitative**

The transcripts of the focus groups were content analyzed to derive themes that were used to document the perspectives of the participants with respect to their beliefs about the value and effectiveness of benchmark testing. The following steps (Creswell, 2005) were performed to analyze the qualitative data: 1) reading the transcription carefully; 2) identifying text segments with brackets; 3) assigning a code word or phrase to describe the meaning of the text segment; 4) making a list and grouping the code words; 5) reviewing the transcription; and 6) reducing the codes to themes by combining similar codes to form the major ideas of the transcription.

The administrator focus group included two Hispanic males, two Hispanic females, and one white female. Three themes were emerged as a result of analyzing the qualitative data codes, namely, *Projecting Student Proficiency*, *Programmatic Decisions*, and *Assessment Design*. The teacher focus group consisted of four females and two males. The two male teachers were Hispanic. Two of the females were Hispanic
Predictive validity of benchmark testing

and the other two were white. Content analysis of data resulted in three themes, namely, *Instructional Action*, *Preparing Students’ Readiness*, and *Assessment Limitations*.

The qualitative results showed that both the administrators and teachers relied on the benchmark assessments to highlight areas of weakness in the curriculum and in student learning. While administrators noted the need for benchmark assessments to be aligned with state and district standards, teachers felt that their input did not play a prominent role in the development of benchmark assessment.

**Synthesis of quantitative and qualitative results**

Bivariate associations were computed to examine the magnitude and direction of the relationships between benchmark test scores and outcome measures. The results showed that benchmark test scores were predictive of outcome measures of mathematics and reading. The researchers used the second phase of the study to explain and expand the initial numerical quantitative findings. Administrators and teachers in focus groups responded to lead questions, which had been formulated on the basis of the quantitative results. The focus groups’ participants were asked whether or not they believed that there should be a relationship between benchmark test scores and outcome measures. All agreed that benchmark test scores ought to be predictive of end-of-the-year reading and mathematics achievement test scores. The administrators felt that benchmark testing must align with the state’s objectives and measure student proficiency, which could ensure the students’ performance on the state test. Additionally, administrators supported the use of benchmark tests to monitor student progress and make instructional adjustments, enabling students to achieve mastery on the test. The teacher focus group comments revealed that benchmark testing could be instrumental in influencing instruction and student readiness. According to the teachers, through an analysis of benchmark data, teachers could modify lesson plans and address students’ needs to increase student achievement.

Other comments from lead questions dealt with benchmark assessments being used to evaluate teacher performance. Administrators alluded to analyzing the results to determine whether teachers were
implementing strong instructional practices so students could acquire mastery on state objectives. Teachers’ perspectives revealed that if students were not successful on the benchmark test, administration could question teachers’ professional competency, thus causing an inferior teacher evaluation.

Partial correlation analysis was conducted to control the possible influence of selected confounding variables on the magnitude of the associations. Specifically, age in years, gender, and ethnicity were included in the analyses, and 3rd order partial correlation coefficients were computed. Results showed that benchmark test scores could be used to predict the outcome measures of mathematics and reading, independent of the above mentioned extraneous variables. Teacher focus group participants noted that after analyzing benchmark test results, students were placed in small groups and offered tutoring after school or on Saturdays. Teachers did not address the influence of ethnicity and/or gender of students who participated in tutoring. The participating administrators reported that benchmark results enabled them to determine whether students would be likely to meet the required expectations, or whether they would be deemed as average or low achievers. The mean difference effects sizes and odd ratios also supported the notion that those who do well in benchmark testing are more likely to do well in outcome measures than those who do not do well in measures of the predictors. In other words, the synthesis of quantitative and qualitative results suggested that students who master the spring benchmark test were likely to have the skills needed to perform successfully on the end-of-the-year test.

Conclusions and implications

Based on the quantitative results, it is concluded that benchmark testing has predictive validity and may be used to estimate future test performance. Based on the qualitative results, it is concluded that administrators and teachers may view benchmark assessment as useful indicators of students’ progress towards the mastery of the state standards and useful in identifying potential instructional weaknesses. On the basis of the results, it can be said that pedagogical strategies must be adjusted so
that students may make gains toward mastery of performance objectives. As a general view, administrators and teachers valued benchmark assessment and believed it was a valuable tool for gauging student performance for end-of-the-year state test.

The intent of the study was to investigate whether benchmark assessment could predict students’ scores on the end-of-the-year state summative assessment. Currently, the related literature suggests that the school districts practice benchmark testing in an attempt to monitor students’ preparedness for the end-of-the-year state mandated assessment in response to the NCLB’s requirement. The results of the study indicated that benchmark assessment is worth the time and resources spent on its administration because the results may predict and gauge students’ achievement.

**Implications for administrators**
The administrators may use benchmark assessment for accountability and prediction of student performance on the state assessment as well as providing academic resources for students who fail the benchmark test in an attempt to assist them in passing the statewide assessment. Administrators may utilize benchmark testing to assess teacher quality. By identifying low-performing objectives, administrators may determine if teachers’ instructional practices adhere to the curriculum and guidelines. The analysis of benchmark data may provide the administrators with the input needed to determine whether teachers cover the grade-level objectives. Participation in learning communities is another application of benchmark testing; that is, a critical discussion among the teachers to identify the objectives that the students do not master. Benchmark results should be used to inform instruction and gauge mastery of objectives. Using benchmark assessments allows administrators to ensure that the best possible academic programs are in place for students.

**Implications for teachers**
The results of the study should persuade the teachers that benchmark testing is useful and should be considered as part of the instructional plan for a school year. For example, classroom teachers may use the
benchmark results to evaluate their lesson plans and instructional strategies to make learning more meaningful and experiential for students. Teachers have a tendency to employ grouping to focus on instructional needs of specific groups of students (e.g., low achievers, those in need of remedial), and benchmark results may facilitate the process. Teachers may also identify students who benefit from after school or Saturday tutoring. Benchmark results may be used by the teachers to provide students with constructive feedback. Another benefit of implementing benchmark testing is that it may serve as a practice run. Benchmark testing is useful in assisting the teachers to deal with issues such as scheduling, grouping, and test administration on the day of the state assessment and be prepared to handle any unexpected incidents. Teachers will likely be less reluctant to participate in benchmark testing once they understand its benefits.

**Implications for school districts**

Districts should make an effort to provide campuses with high-quality benchmark assessments designed to measure students’ progress in meeting the state standards and preparing them for end-of-the-year mandated assessments. The districts should make sure that the classroom teachers are adequately prepared to utilize the benchmark assessment results to develop instructional interventions. When classroom teachers understand the theoretical and practical implications of benchmark testing, they are better prepared to develop new instructional strategies or evaluate and improve the current practices. The school districts should develop and implement plans to offer professional development to inform teachers of the analysis, synthesis, and evaluation of benchmark test results.
References


A reflective approach to teaching reading intervention: Pre-service teachers evaluate theory and practice

Brandi Gribble Mathers
Elizabeth Belcastro

Abstract
This project explored the perceptions of pre-service teachers enrolled in a reading intervention course with an intensive field component. Specifically, it investigated the consistencies and contradictions between reading intervention as taught in the college classroom and reading intervention as experienced in the field. Two research questions guided the study: (1) To what degree do pre-service teachers perceive that field experiences corroborate the “theory” of reading intervention espoused in a reading intervention course? (2) What are the specific consistencies and contradictions? Results indicated that experiences varied widely, and the degree of correlation depended on the placements assigned. The paper, therefore, suggests a model for dealing with the wide range of consistencies and contradictions that arise between theory and practice when pre-service teachers work in the field.

A reflective approach to teaching reading intervention: Pre-service teachers evaluate theory and practice
As its title suggests, this article discusses an approach to teaching reading intervention that immerses pre-service teachers in much reflection. The work, however, actually represents reflection on two levels, for
the project itself was conceived out of both authors’ desire to reflect on our own teaching. The setting for this project is a course we have both taught many times: EDU 400 (pseudonym), an upper-level reading intervention course that includes an intensive, semester-long field experience. As teachers of teaching, we realize the importance of thoughtful ongoing reflection and the role it plays in improving the quality of instruction (Danielson et al., 2009; Stover, Kissel, Haag, & Shoniker, 2011). Consequently, we were interested in learning more about the perceptions of the pre-service teachers who enrolled in the course. Specifically, we were interested in students’ perceptions related to the consistencies and contradictions between “reading intervention” as taught in the course (theory) and “reading intervention” as experienced in the field (practice). We also wondered what implications these perceptions might hold for us as instructors of a field-based course in reading intervention.

**Conceptual frame**

In the past, educators have used the term “remediation” to refer to the process of assessing and instructing readers who struggle (Caldwell & Leslie, 2005). The term suggested that teachers were “applying a remedy to an already existing condition” (Caldwell & Leslie, 2005, p. 1). Educators now realize, however, that many reading difficulties can be prevented when teachers consciously intervene on behalf of students who struggle. Consequently, the term “reading intervention” has replaced the term “reading remediation.” Intervention refers to instruction that is specifically designed using data collected with an informal reading inventory or some other reading assessment (Caldwell & Leslie, 2005). Intervention can occur in or out of the traditional classroom setting, but the “defining characteristic is a structure or series of activities based on the individual needs of a student” (Caldwell & Leslie, 2005, p. 3). Children who struggle with reading should be identified and provided intervention at the first indication of difficulty (Lose, 2007) in the hopes that, by doing so, educators can “preempt potential problems early and thwart the potential for a chain of failure throughout the school years” (Strickland, 2002, p. 70).
In their report, *Preventing reading difficulties in young children*, Snow, Burns, and Griffin (1998) maintained that “excellent instruction is the best intervention for children who demonstrate problems learning to read” (p. 33). Indeed, a substantial body of literature indicates that, when it comes to issues of literacy, teachers matter (e.g. Blair, Rupley, & Nichols, 2007; Duffy-Hester, 1999; Lane & Allen, 2010; Mathers, Benson, & Newton, 2006/2007), and “knowledgeable well-prepared teachers matter most” (Dudley-Marling, 2005, p. 129). In its recent *Response to Intervention: Guiding Principles for Educators*, the International Reading Association (IRA) (2010) contended, “Teacher expertise is central to instructional improvement, particularly for students who encounter difficulty in acquiring language and literacy…the greater the literacy difficulty, the greater the need for expertise in literacy teaching and learning” (Expertise section, bullet 1). Furthermore, in its position statement entitled *Excellent Reading Teachers*, the IRA (2000) asserted, “Every child deserves excellent reading teachers because such teachers make a difference in children’s reading achievement and motivation to read” (Introduction section).

One of the primary purposes of teacher education, then, must be to help pre-service teachers develop the skills necessary to deliver excellent instruction (Roehrig et al., 2008). Such expert instruction is supportive and flexible (Timmons & Morgan, 2011); thus, it requires new teachers to take into account multiple components of the reading process, including those related to phonemic awareness, word identification, fluency, comprehension, vocabulary development (National Reading Panel, 2000), and motivation (International Reading Association, 2003). Delivering excellent instruction also requires new teachers to engage in expert decision-making related to such components (Lipson & Wixson, 2009). Duffy (2002) contended, “The best teachers are not followers…they adjust, modify, adapt, and invent” (p. 333). This type of professional decision-making is informed by a number of factors, for example, teachers’ levels of experience and their degrees of content and pedagogical knowledge—including their knowledge of theory and research (Dudley-Marling, 2005).
Lipson and Wixson (2009) highlighted the importance of theoretical knowledge, contending, “To make decisions, teachers need to consider theories of learning and teaching, scholarly and practical” (p. 3). They went on to explain, “In reality, all teachers have some sort of theory, whether they realize it or not” (p. 3). Pinnell (2006) corroborated, stating, “The word theory simply refers to the set of understandings that a teacher holds…about how children learn. Everything teachers do in the classroom proceeds from this set of beliefs … whether they are conscious of it or not” (p. 78). Teachers whose personal theories are well-articulated are poised to make high-quality instructional decisions (Morrow, Tracey, Woo, & Pressley, 1999). Such expert decision-making requires teachers who are knowledgeable about language and literacy issues, adept at critically evaluating information, and able to relate these understandings to their daily interactions with students (Heydon, Hibbert, & Iannacci, 2004/2005). However, teachers whose personal theories are not well-articulated are more susceptible to simply reverting to teaching in the manners in which they, as students, were taught, rather than thoughtfully designing instruction to meet the needs of their students. Indeed, Lyon, Shaywitz, Shaywitz, and Chhabra (2005) asserted that “an unforgivable gap persists between what is known about reading development and the instruction provided in many of our schools” (p. 228). This gap between theory and practice proves especially problematic when it comes to delivering reading intervention since, as Fisher and Ivey (2006) pointed out, “Interventions that are antitheoretical or ineffective…may do more harm than good” (p. 187).

Incorporating well-planned field experiences into teacher-education programs can serve as effective means for bridging the gap between theory and practice. For instance, a study conducted by Spear-Swerling (2009) indicated that, when coupled with carefully-designed literacy coursework, field experiences benefited both the pre-service teachers enrolled in the course and the struggling readers with whom they worked. Likewise, the results of a study conducted by Maloch et al. (2003) suggested that teacher education programs that involved purposeful coursework and closely coordinated field experiences resulted in teachers more able to respond knowledgably to students’ needs. Finally, research
conducted by Roehrig et al. (2008) indicated that pre-service teachers’ knowledge of effective literacy instruction was positively impacted by guided field observations of exemplary teaching practices. The types of high-quality field experiences described above comprise a valuable component of successful teacher education programs. Indeed, one finding detailed in *The IRA Excellence in Reading Teacher Preparation Commission’s Report* (Hoffman & Roller, 2001) was the “overwhelming recognition of the importance of supervised field experiences in the preparation process” (p.43).

**Purpose of the study**
This project explored the perceptions of a group of pre-service teachers enrolled in EDU 400, an upper-level reading intervention course which included an intensive, semester-long field experience. Specifically, it investigated the consistencies and contradictions between reading intervention as taught in the college classroom (theory) and reading intervention as experienced in the field (practice). Two general research questions guided the study: (1) To what degree do pre-service teachers perceive that their field experiences either corroborate or contradict the “theory” of reading intervention espoused in an upper-level reading intervention course? (2) What are the specific consistencies and contradictions?

**Participants and research context**
Sixteen pre-service teachers participated in this study. These 16 students represented all the undergraduate double-majors in elementary and special education who enrolled in EDU 400—a one-semester, upper-level reading intervention course—offered during a two-semester time period. Eight students took the class in the fall semester and eight different students enrolled in the spring semester. In both instances, all students were female Caucasians in their senior year of study. (An additional three students enrolled in the fall and an additional four in the spring for the purpose of earning a “specialization” in reading rather than a double-major. These students did not participate in the field experience and, consequently, their work is not reflected in the current research.) The
same instructor (Mathers) taught both groups of students and the course content remained the same over both semesters.

The course: EDU 400
EDU 400 was one course in a “block” of five special education classes offered at a small private college located in southwestern Pennsylvania. “The Block” was required for all undergraduate double-majors in elementary and special education. Students were expected to enroll in all five block classes during one semester. Each of the five courses was taught by a different instructor and had different assignments; however, all the courses utilized a shared field placement. Block students spent approximately 20 hours in their placements—which took place in local school districts and included special education classrooms first through twelfth-grade—each week. Due to the intensive nature of the placements, cooperating teachers were at a premium. Consequently, block students were placed with any teacher of special education gracious enough to host them. Because of this, cooperating teachers’ levels of experience both in the classroom and with our program varied widely.

Typically, block students would spend four hours in the field each morning and return to campus for two hours of class each afternoon. The majority of assignments in each of the five classes were tied directly to the field experience and were constructed to get the pre-service teachers actively involved in classroom life. EDU 400 was no exception; some course assignments provided opportunity for block students to observe the reading intervention practices of others while additional assignments required students to actually engage in reading intervention practices of their own.

The assignment: Field reports
Over the course of the semester, the pre-service teachers enrolled in EDU 400 completed a set of “field reports.” These weekly reports provided a structured venue for students to reflect on their observations in the field in light of the theories of reading intervention discussed in class. Students reported on topics such as phonemic awareness, fluency, comprehension, word identification, and motivation. The assignment
(see Figure 1) required students to watch for and notate examples of the weekly topic while they were working in the field. Later, students explained, in writing, what they observed and why they believed the observation did or did not correlate with the methods of reading intervention discussed in class. Finally, they used a Likert scale to quantify the degree of correlation. For instance, if fluency assessment was the week’s topic, students were expected to take notes every time they observed fluency assessment occurring in their placement. At the end of the week, then, they would revisit their notes and write the field report.

Figure 1
Field report assignment

EDU 400

Field Report #______

The topic for this week’s Field Report is ___________________.

As you go out into the field this week, watch for examples of this concept. When you make an observation, ask yourself the following: Does this observation line up with the best practices outlined in course readings, lecture, discussion, and/or activities OR does it contradict these best practices?

In a minimum of 1.5 pages, explain what you saw and why you believe it did/did not correlate with course material. Then use the rating scale below to quantify your observation.

<table>
<thead>
<tr>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong correlation</td>
<td>moderate correlation</td>
<td>no correlation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Students prepared one field report per weekly class meeting. At the start of each class period, reports were shared and discussed—sometimes in small groups and other times as a whole class. Classmates and the professor provided feedback related to the consistencies and contradictions experienced by members of the class.
Data analysis
Field report data were analyzed using both quantitative and qualitative methods. First, descriptive statistics—including mean, mode, and range—were calculated for the Likert-scale items. Next, a content analysis of the narrative items was conducted. As students’ written responses were read and reread, patterns related to the research questions emerged, thus forming categories for coding (Miles & Huberman, 1994). A database was organized for all coded responses. The coded responses were then considered in light of the quantitative data. At this point, the decision was made to structure the analysis using the following framework: fluency assessment and instruction, word identification assessment and instruction, and comprehension assessment and instruction. Relevant quantitative and qualitative data were organized according these categories. Results are reported according to these categories, as well.

Results
Table 1 displays data related to our first research question: To what degree do pre-service teachers perceive that their field experiences either contradict or corroborate the “theory” of reading intervention espoused in an upper-level reading intervention course? Data gleaned from the content analysis of the narrative items address our second research question: What are the specific consistencies and contradictions?

Participants reflected on their observations of fluency assessment in one report and their observations of fluency instruction in a second report. They reflected on observations of word identification assessment, word identification instruction, comprehension assessment, and comprehension instruction in an additional four reports. The quantitative and qualitative findings from these reports are discussed below.

Fluency assessment
When the pre-service teachers in this study were asked to quantify the degree to which the fluency assessment observed in their field placements correlated with the methods of reading intervention discussed in EDU 400 (using a scale of zero to four, with zero indicating no correlation, two representing moderate correlation, and four representing strong
Table 1
Degree of perceived correlation between reading intervention theory and practice

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency Assessment</td>
<td>2.94</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Fluency Instruction</td>
<td>2.43</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Word Identification</td>
<td>2.53</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word Identification</td>
<td>2.94</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension Assessment</td>
<td>2.87</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Comprehension Instruction</td>
<td>3.19</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: On a scale of 0-4 with 0 indicating no correlation, 2 representing moderate correlation, and 4 representing strong correlation.

correlation), the mean was 2.94 (see Table 1). The score most frequently chosen by participants to represent the degree of correlation (mode) was 3. The highest score chosen by any participant was 4 while the lowest was 1. Subtracting the lowest chosen score from the highest resulted in a range of 3.

The content analysis of participants’ narrative responses revealed that, consistent with course material, observations of fluency assessment in the field included calculation of words correct per minute. Contrary to course teaching, however, qualitative assessments of fluency proved rare. One pre-service teacher explained, “My co-op only monitors their words per minute…he does not take any anecdotal notes on punctuation usage, phrasing, or intonation.” Another participant reported, “In the field I have only seen more formal assessments done that are mostly quantitative rather than a description of a student’s quality of reading.”
Fluency instruction

When participants quantified the degree to which the fluency instruction observed in their field placements correlated with the approaches discussed in EDU 400, the mean was 2.43. The score most frequently chosen by participants to represent the level of correlation (mode) was 4. The highest score chosen by any participant was 4 while the lowest was 0, thus producing a range of 4.

The content analysis of the narrative responses indicated that fluency instruction was observed in some field placements, but not in others. One participant reported, “The strategies that my co-op uses for fluency instruction relate very closely with what we talked about in class…For example, we talked about the cloze procedure...my co-op has an entire book of worksheets that use the cloze procedure.” However, another participant stated, “I was not able to observe any fluency instruction in the classroom.”

Word identification assessment

When the pre-service teachers in this study were asked to quantify the degree to which the word identification assessment observed in their field placements correlated with the methods of reading intervention discussed in EDU 400, the mean was 2.53. The score most frequently chosen by participants to represent the degree of correlation (mode) was 2. The highest score chosen by any participant was 4 while the lowest was 0, thus resulting in a range of 4.

The content analysis of participants’ narrative responses revealed that the use of some form of miscue analysis or running records to assess word identification skill was observed in some field placements, but not others. One pre-service teacher commented, “I enjoyed seeing what we learned in class being used in the field. I especially benefitted from participating in the DRA process and using miscue analysis.” Another pre-service teacher related a different experience, however, explaining, “We have learned about miscue analysis and informal reading inventories…I asked my cooperating teacher, Ms. X, if she used either one…She told me that she has heard of them, but she has never used them.”
**Word identification instruction**
When participants quantified the degree to which the word identification instruction observed in their field placements correlated with the concepts discussed in EDU 400, the mean was 2.94. The score most frequently chosen by participants to represent the level of correlation (mode) was 4. The highest score chosen by any participant was 4 while the lowest was 1, thus yielding a range of 3.

The content analysis of the pre-service teachers’ written responses indicated that word identification instruction was observed in some field placements, but not in others. One participant commented, “While I was observing I noticed the teacher used the strategy of word families in order to show her students that many different words can have the same ending sound.” However, another shared, “For the most part, students just ask him what the word is if they do not recognize it.” Consistent with course material, word identification instruction, when present, included a variety of approaches. One participant noted, “The students work with phonics, structural analysis, and word patterns.”

**Comprehension assessment**
When the pre-service teachers in this study were asked to quantify the degree to which the comprehension assessment observed in their field placements correlated with the methods of reading intervention discussed in EDU 400, the mean was 2.87. The score most frequently chosen by participants to represent the degree of correlation (mode) was 3. The highest score chosen by any participant was 4 while the lowest was 1, thus resulting in a range of 3.

The content analysis of participants’ narrative responses revealed that, consistent with course teachings, the comprehension assessment observed in the field frequently included a variety of question types. For example, one pre-service teacher observed, “The questions are on a variety of different levels. They ask the students to make connections to what they read which helps the students develop a deeper comprehension of the text.” The use of retelling as a form of comprehension assessment was noted in some placements, but not others. One participant explained, “Mrs. X checks for comprehension assessment through
retelling. For instance, she walks around the room to keep a record of the books that each student is reading. When she gets to each student, she has them orally tell her about the book.” Another pre-service teacher did not observe the use of retelling, however. She commented, “Even in reading class, I’ve never seen the kids asked to retell or summarize in writing what they have read…I wouldn’t have known even one year ago that there was a huge difference between retelling and comprehension questions. But now I realize the difference.”

**Comprehension instruction**

When participants quantified the degree to which the comprehension instruction observed in their field placements correlated with the approaches discussed in EDU 400, the mean was 3.19. The score most frequently chosen by participants to represent the level of correlation (mode) was 4. The highest score chosen by any participant was 4 while the lowest was 1, thus producing a range of 3.

The content analysis of participants’ written responses indicated that, inconsistent with course teachings, comprehension instruction did not include a variety of comprehension strategies, but, rather, consisted mainly of answering traditional “comprehension questions.” One student reflected, “Asking leveled questions seems to be the most prevalent form of instructing students in comprehension.” Another participant corroborated, stating, “The most used comprehension instruction strategy that I have seen used in schools is comprehension questions.”

**Summary of results**

**Mean.** When the pre-service teachers in this study were asked to quantify the degree to which the reading intervention observed in their field placements correlated with the methods of assessment and instruction discussed in EDU 400, means hovered between 2 and 3 (see Table 1). Since a score of 2 represented a “moderate correlation” (see Figure 1) these results can be interpreted to mean that, on average, participants perceived more than a moderate correlation between the fluency, word identification, and comprehension practices observed in the field and those discussed in class.
Mode. The scores most frequently chosen by participants to represent the degree of correlation between the assessment and instruction observed in the field and that discussed in EDU 400 were 3 and 4. Since a score of 4 represented “strong correlation,” these results can be interpreted to mean that the majority of participants perceived a good deal of consistency between the fluency, word identification, and comprehension practices observed in their placements and those discussed in class.

Range. In every category—fluency, word identification, and comprehension—the highest score chosen by any participant to represent the degree of correlation between the reading intervention observed in the field and discussed in EDU 400 was 4. The lowest scores chosen were 0s and 1s, thus yielding ranges of 3 and 4. These ranges can be interpreted to mean that, while many pre-service teachers perceived strong correlation, others perceived none at all. When the ranges are considered, it becomes clear that participants’ experiences varied widely depending on the particular placement to which they were assigned; some placements provided much consistency while others included much contradiction.

Content analysis. The content analysis of the narrative component of the field reports also revealed a wide variety of classroom experiences. For example, in regards to the use of retelling for the sake of comprehension assessment, one pre-service teacher explained, “To start off the discussion, the class is asked to retell as much as they can…Then the teacher guides the class to fill in the gaps of the retelling.” However, another participant noted, “I have not seen an emphasis on retelling the stories.”

Limitations
One limiting factor associated with this research was its small sample size. The 16 pre-service teacher participants represented all of the double majors enrolled in EDU 400 over a two-semester time period. However, because EDU 400 was an optional upper-level course at the college where it was offered, its enrollment traditionally tended toward the smaller side; thus, it consistently produced small pools of students.
A second limiting factor associated with this project was its reliance on self-report data. We asked pre-service teacher participants to share their perceptions related to the consistencies and contradictions between the “reading intervention” taught in EDU 400 and the “reading intervention” experienced in their field placements. We did not make any observations to verify the degree to which the intervention occurring in each placement corroborated or contradicted the concepts presented in EDU 400. It is possible, therefore, that in a placement where a high degree of correlation was actually taking place, a pre-service teacher participant might not have had the ability to identify it as such.

**Instructional implications**

We undertook this project with the goal of identifying specific consistencies and contradictions experienced by the pre-service teachers enrolled in EDU 400 in the hopes that doing so would help us tailor the course to better meet the specific needs of our students. And, while our pre-service teacher participants were certainly able to identify perceived consistencies and contradictions and to discuss them intelligently, we realized that, due to the wide variety of classrooms and cooperating teachers used in our program, the consistencies and contradictions were as numerous and varied as the placements themselves; patterns, therefore, proved elusive.

As we thought more about the implications of our results for our teaching, we kept coming back to the range. In every category—fluency, word identification, and comprehension—the highest score chosen by any pre-service teacher to represent the degree of correlation between the reading intervention observed in the field and discussed in class, was 4 (see Table 1). The lowest scores chosen were 0s and 1s, thus producing ranges of 3 and 4. These ranges can be interpreted to mean that, while many participants perceived strong correlation, others perceived very little. These ranges also indicated that participants’ experiences varied widely depending on the particular placement to which they happened to be assigned.

The wide variety of experiences indicated by the ranges was corroborated by our content analysis of students’ field reports. These written
reflections made it clear that, while many of our pre-service teacher participants observed reading intervention practices they perceived to align closely with course content, others did not. For example, in regards to word identification assessment, one participant reported a strong correlation between her field observation and course material. She explained, “Miss X was so excited that I knew about miscue analysis and running records. She uses them a lot to assess the reading of students and to pinpoint where they are having problems.” Another placement produced a very different experience, however. The student placed in this classroom reported, “Mrs. X almost laughed when I asked her if an informal reading inventory was done with each student at the beginning or end of the year. She said that although that practice sounds good in theory, it is impossible to implement in the classroom.”

Our results underscore the fact that, in any course with a field component, students will have a wide variety of experiences over which the instructor will have no control. And, while some of these experiences will corroborate the best practices espoused by the instructor, others will not. This perplexing reality had us initially asking the wrong question. We wondered, “How does an instructor manage the experiences of students placed at different schools, in different grade levels, and with different cooperating teachers?” Further consideration of our results eventually led us to the liberating answer: “You don’t!” We realized, instead, that an instructor must simply manage the processing of the experiences. This realization led us to consider a different question: “How does an instructor best manage her students’ processing of experiences in the field?” In an attempt to answer that question, we propose the following model for dealing with the consistencies and contradictions that can arise between theory and practice when pre-service teachers work in the field: (1) Encounter theory on campus, (2) Experience theory come to life in the field, (3) Evaluate observed consistencies and contradictions between theory and practice, and (4) Develop a dynamic personalized theory to guide practice. Henceforth, our discussion of the proposed model will use EDU 400 as an example; however, this model can be applied to almost any teacher education course with a field component.
Encounter theory on campus
As previously explained, EDU 400 is one course in a “block” of five special education classes required for all undergraduate double-majors in elementary and special education. Students enroll in all five block classes during one semester. Each of the five courses is taught by a different instructor and has different assignments; however, all courses utilize a shared field placement. Typically, block students spend four hours in the field each morning and then return to campus for two hours of class each afternoon. During the weekly EDU 400 class meeting, block students encounter the theory of reading intervention through assigned readings, lecture, discussion, and a variety of hands-on activities. In this initial phase of the model, the instructor plays a pivotal role as she controls the course content and facilitates its processing. This first phase of the model acknowledges that “good teachers base their instructional decisions, in part, on reading research and theory” (Duffy-Hester, 1999, p. 492) and, therefore, “need to be well acquainted with relevant theory and research” (Dudley-Marling, 2005, p. 128). Because, as Fisher and Ivy (2006) pointed out, “Interventions that are antitheoretical or ineffective … may do more harm than good” (p. 187).

Experience theory come to life in the field
Block students spend approximately 20 hours in the field each week. Students are placed in special education classes—first through twelfth grade—in a variety of local school districts. As previously mentioned, block students typically work in the field each morning and then return to campus for class each afternoon. Each class includes a number of assignments, the majority of which are tied directly to the field experience. The assignments are designed to get the pre-service teachers actively involved in the classroom, thus ensuring that they have the opportunity to see “theory” come to life. This is certainly the case in EDU 400; all course assignments provide opportunity for block students to either observe the reading intervention practices of others or to engage in reading intervention of their own. This phase of the model acknowledges that, “Teacher preparation must not only develop prospective teachers’ knowledge base about reading but also provide well-supervised op-
opportunities to apply that knowledge in working with children,” (Spear-Swerling, 2009, p. 431).

Over this second phase of the model, the instructor has much less control. The block placements are intensive and require much of the cooperating teachers; in our experience, therefore, cooperating teachers are at a premium. These teachers work with a variety of students in an assortment of classroom contexts. They represent varying levels of experience in the classroom and with our program. Furthermore, they represent a wide range of philosophies when it comes to dealing with readers who struggle. Some of these philosophies and the practices that result from them align with the material presented in EDU 400; however, others do not. Hearing one thing on campus but seeing another in the classroom has the potential to cause confusion, and leads, therefore, to the next phase of the model.

Evaluate observed consistencies and contradictions between theory and practice

In the third phase of the model, the instructor once again wields control over the learning environment. Interestingly, however, this phase is most effective if the instructor actually turns most of the control over to her students, giving them the opportunity to personally reflect on and evaluate their experiences in the field in light of the theories of reading intervention discussed in class. In EDU 400, a set of “field reports” provides the venue for this evaluation. This weekly assignment requires students to watch for and notate examples of the week’s topic while they are out in the field. Later, students step back and evaluate their observations, explaining in writing what they observed and why they believe the observations either corroborate or contradict the methods of reading intervention discussed in class. Finally, students use a Likert scale to quantify the degree of correlation.

Students prepare one field report per weekly class meeting. The reports serve as starting points for each class period; reports are shared and discussed—sometimes in small groups and other times as a whole class. During these spirited discussions, classmates and the instructor provide immediate feedback related to the consistencies and contradic-
A reflective approach to teaching reading intervention: Pre-service teachers evaluate theory and practice

tions experienced by each member of the class. The goal of the weekly discussion is to help all members sort out their beliefs regarding what makes for effective reading intervention so they can return to the field ready to heed Noddings’ (2009) advice to, “Continue to learn from others, but think for yourself” (p. 25).

As previously mentioned, block students typically work in the field each morning and return to campus for class each afternoon. This back-and-forth format plays a pivotal role in the success of the model for two reasons. First, it allows the time in the field to be coupled with much larger doses of course content than could be incorporated into a field experience more “stand alone” in nature. Second, the back-and-forth format allows students to reconcile consistencies and contradictions in small doses as they happen rather than letting things pile up into a muddled mess. For example, if, one week, students learn that thorough fluency assessment includes both quantitative and qualitative components, but then, when they go out to the field, they only observe quantitative measures being used, they can use the field report assignment to decide for themselves whether they think such a practice makes for effective reading intervention. Then, after sharing their opinions in class and getting the feedback of their classmates and instructor, they can return to the field and continue shaping their thoughts on the subject. This phase of the model answers Cassanova’s (1989) call for teacher education programs to establish the norms of reflection and inquiry that lead to professional empowerment.

Develop a dynamic personalized theory to guide practice

Rather than taking a traditional exam at the end of the semester, EDU 400 students are given the opportunity to develop a personalized theory of reading intervention. This final assignment requires students to first revisit their collections of weekly field reports along with course readings, activities, and notes. Next, students are instructed to think about their field experiences on two levels: (1) their personal experience with students and, (2) their observations of and conversations with other teachers. Finally, students develop a series of “I believe…” statements that reflect what they currently believe about working with struggling
readers, with the understanding that such beliefs must continue to grow and change over time (Pinnell, 2006). This final assignment provides yet another opportunity for students to see that theory and practice can and should inform one another (Casanova, 1989). It also “perpetuates an appreciation for the involved decision making, reflection, and action of individual teachers within their own contexts, a view that challenges singular, generalizable notions of the best theory and practice” (Heydon, Hibbert, & Iannacci, 2004/2005, p. 312).

**Final thoughts**

In every category—fluency, word identification, and comprehension—the highest score chosen by any pre-service teacher to represent the degree of perceived correlation between the reading intervention observed in the field and discussed in class was 4 (see Table 1). The lowest scores chosen were 0s and 1s, thus producing ranges of 3 and 4. At first glance, these ranges, and the wide variety of experiences they represented, proved troubling to us as instructors. We felt confident that our students were learning from the exemplary models they observed (Roehrig et al., 2008), but worried about the students whose field experiences provided limited correlation to the best practices we discussed in class. Through this research, however, we have realized that a “0” experience can provide as much learning as a “4” when students are consistently given the opportunity to identify and evaluate contradictions between theory and practice. This outlook acknowledges that the ability to reflect on teaching is an important skill for educators to possess, but that it is an ability that develops over time and necessitates much practice (Danielson et al., 2009).

Casanova (1989) observed, “In education, the dichotomy between theory and practice has been particularly harmful, contributing to the opening of a wide gulf between teachers and researchers” (p. 45). Indeed, Stockdill’s own observations as a classroom teacher corroborated this view. He explained, “The more research I encountered, the more I became convinced that a lot of important work was being done; yet, for various reasons, many of my colleagues were not drawing on it” (Stockdill & Moore, 2011, p. 624). The model proposed in this article offers
A reflective approach to teaching reading intervention: Pre-service teachers evaluate theory and practice

a response to this dilemma. First, the model makes pre-service teachers aware of the sometimes contentious relationship between theory and practice. Additionally, however, it gives pre-service teachers an opportunity to see that the relationship need not be a contentious one; rather, theory and practice can and should have a reciprocal relationship (Cas-sanova, 1989). In order for such a relationship to exist, though, teachers must engage in regular reflection, thoughtfully evaluating both theory and practice. Doing so will allow teachers to carry out the high-quality decision-making necessary to deliver the “excellent instruction” (Snow, Burns, Griffin, 1998, p. 33) needed for intervening on behalf of students who struggle with reading.
References


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Structural equity factors across school ranking conditions in middle level education

Chyrese S. Wolf

Abstract
The structural profile, across school ranking conditions, of middle level education in one Midwestern state was the goal of this study. Therefore, several middle school characteristics were reported: teacher and administrator preparation and attributes, middle school structures, resource support, organizational health, institutional integrity, teacher affiliation and commitment, and collegial leadership. The research question of this study was: When controlling for school ranking conditions, which structural factors were more directly related to equity at the middle school level? The study addressed whether public middle schools in one Midwestern state were organizationally different across the school ranking conditions of low, middle, and high achievement as determined by student performance on state mandated standardized assessments. The premise was that curricular implementation and student performance could not be effectively changed without knowledge about the schools in which instruction and learning occur.

The data analytic plan employed in this report resulted in the corroboration of conclusions drawn in previous similar studies (Brown et al., 2003 & Hoy and Sabo, 1998). After developing the profile of middle
Structural equity factors across school ranking conditions in middle level education

Level structural equity characteristics in one Midwestern state, it was determined that organizational health variables showed statistically significant differences (.05 level) across school ranking conditions. Distinctions became evident in terms of teacher preparation, organizational health variables, school leadership characteristics, academic emphasis, and resource support. Further study of each of these structural factors would contribute to the theoretical frames that support healthy middle level education. But, the greatest divisive factor across school ranking conditions regarded middle level administrative structures. To equalize middle school organizations, a concerted effort to examine school leadership and administrative factors is needed.

Structural equity factors across school ranking conditions in middle level education

Schools and corporate enterprise share many of the same governing structures. Each strives to build a learning organization characterized by groups of people that work toward a shared vision. Administrative leadership often supports the professional growth of team members so that many develop strong mental models of efficacy. Throughout the process, individuals maintain the opportunity to express views regarding change of structure or policy. The paradigm of effectiveness in this study was characterized as consistent academic success in which students performed at the highest quartiles on a state standardized assessment. The organizational goal was to provide developmentally-responsive, student-centered, middle level education for all students over time.

The foundation of this report was built on two pillars (see Table 1). The first theoretical frame was Hoy and Sabo’s (1998) school climate study. It described the “vitality and dynamics of professional interactions of students, teachers, and administrators” in middle school settings (p. 54). They postulated that “organizational health referred to the positive linkages and harmony within and between key elements in the school” and that “healthy interpersonal dynamics between administrators and teachers and between teachers and students are key elements of quality schools” (p. 24). To evaluate the school climate variables present within the middle school organizational structure, Hoy and Sabo (1998)
used two instruments to measure teacher perceptions of school climate and health: the Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) and the Organizational Health Inventory-Revised Middle (OHI-RM).

The second theoretical frame was Senge’s (1990) organizational change theory. It suggested five distinctive traits of a learning organization: systems thinking, personal mastery, mental models, building a shared vision, and team learning. When stakeholders apply a systems thinking perspective to examine an organization, such as a school, it is done using a holistic approach. An entire organizational structure is analyzed to determine how individual components interact to affect the success of the institution. The current study was designed to examine the educational equity issues present in middle school settings in one Midwestern state.

A notion of the present study was that school staffs strive for personal mastery as they worked toward the collective goals of the organization. In a systems thinking school, all members worked toward high levels of collective proficiency. Vision and energy are focused toward organizational goals. The mental models organizational discipline (discipline three) may be described as deeply engrained assumptions, generalizations, and images held by school stakeholders. Mental models are often maintained through organizational openness and internal pictures. The fourth discipline (shared vision) is also predicated by organizational climate. Its focus is the creation of genuine commitment, rather than compliance. Finally, organizations cannot learn and change without team learning. In the creation of a healthy school culture and climate, team intelligence exceeds individual intelligence.

Melding these two organizing theories led to the research question of this study: When controlling for school ranking conditions, which structural factors were more directly related to equity at the middle school level? The study addressed whether public middle schools in one Midwestern state were organizationally different across the school ranking conditions of low, middle, and high achievement as determined by student performance on state-mandated standardized assessments. The premise was that curricular implementation and student performance
Table 1: Pillars and characteristics of theoretical foundations

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Institutional Level: Institutional Integrity Educational integrity is maintained. The school does not succumb to environmental pressures from parents and community.</td>
<td>System’s Thinking: An entire organization’s structure is analyzed to determine how individual components interact to affect the success of the institution.</td>
</tr>
<tr>
<td>Managerial Level: Collegial Leadership: The principal is perceived to be equitable, supportive, friendly, and open. He or she also communicates expectation for high performance.</td>
<td>Personal Mastery: School staff strive for personal mastery work toward the collective goal of the organization.</td>
</tr>
<tr>
<td>Principal behavior was measured across three constructs: supportive behavior, directive behavior, and restrictive behavior.</td>
<td>Mental Models: Deeply ingrained assumptions, generalizations, and images held by school stakeholders. Mental models are maintained through organizational openness and internal pictures.</td>
</tr>
<tr>
<td>Principal Influence: The principal has an influential voice when communicating with superiors. Hierarchy does not impede the school’s progress.</td>
<td>Building a Shared Vision: Focus is the creation of genuine commitment, rather than compliance.</td>
</tr>
<tr>
<td>Resource Support: Teachers have access to adequate额外 supplies and instructional materials.</td>
<td>Team Learning: Team intelligence exceeds individual intelligence.</td>
</tr>
<tr>
<td>Technical Level: Teacher Affiliation: Teachers feel positively connected to the school. They have established positive relationships with colleagues, students. Teachers have a sense of commitment to their students and colleagues. They have the desire to accomplish their work with enthusiasm.</td>
<td></td>
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<tr>
<td>Teacher behavior was measured across three constructs: collegial behavior, committed behavior, and/ or disengaged behavior.</td>
<td></td>
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<tr>
<td>Academic Emphasis: Individuals within the school strive for academic excellence. High but achievable goals are set. Students provided with a safe and conducive learning environment. Teachers have confidence in student ability. Students have drive to succeed &amp; respect academic excellence.</td>
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could not be effectively changed without knowledge about the schools in which instruction and learning occur.

In a study similar to that reported here, Brown, Roney, and Anfara (2003) investigated the differences between high-performing suburban middle schools and low performing urban middle schools to potentially explain the organizational structural differences that might have led to instructional disparities and achievement lags. The investigators found that a focus on the elements of the middle school concept by and of themselves would not enhance or sustain student performance if attention to organizational health variables such as academic focus, teacher affiliation, and resource support were missing. As is later reported, results of the present study were quite similar to that of the study by Brown et al. (2003).

**Conceptual framework of structural equity and effective middle schools**

An effective middle school is structurally organized to promote the academic development of its students. According to the Intermediate/Middle Childhood Standing Committee of the Association for Childhood Education International (Manning, 2000), a student-centered middle school has a sixth through eighth grade configuration in which instructional practices emphasize developmentally appropriate education targeted toward 10- to 15-year-old adolescents. The learning environment is safe, violence-free, and peaceful. Students are provided with the opportunity to develop civic responsibility through participation in service learning, citizenship events, and community social activities.

Successful middle schools enhance student achievement through the design and implementation of organizational, curricular, pedagogical, and programmatic plans (Roney & Coleman, 2008). Advocates deem middle schools effective if they are designed to address the developmental readiness, needs, and interests of their students (National Middle School Association, 2010). Our best schools, defined as those in which students consistently perform at the highest academic levels, are highly adaptable, continually evolving learning organizations. Effective schools operate within an open system populated by distinctive groups each hav-
ing different functions. Student learning is also often determined by:

- Quality and level of equity in relation to human contact
- Organizational structures in which the learning environment is situated
- Issues present within the school (Dufour & Eaker, 1998)

Healthy middle schools provide environments in which organizational culture and climate complement each other. School culture is highly visible and might be prone to external forces of judgment and control. Yet, interactions of members might also foster a professional learning community that inspires lifelong learning among students.

Academic efficiency and success are predicated by school climatic factors. In this study, an effort was made to determine which variables had the greatest impact across school ranking conditions on student academic achievement as measured by a state standardized assessment. It was also designed to profile existing structures by describing how schools were similar to one another. The first step in equitable education is to systemically and critically evaluate schools within the context of a number of empirically documented learning organizational variables. It was assumed that systems of thinking and viewing schools as learning organizations lead school stakeholders to make meaningful changes.

Professional learning communities emphasize collaborative teaming as an important component to school success. Senge (1990) defined the concept of team as a group of individuals who trusted and complemented each other. They worked together to achieve common goals, compensate for limitations, and to achieve extraordinary results. When adolescent affective development is shaped by a sense of safety, support, encouragement, and belongingness, a strong middle school community may be formed. This sense of community translates into high achievement for students of all abilities. “Student achievement increases substantially in schools with collaborative work cultures that foster a professional learning community among teachers and others” (Fullan, 2002, p. 8).

Organizational structure influences behavior. Given that people tend to produce the results the system creates, school effectiveness is predetermined by the system in which the roles of teaching and learning oc-
cur. It is probable that high-ranking schools have healthy organizational learning structures. Conversely, low-ranking schools might be expected to have organizational learning disabilities (Senge, 1990). Thus, changing underlying structures can produce different patterns of behavior. In schools with an organizational learning disability, staff believed to have little or no influence over policy, and school community members assume little responsibility.

Healthy schools are more apt to succeed in implementing reform models because their inherent structures are open. Stakeholders see the change process as progressive and goal-directed. On the other hand, schools that feared change and lacked direction with respect to reform were often organizationally unhealthy. In these schools, administrative teams are responsible for resolving critical issues. According to Barth (2002), “Changing a toxic school culture into a healthy school culture that inspires lifelong learning among students and adults is the greatest challenge of instructional leadership” (p. 6).

**Method**

The methodology Hoy and Sabo (1998) applied to study New Jersey middle schools served as a model to complete the research with which this report is concerned. Their inquiry used a sample of 87 middle schools throughout all regions of New Jersey: urban, suburban, and rural. More than 2,700 teachers responded to the survey instrument. Only named middle schools containing grade configurations 5–8 were included in the sample. The present study exclusively involved middle schools configured with grades 6–8 across one Midwestern state.

**Respondents**

A letter describing the present research study was mailed to the principal of record at each of 215 sixth through eighth grade configured public middle schools in one Midwestern state. The intent was to recruit teachers, administrative team members, and principal respondents. Each principal was asked to complete a short survey to indicate level of interest in the study. Principals were asked to return the interest survey within one week of receipt. Once the period elapsed, the researcher telephoned each
non-responding principal with the intent of increasing the rate of the response and level of participation. In addition to the follow-up telephone call, a second mailing was conducted.

Of the 215 principals contacted, 101, or 47% responded. Thirty-seven of the responding school principals (17%) agreed that they and/or their teaching and administrative staff would participate in the study. Potential respondents at each participating school received a cover letter, survey form, and a personalized address label, as well as a self-addressed stamped envelope. The personalization was intended to relieve responding principals from responsibility for conveying all information regarding the completion of the survey to teachers and administrative staff. To enable such personalization, principals were asked to provide the names of their full-time core content area (math, language arts, science, and social studies) teachers when they completed and returned the interest survey. Procedures used to select the survey respondents included limiting the number of teacher surveys sent to each school to 15. Therefore, in schools with large teaching staffs, five core teachers per grade level were randomly asked to participate in the study.

Principals from 33 of the 37 schools agreed to complete a survey. Administrators from the remaining four schools agreed to sit for a principal interview only. The researcher was not able to survey teachers in these four schools. Four hundred sixty-five surveys were mailed to potential respondents who had agreed to be included in the sampling plan. Three hundred thirty eight (73%) completed surveys were returned. The sample consisted of 291 (86%) teachers, 14 (4%) administrative team members, and 33 (10%) principals (see Table 2). Of the 291 (86%) teacher respondents, 135 individuals (40%) identified themselves as a grade level teacher. Thirty-four (10%) of the teacher respondents identified themselves as content specialists, 122 (36%) claimed to be grade-level content specialists, and 47 (14%) were administrators. The sample included about 3% of the state’s full-time equivalent educators. All regions of the state were represented.

Through the self-selection procedure employed, 114 (53%) of contacted middle schools chose not to respond. The rationale for non-response was unknown to the researcher. The reason that led 64 (63%)
of the responding school administrators to refuse participation in the study varied from school to school. One school principal, for example, reported that her school was on strike at the time of the study; another stated her school was already participating in a research study and that she feared that her teachers would not provide adequate time to another set of surveys thereby skewing the results. It is for these reasons that the author did not use a random recruiting technique. It was always considered a possibility that a large number of schools may self-select not to participate. This was a limitation of the study.

Table 2
Sample participants by career status and school ranking

<table>
<thead>
<tr>
<th>School ranking/ career status</th>
<th>High</th>
<th>Middle</th>
<th>Low</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Level Teacher</td>
<td>19 (6%)</td>
<td>100 (30%)</td>
<td>16 (5%)</td>
<td>135 (40%)</td>
</tr>
<tr>
<td>Content Specialist</td>
<td>2 (1%)</td>
<td>30 (9%)</td>
<td>2 (1%)</td>
<td>34 (10%)</td>
</tr>
<tr>
<td>Grade Level Content Specialist</td>
<td>17 (5%)</td>
<td>91 (27%)</td>
<td>14 (4%)</td>
<td>122 (36%)</td>
</tr>
<tr>
<td>Administrator</td>
<td>8 (2%)</td>
<td>33 (10%)</td>
<td>6 (2%)</td>
<td>47 (14%)</td>
</tr>
<tr>
<td>Total</td>
<td>46 (14%)</td>
<td>254 (75%)</td>
<td>38 (11%)</td>
<td>338 (100%)</td>
</tr>
</tbody>
</table>

**Instrumentation**

Survey questions were adapted from both the revised middle school form of the Organizational Health Instrument (OHI-RM) and the Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) to create the full administrative battery applied in the present study. The data reported and analyzed herein were specific to the OHI-RM, however. Six middle school organizational health dimensions were measured, evaluated, and reported: academic emphasis, teacher affiliation, principal influence, collegial leadership, resource support, and institutional integrity.

The OHI-RM was designed to document and describe the health and well-being of behaviors and interactions within the middle school
(see Table 3). In a healthy school, the institutional, managerial, and technical levels are in harmony (Hoy & Feldman, 1987). Institutional control is based upon school autonomy from outside forces. Managerial control indicates that administrators have collegial relationships with the staff as well as influence over the attainment of educational resources from superiors. Principals demonstrate task and achievement orientation. They are also able to provide supplies and instructional materials for their teachers. The technical level of control is concerned with the degree of teacher affiliation to the organization, academic emphasis, and staff morale.

<table>
<thead>
<tr>
<th>Question construct</th>
<th>Sample questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Integrity</td>
<td>Teachers are protected from unreasonable community and parental demands. The school is vulnerable to outside pressures. A few vocal parents can change school policy.</td>
</tr>
<tr>
<td>Principle Influence</td>
<td>The principal gets what he or she wants from superiors. The principal is able to work well with the superintendent. The principal is impeded by superiors.</td>
</tr>
<tr>
<td>Resource Support</td>
<td>Extra materials are available if requested. Teachers have access to needed instructional materials. Supplementary materials are available for classroom use.</td>
</tr>
<tr>
<td>Academic Emphasis</td>
<td>The school sets high standards for academic performance. Students respect others who get good grades. The learning environment is orderly and serious.</td>
</tr>
</tbody>
</table>

(Hoy & Feldman, 1987, 33)

(Hoy & Feldman, 1987, 33)
Given that organizational health was targeted for study, information compiled was related to instructional resources, methodology and teaching strategies, teaching staff motivation and enthusiasm, and perceptions held regarding the instructional leadership present within the school. The manner in which the principal resolved classroom issues, maintained equality within the school, demonstrated concern for others, set clear expectations for teachers and students, and interacted with school stakeholders spoke of the organizational health of the educational institution.

**Design and procedure**

An interest in the relationships between school structural equity factors, measured by organizational health variables, and student academic achievement at the middle school level, led to the use of a mixed methodological research design. Interviews and focus groups were conducted to obtain the detailed responses that a closed-ended survey questionnaire could not elicit. While the procedures used to collect data for the study involved quantitative as well as qualitative approaches, this report is inclusive of quantitative data interpretation. To do so more closely replicates similar previous studies (Brown et al., 2003; Hoy and Sabo, 1998).

Administrative team members \( n=14 \) and principals \( n=33 \) were asked to complete the full battery of 165 questions. The full battery is a compilation of the Organizational Health Inventory- Revised Middle (OHI-RM) and the Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM). Teachers were randomly assigned one of three survey forms to complete. Each teacher form contained 65 questions. All questions contained within the full administrative battery were divided among the three teacher forms. The survey questions contained seven clustered topics including demographic information, middle school structure, school climate, health, culture, curriculum implementation, and standardized testing.

Information was compiled related to access to instructional resources, the selection of instructional methodology and teaching strategies, teaching staff motivation and enthusiasm, and perceptions held regarding the instructional leadership present within the school. Organiza-
tional climate questions focused upon the relationships and diversity of instructional personnel. Respondents were asked to describe the views held by both teaching and administrative staff regarding the principal in relation to equity, empathy, expectations, and interactions. The manner in which the principal resolved classroom issues, maintained equality within the school, demonstrated concern for others, set clear expectations for teachers and students, and interacted with school stakeholders spoke of the organizational health of the educational institution. Respondents were also asked to describe relationships and issues of diversity among the teaching staff. Non-teaching duties and student access to instructional assistance were also included.

Analysis of survey results addressed the research questions. Middle school organizational structures measured through health, climatic, and cultural variables were carefully evaluated across school ranking conditions. Each of the 33 participating middle schools were ranked by their overall state standardized test averages as reported in the state’s board of education school report card database. Average referred to the percentage of students who met or exceeded state standards on the standardized assessment. Low-ranking schools were categorized as those with state test scores one or more standard deviations below the mean. High-ranking schools had state test scores more than one standard deviation above the mean. Middle-ranking schools had state test scores within one standard deviation above or below the mean. The sample contained four low-ranking schools, 25 middle-ranking schools, and four high-ranking schools.

To analyze the data set, a series of ANOVA tests \((F\)-tests\) were used to determine differences in the survey responses across the three school ranking conditions (high, middle, and low achieving). Mean scores for each question within each dependent variable construct was calculated. A grand mean score for each school ranking cluster was tested for significance using the Scheffe post-hoc test (.05 level of significance).

This data analytic plan was similar to the procedure Hoy and Sabo (1998) used to analyze results gathered from their study using the OHI-RM and OCDQ-RM with a sample of New Jersey middle school teachers. Hoy and Sabo used an item score analysis approach to evaluate their
data set. In the present study, data sets were compiled from 33 middle schools and categorized across three ranking conditions (high, middle, and low). Each parsed out data set was analyzed using ANOVA procedures and the Scheffe post-hoc test to document significant differences in the triangulated sets of dependent measures across school ranking conditions.

Results
A healthy middle school is a pleasant place. It is protected from unwarranted intrusion. Teachers like the school, the students, and each other, and are enthusiastic about their work. Teachers see students as serious and diligent in their learning. They see the principal as their ally in the improvement of instruction; the principal is friendly, open, respectful, and supportive, and yet establishes and is committed to high standards of teacher performance. The principal also has influence with organizational superiors and is seen as someone who can deliver, as well as one who can get teachers the instructional materials they need. The healthy school has no need to coerce cooperation; it is freely given by teacher professionals who are committed to teaching and learning (Hoy & Sabo, 1998, p. 73).

Creating a structural profile, across school ranking conditions, of middle level education in one Midwestern state was the goal of this study. Therefore, several middle school characteristics (see Table 4) were reported: teacher and administrator preparation and attributes, middle school structures, resource support, organizational health, institutional integrity, teacher affiliation and commitment, and collegial leadership. The study involved the development of a vast data set.

Middle school structures
Although distinctions persist, no significant differences (.05 level of significance) were found among school ranking conditions with respect to flexible scheduling \( (F = 1.256, p = .290) \), accessibility to guidance counselors \( (F = 1.938, p = .148) \), or interdisciplinary teaming practices \( (F = 1.653, p = .197) \). Many middle schools, and even fewer high rank-
Table 4
Data summary of representative state middle school profile

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Variables</th>
<th>F-test results</th>
<th>Comparison Ranking Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher and Administrator Preparation and Attributes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Attainment</td>
<td>$F = 4.49, &gt;.015$</td>
<td>High compared to Low</td>
<td></td>
</tr>
<tr>
<td>Leadership Strength</td>
<td>$F = 4.006, &gt;.020$</td>
<td>Middle compared to Low</td>
<td></td>
</tr>
<tr>
<td>Leadership Strength</td>
<td>$F = 4.006, &lt;.999$</td>
<td>High compared to Middle</td>
<td></td>
</tr>
<tr>
<td>Middle School Structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible Scheduling</td>
<td>$F = 1.256, &lt;.290$</td>
<td>Compared across High-Middle-Low</td>
<td></td>
</tr>
<tr>
<td>Guidance Counselors</td>
<td>$F = 1.938, &lt;.148$</td>
<td>Compared across High-Middle-Low</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>$F = 1.653, &lt;.197$</td>
<td>Compared across High-Middle-Low</td>
<td></td>
</tr>
<tr>
<td>Organizational Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall School Health</td>
<td>$F = 13.877, &gt;.000$</td>
<td>Compared across High-Middle-Low</td>
<td></td>
</tr>
<tr>
<td>Community Pressure and Demand</td>
<td>$F = 2.212, &lt;.114$</td>
<td>Compared across High-Middle-Low</td>
<td></td>
</tr>
<tr>
<td>Parental Influence</td>
<td>$F = 2.212, &lt;.999$</td>
<td>Middle compared to Low</td>
<td></td>
</tr>
</tbody>
</table>

(Continued on next page)
### Institutional Integrity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Variables</th>
<th>F-test results</th>
<th>Comparison Ranking Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic Effort to Improve on Previous Work</td>
<td>$F = 6.393, &gt; .011$</td>
<td>High compared to Middle</td>
</tr>
<tr>
<td>Students Seek Extra Academic Help</td>
<td></td>
<td>$F = 7.630, &gt; .004$</td>
<td>High compared to Middle and High</td>
</tr>
<tr>
<td>Students Seek Extra Work to Improve Grades</td>
<td></td>
<td>$F = 7.090, &gt; .002$</td>
<td>High compared to Middle and High</td>
</tr>
<tr>
<td>Acceptability of Academically Oriented Students</td>
<td></td>
<td>$F = 4.846, &gt; .032$</td>
<td>High compared to Middle and High</td>
</tr>
</tbody>
</table>

### Leadership

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Variables</th>
<th>F-test results</th>
<th>Comparison Ranking Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collegial Leadership</td>
<td>$F = 7.564, &gt; .003$</td>
<td>High to Middle</td>
</tr>
<tr>
<td>Principal's Discussion of Classroom Issues with Teachers</td>
<td></td>
<td>$F = 2.093, &lt; .901$</td>
<td>High to Middle</td>
</tr>
<tr>
<td>Principal Accessibility</td>
<td></td>
<td>$F = 2.072, &lt; .809$</td>
<td>High to Low</td>
</tr>
</tbody>
</table>
Structural equity factors across school ranking conditions in middle level education

Ining schools, did not employ flexible class scheduling practices. Middle and low-ranking schools appeared to employ the practice at higher and roughly equivalent rates. The relationship between school ranking conditions and access to guidance counselors was linear. Students at high-ranking schools were reported to have the most access to guidance counselors, while students at low-ranking schools had the least access to guidance counselors. Another underpinning tenet of the middle school philosophy is interdisciplinary teaching teams to plan and implement instruction. It was found that most middle schools did implement teaming practices for planning instruction. Almost all respondents from high-ranking schools participated in teaming activities. Staff perception of strength in principal leadership was the only middle school structure that was statistically significantly different across school ranking condition.

Organizational health factors

School health was measured on three levels (institutional, managerial, and technical). Six health constructs were used to define each of these levels (institutional integrity at the institutional level, academic emphasis and teacher affiliation at the technical level, and principal influence, collegial leadership, and resource support at the managerial level). School organizational health was perceived to be significantly different across school ranking conditions \((F = 13.877, p < .05)\). Statistically significant differences were present between high-ranking and middle-ranking schools \((p < .05)\) and between high and low-ranking schools \((p < .05)\).

The middle school organizational structure of leadership suggested statistically significant differences across school ranking conditions. Leadership strength in low-ranking schools was found to be significantly different from that of middle-ranking schools \((F = 4.066, p < .05)\). Almost all respondents in low-ranking schools perceived their principals to be strong leaders. A greater discrepancy existed in terms of leadership strength at middle-ranking schools. Strong similarities between high and middle-ranking schools with respect to leadership were found \((F= 4.006, p = .999)\).
School climate was measured at the institutional, managerial, and technical levels. The construct used to delineate the institutional level was integrity. The presence of institutional integrity meant that the school did not succumb to environmental pressures from parents and community. The managerial level addressed collegial leadership, principal influence, and resource support. An equitable, supportive, friendly, and open principal who communicated expectations for high performance defined collegial leadership. Resource support meant that teachers had access to adequate and even extra supplies and instructional materials. The technical level survey items were designed to measure teacher affiliation and academic emphasis. Relationships and commitment to colleagues and students connected teachers to the school, so they had the desire to accomplish their work with enthusiasm. Individuals who strove for excellence with high but achievable goals fostered academic emphasis within the middle school. A safe and conducive learning environment in which teachers had confidence in student ability and students had the drive to succeed was also indicative of academic emphasis.

No statistically significant differences were reported between high and middle, high and low, or middle and low-ranking schools in terms of institutional integrity. All schools within the sample, regardless of ranking, were sometimes vulnerable to outside pressures. Community demands were often accepted by all schools; even if they did not correspond to the underlying mission. Yet, teachers from high-ranking schools experienced “more pressure from the community” than did teachers in middle and low-ranking schools. Still, teachers did feel protected from unreasonable community and parental demands. It appeared that school ranking conditions were not a statistically significant contributing factor in determining which communities had more influence over school policies ($F = 2.212, p = .114$). But, vocal parents in high-ranking schools had a greater likelihood, not statistically significant, of changing school policies than did parents at middle and low-ranking schools. With respect to parental influence over changes in school policies, there appeared to be no difference between middle and low-ranking schools ($p = .999$).
The present study focused on parental and community influence over school policies and practices to measure levels of institutional integrity. The Brown et al. study (2003) investigated the differences between high and low-performing schools in terms of parent and community involvement. Their study reported a divergence across school ranking conditions in terms of helpfulness in the high-ranking community as compared to school neediness in the low-ranking community. Institutional integrity as reported by the Brown et al. study appeared to reveal an “us versus them” stance when examining high-ranking versus low-ranking schools.

Students in high-ranking schools were reported to work significantly harder than students in middle-ranking schools to improve academically ($F = 6.393, p < .05$). Significant differences were also found between high and low ranking schools. Students in high-ranking schools often made provisions to acquire extra help ($F = 7.630, p < .05$) as well as seek extra work so that they could get good grades ($F = 7.090, p < .05$). Respondents in high-ranking schools perceived that their students were significantly more likely to respect others who got good grades. It was the belief of teachers in high-ranking schools that their students had the ability to achieve academically. Students in low-ranking schools were reported to neglect homework and to ridicule scholarly students; whereas academically oriented students in high-ranking schools were reported to be rarely ridiculed by peers ($F = 4.846, p < .05$).

Brown et al. (2003) reported statistically significant differences among teachers in high-performing suburban schools and low-performing urban schools. Administrators and teachers in high-performing schools established high standards, achieved them, and built orderly learning environments that portrayed the potential of student success more so than did administrators and teachers in low-performing schools. The present study found high and middle-ranking schools to be significantly different with respect to academic emphasis, as were high and low-ranking schools. No statistically significant differences were found between middle and low-ranking schools.

Similar findings between the Brown et al. study (2003) and the current study were also identified in terms of teacher affiliation. In the
present study, it was reported that teachers in high-ranking schools liked each other, exhibited friendliness to one another, and volunteered to help their colleagues significantly more so than did teachers in middle-ranking schools. Results of the Brown et al. study (2003) found that teachers in high-performing schools were much more enthusiastic, were positive about their school cultures, and felt secure and satisfied.

Teachers in high-ranking schools were also significantly more enthusiastic about their jobs and showed a greater commitment to their students than did teachers in middle-ranking schools. Teachers in middle-ranking schools were significantly less likely to act in a cool and aloof manner toward colleagues than were teachers in low-ranking schools.

The construct of collegial leadership was found to be significantly different between high and middle-ranking schools ($F = 7.564, p < .05$). By accepting questions without snubbing teachers, principals in high-ranking schools were perceived to explore all sides of topics and to admit that other options existed significantly more so than principals in middle-ranking schools. Reportedly, principals in high-ranking schools looked out for the personal welfare of their faculty compared to principals in middle-ranking schools. Yet, similar to the findings of the Brown et al. study (2003), high and low or middle and low-ranking schools were not found to have statistically significant differences. Principals were perceived to be equally likely to treat all faculty members as colleagues and to be friendly and approachable in high and low-ranking schools. Whereas, high and middle-ranking schools were strongly similar in that principals were reported to often discuss classroom issues with teachers ($F = 2.093, p = .901$).

Divisive findings within the current study and the Brown et al. study (2003) were noted in terms of perceptions of collegial leadership. Teachers in high-performing schools often viewed their principals as instructional leaders who were accessible to their teachers. The principals were often viewed as people teachers could collaborate with in the reform of instruction ($F = 2.072, p = .809$). Middle-ranking schools were strongly similar to the low-ranking schools in terms of principal accessibility.

Resource support was reported to have statistically significant differences across high and low-ranking schools. Teachers in high-ranking
Structural equity factors across school ranking conditions in middle level education

Schools were significantly more likely than their peers in middle and low-ranking schools to receive adequate or extra materials for their classrooms. Needed instructional materials were significantly more accessible in high-ranking schools as compared to low-ranking schools. Respondents in low-ranking schools reported that they were significantly less likely to receive their fair share of resources from the district. These results were quite similar in the Brown et al. study (2003) as well.

**Discussion**

*Distinctions of structural equity factors across school ranking conditions*

Statistically significant differences (.05 level of significance) were noted across school ranking conditions in terms of professional teacher preparation, organizational health variables, school leadership characteristics, academic emphasis, and resource support. The general conclusion of this study was that a strong correlation existed between structural equity issues in middle schools and academic achievement. It is important to note that strong similarities between high and low-ranking schools were found. The derivation of such correlations might have stemmed from the overall missions of the middle schools studied.

Institutional integrity was not significantly different (.05 level) across school ranking conditions. Respondents representative of all ranking conditions reported succumbing to pressures from vocal parents and community members. Not all was equal, however. Teachers in high-ranking schools reported experiencing greater community influence over school policy than was present in middle and low-ranking middle schools.

Student motivation toward excellence, as measured by academic emphasis factors, served a crucial role in distinguishing achievement across school ranking conditions ($F = 3.677$, $p = .040$). Academic emphasis levels and commitment to scholastic success peaked in high-ranking schools. Because good grades were important to students, they made provisions to acquire extra help from teachers, sought extra work to enhance grades, and tried hard to improve on previous work. Students
also expected others to get good grades and respected them for doing so. Conversely, in schools with low academic emphasis, students neglected to complete homework and often ridiculed students who earned good grades.

Collegiality between and among teachers and administrators was correlated to academic success. Staff in high-ranked schools demonstrated commitment, efficacious behavior, and the highest levels of advanced teacher preparation. Whereas, middle and low-ranking schools employed teachers with minimum preparation such as initial certification, entry-level career status, and undergraduate degrees.

Principal leadership was reported as the greatest divisive factor across school ranking conditions. Rapport between teachers and principals was strong in high-ranking schools. They were reported to be accessible collaborators with teachers and school stakeholders. Principals in low-ranking schools were perceived as stronger leaders but busy and unavailable. Consequently, study results indicated an inverse effect on reporting of principal strength in high-ranking schools. The causality of this attribute may stem from the notion of strength equaling a yield of power and control over the school and its teachers.

Connections to the organizing theoretical frameworks
Student achievement, identified by ranking conditions, could not be entirely equated to school effectiveness. Standardized test results often used for measuring the success of middle schools provided a minimalist view of educational organizations. The OHI-RM contained six dimensions used to measure structural complexities: academic emphasis and teacher affiliation (teacher behaviors), collegial leadership, resource support, and principal influence (principal behavior), and institutional integrity (relationship between school and community). In sum, positive interpersonal relationships within the school had the opportunity to foster higher rates of academic achievement.

Healthy organizations were characterized by goal focus, communication adequacy, equitable distribution of influence, and personnel resources that were used effectively and efficiently. Morale and group satisfaction were high, and growth as well as goals were valued. The or-
ganization acted autonomously within its external environment, change occurred for the purpose of development, and problems were solved without exerting too much energy (Hoy & Feldman, 1987). A school’s health correlated to less student alienation, increased motivation, and improved student achievement.

Data analysis supported the same finding Hoy and Sabo (1998) postulated, that the organizational health of middle schools had a noteworthy impact on student achievement. Collegial relationships among teachers and between administrators and teachers significantly influenced student academic success in healthy school structures. Environmental factors, collegiality, professionalism, and academic emphasis were essential to improving educational attainment. When the school had strong interpersonal relationships among stakeholders, internal and external, challenges were constructive and overcome. Quality middle schools were often characterized as open and healthy.

The second guiding frame of this study was Senge’s (1990) five disciplines of organizational change: systems thinking, personal mastery, mental models, shared vision, and team learning. Healthy and equitable middle school structures require the development of a collective proficiency. An analysis of interactions among individual organizational components lends to the development of a systems thinking profile. The current study examined several organizational components including institutional integrity, resource support, teacher affiliation and academic emphasis. Respondents in high-ranking schools were significantly more likely to have confidence in student academic ability. They perceived students to have the drive for success. While teachers must adapt to varying levels of learner academic orientation, respondents across all ranking levels also reported vulnerability to outside pressures over school policies. Yet, teachers did report a sense of protection from overzealous demands.

Teacher affiliation, resource support, and access to needed instructional materials were significantly greater in high-ranking schools. Staff members’ affiliations toward their schools were directly related to Senge’s (1990) second discipline, personal mastery. Positive perceptions of connectiveness toward collegial relationships and commitment
strengthened propensities to high levels of personal mastery; which then led to enhanced academic emphasis within high ranking schools. Excellence was the mantra. In these schools, the principals were perceived as accessible instructional leaders who teachers could collaborate with to reform instruction.

Perceptions of strong principal leadership, academic emphasis, resource support, collegial leadership, and personal mastery form the organizational mental models held by school stakeholders. As experiences are replicated within and across school systems, generalizations and deeply engrained assumptions might be postulated. Respondents reported, across school ranking conditions, that the community demands often accepted, even if they did not correspond to the underlying mission of the school, formed the mental model of institutional integrity. Vocal parents in high-ranking schools had a greater likelihood of changing school policies than did parents at middle and low-ranking schools. Yet, it was also reported that teachers felt protected from unreasonable community and parental demands.

The respect peers demonstrate to one another for achieving good grades was indicative of institutional integrity in high-ranking schools. Teachers held the mental model that their students had the ability to achieve academically and that principals were open to exploring all sides of topics and were willing to admit that options were available. Principals were viewed as likely to treat all faculty members as equals and to be friendly and approachable. Consequently, teachers in high-ranking schools were also significantly more enthusiastic about their jobs.

Elevated levels of institutional integrity, resource support, teacher affiliation, and academic emphasis converge to suggest the image of an organizationally healthy shared vision. Respondents agreed, across school ranking conditions, that the characteristics of structurally equitable middle schools were the value of good grades, positive perceptions of student capability, and accessible leadership. The shared characteristics of high-ranking schools included confidence in student academic ability. Respondents also reported that external pressures play a role in school policy, but teachers did not feel threatened by vocal groups.
Structural equity factors across school ranking conditions in middle level education

Teachers in high-ranking schools also shared a high regard for their peers. They were friendly and volunteered to assist one another. Consequently, teachers in high-ranking schools were passionate about their jobs and showed greater commitments to students than did teachers in middle-ranking schools. These attributes describe the essential foundational blocks to build a middle-level education paradigm that supports a climate of team learning.

Recommendations for further study
The data analytic plan employed in this report resulted in the corroboration of conclusions drawn in previous similar studies (Brown and associate, 2003 & Hoy and Sabo, 1998). After developing the profile of middle-level structural equity characteristics in one Midwestern state, it was determined that organizational health variables were statistically different (.05 level of significance) across school ranking conditions. Distinctions became evident in terms of teacher preparation, organizational health variables, school leadership characteristics, academic emphasis, and resource support. Further study of each of these structural factors would contribute to the theoretical frames that support healthy middle-level education. But, as was stated, the greatest divisive factor across school ranking conditions regarded middle-level administrative structures. To equalize middle school organizations, a concerted effort to examine school leadership and administrative factors is needed.
References


Service learning: Tutoring middle and high school struggling readers

Randall R. Wallace

Abstract
This article documents the experiences of university pre-service and acting teachers who tutored high school struggling readers in an integrated service-learning course. The use of a tutoring format was examined as an effective instructional delivery format. Middle and high school students from a local long-term residential treatment facility for abandoned, abused, or neglected boys were transported to an upper-division and graduate-level reading class at a mid-size university in Missouri for a one-hour tutoring session once a week. After tutoring struggling readers for one semester, university students responded to a series of questions that provided information about the cognitive and affective characteristics of the tutees, the types of reading assessments and strategies found to be successful when tutoring, and the benefits and problems inherent to this type of program.
Introduction

When I began teaching the reading course Analysis and Correction of Reading Difficulties, I was motivated to find struggling readers to work with pre-service and practicing teachers who were taking my class. This motivation was supported by an important part of the public affairs mission at my university, which encourages interaction between the university and community. It seemed logical to construct a context where university students could practice administering reading assessments and teaching instructional strategies with struggling readers, and, at the same time, be of assistance to a community organization. Therefore, middle and high school students from a local long-term residential treatment facility for abandoned, abused, or neglected boys were transported to an upper-division and graduate-level reading class at a mid-size university in Missouri for a one-hour tutoring session once a week.

The reading course provided a platform from which university pre-service teachers could take theories of corrective reading and implement them in a meaningful tutoring situation. One-to-one tutoring is an effective instructional format for improving student achievement (Cohen, Kulik, & Kulik, 1982; Elbaum, Vaughn, Hughes, & Moody, 2000; Haverback, & Parault, 2008). Cohen, et al. analyzed 65 independent evaluations of school tutoring programs and found: (1) tutored students scored higher on exams than control students, (2) tutored students developed more positive attitudes about the material covered than the control students, and (3) the tutors improved their understanding of the material they were using in the tutoring program.

A successful tutoring program requires more than merely setting up a one-to-one instructional situation (Ellis, 1976). The tutor needs to be a sensitive, warm individual who is able to establish positive and personable interactions with the tutee; needs to have training in how to teach the academic material, including how to accurately diagnose the tutee’s skills; and needs to have a program that delineates the content and strategies that need to be taught (Ellis, 1976). Pre-service teachers generally
possess these qualities, and they have been found to be successful tutors. Elbaum et al. (2000) found that at-risk students made the greatest gains when tutored by college students. Based on their meta-analysis of 31 studies of one-to-one instructional intervention, they concluded:

In sum, the findings of this meta-analysis support the argument that well-designed, reliably implemented, one-to-one interventions can make a significant contribution to improved reading outcomes for many students whose poor reading skills place them at risk for academic failure. Based on these findings, we recommend that schools give serious consideration to one-to-one reading interventions that use trained college students and volunteers and to intensive small-group interventions. (p. 618)

Haverback and Parault (2008) examined the effects of tutoring on pre-service teacher self-efficacy and their knowledge of teaching reading. These researchers found that pre-service teachers who tutored “were found to grow in confidence, shift their beliefs about teaching and understanding each child as an individual, and connect reading theory learned in the university setting to practice” (p. 252). Massey and Lewis (2011) established that having pre-service teachers tutor benefited both the tutors and tutees by assisting the tutors: (1) to move beyond their personal experiences to meet the needs of their tutees, (2) to apply the theories and strategies learned in the classroom to practical teaching situations, (3) to help the tutors to become less teacher-centered and more student-focused.

I contacted personnel at a local institution, the Good Samaritan Boys Ranch, to see if they would provide transportation for a group of boys on the night of the reading class for one hour of tutoring each week. The Good Samaritan Boys Ranch personnel coordinated a schedule with me, and we have continued this relationship for 17 successive semesters. In looking for ways to improve the course and evaluate this tutoring arrangement, I collected qualitative data for one semester from university students taking the class by asking them a series of questions related to their tutoring experience. The questions were:

1. What were the basic reading cognitive and affective strengths of your tutee?
2. What were the basic reading cognitive and affective weaknesses of your tutee?
3. What assessments were helpful to you in designing a reading program for your tutee?
4. What reading strategies did you find to be most helpful to your tutee?
5. What were instructional activities brought to class and shared by classmates that you found to be helpful?
6. What major difficulties did you encounter?
7. From this experience, what was the most important thing you learned about yourself and about teaching reading to struggling middle and high school boys?

The following paragraphs summarize the pre-service and acting teacher responses to those questions, and served to amplify the potential of the tutoring format to improve the skills of struggling readers.

The tutees
The tutees were boys from the Good Samaritan Boys Ranch. The Good Samaritan Boys Ranch is a statewide residential facility serving neglected and delinquent boys between the ages of 12 and 18. Staff members selected the boys for the service project based on the boys’ willingness to participate and their reading needs. Eleven boys participated in the class during the semester under study. The boys’ average age was 15 years; their average grade level was grade 9; and their average instructional reading level was estimated to be grade 4.8, about four grades below their expected reading grade level.

The tutors
The tutors consisted of 22 upper-division and graduate students from my university. Except for one, the students had at least five semester hours of reading coursework with one tutor having as many as 27 hours. While this was the first practicum experience for one student and the second experience for another, most of the students had a number of tutoring or teaching experiences. Six students were practicing teachers, although only one of these teachers had middle school teaching experience.
The course
The course, Analysis and Correction of Reading Difficulties, offers instruction to education students on the use of instructional strategies to improve the skills and attitudes of readers. The course presents information and practice regarding diagnostic procedures and instructional techniques for struggling readers to elementary, secondary, special education, and reading teachers. The course begins by teaching the education students how to administer various assessments, including an Informal Reading Inventory (IRI) and Running Record, and how to use the data from these assessments to develop individualized reading programs for their tutees. Throughout the semester, the university students are familiarized with and administer other forms of assessment, and they are introduced to and practice the foundations of reading related to teaching reading to struggling readers. Both a theoretical and practical emphasis is placed on the use of phonics, vocabulary, comprehension, and fluency when creating tutoring lessons.

Each week, the boys were transported from the Good Samaritan Boys Ranch to the university to meet with their tutors. The first half of the class focused on teaching reading theory to the university students, and the second half of the class applied the teaching of reading to the boys brought to the classroom from the Good Samaritan Boys Ranch. Two tutors were assigned to each boy and tutored that individual throughout the semester. The pair of university students alternated between teaching and observing their tutees for 50 minutes each week—one week the university student taught his or her assigned tutee and the next week the university student observed the session taught by his or her partner. Each week each tutor had to either develop a lesson or formally observe a tutoring session. At the end of the semester a detailed portfolio of the tutor and tutee’s work was submitted for evaluation.

Responses to the questions asked the university students
At the end of the 15-week semester, the university students responded to a series of questions meant to qualitatively express what they believed were important aspects of their tutoring experience. The summarized answers to those questions follow.
What were the basic reading cognitive and affective strengths of your tutee?

**Cognitive strengths.** University tutors were asked to describe the cognitive reading strengths of their tutees. Once the boys were placed at their instructional reading levels and taught reading strategies using materials aligned at those levels, they exhibited many effective reading skills. Tutors noted that most of the boys did a good job of comprehending the material they had just read at their instructional level; they were good at recalling details, retelling events, and predicting upcoming text. Some boys were able to construct meaning as they connected new information to past experiences. Some boys were skilled at recognizing and decoding words, and several of them frequently self-corrected misread words. Several boys learned new strategies, such as asking for help if a self-correction was in error, and one tutee learned to go back and reread unclear passages. Many boys seemed to enjoy discussing the content of the material they had just read with their tutors.

**Affective strengths.** University tutors were asked to describe the affective reading strengths of their tutees. Generally, the boys made an effort to improve their reading skills during the sessions. Most tutors, for example, commented on the positive attitude of the boys and stated that most of them were determined to do well during the session. Interesting material and offering choices played important roles in helping the boys focus on the activities and sustain their attention. Tutors also found that praise was an effective motivator. Once a trust relationship was developed among the tutors and boys, the boys were generally open and honest with their feelings, which facilitated effective feedback and dialogue.

What were the basic cognitive and affective reading weaknesses of your tutee?

**Cognitive weaknesses.** University tutors were asked to describe the cognitive reading weaknesses of their tutees. Many boys struggled with some aspect of decoding, which often affected their fluency. One boy avoided an unknown word either by skipping it or requesting help immediately. Or sometimes he would read the first few letters of a word without looking at the rest, so he would often say the word incorrectly.
even though it was close to the correct word. Another boy, when he came to an unknown word, gave up quickly, becoming visibly frustrated. This boy had difficulty decoding the medial and ending parts of words and words that were multi-syllabic.

**Affective weaknesses.** University tutors were asked to describe the affective reading weaknesses of their tutees. Many of the boys were easily distracted and quick to shift their attention to other events that were occurring around them. Some boys were sensitive when it came to being corrected; if they hit a rough patch, they gave up quickly. For example, when one boy became frustrated reading a given passage, he refused to answer any of the comprehension questions asked to him by his tutors. Four of the boys were especially self-motivated and wanted to work to improve their reading skills during the session. Seven needed to be externally motivated by their tutors. But the main difficulty was lack of interest—if the boys were not interested, they tended to get off track and find ways to avoid session activities.

**What assessments were helpful to you when designing a reading program for your tutee?**

Most tutors found an *Informal Reading Inventory* especially helpful in estimating the reading levels of their tutees, and saw the value of using this assessment as a prerequisite to teaching a new student. Many tutors valued *Running Records*. This assessment provided insights into the reading strategies their tutees were and were not using while reading a given text. An *Interest Inventory* developed by the tutors was seen by some tutors as a good tool to identify the types of books their tutees would be interested in reading.

**What reading strategies did you find to be most helpful to your tutee?**

Tutors found that explicitly modeling a reading strategy or desired behavior for their tutee was the most effective teaching technique. The areas of fluency, word analysis, and comprehension were most frequently addressed.
**Fluency**
The strategies used to improve fluency included:
- Practicing phrasing by choral reading;
- Alternating reading sections of text with their tutee;
- Charting the reading rates each week and afterwards discussing the oral reading performances;
- Removing punctuation, having the tutee try to read it, and finally discussing the experience; and
- Letting the tutee read as much as he wanted, followed by the tutor reading the same amount of text.

**Word analysis**
The strategies used to improve word analysis skills included:
- Using word parts when assisting decoding an unfamiliar word (use of syllabication);
- Identifying unknown words using context clues; reviewing vocabulary in context and having the tutee relate the word to his life;
- Using the Pronounceable Word Part Strategy (Gunning, 2006) to help the tutee decode difficult multiple-syllabic words; and
- Defining and expanding vocabulary by using a vocabulary anchor (a conceptual word chosen by the tutee from his reading) with the Frayer Model (Frayer, Frederick, & Klausmeier, 1969) for analysis.

**Comprehension**
And finally, the strategies used to improve comprehension included:
- Modeling how to summarize, connect, and identify the main ideas of a passage; setting a purpose for the reading, predicting what will happen, gathering background knowledge, and introducing challenging vocabulary;
- Implementing the K-W-L Plus strategy (Carr & Ogle, 1987);
- Making predictions within the text and then having the tutee read to see if his predictions were true;
- Using semantic mapping during the prereading phase to intro-
duce vocabulary words, building connections among words and concepts, and creating a sense of purpose for reading;

• Using a modified cloze procedure (Opitz, Rubin, and Erekson, 2007) to help the tutee think about the text and the sequencing of events;

• Having the tutee underline and highlight important facts while he read; and encouraging the tutee to think within the text, beyond the text, and about the text.

**What major difficulties did you encounter in your tutoring?**

The tutors identified attitude/motivation and several academic issues as areas of difficulty when tutoring. Six of the 11 boys had issues related to attitude or motivation. Two tutors, working with a difficult tutee, found that their tutee loved coming to the university to get away from the Good Samaritan Boys Ranch but did not want to do the activities presented during the tutoring sessions. “*We tried to work with him and make this a fun learning experience for him, but he never reciprocated; he complained frequently and made it hard for us to tutor him effectively.*” Nevertheless, these two tutors concluded their experience in a positive manner: “*However, we got through it and hopefully, we made a difference and our tutee learned something that will help him in the future.*”

One pair of tutors found that there were times when their tutee did not want to expand upon his own ideas, especially when he was engaged in a writing activity. Another pair of tutors found that over time their tutee’s attitude digressed to a point where they felt little was being accomplished. At one point, these tutors decided to discuss this issue with their tutee and stressed with him the importance putting forth a good effort. It was felt that this discussion improved their tutee’s work ethic.

One pair of tutors found that their biggest problem was trying to keep their tutee on task. “*He was always trying to get off task by asking questions that had nothing to do with the lesson.*” Another pair of tutors found that their tutee just wanted to “*sit and do nothing.*” This was especially true when the activity involved writing and he was asked to write
in complete sentences. “Our tutee especially hated writing and would get angry when we asked him to write in complete sentences.”

Academically, writing activities seemed to trigger the most resistance. One pair of tutors found that their tutee resisted writing activities and could only get written work from him by participating in the writing activities with him. Four pairs of tutors highlighted writing as the most difficult activity to teach. One pair of tutors found that it was difficult to “get our tutee to write because he did not like writing. However, over time, he worked up to it and did not mind it so much.” Another pair of tutors found it difficult to get their tutee to write in complete sentences and use correct punctuation. And still another pair of tutors found a problem just getting their tutee to write. “We discovered that he looked at writing as a ‘weakness’ of his, and for that reason, was turned off to a written response. However, by the end of the semester, we captivated his interest in writing by doing different activities such as: writing raps, mad libs, and acrostic poetry.” This boy improved in his writing and his confidence in writing so much that by the last tutoring session he shared a final copy of a wonderful story he had written on his own accord.

From this experience, what was the most important thing you learned about yourself and about teaching reading to struggling middle and high school boys?

Most of the tutors found the tutoring experience helpful in developing their teaching skills. Several pairs of tutors had difficult tutees to work with, but maintained a positive frame of mind throughout the semester. On examining how the tutoring experience had altered their perspectives on teaching, the tutors used descriptions such as:

• I found I was very patient with a difficult student and willing to accept the challenges he presented head on.

• I found it vital to find literature that the boys were interested in.

• Sometime lessons don’t always go as planned. It was always important to have a backup plan in your head. I also learned that a teacher should use different strategies to assist a student.

• The most important thing that I found out about myself was that I can relate well to older students. I chose elementary school
teaching because I was not sure that I could teach older students.

- The most important thing I learned about teaching reading to middle and high school struggling readers was to be patient. These boys needed praise and encouragement because, I imagine, they did not get much of this at home.

- From this experience I learned to have empathy for students that have struggled throughout their lives. Not only do teachers teach, but they also learn from the pupils that they meet. My tutee helped me to become more sensitive and empathetic to those I am teaching.

- I learned that with about an hour a week of interaction with my tutee, I could improve his reading skills. At the beginning of the semester, I did not realize how much of an impact I could have on my tutee.

- I learned that the most important part of teaching is building a relationship with the student and forming trust. Without a friendly relationship, I don’t think this student would have been motivated to learn. That trustful and respectful relationship between my tutor and me was the most important aspect of the tutoring experience.

- I found that teaching reading to a struggling middle school boy is a multi-faceted problem. The tutor must be aware of much more than the child’s struggle with the written word. I learned that I must be sensitive to what psychological baggage a struggling reader brings to the tutoring experience.

**Conclusion**

The incredible potential of talented and bright university pre-service teachers needs to be harnessed and used for the common good of the students in the public schools. Instructors, particularly education professors with access to pre-service teachers, need to actively seek ways in which they can combine, whenever possible, the theoretical aspects to the practical applications of those courses. As suggested by Ellis (1976), this tutoring project utilized the talents of the university pre-service
teachers who were learning the theoretical principles of teaching reading and the practical application of those principles by teaching struggling middle and high school students. The information generated from the survey supports several well-established themes about teaching struggling readers. These themes include the need for the following:

1. Text material aligned with the student’s reading ability;
2. Personalized attention where trust can develop between the instructor and the reader;
3. Interest and praise to sustain attention and motivate behavior and;
4. Adjusting to the intense resistance when working to improve writing skills.

A relatively unique aspect of this project was to have the Good Samaritan Boys Ranch transport their students to the university campus at a specific day and time. Often in community service projects, the university students must make the time commitment based on their schedule and transport themselves to the community organization. The difficulty with this typical format and an institution like the Good Samaritan Boys Ranch is that university students going to “the Ranch” on their schedule can be disruptive to the specific routines that the boys participate in on a daily basis. This project made the tutoring class become a part of each boy’s routine. There were many benefits to this arrangement. Tutors and tutees alike became more engaged in the learning process. Tutors were able to teach an actual, upper-grade struggling reader and test their skills both as teachers and as motivators, while the boys were able to interact closely with their tutors as they continued to improve their reading abilities. Tutors had a reason to develop a unique education program designed to help a struggling reader, and the tutees, who for the most part, wanted to please their tutors by doing well on the tasks presented to them. In addition, I observed that the social interaction among the tutors and tutees was always enriching and constructive. The tutors and tutees appeared to benefit as much from their emotional commitment to one another as to the instructional exchanges that occurred during the sessions. And finally, many tutors appeared to have increased their understanding of teaching and improved their critical thinking skills when
teaching because of their interaction with struggling readers. In class discussions, service-learning students became better able to frame logical questions, identify problems, recognized differences or gap between theory and application and distinguish relevant teaching information from irrelevant.
References


Appendix

The Good Samaritan Boys Ranch/ MSU Students (RDG 574)

Title: Service Learning: Teaching Middle and High School Struggling Male Readers

<table>
<thead>
<tr>
<th>Boys’ Ranch Student Description</th>
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</thead>
<tbody>
<tr>
<td>Age of your tutee: ____________ years</td>
</tr>
<tr>
<td>Informal Reading Inventory Results:</td>
</tr>
<tr>
<td>Overall Reading Grade Level</td>
</tr>
</tbody>
</table>

**Basic Reading Strengths**
What were the basic reading cognitive and affective strengths of your tutee?

**Basic Reading Weaknesses**
What were the basic reading cognitive and affective weaknesses of your tutee?

<table>
<thead>
<tr>
<th>MSU Student Description</th>
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</thead>
<tbody>
<tr>
<td>Year in School (circle one): Sophomore</td>
</tr>
<tr>
<td>Prior Reading Coursework:</td>
</tr>
</tbody>
</table>

**Prior Teaching-Related Experiences (past two years, include teaching, internships, practicums):** Please summarize each major experience; include grade level or age of students in each experience.

<table>
<thead>
<tr>
<th>Essence of Your Tutoring Experience</th>
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<tbody>
<tr>
<td>What assessments were helpful to you in designing a reading program for your tutee?</td>
</tr>
<tr>
<td>What reading strategies did you find to be most helpful to your tutee?</td>
</tr>
<tr>
<td>What were instructional activities brought to class and shared by classmates that you found to be helpful?</td>
</tr>
<tr>
<td>What major difficulties did you encounter?</td>
</tr>
<tr>
<td>From this experience, what was the most important thing you learned about yourself and about teaching reading to struggling middle and high school boys?</td>
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High school size, black student achievement, and school climate: A multi-year, statewide study

Brian S. Greeney
John R. Slate

Abstract
In this investigation, we analyzed the relationship of high school size to black student performance on the Texas statewide, mandated assessment in English language arts, science, math, and social studies and with respect to attendance rates, dropout rates, and completion rates for five school years. After creating three high school sizes (i.e., small size = fewer than 400 students; medium size = 401 to 1,499 students; large size = 1,500 or more students) based upon frequency analyses of existing school size, we conducted statistical analyses. For the four academic measures, black students enrolled in large-size high schools statistically significantly outperformed black students enrolled in medium-size and small-size high schools. Effect sizes ranged from small to large. With respect to the school climate measures, high school size was not related to black student performance. Accordingly, findings from this study are congruent with very recent investigations of students enrolled in large-size schools outperforming students enrolled in smaller size schools. Implications of our study are provided.
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Student enrollment in public schools has grown substantially over the past several decades. For example, the National Center for Education Statistics (2008a) documented that public school enrollment had increased by more than 20 million students from the 1985 to the 2008 school year. This increase in student numbers reflected a 26% increase in student enrollment (National Center for Education Statistics, 2008a). With reference specifically to high school settings, the focus of this investigation, student enrollment increased by 13% over this time period. Due to student enrollment increases, the number of schools built also increased. The National Center for Education Statistics (2008a) determined that an increase of 20% occurred in the number of new secondary schools over the time period mentioned above. In the 1990 school year, 23,460 high schools were in existence, whereas in the 2006–2007 school year, the number of high schools had increased to 29,420 (National Center for Education Statistics, 2008b).

Building new schools obviously requires an influx of new monies. The current economic situation has resulted in reduced school dollars, especially in Texas, the state focused upon in this investigation; the relationship between school size and student performance, both academic and nonacademic, needs to be addressed. That is, to what extent is the size of the school students attend related to student academic and nonacademic performance?

The topic of school size has been extensively addressed, with some researchers (e.g., Cotton, 1996; Fowler & Walberg, 1991; Hoagland, 1995; Texas Education Agency, 1999) determining that small-size schools result in better student performance. In 1991, Fowler and Walberg, in an analysis of 293 New Jersey schools, documented that student achievement was negatively related with school size. A few years later, Hoagland (1995) analyzed data from 756 California schools and also determined that student reading achievement was negatively related with school size. In a review of 103 school size studies, Cotton (1996) established that students enrolled in small-size schools demonstrated higher attendance rates, higher graduation rates, and lower dropout rates.
than students enrolled in large-size schools. A 1999 study conducted by
the Texas Education Agency on all high schools in the state established
that students in small-size high schools had better achievement than
students in large-size and very large-size high schools. Note the dates in
which these investigations were conducted; as of this study, they were at
least a decade old.

Contradictory findings were present in studies conducted within
the past decade (e.g., Crenshaw, 2003; Durbin, 2001; Greeney & Slate,
2012; Gardner, Ritblatt, & Beatty, 2000; Rumberger & Palardy, 2005;
Zoda et al., 2011a, 2011b). In an investigation of 192 South Carolina
high schools, Durbin (2001) determined that grade 11 students enrolled
in large-size high schools demonstrated higher reading, math, and sci-
ence scores than students enrolled in small-size high schools. Gardner
et al. (2000), in an analysis of 127 California high schools, documented
that students enrolled in large-size high schools had higher achievement
than students enrolled in small-size high schools.

Similarly, Rumberger and Palardy (2005) analyzed data from 912
high schools in a national study and reported that high schools with
student enrollments over 1,200 had higher student achievement in math,
science, reading, and social studies. Most recently, Zoda (2009) exam-
ined Texas elementary school size and its effect on student performance
in reading, writing, and math. Zoda (2009) documented that in the five
years of statewide data analyzed, black students enrolled in large-size
elementary schools performed better in reading, writing, and math than
black students who were enrolled in small-size elementary schools.
Slate and Jones (2006), in another investigation of Texas schools, also
demonstrated that black students in large-size schools outperformed
black students on end-of-year examinations administered in U.S. history
and algebra I. In a recent meta-analysis of the school size literature,
Leithwood and Jantzi (2009) reviewed 59 school size investigations, 19
studies of which addressed high school size. Of these 19 investigations,
15 researchers documented the presence of either a U-shaped or a nega-
tive relationship. Of interest to readers is that, even given the numbers
of studies on school size, only limited research is available regarding
high school size and student outcomes for ethnic groups (Slate & Jones,
With the documented increases in minority student enrollment (NCES, 2008a), empirical research studies are needed on the relationship of school size and student performance by ethnic groups.

**Statement of the problem**

The focus of this study was on the relationship of high school size with student achievement (i.e., reading, science, math, and social studies) and school climate (i.e., attendance, dropout, completion). High school size is a critical issue for states, and particularly for Texas, because of increased student enrollment, the consolidation of rural districts, and decreased monies for education. Construction of new schools in Texas for the 2007–2008 school year cost over $5 billion; of that total, 37% of the new buildings were at the secondary level with a median capacity of 1,800 students (Abramson, 2008). From the 1998-1999 through the 2008–2009 school years, Texas student enrollment increased by 20.1% (Texas Education Agency, 2009b). During this time, the black population, the focus of this investigation, increased by 18.1% (TEA, 2009b). Given efforts to remediate the achievement gap and resultant low academic achievement for black students, it is important to examine variables, such as high school size, that may influence black student academic achievement and school climate (i.e., attendance, dropout, completion).

**Theoretical framework**

In the school size literature, two competing theoretical frameworks exist: student connectedness (Blum, 2005a) and economies of scale (Andrews, Duncombe, & Yinger, 2002). In the student connectedness theory, the more that students are connected to their school, the better their academic performance, their attendance, and their completion are. Similarly, the less connected to their school, students are more likely to demonstrate lower achievement, have higher rates of absenteeism, and have lower completion rates (Blum, 2005a; McNeely, Nonnemaker, & Blum, 2002; Wilson, 2004). In contrast, the economies of scale theory postulates that costs per student are lowered when more students are enrolled at a school (Andrews et al., 2002). In this business model,
lowered costs permit schools to have more resources, which they can use more efficiently (Lee & Smith, 1997) than can smaller size schools. Moreover, a broader, more diverse curriculum is possible in large-size high schools than can occur in small-size high schools (Fox, 1981; Walberg, 1992). Furthermore, with the resources available in larger size schools, higher salaries could be offered to teachers, thereby attracting a higher quality of teacher as well as increasing teacher retention (Chakraborty, Basudeb, & Lewis, 2000; Dodson & Garrett, 2008).

Purpose of the study
The purpose of this study is to determine the effect of school size on student achievement and on school climate for black students enrolled in Texas high schools. Specifically, academic achievement and student climate were examined for Texas high schools by student enrollment. Student academic performance was measured by grade 11 black students’ passing rates on the Texas Assessment of Knowledge and Skills in English language arts, science, math, and social studies. School climate was assessed by measuring attendance rates, dropout rates, and completion rates for the 2003–2004, 2004–2005, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. These data were selected because they were the most current data available at the time of the study.

Research questions
In this study, the following questions were addressed: (a) What is the difference in English language arts passing rates as a function of school size among Texas high schools for black students?; (b) What is the difference in science passing rates as a function of school size among Texas high schools for black students?; (c) What is the difference in math passing rates as a function of school size among Texas high schools for black students?; (d) What is the difference in social studies passing rates as a function of school size among Texas high schools for black students?; (e) What is the difference in attendance rates as a function of school size among Texas high schools for black students?; (f) What is the difference in dropout rates as a function of school size among Texas high schools for black students?; and (g) What is the difference in completion rates as
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a function of school size among Texas high schools for black students?  
Each of these seven research questions delineated was repeated for each of the years of school data analyzed.

Method

Selection of participants
The unit of analysis in this study was all Texas high schools with grades 9–12 listed in the Texas Education Agency database. The data obtained were from the six most recent years of the Texas Assessment of Knowledge and Skills examinations. Data collected from high schools were student enrollments; black student passing rates in grade 11 exit level TAKS English language arts, science, math, and social studies; attendance rates; dropout rates; and completion rates. Excluded from consideration in this study were any schools that were alternative schools, private schools, charter schools, or schools that were not organized in grade 9–12 configurations. According to the TEA (2008c) accountability manual,

Any student group with fewer than 30 students tested is not evaluated. If there are 30 to 49 students within the student group and the student group comprises at least 10% of All Students, it is evaluated. If there are at least 50 students within the student group, it is evaluated. Student group size is calculated subject by subject. For this reason the number of student groups evaluated will sometimes vary. For example, an elementary school with grades 3, 4, & 5 tested may have enough Hispanic students to be evaluated on reading and mathematics, but not enough to be evaluated on writing. (p. 12)

School size determination
Prior to conducting statistical analyses, a frequency distribution was conducted for each of the years examined to determine the set points for each of the school-size categories. Based upon the frequency distributions of all students for all six years, small-size high schools were determined to have student enrollments of 400 or fewer students; medium-size high schools had student enrollments of 401 to 1,500 stu-
dent; and large-size high schools had student enrollments of over 1,500 students. These high school size enrollments were similar to the Green and Barnes (1993) definition of small schools but different from the Green and Barnes (1993) definition of medium and large high schools. Researchers have previously used the Green and Barnes (1993) definition of small school size (Chavez, 2002; Slate & Jones, 2008a, 2008b; Zoda, 2009). Given recent increases in secondary school enrollment, large high school size was established in this study as at least 1,500 students (Slate & Jones, 2008a, 2008b). Further analysis of the frequency distribution revealed that a majority of schools with enrollments of less than 100 students had their passing rates masked by TEA due to small numbers within the ethnic group (i.e., black) whose data were analyzed in this study. As a result, high schools with student enrollments of less than 100 students were eliminated from any statistical analysis.

**Instrumentation**

Examined in this study was the relationship of school size to black student achievement and student climate. Archival data were obtained for Texas high schools that meet the selection criteria for six academic years (2003–2004, 2004–2005, 2005–2006, 2006–2007, 2007–2008, and 2008–2009). The data in this study were quantitative and reported by TEA annually in the Academic Excellence Indicator System (TEA, 2008a).

**Variables**

Student passing rates from the TAKS examinations in English language arts, science, math, and social studies were used as performance indicators for student achievement. The TAKS examination, annually administered to students in grades 3–11 in different subject areas (TEA, 2008c), was used to assess instructional practice and measure student learning (TEA, 2004a). According to the TEA (2007b), students must meet all curriculum requirements of the state of Texas, and students must also pass all four (i.e., ELA, science, math, and social studies) of the exit level TAKS tests to graduate (TEA, 2008d).
School climate variables for this investigation were student attendance rates, dropout rates, and completion rates. Attendance rates reported in the Academic Excellence Indicator System are based on student attendance for the entire school year. These calculations included only students in grades 9–12. Attendance is calculated by the total number of days students were present divided by the total number of days students were enrolled (TEA, 2008a). Regarding dropout rates, the measure used in this investigation was the dropout rates for grade 9 through 12 students. The annual dropout rate is calculated as the number of dropouts in grades 9 through 12 divided by the number of grade 9 through 12 students who were in attendance at any time during the previous year (TEA, 2008a). With respect to completion rate, this measure showed the status of a group (cohort) of students after four years in high school. The cohort consisted of students who first entered ninth grade and were followed through their expected graduation four years later. Any student who transferred in the cohort was added, and any student who transferred out was subtracted. Students were considered a part of the same cohort no matter whether they graduated early or in more than four years (TEA, 2008a).

We included not only student achievement measures, but also indicators of student climate, because of our perspective that high school size may be related to both areas (Rumberger & Palardy, 2005). Moreover, these variables have been used as school climate indicators by other researchers in studies of school size (Chavez, 2002; Slate & Jones, 2006, 2008a, 2008b).

Data anomaly
Originally, high schools in Texas that met the selection criteria for six academic years be examined. Upon performing frequency distributions for the six academic years, a data anomaly was present for the 2004–2005 school year. The observation was made that for the 2004–2005 school year, the sample size in the large school size category was substantially reduced and was inconsistent with the other five years of data as a result of a coding error. This coding error present in the Academic Excellence Indicator System database appeared to be in the labeling of
some secondary schools as being grade 12 only, but having more than 1,000 students enrolled. Due to these coding errors, a decision was made not to analyze the 2004–2005 school year. This data anomaly has also been reported by Greeney (2010) and by Zoda (2009), who also conducted school size investigations.

Results
In this quantitative study the Statistical Package for the Social Sciences-PC version 17.0 (SPSS Inc, 2009) was utilized for all statistical analyses. Originally, multivariate analysis of variance procedures were intended to be conducted to determine the extent to which school size related to student achievement and student climate. However, upon performing three such procedures, the sample size was substantially reduced in each multivariate procedure. That is, for a school’s data to be utilized, passing rates had to be available for all of the students for the particular ethnic category whose data were analyzed. If the passing rate data were masked for one TAKS measure or for one of the school climate variables, then that school’s data were not used in the multivariate procedure. Given the loss in sample size of 50% or more in the multivariate procedures that were initially calculated, the decision was made to use univariate analysis of variance procedures for each achievement measure and for each school climate measure.

Results for English language arts analyses
Summarized in Table 1 are the descriptive statistics for the TAKS English language arts passing rates for black students enrolled in small-size, medium-size, and large-size high schools for the 2003–2004, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. Readers are reminded that the 2004–2005 school year data were not analyzed because of a data anomaly. Summary statistics are detailed by school size. The ANOVA for the 2003–2004 TAKS English language arts passing rates for black students resulted in a statistically significant difference, $F(2, 439) = 45.70, p = .001, n^2 = .17$. This effect size was large (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in either medium-size or in large-size high schools had higher
passing rates on the TAKS English language arts measure than did black students enrolled in small-size high schools. Moreover, black students in large-size high schools had higher passing rates on the TAKS English language arts measure than black students enrolled in medium-size high schools. As high school size increased, so did black students’ passing rates on the TAKS ELA.

An ANOVA conducted for the 2005–2006 school year revealed a statistically significant result, $F(2, 456) = 20.25, p = .001, n^2 = .08$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students in medium-size and large-size high schools had higher English language arts passing rates than did black students enrolled in small-size high schools. Furthermore, black students in large-size high schools had higher English language arts passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ English language arts passing rates.

For the 2006–2007 school year, the ANOVA yielded a statistically significant result, $F(2, 457) = 42.62, p = .001, n^2 = .16$, large effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher passing rates on the TAKS English language arts measure than did black students enrolled in small-size high schools. Moreover, black students enrolled in large-size high schools had higher English language arts passing rates than black students enrolled in medium-size high schools. Similar to the previous years, as high school size increased so did black students’ English language arts passing rates.

With respect to the 2007–2008 school year, the ANOVA yielded a statistically significant result, $F(2, 475) = 33.36, p = .001, n^2 = .12$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students in medium-size and large-size high schools had higher passing rates on the TAKS English language arts measure than did black students enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ English language arts passing rates.
Concerning the 2008–2009 school year, the ANOVA again revealed a statistically significant difference, \( F(2, 463) = 47.14, p = .001, \, n^2 = .17 \), large effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students in medium-size and large-size high schools had higher passing rates on the TAKS English language arts measure than did black students enrolled in small-size high schools. Moreover, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ English language arts passing rates.

**Summary of English language arts analyses**

For the five years analyzed, statistically significant differences were present in black students’ English language arts passing rates as a function of high school size. In each of the five years, black students enrolled in large-size high schools demonstrated a higher passing rate average than did black students enrolled in either medium-size or in small-size high schools. Furthermore, black students enrolled in medium-size high schools had higher average ELA passing rates than black students enrolled in small-size high schools. Accordingly, as high school size increased so too did the average passing rate of black students on the TAKS English language arts exam. The effect sizes for the five statistically significant results for three of the five years were large, with 2005–2006 and 2007–2008 school years being moderate (Cohen, 1988). Refer to Table 5 for a summary of the statistical outcomes regarding the passing rates of African American students on the TAKS ELA exam by year.

**Results for science analyses**

moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than black students enrolled in small-size and medium-size high schools. Black students enrolled in small-size high schools, however, did not differ in their science passing rates from black students enrolled in medium-size high schools.

Regarding the 2005–2006 school year, the ANOVA yielded a statistically significant result, $F(2, 519) = 35.08, p = .001, n^2 = .12$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher science passing rates than black students enrolled in small-size high schools. Furthermore, black students in large-size high schools also had higher passing rates on the TAKS science measure than black students enrolled in medium-size high schools. As school size increased, so did black students’ science passing rates.

With respect to the 2006–2007 school year, the ANOVA again revealed the presence of a statistically significant difference, $F(2, 524) = 21.29, p = .001, n^2 = .08$, moderate effect size (Cohen, 1988). Scheffé post hoc procedures revealed that black students enrolled in large-size high schools had higher passing rates on the TAKS science measure than did black students enrolled in small-size and medium-size high schools. Black students enrolled in small-size schools, however, did not differ in their science passing rates from black students enrolled in medium-size high schools.

The ANOVA conducted for the 2007–2008 school year yielded a statistically significant difference, $F(2, 551) = 25.10, p = .001, n^2 = .08$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than black students enrolled in small-size and medium-size high schools. Again, black students enrolled in small-size schools did not differ in their science passing rates from black students enrolled in medium-size high schools. Regarding the 2008–2009 school year, a statistically significant result was present, $F(2, 530) = 36.66, p = .001, n^2 = .12$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had
higher passing rates than did black students enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher science passing rates than black students enrolled in medium-size high schools. As school size increased so did black students’ science passing rates.

**Summary of science analyses**

For the five years analyzed, statistically significant differences were present in black students’ science passing rates as a function of high school size. In each of the five years, black students enrolled in large-size high schools demonstrated higher passing rate averages than did black students enrolled in small-size and medium-size high schools. Furthermore, in the 2005–2006 and 2008–2009 school years, black students enrolled in medium-size high schools had higher average passing rates than black students enrolled in small-size high schools. Accordingly, as high school size increased so too did the average passing rate of black students on the TAKS science exam. The effect sizes for the five statistically significant results were moderate (Cohen, 1988). Refer to Table 5 for a summary of the statistical outcomes regarding the passing rates of black students on the TAKS science exam by year.

**Results for math analyses**

Present in Table 5 are the descriptive statistics for the TAKS math passing rates for black students enrolled in small-size, medium-size, and large-size high schools for the 2003–2004, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. Summary statistics are detailed by school size. Concerning the ANOVA conducted for the 2003–2004 school year on black students’ TAKS math passing rates, a statistically significant result was present, \( F(2, 470) = 20.17, p = .001, n^2 = .08 \), moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than did black students enrolled in small-size and medium-size high schools. Black students enrolled in small-size schools, however, did not differ in their math passing rates from black students enrolled in medium-size high schools.
The ANOVA for the 2005–2006 school year yielded a statistically significant difference, $F(2, 516) = 17.88, p = .001, n^2 = .07$, moderate effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than did black students enrolled in small-size and medium-size high schools. Black students enrolled in small-size schools, however, did not differ in their math passing rates from black students enrolled in medium-size high schools. With respect to the 2006–2007 school year, a statistically significant difference was present, $F(2, 523) = 6.75, p = .001, n^2 = .03$, small effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than did black students enrolled in medium-size high schools. Black students enrolled in small-size schools did not differ in their math passing rates from black students enrolled in either medium-size or large-size high schools.

For the 2007–2008 school year, the ANOVA again revealed the presence of a statistically significant difference, $F(2, 547) = 10.18, p = .001, n^2 = .04$, small effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in large-size high schools had higher passing rates than did black students enrolled in small-size and medium-size high schools. Black students enrolled in small-size schools, however, did not differ in their passing rates from black students enrolled in medium-size high schools. Regarding the 2008–2009 school year, the ANOVA yielded a statistically significant result, $F(2, 551) = 14.06, p = .001, n^2 = .05$, small effect size (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher passing rates than did black students enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As school size increased so did black students’ math passing rates.

**Summary of math analyses**

For the five years analyzed, statistically significant differences were present in black students’ passing rates on the TAKS math exam. In
each of the five years, black students enrolled in large-size high schools demonstrated higher math passing rates than black students enrolled in small-size high schools. Furthermore, in the 2008–2009 school year, black students enrolled in medium-size high schools had higher average math passing rates than black students enrolled in small-size high schools and black students enrolled in large-size high schools had higher math passing rate averages than black students enrolled in medium-size high schools. Accordingly, as school size increased so too did the average passing rate of black students on the TAKS math exam. The effect sizes for the three out of the five statistically significant results were small, with 2003–2004 and 2005–2006 school years being moderate (Cohen, 1988). Refer to Table 6 for a summary of the statistical outcomes regarding the passing rates of black students on the TAKS math exam by year.

**Results for social studies analyses**

Delineated in Table 7 are the descriptive statistics for the TAKS social studies passing rates for black students enrolled in small, medium, and large-size high schools for the 2003–2004, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. Summary statistics are detailed by school size. An ANOVA, conducted for the 2003–2004 school year on the TAKS social studies passing rates, yielded a statistically significant result, $F(2, 279) = 36.84$, $p = .001$, $n^2 = .21$. This effect size was large (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher passing rates on the TAKS social studies measure than black students enrolled in small-size high schools. Moreover, black students enrolled in large-size high schools had higher social studies passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students passing rates on the TAKS social studies measure.

Regarding the 2005–2006 school year, a statistically significant difference was present, $F(2, 391) = 75.27$, $p = .001$, $n^2 = .28$. This effect size was large (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium and large-size high schools had higher passing rates on the TAKS social studies measure than black students...
enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ social studies passing rates. With respect to the 2006–2007 school year, the ANOVA revealed the presence of a statistically significant difference, $F(2, 430) = 74.70, p = .001, n^2 = .26$. This effect size was large (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher passing rates than black students enrolled in small-size high schools. Moreover, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ social studies passing rates.

For the 2007–2008 school year, a statistically significant difference was present, $F(2, 416) = 42.85, p = .001, n^2 = .17$. This effect size was large (Cohen, 1988). Scheffé post hoc procedures indicated that black students enrolled in medium-size and large-size high schools had higher social studies passing rates than black students enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools. As high school size increased, so did black students’ social studies passing rates. Concerning the 2008–2009 school year, the ANOVA yielded a statistically significant result, $F(2, 339) = 55.12, p = .001, n^2 = .25$. This effect size was large (Cohen, 1988). Scheffé post hoc tests revealed that black students enrolled in medium-size and large-size high schools had higher social studies passing rates than black students enrolled in small-size high schools. Furthermore, black students enrolled in large-size high schools had higher passing rates than black students enrolled in medium-size high schools.

**Summary of social studies analyses**

For the five school years of data analyzed, statistically significant differences were present in black students’ TAKS social studies passing rates as a function of high school size. In each of the five years, black students enrolled in large-size high schools had higher TAKS social studies
passing rates than did black students enrolled in small-size high schools and black students who were enrolled in medium-size high schools. Furthermore, in each of the five years analyzed, black students enrolled in medium-size high schools had higher average TAKS social studies passing rates than black students enrolled in small-size high schools. Accordingly, as school size increased so too did the average passing rate of black students on the TAKS social studies exam. The effect sizes for the five statistically significant results were large (Cohen, 1988). Refer to Table 5 for a summary of the statistical outcomes regarding the passing rates of black students on the TAKS social studies exam by year.

Results for attendance rate analyses
Delineated in Table 6 are the descriptive statistics for the attendance rate measure for black students for the 2003–2004, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years as a function of school size. Regarding the 2003–2004 school year, the ANOVA did not yield a statistically significant difference, $F(2, 738) = 2.63, p = .07$. Thus, no statistically significant difference was present in the attendance rates of black students as a function of high school size. With respect to the 2005–2006 school year, a statistically significant difference was also not present, $F(2, 758) = 0.36, p = .70$. Black students enrolled in medium-size high schools had the highest attendance rates, albeit not statistically significantly higher. Concerning the 2006–2007 school year, a statistically significant difference was again not present, $F(2, 771) = 2.45, p = .09$. Black students enrolled in medium-size high schools had the highest attendance rates, albeit not statistically significantly higher.

The ANOVA conducted for the 2007–2008 school year on black students attendance rates did not yield a statistically significant difference, $F(2, 770) = 1.53, p = .22$. Attendance rates did not differ for black students as a function of their high school size. For the 2008–2009 school year, the ANOVA failed to yield a statistically significant difference, $F(2, 789) = 0.45, p = .64$. Again, no difference was present in the attendance rates of black students as a function of their high school size.
Summary of attendance rate analyses
For the five school years of data analyzed, no difference was present in the attendance rates of black students as a function of high school size. Refer to Table 9 for a summary of the statistical outcomes regarding the attendance rates of black students by school year. For the five school years analyzed, black students enrolled in medium-size high schools had the highest attendance rates, albeit not statistically significantly.

Results for dropout rate analyses
Delineated in Table 7 are the descriptive statistics for dropout rates as a function of school size for black students for the 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. Regarding the 2005–2006 school year, the ANOVA did not reveal the presence of a statistically significant difference, $F(2, 789) = 0.40, p = .67$. Black students enrolled in small-size high schools had the lowest dropout rates, but the difference was not statistically significant.

Concerning the 2006–2007 school year, a statistically significant difference was not revealed, $F(2, 801) = 1.88, p = .15$. Black students enrolled in large-size high schools had the lowest dropout rates, albeit the difference was not statistically significant. With respect to the 2007–2008 school year, a statistically significant difference was not present, $F(2, 812) = 1.12, p = .33$. Again, black students enrolled in large-size high schools had the lowest dropout rates, albeit not statistically significant. For the 2008–2009 school year, the ANOVA did not yield a statistically significant difference, $F(2, 822) = 1.57, p = .21$. Black students enrolled in medium-size high schools had the lowest dropout rates, albeit not statistically significantly higher.

Summary of dropout rate analyses
For the four school years of data analyzed, no difference was present in the dropout rates of black students as a function of high school size. For two of the four years analyzed, black students enrolled in large-size high schools had the lowest dropout rates, albeit not statistically significantly lower. Refer to Table 9 for a summary of the statistical outcomes regarding the dropout rates of black students by year.
Completion rate analyses

Revealed in Table 8 are the descriptive statistics for completion rates as a function of high school size for black students for the 2003–2004, 2005–2006, 2006–2007, 2007–2008, and 2008–2009 school years. The ANOVA conducted for the 2003–2004 school year failed to yield a statistically significant difference, $F(2, 573) = 2.86, p = .06$. Black students enrolled in small-size high schools had the highest completion rates, albeit the rates were not statistically significant. Regarding the 2005–2006 school year, a statistically significant difference was not present, $F(2, 586) = 2.24, p = .11$. Again, black students enrolled in small-size high schools had the highest completion rates, though not statistically significantly higher.

With respect to the 2006–2007 school year, a statistically significant difference was not yielded, $F(2, 603) = 0.82, p = .44$. Similar to the previous two school years, black students enrolled in small-size high schools had the highest completion rates, although not at a statistically significant level. Concerning the 2007–2008 school year, the ANOVA failed to yield a statistically significant difference, $F(2, 563) = 1.35, p = .26$. Black students enrolled in small-size high schools again had the highest completion rates, though not statistically significantly higher. For the 2008–2009 school year, a statistically significant difference was not present, $F(2, 575) = 0.50, p = .61$. Again, black students enrolled in small-size high schools had the highest completion rates, albeit not statistically significant.

Summary of completion rate analyses

For each of the five school years of data analyzed, no difference was present in the completion rates of black students as a function of high school size. For all five years analyzed, however, black students enrolled in small-size high schools had the highest completion rates, albeit the rates were not statistically significantly. Refer to Table 14 for a summary of the statistical outcomes regarding the completion rates of black students by year.
Discussion

In the first research question the effect of school size on the TAKS English language arts passing rates of black high school students was examined. In each of the school years examined, black students who were enrolled in large-size high schools had higher passing rates on the TAKS ELA exam than black students who were enrolled in small-size high schools. Moreover, black students who were enrolled in medium-size high schools had higher passing rates than black students who were enrolled in small-size high schools. Regarding the second research question in which the effect of high school size on the TAKS science passing rates black American students was examined, statistically significant differences were yielded. For all five school years, black students who were enrolled in large-size high schools outperformed black students who were enrolled in small-size high schools. Moreover, for two of the school years, 2005–2006 and 2008–2009, black students enrolled in medium-size high schools had higher average passing rates than black students enrolled in small-size high schools.

Analyzed in the third research question was the effect of high school size on the TAKS math passing rates of black students. For the five years examined, black students enrolled in large-size high schools demonstrated a higher TAKS math passing rate average than did black students enrolled in small-size high schools. No differences were revealed for black student performance between medium-size and small-size high schools, with respect to math performance. Concerning the fourth research question regarding social studies, black students enrolled in large-size high schools had higher TAKS social studies passing rates average than did black students enrolled in small-size high schools for all five school years. Also in each of the five years analyzed, black students who were enrolled in medium-size high schools had higher average TAKS social studies passing rates than did black students enrolled in small-size high schools.

Analyzed in the fifth research question was the effect of school size on the attendance rates of black students. In the five years analyzed, no difference was present in the attendance rates of African American students as a function of high school size. Similarly, no differences were
present for black students’ dropout rates as a function of school size. Finally, no differences were present for black students’ completion rates as a function of high school size.

Results from the present study are different from the results of studies conducted years ago (e.g., Cotton, 1996), but are congruent with recent investigations (Greeney & Slate, 2012; Ketchum & Slate, 2012; Riha, Slate, & Martinez-Garcia, 2013; Zoda et al., 2011a, 2011b). For example, Leithwood and Jantzi (2009) established that large high schools with student enrollments of 1,500 or more students had higher average passing rates than schools with student enrollments under 1,500. Past research has tended to favor small schools over large schools in relation to school climate. The present study differed with the findings of Fowler and Walberg (1991), Hoagland (1995), TEA (1999), and Werblow and Duesbery (2009), because grade 11 black students enrolled in large-size high schools repeatedly had higher passing rates than students enrolled in small-size high schools.

With respect to school climate variables, Slate and Jones (2006) determined that black students enrolled in small-size high schools had higher attendance rates than black students enrolled in large-size high schools. In a related study, Slate and Jones (2008b) also documented similar results for Hispanic students. As such, findings in this study of no relationship between high school size and black student attendance rates were not congruent with Slate and Jones (2006, 2008b). Regarding dropout rates, research findings are contradictory, with some researchers (Chavez, 2002; Cotton, 1996; Lee & Burkam, 2003; Rumberger & Palardy, 2005; Werblow & Dusebery, 2009) documenting smaller size high schools having lower dropout rates than larger size high schools. Results of this investigation are not congruent with the researchers mentioned above. Rather, our results are commensurate with Slate and Jones (2006), who reported the lack of a relationship between high school size and black students’ dropout rates. Finally, with respect to completion rates, Cotton (1996), Darling-Hammond, Ancess, and Ort, (2002), and Slate and Jones (2008b) provided evidence of higher completion rates at smaller size high schools than at larger size high schools. Our results are not congruent with these researchers’ findings, as no relationships were
present between the completion rates of black students and high school size.

**Links to theoretical framework**

Results of this investigation are strongly supportive of the economies of scale model (Andrews et al., 2002). All of the results that were statistically significant reflected higher levels of performance for black students enrolled at large-size high schools than at either medium-size or at small-size high schools. No results that were statistically significant reflected better performance at the small-size high schools. As mentioned earlier, through having more students enrolled at a school, the cost of conducting business is reduced, permitting a more efficient use of school monies (Andrews et al., 2002; Lee & Smith, 1997). The specific mechanism by which the economies of scale model results in improved student performance is not determined in this investigation, and it certainly warrants further attention.

Results of this investigation are not supportive of the student connectedness theory. As such, this investigation is congruent with Greeney and Slate (2012), who documented the lack of a relationship for Hispanic students’ attendance rates, dropout rates, and completion rates with high school size. Though merit exists, we believe, for the student connectedness theory, evidence in this study and in Greeney and Slate’s (2012) study with Hispanic students is not supportive. We do believe that further research into these two competing theories is warranted.

**Implications for policy**

Our results, along with the results of recent investigations, call into question the small school movement. In the present study, black students who were enrolled in large-size high schools consistently outperformed black students who were enrolled in medium-size and in small-size high schools. As such, Texas legislators and policymakers need to review data related to school size in high schools. To the extent that findings in this study can be generalized to other school levels, Texas legislators may need to evaluate empirical results at the elementary (Zoda et al., 2011a, 2011b) and middle school levels (Riha et al., 2013). This infor-
mation could guide legislators in decisions related to school size and school consolidation, which would create opportunities for students to benefit from the positive effects of large schools.
High school size, black student achievement, and school climate:  
A multi-year, statewide study

References

peterli.com/spm/resources/rptsspm.shtm

S0272-2257(01)00006-1


wreol.org/scpd/sirs/10/c020.html


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Appendix

Table 1
Descriptive statistics for English language arts passing rates for black students by school size category and by school year

<table>
<thead>
<tr>
<th>School Size and School Year</th>
<th>n of schools</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
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<td><strong>Small-size school</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2003–2004</td>
<td>44</td>
<td>70.11</td>
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<td>2005–2006</td>
<td>52</td>
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<td><strong>Large-size school</strong></td>
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<td>2003–2004</td>
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High school size, black student achievement, and school climate:
A multi-year, statewide study

Table 2
Descriptive statistics for science passing rates for black students by school size category by school year

<table>
<thead>
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<th>School Size and School Year</th>
<th>n of schools</th>
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<th>SD</th>
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<tr>
<td>Small-size school</td>
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<td>2005–2006</td>
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<td>Large-size school</td>
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Table 3
Descriptive statistics for math passing rates for black students by school size category by school year

<table>
<thead>
<tr>
<th>School Size and School Year</th>
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Table 4
Descriptive statistics for social studies passing rates for black students by school size category by school year

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<th>SD</th>
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Table 5
Summary of results on the TAKS measures (i.e., English language arts, science, math, and social studies) for black students by school year

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<tr>
<th>TAKS Test by School Year</th>
<th>Outcome</th>
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<td>Large-size</td>
</tr>
<tr>
<td>2005–2006</td>
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<td>.08 (Moderate)</td>
<td>Large-size</td>
</tr>
<tr>
<td>2006–2007</td>
<td>Significant</td>
<td>.16 (Large)</td>
<td>Large-size</td>
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<tr>
<td>2007–2008</td>
<td>Significant</td>
<td>.12 (Moderate)</td>
<td>Large-size</td>
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<td>Large-size</td>
</tr>
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<td><strong>Science</strong></td>
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<td></td>
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<td>.11 (Moderate)</td>
<td>Large-size</td>
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<td>.12 (Moderate)</td>
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<td>Significant</td>
<td>.08 (Moderate)</td>
<td>Large-size</td>
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<td>.08 (Moderate)</td>
<td>Large-size</td>
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<td>.08 (Moderate)</td>
<td>Large-size</td>
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<td>2005–2006</td>
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<td>.03 (Small)</td>
<td>Large-size</td>
</tr>
<tr>
<td>2007–2008</td>
<td>Significant</td>
<td>.04 (Small)</td>
<td>Large-size</td>
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<td>Large-size</td>
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<td>2008–2009</td>
<td>Significant</td>
<td>.25 (Large)</td>
<td>Large-size</td>
</tr>
<tr>
<td>School Size and School Year</td>
<td>n of schools</td>
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<td>SD</td>
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Table 7
Descriptive statistics for dropout rates for black students by school size category by school year

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<th>SD</th>
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Table 8
Descriptive statistics for completion rates for black students by school size category by school year

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Table 9
Summary of results on school climate measures (i.e., attendance rates, dropout rates, and completion rates) for black students by school year

<table>
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<th>School Climate Measure by School Year</th>
<th>Outcome</th>
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<th>Highest Attendance Rates</th>
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<td>Medium-size</td>
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<td>Medium-size</td>
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<td>Medium-size</td>
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<td>Large-size</td>
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**Abstract**

As a part of the process of developing effective teachers, education programs throughout the nation require future teachers to observe in classrooms of experienced teachers. The use of this well-established practice in teacher education is linked with preparing teacher candidates to meet the standards established by the Texas State Board of Educator Certification, which are represented in the Texas Examinations of Educator Standards (TExES) Pedagogy and Professional Responsibilities (PPR) examination. The use of a classroom teacher observation format that is based upon the 13 PPR competencies has helped future teachers connect the standards for Texas teacher certification with the real world of teaching in Texas schools.

Teacher certification in the state of Texas requires passing the Texas Examinations for Educator Standards, commonly known as the “TExES.” The Educational Testing Service (ETS) administers the TExES under the auspices of the Texas State Board of Educator Certification (SBEC),
which is a division of the Texas Education Agency. ETS began the development of the TExES in 2000, replacing the former Examination for the Certification of Educators in Texas (ExCET). The replacement of the former ExCET exams took place over a four-year period that coincided with the introduction of SBEC’s newly approved standards for Texas teachers (State Board for Educator Certification, 2012).

The TExES Pedagogy and Professional Responsibilities (PPR) exam (identified as “160 PPR EC-12”), along with the respective content test(s), is required of all candidates receiving a first Texas certificate for a classroom teaching area. The 160 PPR EC–12 represents general standards for classroom teaching that are applicable for all grade levels and content areas. This all-level, all-content area examination of pedagogy replaces the PPR exams for Grades 4–8 (#110), Grades 8–12 (#130) and Grades EC–6 (#194), which were offered for the last time on August 31, 2011 (SBEC, 2012). A score of 240 or higher, out of a possible 320, is required to pass the 160 PPR EC–12. The test can be taken repeatedly until a passing score is achieved; however, there are no special provisions for certifying individuals who do not pass the test.

State board for educator certification
Responsibility for the TExES lies with the SBEC. Created in 1995, the SBEC is responsible for all preparation, assessment, accountability, certification, and compliance of Texas educators. Accountability is a significant component of educator preparation in Texas (Ward & Skelton, 2002). All 165 teacher education programs in Texas met the SBEC standard with a rating of “Accredited” in 2010-2011; however, 21 of the programs were “Accredited with Action Plan” or “Accredited – Warned” (SBEC 2010-2011 Accreditation Ratings, 2012).

SBE rates teacher education programs annually based on percentage of candidates passing the TExES who complete their certificate in that given year. Colleges and universities are held accountable for the success of their graduates on the various forms of these “high-stakes” teacher certification examinations. If a teacher education program does not meet “Accredited” standards, the university risks losing its eligibility to make recommendations for certification of its graduates. Success on
TExES is a primary goal for both students and faculty of Texas’ teacher education programs.

Preparing future teachers for the TExES PPR

One university in South Texas has consistently earned “Accredited” ratings from SBEC, and, most recently, had a 93% test past rate for 2010-11 (SBEC 2010-2011 Accreditation Ratings, 2012). The College of Education of this university has continued seeking to strengthen its efforts to promote success among its future teachers on the various teacher certification exams in a variety of ways. The Department of Teacher Education faculty has embedded the 13 TExES PPR competencies within the curriculum of specific courses in the undergraduate and graduate teacher education degree programs. The selected PPR competencies directly linked to a course appear on the course syllabus and are an integral part of the course content.

A “Pre-TExES PPR” exam is administered as a part of the “pre-student teacher block” in the undergraduate field-based teacher education program. The Pre-TExES PPR is also required as an assignment in one of the teacher education graduate courses. This practice test provides pre-student teachers with an introduction to the format and style of the TExES PPR. For many future teachers, this preliminary experience with the TExES PPR is a great motivator. Typically, over two-thirds of the university’s teacher candidates initially achieve pretest scores of less than 80% (which approximates the “passing” percentage for the 160 PPR EC-12). As a result, these future teachers are very interested in improving their likelihood for success with the TExES PPR. A follow-up review of the Pre-TExES PPR is conducted with the teacher candidates, which includes re-examination of PPR competencies and analysis of specific test items.

TExES PPR-related classroom teacher observation form

A recent innovation aimed at enhancing the future teachers’ preparation for the TExES PPR is a classroom teacher observation format tied directly to the 13 PPR competencies. Use of this format with the classroom teacher observation assignments required in various teacher
education courses provides a direct linkage of the teacher certification standards—more specifically, the 13 competencies of the PPR—with the real world of teaching in our Texas schools. Future teachers are generally eager to observe experienced teachers in action. By connecting the “ideals” of the TExES PPR exam with the “real world” of classroom teaching, the meaningfulness of the certification exams is affirmed via a well-received course assignment. This is important because teacher educators must address a perception among future teachers of the mandated Texas teacher certification exams being overly idealistic or theoretical. Given that success on the TExES PPR is non-negotiable for future teachers, their negative opinions of the examinations can be counterproductive.

In an effort to blend the tried-and-true real-world classroom teacher observation assignment with the required understanding of TExES PPR competencies, the TExES PPR-related classroom teacher observation format is being used in at this South Texas university. The TExES PPR-related format is freely shared with administrators and teachers when permission for teacher observations are sought. A TExES PPR handout listing the 13 competencies within the four domains is used during the observation assignment. A condensed version of the TExES PPR-Related Classroom Teacher Observation Form with examples of quality responses along with the TExES PPR Handout is shown on the following pages.

**TExES PPR-related classroom teacher observation form**

**Instructions:** Familiarize yourself with the 13 competencies within the four domains of the Texas Examinations of Educator Standards (TExES) Pedagogy and Professional Responsibilities (PPR). Keep your TExES PPR handout available for reference throughout your observation. Two competencies should be identified from Domains I and III, while one competency is sufficient for Domains II and IV. When you believe you have observed one of the stated competencies write the entire competency down in the appropriate domain on your observation form. Following the written competency, write a brief description of what you saw the teacher doing that related to the competency you observed. Diagram and
label the classroom arrangement on a separate page and include your drawing with the observation form.

School: __________________
Teacher: __________________
Grade/Subject: ____________
Obs. time: ______________
Date: ___________________
Number of Students: ________

Domain I.

How is the teacher(s) “designing instruction and assessment to promote student learning?” Two observed competencies required

Example:
Competency 001 – The teacher understands human developmental processes and applies this knowledge to plan instruction and ongoing assessment that motivate students and are responsive to their developmental characteristics and needs.

Mr. Perez understands that his high school students have interest and experience with computers. He sparks his students’ desire for his instructional objectives by expressing his own excitement of the computer activities for the day. He began with “now we start the fun stuff!” He reviewed the different fonts and let them know which were his favorites and which were “really cool.” Students were allowed opportunities to make some of their own choices, thereby having a degree of “ownership” in the work that Mr. Perez assigned as homework.

Domain II.

How is the teacher(s) “creating a positive, productive classroom environment?” One observed competency required
Example:
Competency 005 - The teacher knows how to establish a classroom climate that fosters learning, equity, and excellence and uses this knowledge to create a physical and emotional environment that is safe and productive.

*Ms. Cantu displays students’ work on the walls of her classroom. She has interesting, motivational posters related to teaching her subject strategically placed throughout the room. Her classroom is arranged so that she has a clear view of all of the students’ desks from her own desk, however she is constantly moving throughout the room providing students with encouragement and feedback. During my observation I heard her call each student by name.*

Domain III.
How is the teacher(s) “implementing effective responsive instruction and assessment?” Two observed competencies required

Example:
Competency 009 – The teacher incorporates the effective use of technology to plan, organize, deliver, and evaluate instruction for all students.

*Mr. McRae uses a textbook and worksheets to prepare the students for the computer activities in the lessons. He expressed his own enjoyment in using technology to enhance instruction and at one point even said, “now we start the fun stuff!” He reviewed the different fonts and let the students know which were his personal favorites. Mr. McRae utilized a PowerPoint presentation to demonstrate the steps of the lesson. This interesting audio visual instructional method promoted student interaction and learning.*

Domain IV.
How is the teacher(s) “fulfilling professional roles and responsibilities?” One observed competency required

Example:
Competency 012 – The teacher enhances professional knowledge and
skills by effectively interacting with other members of the educational community and participating in various types of professional activities.

*Ms. Schmidt took the time to tell me about her experience as the Advanced Placement Institute she attended this past summer at Rice University in Houston. She and one of her department colleagues were sponsored by the district so that they would be certified to teach AP courses. As a part of the AP course approval process she had to design a new course and develop a course syllabus. She discussed the new course with me and showed me the course syllabus which has been approved by the district office.*

**Additional comments:**

Texas Examinations of Educator Standards (TExES)

Pedagogy and Professional Responsibilities (PPR)

**Domain I—Designing Instruction and Assessment to Promote Student Learning** (31% of Test)

**Competency 001:** The teacher understands human developmental processes and applies this knowledge to plan instruction and ongoing assessment that motivate students and are responsive to their developmental characteristics and needs.

**Competency 002:** The teacher understands student diversity and knows how to plan learning experiences and design assessments that are responsive to differences among students and that promote all students’ learning.

**Competency 003:** The teacher understands procedures for designing effective and coherent instruction and assessment based on appropriate learning goals and objectives.
Competency 004: The teacher understands learning processes and factors that impact student learning and demonstrates this knowledge by planning effective, engaging instruction and appropriate assessments.

Domain II—Creating a Positive, Productive Classroom Environment (15% of Test)

Competency 005: The teacher knows how to establish a classroom climate that fosters learning, equity, and excellence and uses this knowledge to create a physical and emotional environment that is safe and productive.

Competency 006: The teacher understands strategies for creating an organized and productive learning environment and for managing student behavior.

Domain III—Implementing Effective, Responsive Instruction and Assessment (31% of Test)

Competency 007: The teacher understands and applies principles and strategies for communicating effectively in varied teaching and learning contexts.

Competency 008: The teacher provides appropriate instruction that actively engages students in the learning process.

Competency 009: The teacher incorporates the effective use of technology to plan, organize, deliver, and evaluate instruction for all students.

Competency 010: The teacher monitors student performance and achievement; provides students with timely, high-quality feedback; and responds flexibly to promote learning for all students.
Domain IV—Fulfilling Professional Roles and Responsibilities
(23\% of Test)

**Competency 011:** The teacher understands the importance of family involvement in children’s education and knows how to interact and communicate effectively with families.

**Competency 012:** The teacher enhances professional knowledge and skills by effectively interacting with other members of the educational community and participating in various types of professional activities.

**Competency 013:** The teacher understands and adheres to legal and ethical requirements for educators and is knowledgeable of the structure of education in Texas.

The TExES PPR-Related Classroom Teacher Observation Form requires future teachers to become familiar with the four domains and 13 competencies of the TExES PPR. Observed competencies are written out in their entirety as they are observed by the future teachers. A brief description of the observed “competency-related” teacher actions and/or student outcomes follows each written competency. The identification of specific teacher behaviors and/or student outcomes that relate to the TExES PPR competencies involves understanding, application and analysis on the part of the future teachers. In addition to the direct connection of the future teacher’s classroom observation to the 13 PPR competencies, this format requires a labeled sketch of the classroom and provides for additional concluding comments.

The teacher candidates of this South Texas university reported in their end-of-course surveys that the use of this classroom teacher observation format specifically tied to the certification exam increased their familiarity and understanding of the TExES PPR competencies. Ninety-one percent of the students who had yet to take their TExES PPR exam reported that their familiarity with the competencies improved. Eighty-two percent of these students believed they were better prepared for their upcoming PPR exam as a result of having their classroom teacher
observation assignments connected with preparation for the exam. One future teacher’s comment, “I greatly appreciate any work involving preparation for the certification exam,” was representative of the university’s teacher candidates overall.

**Conclusion**

The direct, real-world connection of the 13 TExES PPR competencies with classroom teaching is the primary benefit of the TExES PPR-Related Classroom Teacher Observation. This format provides a thorough structure focused upon important aspects of the teaching/learning process. In addition, this observation format lessens the likelihood of the observation experience being undermined by the occurrence of a negative incident that might occur in the classroom. While reflection upon such an occurrence may have some value for the future teacher, completion of the required elements of the observation format help to structure a more complete, holistic consideration of the teaching/learning process in the classroom. Furthermore, the TExES PPR-Related Classroom Teacher Observation requires the future teacher to consider important aspects of teaching that may not be observable during the classroom observation experience such as communication with parents and collaboration with colleagues.

The TExES PPR-Related Classroom Teacher Observation facilitates future teachers’ understanding of the professionalism and complexity of teaching more so than the less focused classroom observation assignments. It is important that the student makes the shift from viewing teaching through the lens of their previous experience as students in the classroom to that of the educational leader (Lortie, 1975; Pajares, 1992, 1993). The big picture of the effective teaching as delineated in the four domains and thirteen competencies of the TExES PPR helps to provide a structure of understanding for the future teacher.

The influence of any single endeavor within a teacher education program aimed at promoting success among its future teachers on the TExES PPR is difficult, if not impossible, to accurately assess. Uncertainty exists among teacher educators concerning which activities or instructional methods will improve TExES PPR scores among their
teacher candidates. Future teachers have been encouraged to develop familiarity with, and in some cases even memorize, the 13 PPR competencies in preparation for their teacher certification examination. The TEExES PPR-Related Teacher Observation Form provides an effective, natural means of linking preparation for the PPR exam in the real world of teaching in our Texas schools.
TExES PPR-related classroom teacher observation linking the standards of Texas teacher certification with the real world of classroom teaching

References


What effective teachers of English language learners do!

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Abstract
The number of English language learners continues to increase in Texas and the nation. Preparing quality teachers for these learners must be sustained and programs that address their acculturative and educational needs must be developed. This study provides concise demographics of English language learners and describes the challenging task of educating them as potential English learners. Gleaned from two State of Texas initiatives, suggestions for English language learner pedagogical effectiveness are also discussed.

What effective teachers of English language learners do!

Introduction
As the number of English language learners (ELLs) increases in Texas and the nation, effective teachers and programs that address their educational needs must be developed and sustained. Especially in the lives of ELLs who are not only adjusting and acculturating to a new country and way of life but also learning a second language, the importance of effective educators and programs is of the utmost need. According to
Darling-Hammond (1996), “What teachers know and can do is the most important influence on what students learn” (p. 6).

The number of school-age children (ages 5–17) who spoke a language other than English at home rose from 4.7 to 11.2 million between 1980 and 2009, or from 10–21% of the population in this age range. This percentage remained between 20 and 21% from 2006–2009. After increasing from 4 to 7% between 1980 and 2000, the percentage of school-age children who spoke a language other than English at home and spoke English with difficulty decreased to 5% in 2009. In 2009, the percentage of school-age children who spoke a language other than English at home and spoke English with difficulty varied by demographic characteristics, including race/ethnicity, citizenship status, poverty status, and age. Sixteen percent of Hispanics and Asians spoke a non-English language at home and spoke English with difficulty, compared with 6% of Pacific Islanders, 3% of American Indians/Alaska Natives, and 1% each of Whites, Blacks, and children of two or more races. School enrollment patterns have also changed over time for these children and the enrollment rate increased from 90–93% between 1980 and 2009 (U.S. Department of Education, 2011).

**Historical and legal development**

Over the years, the journey to improve the education and pedagogy for ELLs has been a challenging task. English is the national language of the United States, but the country is comprised of multilingual and multi-ethnocultural heritages. Teachers of ELLs must understand and be aware of the long historical struggle for equality in educating ELLs in order to continue the journey toward providing a quality education. Education in two languages is a parameter of American culture. Polish and English bilingual schools were established during the 17th century, while Franciscan missionaries used indigenous languages to teach Catholic catechism to American Indians in the 18th century (Castellanos, 1983; Kloss, 1977). By the 19th century, bilingual schooling included German, French, Spanish, and other European languages (Ovando & Combs, 2012).
Bilingual education and the study of foreign languages experienced a major decline between 1917-1950 (Ambert & Meléndez, 1985), the period in which the First and Second World Wars fell. Anti-immigrant hysteria prompted many states to implement all-English instructional policies (Baker, 2011). Minority language groups “were expected to learn English, forget their native language, and adopt the American way of life” (Ambert & Meléndez, 1985, p. 5), especially via English-only schooling.

A renewed interest in the study of non-English languages and teaching bilingually occurred in the late 1950s and early 1960s. In response to the Soviet Union’s launching of Sputnik, Congress enacted the National Defense Education Act in 1958, authorizing funds for the study of science, mathematics and foreign languages (Crawford, 2004). And in response to the influx of Cuban refugees and their needs in the Dade County FL, Coral Way Elementary School provided dual-language schooling for both Spanish and English speaking students in 1963 (Lessow-Hurley, 2013). The program’s success (Mackey & Beebe, 1977) triggered the development of bilingual programs in several states, including Texas, New Mexico, Arizona, California and New Jersey (Keller & Van Hooft, 1982).

On many occasions the journey had to take to legislation and the legal system in order to secure justice. Teachers of ELLs must know the laws, ensure program compliance with the laws, and serve as advocates for ELLs. Accordingly, “the federal government seized on the success of the Coral Way program to push for bilingual education” (Faltis & Hudelson, 1998, p. 7). The initiative was led by Texas Senator Ralph Yarborough through Senate Bill 428. After bicameral legislative bill deliberation, President Lyndon B. Johnson signed into law the Bilingual Education Act on January 2, 1968, “making bilingual education a federal policy for the first time in the history of the United States” (Faltis & Coulter, 2008, p. 9). While Senate Bill 428 was originally intended for Spanish-speaking students, particularly students of Mexican American heritage, the Bilingual Education Act “adopted the broader approach” (Leibowitz, 1980, p. 17) and authorized the utilization of federal monies for the education of ELLs (Baker, 2011).
A class action suit in the early 1970s “brought attention to inequities in schooling of ethnic and language minority students” (Jones & Fuller, 2003, p. 61). In Lau v. Nichols, the plaintiffs claimed that a substantial number of non-English-speaking Chinese students in the San Francisco Unified School District were not receiving equal educational opportunities in all-English mainstream classrooms. Because the school district was providing the same curriculum in the same classrooms via the language of the school to all students, the lower federal courts sided with the defendants (Crawford, 2004). But on January 21, 1974, the Supreme Court ruled unanimously in favor of the plaintiffs, noting, in part, that “there is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education” (Lau v. Nichols, 414 U.S. 563, 1974). While the Lau decision did not mandate bilingual or English as a second language education—the common remedies for many school districts—or prescribe any particular instructional treatment to remedy the problem, the Court noted that school systems had to provide special services to students dysfunctional in English language skills so that they had equal educational opportunities (Faltis & Hudelson, 1998).

The Lau v. Nichols decision, a ruling which “legitimized and gave impetus to the movement for equal educational opportunity for students who do not speak English” (Teitelbaum & Hiller, 1977, p. 139), spurred the passage of two federal statutes on August 21, 1974. First, the Equal Educational Opportunities Act was enacted to give “legislative backing to the Lau decision” (Ovando & Combs, 2012, p. 78). The Act required school districts with socioculturally and ethnolinguistically diverse students “to take appropriate action to overcome language barriers that impede equal participation by its students in its instructional programs” (Section 1703(f), 1974). Second, the Bilingual Education Act was reauthorized to address the changing needs of potential English learners.

Bush signed into law the No Child Left Behind Act of 2001, replacing the Bilingual Education Act or Title VII of the ESEA with Title III, the English Language Acquisition, Language Enhancement, and Academic Achievement Act. While Title III addresses language instruction for ELLs and immigrant students, it makes no reference to “bilingualism, biliteracy, or native language instruction” (González, Yawkey, & Minaya-Rowe, 2006, p. 85). Interestingly, bilingual education is still permitted, but Title III centers solely on English (Wright, 2010). Although the research around the world continues to expouse a bilingual approach to educating ELLs, this concept is always being challenged in American schools. In countries around the world, the ability to speak another language is seen as a positive for children; however, it continues to be a subject of debate in our country. Working within these parameters, when the research shows the positive effects of using the child’s home language as a medium of instruction while he or she learns English, is a challenge to the preparation of teachers of ELLs.

**Challenges**

The first challenge of ELLs is that they are learning English as a second language. As these students enter kindergarten, there is a 30-point difference in test scores between English learners and native English speakers (Collier & Thomas, 2004). According to Collier and Thomas (2004), research on students entering public school and not speaking English indicates that dual-language programs capitalize on the students’ home language as a medium of instruction while they develop English language skills; this approach provides the best second language learning option for academic language growth for Hispanic non-English speaking students. Pre-service and in-service teachers can be provided professional development in English as a second language techniques and strategies that will benefit not only non-English speaking students but all students in the school:

Teachers for these students must have skills and the means for communicating with parents and enlisting them as allies; they must be able to communicate with and motivate their students; they must understand the circumstances of the students’ lives and histories.
Critically, teachers must know how to provide deep, rich, and intellectually challenging instruction that pushes students to excel, just like any other teacher. (Gándara, 2009, p. 5)

Teachers in schools should be aware of the influence that culture and cultural values have on the development of a students’ learning style. In the case of Hispanic students, who comprise the largest ELL population, the importance of teachers understanding learning style is particularly important. Up to 60% of the ELL population is Hispanic. Field-sensitive learning styles and field-independent learning styles have been researched by Ramírez and Castañeda (1974), who showed that teachers could learn to organize learning environments conducive to individual students’ learning style so that all students could benefit from teaching:

The concept of cultural democracy is a philosophical precept which recognizes that the way a person communicates, relates to others, seeks support and recognition from his environment (incentive motivation) and think and learns (cognition) is a product of a value system of his home and community. A culturally democratic learning environment is a setting in which a child can acquire knowledge about his own culture and the dominant culture; the learning, furthermore, is based upon communication, the human-relationships, incentive- motivation, and learning patterns that are culturally appropriate. (p. 23)

Economically disadvantaged students, of which ELLs make up a sizeable percentage, continue to suffer due to the lack of educational opportunities. Approximately 40% of Hispanic high school students attend impoverished inner city schools that graduate fewer than 60% of their incoming freshmen. Overall, it is an issue of concern for the future of the entire U.S. population. Given the demographics and the high dropout rate among ELLs, educators, and students need to acknowledge that college and career-readiness demand academic preparation and are the key to ELLs’ future. All students, but especially our ELLs, must be ready to continue into higher education or into preparation for a lifetime career or training. Greene (2003) found that Latino high school graduates were less likely to have been enrolled in a full college preparatory track. Only 22% of the Latino high school students were in a full college track.
compared to 46% for Asian students and 39% for white students. The
Education Trust (2008) found that core classes in high-poverty and high
minority secondary schools were more likely to be taught by out-of-field
in examining classes for Latino students, found that 50% or more of
Latino students are twice as likely to be taught by out-of-field teachers
in secondary schools. Teachers must be prepared to serve as advocates
for ELLs and ensure that secondary students are taught by qualified
teachers so that our youth will be adequately prepared for post-secondary
education and career readiness. Most future growth in the Hispanic
college age population will involve U.S.-born children, but what matters
for raising their post-secondary participation in the years ahead depends
on whether high school failure rates can be reduced and whether high
school graduates can secure both the academic preparation and the
necessary financial support to pursue post-secondary education. Both
remain significant obstacles for Hispanics’ college enrollment and suc-
cessful degree completion (Tienda, 2009). The Hispanic population will
be the growing workforce that will need to be well educated so that they
can become contributing members of our society. Education is the key
to their success and the future economic stability of the country. Gibson
and Jung (2002) project that by 2030 over 40% of the U.S. population
will be “minority,” with Hispanics comprising at least half of that share,
or at least one in five U.S. residents.”

Research
The data for this article were gathered by the work done in collabora-
tion with the Texas Education Agency (TEA) on two projects addressing
the education of ELLs. The two initiatives were The Texas successful
schools study: Quality education for limited English proficient students,
and the LEP student success initiative. The Texas successful schools
study originated out of a collaborative study of successful Title I, Part
A school-wide programs between the Charles A. Dana Center at the
University of Texas at Austin and the TEA, released in February 1998.
The Dana Center’s Title I study focused on high achieving schools
with high poverty rates where at least 60% of the students qualified for
free or reduced lunches. Of the more than 50 schools identified as high performing, 26 schools were selected for further review. The 26-school study sought to identify the good practices that enable high-poverty schools to create environments in which the majority of students achieve high levels of attainment on the Texas Assessment of Academic Skills (TAAS). Since the Dana Center’s Title I Study focused primarily on high-achieving schools in the context of high poverty, a subsequent study that would focus on the academic success of LEP students was necessary. The study, which became known as the Successful Schools Study, embraced a focus on high-achieving schools within the original cohort of 26 schools that met an additional set of eligibility criteria. The criteria included the following school characteristics:

1. Schools enrolled more than 40% ELLs during the 1996-97 school year;
2. Schools enrolled more than 50% economically disadvantaged students during the 1996–97 school year;
3. Schools had zero TAAS exemptions during the 1996–97 school year; and
4. Schools met the criteria for a rating of either “Recognized” or “Exemplary” in the Texas school accountability system based on the Academic Excellence Indicator System (AEIS) of May 1997 that included English TAAS scores in reading, writing, mathematics and attendance rates (Texas Education Agency, 2000).

When the first level of criteria for participation in the study was applied, 11 of the 26 schools met the adopted criteria. On March 12, 1998, the superintendents of the 11 schools identified as meeting the criteria for the Successful Schools Study were invited to participate. A month later, on April 15, 1998, the principals of seven schools who responded to the invitation to participate in the study were notified of their selection to be a part of a statewide leadership effort. Participation in the study was voluntary. The Office for Improving Second Language Achievement (OISLA) at Texas A&M University–Corpus Christi served as a partner in the collection of the data for identifying the effective practices for ELLs in the seven successful schools. Among data collected and
observed were the characteristics of teachers who worked successfully with ELLs. The research team observed these practices in classrooms of the seven successful schools for ELLs.

The second initiative that contributed to our data is the LEP student success initiative, initiated by TEA in 2004. Since that time, over 100 school districts in the state of Texas have received educational grants aimed at improving the education of ELLs throughout the state. OISLA at Texas A&M University–Corpus Christi was awarded a contract to provide professional development, provide technical assistance, and develop a promising practices document to improve the education of second language learners, especially those in secondary schools in the state of Texas. With the state’s emphasis on closing the achievement gap between the different ethnic groups, the urgency to ensure a quality education for ELLs is a major educational goal. Through participation in this initiative the authors were able to be involved in more than 80 school districts; these districts being provided professional development and consulting support to improve the education of ELLs.

This descriptive research highlights the knowledge, pedagogical skills, and classroom strategies that were observed in visited classrooms and data gathered from ELL teachers who participated in these initiatives’ survey responses. Above all, the “heart” of the teachers and the desire to teach ELLs were evident. From the data, trends were formulated and the following are being offered as suggestions for teaching effectiveness with ELLs.

**Opportunity to learn and time on task**

Instructional focus and time on task are very much a part of effective teaching for ELLs. Teachers need to have structured schedules with appropriate times for instruction in the native language and English. Students are provided with opportunities for large group instruction, small group instruction, cooperative learning, and instructional technology use. The significant part of the instructional focus is the use of the students’ home language as a medium of instruction, following either state or district guidelines for the schools’ particular bilingual program model. As classrooms were visited, a high degree of time on task was
observed. Teachers shared resources and conducted long-range planning to ensure that the students were mastering objectives throughout the curriculum. There was a focus on state assessment strategies throughout the curriculum, and these strategies were addressed in English and Spanish, depending on the instructional placement of ELLs. Teachers, who were educated in Mexico and had a high level of proficiency in Spanish, prepared and shared instructional materials with other teachers to help ELL students with Spanish literacy development. Literacy skills in the primary language transferred into the English language, thereby positively impacting academic achievement.

**Safe and orderly environment**

In an effective classroom for ELLs, there is an orderly, purposeful and caring atmosphere that is free from threat of physical harm. The “family” atmosphere at successful schools contributes to making these classroom teachers effective. Administrators, teachers, parents, and students have taken “ownership” of the schools. Because of this family atmosphere, the community feels empowered to have a close relationship with the school personnel. Parents repeatedly stated that there is an “open door” policy at the schools. Administrators and teachers keep parents well informed by communicating openly with them, so the community is protective of the school. The students appear happy in their school environments. Buildings are well maintained and classrooms are clean, neat, and attractive. The students’ culture is a background for classroom displays and general classroom environment. Teachers must be trained to ensure a positive classroom climate, which research shows contributes to school achievement.

**School and community working relationships**

ELL teachers must be provided and trained in skills and/or models of effective parent communication. In the effective classrooms for ELLs, parents understand and support the basic mission of the school and they are involved in the school community. Parents in the successful schools consistently demonstrated pride in and support for their schools. Parents were involved in materials preparation for the teachers, making bulletin
board decorations, sorting and packaging science and math manipulatives for teachers, serving as resources for home language development and classroom storytelling in Spanish, and monitoring lunch rooms and hallways. Pre-service teachers and classroom teachers must develop skills to work effectively with parents.

**Effective collaboration**

ELL teachers must be able to work as members of a team. Collaboration between the administration and the faculty is crucial. Empowerment is the key word. Teachers need to feel that the administrators will support their instructional decisions and also provide them with the necessary materials to focus on the instructional needs of ELLs. Empowerment of teachers gives a sense of togetherness in teamwork and helps the organization and school community to be shaped by all members. “Empowerment emphasizes shared leadership, participative decision making, mutual trust, supportive relationships, and quality of work life” (Calderón & Minaya-Rowe, 2011, p. 127). Teachers and the principals collaborate on instructional issues faced by these children. Teachers communicate on a regular basis with their administrators on the ELLs’ progress. The principals also provide time in the teachers’ weekly schedules to meet and plan together. These meetings for curriculum development and planning contribute to the success and effective practices of programs for ELLs.

**Professional development**

The Texas Center for Educational Research (1998) notes that professional staff development is an essential resource for improving teaching skills and subject matter knowledge. District support for teachers and administrators includes regular professional development and is crucial for teachers of ELLs. ELL teachers must be lifelong learners. Theurer (2003) discovered that exemplary teachers are made through lifelong learning, continuous self-renewal, staff development, and staying abreast with best practices and teaching ideas. There is little doubt the positive effect that the classroom teacher has on the quality of education a student receives. Teachers must ensure that students are
Teacher preparation

All the teachers assigned to the ELL population in successful classrooms are bilingual or ESL certified, which is essential to long-term success in the program (August & Hakuta, 1997). The faculty is committed to teaching ELLs. Teachers have been at the schools for more than 10 years, and this longevity and stability have contributed to the success of the students. Saravia-Shore and García (1995) found in their research on successful teaching for diverse populations that teachers are committed to achieving equity for all students and believe that they are capable of making a difference in their students’ learning. Bilingual teachers must know the finite points of the students’ first language so that they are able to teach the language arts and the content subjects with a high degree of proficiency. Helping students transfer knowledge and concepts from their first language to the second language demands that teachers have an extended knowledge of the students’ home language. Teachers must believe all students can learn, and they must have high expectations. Before teachers can be considered effective at their craft, they must possess specific characteristics that are linked to improving student achievement.
(Darling-Hammond, 1996). Teachers should be caring, but structured in their approaches to the delivery of the curriculum. Research has found that second language learners’ success is often predetermined by teacher expectation (August & Hakuta, 1997). Teachers in the effective schools represented the posture that “they would not allow the language minority children to fail because if a child failed, they failed” (TEA, 2000, p. 23). According to Bandura (1977, 1986, 1997), the key to student success is based on the teachers’ collective belief that they can impact student achievement on a campus regardless of the circumstances surrounding the students. Goddard (1998) offered his own definition of collective efficacy as the average teachers’ beliefs in the faculty’s ability and the ability it possesses to positively affect the academic achievement in students. Goddard (1998) postulated that teacher perceptions influence the school climate and culture which contributes to the different effect schools have on the academic success of students. Sandoval, Challoo, & Kupczynski (2011) also found that campuses that can impact student achievement through their belief in their colleagues ability to impact student achievement regardless of the students’ background and socioeconomic status. Teachers of ELLs must believe they can make a difference.

Teachers of ELLs should have curriculum planning skills. ELL teachers in successful schools met on a weekly basis for both vertical and grade-level planning. During the planning, the teachers developed six-week plans to address the needs of the students. Ensuring internal support through regular planning periods creates a successful climate in the school. Carter and Maestas (1982) defined a successful school climate as one that includes the following components: high staff expectations for children and the program, strong demand for academic performance, and high staff morale. High staff morale includes the following: strong internal support, consensus building, job satisfaction, sense of personal efficacy, sense that the system works, sense of ownership, well defined roles and responsibilities, and belief and practice that resources are best expended on people rather than on educational software and hardware. Teachers should also be able to develop integrated units that have been found to be successful in helping ELL students develop
language skills when they are given supported context by which to learn the language. Pre-service teachers must be provided opportunities to develop integrated curriculum instructional units through collaborative and long-range planning. These have been successfully used with bilingual students. The teachers review the integrated units annually, expand on strategies that have been motivating, and delete those that were not effective. The integrated units address state assessment skills and provide test-taking practice for the ELLs. García (1988), in studying effective classrooms serving bilingual Mexican-American students, found that an integrated curriculum responsive to the linguistic ability of students and implemented by trained bilingual (and biliterate) teachers was common in the classrooms whose students’ standardized achievement test scores were above national norms. He also found that in these classrooms, the children were made to feel that their bilingualism was an academic asset, not something for which they, or their families, needed to feel shame. The development of teacher-made materials and teacher-designed thematic units, which enrich the curriculum, are also part of the collaboration. Teachers are able to discuss the progress of students during the planning meetings, which enable them to closely monitor the progress of each student through open communication. This kind of purposeful monitoring appeared to contribute to student success.

**Teaching practices**

There are many practices that facilitate the academic and linguistic growth/success for language minority students. Teacher preparation programs must ensure that pre-service teachers are given opportunities to develop some of these strategies, techniques, and knowledge that promote ELL student success. The child’s two languages must be used for direct instruction and should be evident in all bilingual classrooms. Future teachers must have a high proficiency level of development in the native language that is going to be used in the classroom. Use of the home language is necessary for success with second language learners and does not impede progress in English (August & Hakuta, 1997). Instruction delivered in the primary language can have a profound effect on the development of academic English. First, the primary language
can be used to teach subject matter. If children know subject matter in their home language, they will understand much more of what goes on in the classroom in English, resulting in more acquisition of the English language and content knowledge. Secondly, the primary language can be used to develop literacy that transfers to the second language. There is strong evidence that programs that use the first language in this manner are effective in promoting academic English language development (Krashen & Biber, 1988).

Willig (1985) and Wong-Fillmore and Valadez (1986) addressed the extensive comparative literature on instructional practices that contribute to the literacy development of bilingual populations. Almost all of these studies included Mexican-American students. Willig (1985) used meta-analysis to combine academic achievement scores from a large set of statistically unrelated studies. This meta-analysis indicated that bilingual education programs significantly enhanced academic achievement, in comparison to English instructional programs. Wong-Fillmore and Valadez (1986) conducted a more traditional review of related independent studies and reached the same conclusions. Teachers were observed during direct instructional activities as students’ home language was used in small group and large group instruction. The classroom observations revealed that state-adopted materials and other resources were available in the classrooms in both Spanish and English. Teachers need to be taught to ensure that students are actively involved in the instruction and made to feel that they could contribute their input into the classroom interaction in either language. When classroom interaction took place, students need to be affirmed by their teachers for their responses in either language. Research has noted that teachers’ acknowledging equal prestige to both the English and Spanish languages, both during instruction and when eliciting student responses, is an essential characteristic of success (August & Hakuta, 1997; Carter & Maestas 1982). Feuerverger (1994) noted that children who made greater use of books in the first language provided by the school had “a greater feeling of security in their cultural background” (p. 123).

During the classroom observations, it was noted that charts depicting cognitive and linguistic test-taking strategies were prominently
displayed in the classrooms. Teacher-made materials in both English and Spanish were also readily available in the student centers, one of the components of successful bilingual programs (Carter & Maestas, 1982). Bilingual/ESL teachers need to emphasize vocabulary development weekly. Teachers should have very limited use of worksheets and be taught to focus instruction in small groups, paired groups, cooperative groups, or skills-focused groups. Teachers should be taught in pre-service programs following the research findings of García (1994), Kagan (1989), and Tinajero, Calderón, & Hertz-Lazarowitz (1993); they noted that the importance of cooperative learning practices is essential for Latinos and language minority students of different backgrounds. Huerta-Macías (1998) adds that these learning strategies are more compatible with the social and family structures in which Latino language minority students are most productive. Preschool programs that support child-centered independent learning centers, and plenty of access to manipulatives and creative play, lead to success in preschool for Latino children (Quintero, 1998).

The emphasis on phonics in both languages was evident in the primary grades. Phonics lessons were reinforced and expanded through the use of technology in the classrooms. Spanish reading and phonics programs such as “Estrellitas” and “Cancionero” are used extensively in the successful schools classrooms. Literature-based integrated units are also used in many of the classrooms of the successful schools. The research in this area of literacy contends that in classrooms where teachers surround children with literature and give children ample time to engage in the language arts, learners will become successful in listening, speaking, reading and writing (Roser, Flood, & Lapp, 1989; Tinajero, Hurley, & Lozano, 1998). Manipulatives and hands-on activities are being extensively used in the teaching of math and science. This practice is in keeping with the research in math and science teaching in a bilingual setting. Echevarría, Vogt & Short (2013) indicate that effective teaching in the content areas pairs essential contextual knowledge with the integration of listening, speaking, reading, and writing skills.
In addition, Tileston (2004) provides the following suggestions for meeting the needs of ELLs:

1. Teachers should understand that students who are learning English move through various developmental stages. The rate at which a student moves is based on the student’s background and comprehension in his/her first language and the degree to which he/she has been exposed to a formal educational setting, and his/her learning styles, and motivation. Theorists like Cummins (2001), Krashen (2004), and Krashen and Terrell (1983) contend it may take a language learner as long as five to seven years to develop English language skills comparable to native English speakers.

2. Students will learn a language at a quality level when are given the opportunity to use language in interaction in meaningful activities. We help to give meaning to new learning by building on the culture and learning style of the student. Without meaning there is little motivation to learn. Most students learning a new language learn more efficiently when they can learn in context, especially ELLs.

3. Provide opportunities for much interaction among the students. This will help the students to develop English for cognitive development and for social development.

4. Give feedback often. ELLs need to have goals and they need to know if they are meeting those goals to develop both academic and social language.

5. As the students progress in their use of language, add more challenging activities. Consider that the challenge is not intelligence but language acquisition and development.

6. Remember that students may be in different stages of development within the four components of language-listening, speaking, reading, and writing. Learning a language encompasses all four components and students do not learn to speak, first, write
second etc. Students move back and forth through reading, listening, writing, and speaking as they acquire language skills. (p. 59–60)

**Reflections**

Goldenberg and Coleman (2010) found that the foundation of effective practice for ELLs is the same as effective practice in general; regardless of the language of instruction. ELLs benefit from well-designed, challenging, and structured lessons and activities that are relevant, meaningful, and at the appropriate difficulty level. This enables teachers to provide relevant, timely, and useful feedback that improves learning, understanding, and performance. At the same time, because of language challenges, ELLs receiving instruction in English will need additional scaffolding to make the academic content accessible and to promote English language development. Focus on academic language, the language necessary for classroom success, while developing conversational language. Academic language proficiency is the most significant factor in ELLs’ school success. Look for ways to involve parents of ELLs to support students’ school success. Parents want very much for their children to be successful; they are a resource that schools typically do not use fully (Goldenberg & Coleman, 2010).

An important finding from the National Literacy Panel (2006) that needs to be emphasized is that regardless of the program being implemented (e.g., ESL, transitional bilingual education, dual language education), the most important factor in ELL success is quality instruction. Teaching quality is one factor everyone agrees has the greatest impact on student learning (Darling-Hammond, 2009; National Reading Panel, 2000; Wright, Horn, & Sanders, 1997). Although there is still questionable data on which program is best for ELLs, research found that the definitive factor is quality instruction accompanied by quality learning in all classrooms, day by day, minute by minute (Genesse, Lindholm-Leary, Saunders, & Christian, 2006; Goldenberg, 2008). As teachers learn, so do their students.

The teachers that work with ELLs must make commitments to the vision and goals of the chosen program of instruction for ELLs. Teacher
quality is seen as an essential part of addressing student needs and reducing the achievement gap. Regardless of the program of instruction, research shows that teacher effectiveness connects to overall educational quality and has more impact on student achievement than other factors such as class size (Calderon & Minaya-Rowe, 2011; Liston, Borko, & Whitcomb, 2008). The passion and commitment that a teacher of ELLs brings to the classroom will have a great impact on the learning in the second language classroom. Palmer (1998) wrote in his book that

Good teaching comes in a myriad of forms, but good teachers share one trait; they are truly present in their classroom, deeply engaged with their students and their subjects. The connections made by good teachers are held not only in their methods, but in their hearts—the place where intellect and emotion and spirit converge in the human self (p. 11).

This advocacy and passion observed in the teachers of ELLs that were part of the data collected through working on the initiatives that contributed to this document. Because of the growth of this population of students, pre-service and in-service teachers need to make the commitment to effective instruction for all ELLs. They also must receive the research-based training required to meet ELLs’ educational needs.
What effective teachers of English language learners do!

References


What effective teachers of English language learners do!


What effective teachers of English language learners do!


Science strategies for English language learners and a modeled lesson

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Abstract
Researchers have suggested four types of strategies necessary for appropriate instruction of English language learners in the science classroom. The four types include strategies for teaching in the classroom, assessing language level, engaging participation, and assessing learning of English language learners. In a study abroad course, a group of university students participated in an environmental education activity incorporating the four techniques with a group of elementary students in a Costa Rican classroom. The opportunity arose to incorporate Proyecto WILD curriculum to demonstrate the objectives of the study abroad course while providing a life science-rich experience for the young students. Two instructors guided the activity through implementing dual-language tools to accommodate English and Spanish speakers. Through modeling the strategies in an outdoor education arena, the university students were able to explore the potential application of these techniques in their future classrooms.
Science strategies for English language learners and a modeled lesson

Science strategies for English language learners and a modeled lesson

Science and ELLs

In an effort to facilitate teachers’ assessment of their instruction of English language learners (ELLs), Rohac (2012) developed the “Science and ELL’s – Questions from the field.” This question tree, a modified graphic organizer, contains questions teachers should keep in mind when planning instruction for ELLs in the classrooms. There are four central questions or themes within the question tree: how will teaching and the classroom look and feel, how do I ask questions with all the different language levels in the room, how do I get classroom participation, and how do I test and prepare for assessments?

The first question or theme, “How will teaching and the classroom look and feel?,” questions the use of lectures, materials, vocabulary, texts, labs, and activities to instruct ELLs. Rohac (2012) asks teachers to consider using visuals, graphic organizers, and hands-on activities to deliver science content to ELLs. The second question or theme, “How do I ask questions with all the different language levels in the room?,” encourages teachers to identify the stages of oral language and the levels of proficiency of their ELLs (Rohac, 2012). The third question or theme, “How do I get classroom participation?,” questions teachers’ abilities to engage ELLs through active participation and cooperative groups. Additionally, theme three encourages teachers to give adequate feedback to ELLs (Rohac, 2012). The fourth question or theme, “How do I test and prepare for assessments?,” focuses teacher planning on practice questions, test design, and authentic assessments (Rohac, 2012).

Answers to the questions listed within the question tree and information about these four topics are discussed below.

Teaching in the classroom

Undoubtedly, as new ELLs enter the classroom, they feel out of place and uneasy or uncomfortable; labeling parts of the classroom and equipment in the ELL’s native language and providing a picture dictionary will help the ELL navigate the classroom successfully (Greathouse &
Lincoln, 2008). All students, including ELLs, have background knowledge to bring to the science classroom. Activating an ELL’s background knowledge plays a critical role in connecting new science content (Bautista & Castaneda, 2011). ELLs link new science content to previous experiences to develop deeper understanding of science content (Ciechanowski, 2009). Previous experiences have the potential to influence learning in a major way (Rupley & Slough, 2010).

The Multiple Modes of Input and Output (MMIO) application calls for teachers to use simplified language, known as the input, so that ELLs develop language skills with less difficulty, known as the output (Carrier, 2006). When teachers use language ELLs understand in conjunction with cognates, visuals, simulations, and models, teachers enable ELLs to understand science processes and produce the English language (Bautista & Castaneda, 2011). Not only is it important to teach with models, but it is also important to teach about models; students must recognize that models are visual representations of scientific concepts (Weinburgh & Silva, 2011).

When considering modifications for ELL instruction, only language components of activities should be modified, not science content; unless an ELL is also receiving special education services, an ELL should receive the same instruction as the general population (Castaneda & Bautista, 2011).

The “Partner Reading and Content, Too” (PRC2) reading method has been found to be particularly beneficial to ELLs in the science classroom; pairs of students with similar interests and reading abilities alternate reading two pages and listening to two pages of a science-themed book (Ogle & Correa-Kovtun, 2010). Because the two students are similar they feel comfortable and secure during this sharing time.

Summary Frames, a type of graphic organizer useful for increasing vocabulary and concept comprehension, engages the ELL to identify the main idea and details to construct summaries (Honnert & Bozan, 2005). Graphic organizers can also be implemented in ELL instruction to help students construct conclusions; the conclusion, an integral part of a lab report, can help ELLs generalize data, summarize, and make connec-
tions between content and data gathered during an experiment (Berber-Jimenez, Montelongo, Hernandez, Herter, & Hosking, 2008).

Technology, particularly the use of cameras and video cameras, has the potential to influence learning for ELLs by fusing science and literacy. Students can capture animals during a school field trip to the zoo or during a nature walk around campus. Students then identify the science in the pictures; students can write about the science in these pictures or turn a hallway into a gallery (Jones, 2010). Turning a hallway into a gallery gives students the opportunity to participate in a gallery walk.

Other teaching strategies that are imperative for developing language and science comprehension in ELLs include the use of authentic visuals, hands-on activities, and implementing cooperative groups; it is essential for pre-service teachers to be coached in implementation of these strategies before entering the classroom full time (Buck, Mast, Ehlers, & Franklin, 2005). The goals of professional development for science teachers include comprehending science concepts, engaging inquiry, and enabling students to extend their own science comprehension, inquiry, and discourse (Lee, Lewis, Adamson, Maerton-Rivera, & Secada, 2007).

In addition to encouraging academic discourse, teachers can use scaffolding techniques to increase science vocabulary for ELLs in the science classroom; some scaffolding techniques include use of metalinguistics, classification, semantic webs, learning logs, and key point reviews (DeLuca, 2010). Vocabulary plays a major role in the science classroom. Fortunately, ELLs can easily identify content-specific vocabulary words; for this reason, teaching these vocabulary words explicitly is advantageous (Taboada & Rutherford, 2011).

Both pre-service and in-service teachers should be prepared to supply ELLs with equal instruction; too often professional development focuses on strategies alone instead of being comprehensive, enabling remediation of numerous issues (Buxton, Lee, & Santau, 2008). Elementary teachers, especially, are not comfortable teaching science; teaching ELLs who must learn English and science content magnify this instructional challenge (Lee, Adamson, Maerten-Rivera, Lewis, Thornton, & LeRoy, 2008). Perhaps this is due to insufficient science professional
development for elementary teachers, especially for those who teach ELLs in urban classrooms where there are greater numbers of ELLs (Lee, Maerten-Rivera, Buxton, Penfield, & Secada, 2009; Lee, Maerten-Rivera, Penfield, LeRoy, & Secada, 2008). When provided adequate professional development by incorporating instructional strategies for ELLs in the science classroom, elementary school teachers are able to link classroom practice for understanding with inquiry and English language development (Lewis, Maerten-Rivera, Adamson, & Lee, 2011).

**Language levels**

It is a common misconception that English language development occurs independently from science content comprehension; ELLs do not have to learn English before moving on to science in an English speaking classroom-inquiry in the science classroom advances English language development too (Stoddart, Pinal, Latzke, & Canaday, 2002). Each ELL entering the classroom possesses a unique blend of abilities, experiences, strengths, and weakness. Learning becomes meaningful when ELLs share learning experiences; sharing these learning experiences through hearing, reading, writing, and speaking increases comprehension of new content (Huerta & Jackson, 2010.) An ELL’s proficiency level determines the teacher’s approach to instruction. It is in the teacher’s best interest to identify the proficiency level of each ELL in his or her classroom, better serving his or her ELL (Bautista & Castaneda, 2011). An ELL’s proficiency level is determined by the ELL’s listening, reading, speaking, and writing skills (Castaneda & Bautista, 2011).

There is a challenge that exists when teachers encourage the switch from social discourse to academic discourse with ELLs; the challenge arises from the difficulty ELLs face during reading (Fang, 2006). An ELL’s reading ability can limit language proficiency; if this is the case, high expectations in combination with modifying texts can improve an ELL’s reading ability (Corder, 2007). Also, using high-quality science literature during a read-aloud in the science classroom and having students retell the story in words or pictures improves scientific literacy (Delo, 2008).
By connecting English language-learning objectives and science content objectives, based on an ELL’s proficiency level, the teacher sets an expectation for an ELL’s learning in the classroom (Bautista & Castaneda, 2011).

**Participation**

For ELLs to develop science literacy, inquiry, comprehension, and language proficiency, ELLs should engage in classroom conversations with proficient English speakers (Carrier, 2005). Having ELLs work in carefully planned, cooperative groups encourages language development as ELLs work with proficient English speakers and speakers of their native languages to make meaning (Bautista & Castaneda, 2011).

ELLs, like all students, are curious about science and deserve access to science in the classroom; to cultivate an optimistic outlook on science, learning has to be meaningful and inquiry-based for all students (Hansen, 2006). Technology-supported interventions, including classroom response systems like Quizdom, enable access to and participation in science discourse for ELLs. This provides a “space” for interaction that promotes dialogue in the science classroom (Langman & Fies, 2009).

As few opportunities for science learning, science majors, and science careers become available to ELLs, scientific literacy of the public, critical for social issues and decisions, is suffering (Valadez & Moineau, 2010). Civic engagement encourages inquiry by developing language abilities through projects that educate and improve the community, instilling a personal and social responsibility in ELLs (Buxton, 2009).

Parent participation also plays a vital component of an ELL’s education; parents create the link that connects home and school. Often, minority parents of ELLs battle logistics that limit their involvement in their child’s schooling. To remediate this situation, schools offer science-themed parent nights as outreach; through this outreach, parents also develop as scientifically literate adults (Medina-Jerez, Clark, Medina, & Ramirez-Marin, 2007).
Assessments

ELLs require modified, and in some cases additional time for, assessments to close the achievement gap in the science classroom (Maerten-Rivera, Myers, Lee, & Penfield, 2010). When creating tests for ELLs, test language should be accessible, visuals should be utilized, local perspectives should be embedded, test and feedback processes should be well thought out, results of sub-populations should be compared, ELL-specific test preparations should be provided, and alternative accommodations should be continuously reviewed (Fox & Fairbairn, 2011). Possible revisions to science assessment questions for ELLs include using a graphic organizer, using fewer words, and including pictures that describe the question (Siegel, 2007).

Because they are less dependent on language skills, demonstrations and portfolios are appropriate assessments for ELLs to demonstrate their scientific knowledge and skills (Bautista & Castaneda, 2011). These types of performance-based assessments allow teachers an all-inclusive picture of an ELL’s scientific knowledge and skills (Castaneda & Bautista, 2011); performance-based assessments are preferred to pencil and paper exams because ELLs have the opportunity to showcase a greater range of scientific knowledge and skills (Bunch, Shaw, & Geaney, 2010).

Portfolios can document an ELL’s progress in English language development and science comprehension; collected artifacts should reflect an ELL’s best efforts as scored by a rubric (Castaneda & Bautista, 2011). Windowpanes gives the ELL the opportunity to sketch and correctly label science vocabulary and concepts to increase comprehension of science content; additionally, windowpanes offer the opportunity for formative and summative assessment if they are regularly integrated into instruction (Husty & Jackson, 2010).

ELLs’ demonstrations of their scientific knowledge and skills are based on their language proficiencies; teachers should take language proficiencies into consideration during times of assessment. As teachers modify assessments for ELLs, modifications should allow ELLs to first translate the language of the question and then demonstrate scientific knowledge and skills (Castaneda & Bautista, 2011).
There are some science teachers who oppose high-stakes testing for ELLs; a major concern arises when ELLs are pulled out of science class for English language development, thereby handicapping them when it comes time to testing (Shaver, Cuevas, Lee, & Avalos, 2007).

**Background**
Texas A&M University – Corpus Christi (TAMUCC) sponsored a study abroad course, EDCI 4390/5390: Environmental Science for the EC-12 Multicultural Classroom, which took place in Costa Rica. Students resided and received instruction at the Texas A&M University (TAMU) Soltis Center in Costa Rica. A group of 12 graduate and undergraduate students participated in a 10-day intensive educational experience, incorporating multicultural language strategies with field methods used in environmental science.

The center is located in San Juan de Peñas Blancas, San Ramón, Costa Rica on the Caribbean side of the Monteverde Conservation Area. The site is in an area considered a protected forest; however, adjacent to the center are pastures and substance agriculture (TAMU, 2011) (see Figure 1).

The course included several visits to a local school located a short distance from the TAMU Soltis Center. These visits were initially limited to observations of the student classroom work and the interaction between the students and the teachers. The third visit to the school provided an opportunity to lead an activity, “Oh Deer!,” from the Project WILD activity book.

The young students from the Escuela Emilio Castro Gómez participated with their teacher in the activity, and they ranged in grades from 3 to 6. The school was located fewer than two miles from the TAMU Soltis Center in San Juan de Peñas Blancas. The elementary level was a small two-room building that housed a kitchen and a classroom. The classroom serviced two groups of students. A group attended in the morning, followed by the second group of students after lunch. The groups alternated each week; for instance, the first week of our observations, the group in the morning included grades 3–6 followed in the afternoon by the children in kindergarten–grade 2.
At the rural elementary school in Costa Rica, the indoor instruction incorporated booklets and composition notebooks for recording lesson-related information. The layout of the classroom included a circular arrangement of the student desks by grade level with a single white board for instruction and a computer for instructional support. The students had booklets for each content area and were responsible for copying relevant information or answering assigned questions in the composition notebook. At this elementary school, there was one desktop computer in the room and a laptop for the teacher at her desk. Technology and other support materials to supplement or enhancement of the instruction were
limited due to funding according to the teacher (personal communication, May 15, 2012).

The children at the school did not lack unstructured time outside, because they had routine recess and breaks from classroom lessons. Each time we visited the school, we witnessed rich opportunity for the students to take a break from the classroom instruction in order for them to go as a group to the kitchen to get their snack prior to outside playtime on the school grounds.

Implementing Project WILD was an opportunity to bridge the gap between cultures of the young children and the college students while demonstrating Outdoor Education (OE) techniques. The idea of the activity was a result of observing the learning environment and inquiring about the schedule and routine of the children. The activity seemed a good fit for sharing with both the teacher and the college students strategies in Environmental Education (EE) that demonstrated inquiry, role-playing, and post-activity discussion, because the daily instructional routine for the children included a balance between indoor instruction and unstructured playtime outdoors.

The Project WILD suite is a curriculum developed by the Council of Environmental Education (CEE) that provides K–8 grade level hands-on activities. The Project WILD curriculum is filled with creative activities that incorporate role playing to demonstrate natural events and interdependence, and working in groups to address issues and concerns related to natural resource protection. A supplemental resource, Proyecto WILD, is a selection from the whole suite that is written in Spanish to be used with bilingual and English as a Second Language (ESL) education programs (CEE, 2012).

“Oh Deer!” is one activity from the Project WILD guide, and it demonstrates the dependency of deer on limiting factors, such as water, food, and shelter. Deer are a common animal in the United States and inhabit many ranges throughout the country (Peterson, 1985). “Oh Deer!” is an activity that has the participants role playing deer and the limiting factors. The instructions are to count off the students: 1 for deer, 2 for shelter, 3 for food, and 4 for water. The students who are the deer stand on one side of a play area while the remaining students stand on the
opposite side. Both groups: deer and the limiting factors will face each other before the activity begins. An area outside (preferably) is designated that allows the deer to line up on one side and the limiting factors to line up on the opposite side. Each limiting factor is identified with a hand signal. Shelter is the hands held over the head in an A-shape, water is both hands covering the mouth, and food is both hands crossed over each other at the stomach. The deer and the limiting factors turn away from each other, so as not to see each other, each participant chooses a hand signal, and when the instructor shouts “Oh Deer!” the participants turn and face each other, at which time the deer run to the opposite side towards the participants that are acting as limiting factors and match their hand signal. They pick up the limiting factor and return them to their side of the area, the remaining factors stay behind and if a deer did not find a match, they remain on that side and become a limiting factor. The students alternated roles between the deer and the limiting factors, due to the change in deer population each season. The game continues for several seasons, and each season the instructor counts how many deer survived. Each season the deer population fluctuated indicating the accessibility of limiting factors.

Prior to the activity, the planning was simple and required some adjustments due to the dual languages. The day before at the second visit to the school, an idea to present the Project WILD activity was initiated and planned with approval of the classroom teacher. She was very enthusiastic to have our group participate with her students while we visited the school. In the initial planning, an adjustment was made to the activity to substitute another animal for the deer. The substitution was a modification to the activity, because the students were not familiar with the deer. In order to make a connection with the students at the school, one of the changes included identifying a species of herbivore that the children would be more familiar within their community. One of the professors provided assistance in translating a conversation between the children and the TAMUCC students and eventually another animal was agreed upon, a rabbit, or conejo.

In the beginning of the activity, one instructor used English with the TAMUCC students, while the other instructor spoke in Spanish to the
children about the activity. We counted in Spanish the number sequence
for the students, uno, dos, tres, cuatro. Once we had the deer on one
side and the limiting factors on the other, the first instructor counted in
Spanish how many individuals were on one side and how many were on
the other side. The instructor asked in English how many deer and how
many limiting factors were available for season one. The TAMUCC stu-
dents answered in English and the children answered in Spanish. Then
the remaining instructions were given to the students, and the second
instructor translated. The second instructor needed to consider her words
carefully, and she asked questions to be sure she understood the activity,
before she continued giving the instructions in Spanish to the children.

I used several teaching strategies, some of which included total
physical response, model talk, formative assessment, and post-activity
discussion. Total physical response and model talk are strategies incor-
porated into instruction when working with children who are English as
Second Language (ESL) learners (Herrell, Jordan, & Jordan, 2012). The
consistent use of the hand gestures and the associated terms allowed me
to reinforce the new English terms, and as the activity progressed the
students required minimal guidance in using the hand signals to partici-
pate in the activity.

The interaction within the group was an opportunity to use phrases
and words from English and Spanish. My fellow students and I learned
some Spanish terms and the children were able to learn several Eng-
lish words that related to the science content being introduced in the
activity. I used basic assessment tools to check for successful language
acquisition by the students. I had them recite the words, and asked them
through the assistance of the Spanish speaking TAMUCC professor if
they could explain the meaning of the English word in Spanish.

One of the strategies demonstrated during the activity was total
physical response, which was the use of movement to teach the mean-
ing of new science terms while using them in the activity (Herrell et al.,
2011). The students were shown the hand signal that would be associ-
ated with the term, and they repeated the words to provide opportunity
for recognition of the hand signal with the correct English word. Hand
motions were used by the instructor to reinforce the meaning of com-
mands during the activity, for example to demonstrate “pick” (meaning, pick what limiting factor you are going to be), intonation was exaggerated by the instructor as she moved between hand signals and saying, “Pick?” several times. Another hand signal for a command was a motion of the arms in a circular path in a counter clock direction to demonstrate how they should turn away from each other, while calling, “Turn!” The seasons were repeated at least 20 times or more.

The students were asked to demonstrate the hand motions. First, they were asked to say “shelter” in Spanish and then in English while holding their hands in the position symbolizing shelter. The process was repeated for food and water. Once they could recognize the terms, then the first instructor used hand motions to demonstrate turning, while saying, “Turn!” The second instructor translated the term for turn, and then the first instructor used, “listo,” which is ready in Spanish, and they all responded, “Sí!” to confirm they were ready. The instructor reviewed the terms in English and in Spanish.

The students were asked to turn away from each other, then the first instructor called, “listo!” The students responded, “Sí!,” at which point the instructor called, “O conejo!” They all turned, and if they did not, the second instructor called out in Spanish the term for turn. In the initial rounds of the activity, the students were slow to comprehend the activity. Some participants just chose anybody and others did not seem to understand they were supposed to move. After two seasons, the activity began to evolve as the participants began to recognize the hand signals, commands for turning or running, and visual/verbal cues by the instructors to move to and from the side of the deer and the limiting resource.

Initially, communication between the TAMUCC students and the children was limited to simple phrases, hand gestures, and translation assistance from two TAMUCC professors. When I introduced the idea of doing the activity with the students, I was cautious about the depth of the instruction and the expectations. In the past, I had numerous positive experiences with fellow educators and students using Project WILD activities; however, presenting the activity in two languages was a personal challenge for me. The use of the Project WILD activity “Oh Deer!” has been successful for me on many occasions for several reasons,
such as easing educators into exposure of EE curriculum and boosting the atmosphere of workshops or professional development with a high energy learning experience. Implementing Project WILD in an activity with the TAMCC and elementary students was an opportunity to bridge the gap between cultures of the young children and the college students while demonstrating OE techniques. The idea of the activity was a result of observing the learning environment and inquiring about the schedule and routine of the children. The activity seemed a good fit for sharing with both the teacher and the college students strategies in EE that demonstrated inquiry, role-playing, and post-activity discussion, because the daily instructional routine for the children included a balance between indoor instruction and unstructured playtime outdoors.

When the time came to sit in a circle and discuss the activity, the children were slow to understand why we participated in the activity. They showed their eagerness to participate in each round of the game with laughter and readily getting into position, and post-activity discussion time was essential to assess the depth of understanding by the children. The time in the post-activity discussion was very important to provide time for guided discourse that guided them through the process of making connections between the needs of wild animal and humans. The productive questioning was necessary to reinforce the connection between the science content and the rich direct physical knowledge. We were able to explain that the rabbit was chosen for the activity to make it fun, but the idea of the activity was to show them that humans need natural resources to survive, and if the rabbit cannot gain access to the limiting factors, then the human may find it difficult to do the same.

Inclusion of ELLs in the science classroom is a learning opportunity for all (Nabors & Edwards, 2011). As science teachers aim to close the achievement gap between ELLs and other learners, not only do ELLs benefit, science teachers also develop their skills as instructors (McDonough & Cho, 2009).
References


Science strategies for English language learners and a modeled lesson


