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## **Addressing the ‘Shift’: Preparing Preservice Secondary Teachers for the Common Core**

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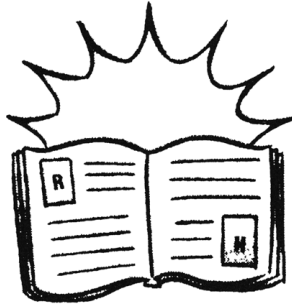
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**There is no more crucial or basic skill  
in all of education than reading.**



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Dear Readers,

Before we provide a brief overview of the articles in this issue of *Reading Horizons*, we wanted to share some exciting developments about the journal: Reading Horizons is now completely on-line and open-access. This is significant for several reasons. First, this means that we are able to widen our readership because anyone can now access the articles that are published in the journal and allows a broader audience to read the important research that we are publishing. Second, Reading Horizons is one of a few open-access journals that does not charge a publication fee, which is a great incentive for authors. Thus, authors will be able to share their important research to a broader audience without having to pay the typical open-access fee. Third, because we are a completely online journal, this means that we are able to accept figures or other visual representations in color. Authors may also choose to include hyperlinks in their article. We hope that you will pass this information along to others who might be interested in the journal.

In this issue, we have a broad range of articles focusing on issues within pre-service teacher education, authentic literacy experiences, and informational texts within an inquiry unit.

The author of “Preserving social justice identities: Learning from one pre-service literacy teacher” examines the ways in which the pre-service teacher she studies resisted racially and culturally stereotyping her students even when working with a supervisor who lacked a social justice stance. We believe this article demonstrates the complicated nature of preserving social justice identities in authentic settings that may not always support that stance.

The authors of “Addressing the ‘shift’: Preparing pre-service secondary teachers for the Common Core” examine how pre-service teachers were introduced to a project focused on disciplinary literacy in order to help them meet the Common Core State Standards. Whether we agree with the Common Core Standards or not, they are the reality facing many teachers across our nation for the moment.

In “Do you have a brother? I have two”: The nature of questions asked and

answered in text-focused pen pal exchanges”, the authors discuss the ways in which 200 students engaged with an adult pen pal within a shared literacy experience. The analysis looks at differences in the numbers of questions asked and reading level and gender.

“A formative study: Inquiry and informational text with fifth-grade bilinguals” shares a study in which Spanish speaking students engaged in reading and writing and building content knowledge and academic vocabulary in English within the framework of a six-week inquiry based unit. The article provides readers the opportunity to think about planning and implementation decision making while learning is in progress.

We hope that you enjoy the articles as much as we have, and that you find them useful and relevant to both your teaching and research interests.

Reading Horizons Editorial Team







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## **PRESERVING SOCIAL JUSTICE IDENTITIES: LEARNING FROM ONE PRE-SERVICE LITERACY TEACHER**

Anne Swenson Ticknor, East Carolina University

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### **Abstract**

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Identities that include social justice stances are important for pre-service teachers to adopt in teacher education so they may meet the needs of all future students. However maintaining a social justice identity can be difficult when pre-service teachers are confronted with an evaluator without a social justice stance. This article examines how one pre-service teacher preserved a social justice identity by actively resisting racial and cultural stereotypes of students in her student teaching field experience. Analysis of language data illustrates that pre-service teachers can enact social justice pedagogy in elementary classrooms and preserve a social justice identity. This report reveals that teacher educators can support pre-service teachers in the process of sustaining social justice identities.

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## **Preserving Social Justice Identities: Learning from One Pre-service Literacy Teacher**

### **Introduction**

As public elementary schools become more diverse in terms of student population, U.S. teacher demographics remain relatively stable as White and female (Feistritzer, 2011). For pre-service elementary literacy teachers who fit within the demographic majority of U.S. teachers, teacher education program experiences focused on student diversity, such as social class, race, and gender, are deeply important. In the United States, many teacher education programs require pre-service teachers to enroll in multicultural or diversity courses to expose students to develop a broader perspective on culture and diversity. However, simply enrolling in diversity courses alone does not necessarily translate into pre-service teachers taking up critical perspectives in their professional identities. Identities that include critical perspectives or social justice stances are important for pre-service teachers to adopt so they may meet the needs of all future students.

Freire (1968/2000) states that education is never neutral; it is always political, and calls for problem-posing educators. Teachers who take up this call engage in dialogue with students and encourage social action. Social action, which includes reflection and praxis, is action upon the world to create a more socially just world. In this article, I conceptualize social justice education as including both pedagogical and ideological knowledge about systems of inequality in educational environments and working towards equality through social action. This means that social justice educators utilize inclusive pedagogies that provide equitable learning opportunities, exposure to different perspectives, and encourage open-mindedness. Specifically, social justice educators include pedagogies in which students are encouraged to share their unique perspectives and knowledge about the world. Educators who take up this stance and practice these pedagogies do so without stereotypical assumptions about student knowledge or experiences about sociocultural topics like culture, language, and race.

Cochran-Smith (1999) advocates that teacher education programs should prioritize social justice centered education by encouraging prospective teachers to enact social change, be socially responsible, and to implement social justice pedagogy in their future educational settings and more recently, offers a theory for teacher education programs to incorporate social justice principles. Cochran-Smith (2010) states that it is not merely planning activities for pre-service teachers

engagement, but rather, an intellectual approach to “preparation of teachers that acknowledges the social and political contexts in which teaching, learning, schooling, and ideas about justice” (p. 447) are historically located and filled with tension. Cochran-Smith continues to advocate that teacher education programs should prepare teacher candidates to learn to teach for social justice, and as an elementary literacy teacher educator, I echo Cochran-Smith’s continued call for socially just educators and find the need remains relevant (Ticknor, 2012, in press). However, translating program goals into the future practice of graduates is not an easy task (Han, 2013; Lewison, Flint, & Van Sluys, 2002).

This article examines how one pre-service teacher developed a social justice identity and resisted pressures to conform to existing literacy pedagogies in a practicum field experience then preserved this identity in a later student teaching experience. Using analyses of in-depth interview data, I show how a pre-service teacher, Tammy, developed an identity as a social justice educator, challenged existing literacy practices in her practicum field experience, and sought alternative pedagogies. Further, drawing on critical discourse analysis of an email written by Tammy, I illustrate how she later preserved a social justice identity by seeking mentors with social justice perspectives when confronted with a competing view of socially just practices during her student teaching field experience.

This article begins by briefly reviewing literature related to cultivating social justice perspectives and pedagogy in teacher education programs. Next the article describes the research design as well as specific data collection and analysis techniques used. The article then presents two analyses. The first, which is based on interview data during three months of pre-service field experience, examines Tammy’s developing identity as a social justice educator. The second analysis, which is based on an email Tammy wrote to me during her student teaching internship, closely examines how she resisted local pressures to conform to existing literacy practices and (mis)conceptualizations of socially just pedagogies to preserve her identity as a social justice educator. The article concludes with a discussion of the implications of this research, in particular what it means for teacher education faculty interested in cultivating social justice perspectives and pedagogies.

### **Cultivating Social Justice Perspectives and Pedagogies in Teacher Education Programs**

Cochran-Smith, Shakman, Jong, Terrell, Barnatt, and McQuillan (2009) examined the ways in which graduates from a teacher education program with a

stated social justice agenda developed and enacted socially just pedagogy in their classrooms. The researchers state that good and just teaching involves both pedagogical knowledge as well as ideological knowledge about how systems of inequality in educational environments can be cultivated in teacher education programs. According to Mills (2009), pre-service teachers who already possess dispositions compatible with social justice are more likely to take up program goals of social justice education. Garmon (2004) identifies these dispositions as openness, self-awareness/self-reflectiveness, and a commitment to social justice. Garmon continues that “even the best-designed teacher preparation programs may be ineffective in developing appropriate multicultural awareness and sensitivity” (p. 212) if pre-service teachers do not hold dispositions for social justice centered pedagogy. However, pre-service teachers can develop a social justice perspective when guided and supported by teacher educators committed to social justice teaching (Ticknor, 2012, in press).

Many scholars agree that a value of social justice pedagogy can be developed in teacher education programs with deliberate planning for students to interact with diverse cultural groups and critically reflect with guidance by supportive mentors in teacher education programs (Bleicher, 2011; Connor, 2010; Farnsworth, 2010; Han, 2013; Lynn & Smith-Maddox, 2007; Mills, 2012; Olmedo, 1997; Seidl & Conley, 2009; Ticknor, 2012; Ticknor, in press). Lynn and Smith-Maddox (2007) advocate the use of small group inquiry as a method for novice teachers to reflect about emerging identities as social justice educators and “to do the kind of reflecting and thinking out loud that would move them toward the type of teacher they wanted to be” (p. 98). Elsewhere (Ticknor, 2012, 2014-b, in press; Ticknor & Cavendish, in press), I advocate for critical reflection about pedagogy in methods courses and in peer small groups. Additionally, Han (2013) calls for teacher education programs to provide a consistent thread of critical pedagogy for pre-service teachers, space to talk openly about cultural identities and its impact in teaching and learning, and opportunities for diverse field placements.

Field experiences that cultivate social justice stances can translate into pedagogical practices when classroom teachers enact similar practices. Opportunities to approximate critical literacy teaching in field experiences with supportive mentors provide spaces for pre-service teachers to try out critical pedagogy with children (Mosely, 2010). Mills (2012) recommends carefully selecting “supervising teachers whose dispositions are reflective of those we wish to see in our future teachers” (p. 8) to act as teacher mentors. Unfortunately many

teacher education programs do not have access to an endless pool of classroom teachers to select the right mentors as advocated by Mills. In cases where teachers without social justice identities are selected, pre-service teacher stances on social justice are in danger of disruption or challenge. This may result in limited opportunities to attempt critical pedagogy and pressures to succumb and conform to existing structures and literacy pedagogy. When social justice mentors are absent or inconsistent in teacher education program experiences, sustaining a social justice identity may be difficult for pre-service teachers (Ticknor, 2012).

In the larger qualitative project from which my analyses for this article are drawn, I have tried to be responsive to the issue of absent mentors in two ways. First, my research design provides a community of learners for which support at both the peer and mentor level is nurtured, and relationships are developed over an extended amount of time (Ticknor & Cavendish, in press). Second, the structure of small group in-depth interviews, or lingering conversations (Ticknor, 2012), encourage participants to continue conversations and rehearse agency by talking with group members in a safe environment (Ticknor, 2014-a).

## **Methodology**

### **Context of Study**

This study took place in an initial licensure preparation program of a four-year teacher education program at a large public university located in the southwest U.S. The university graduates approximately 150 elementary (K-6) teacher candidates each year. The teacher education program did not have a stated social justice agenda, although some faculty did teach from a social justice perspective and encouraged students to take up social justice stances. Each semester students participated in a field experience ranging from 5-15 hours paired with at least one methods course. For example, when students enrolled in the language arts methods course they also completed a 15-hour practicum field experience so they could apply their learning in the field. In the final year of the program, students enrolled in a one-year internship in a classroom. During the first semester of the internship, pre-service teachers spent one day a week observing, assisting, and teaching a minimum of three lessons in the classroom. In the second semester, pre-service teachers shadow the same clinical teacher in all aspects of teaching and are assigned a university supervisor to oversee their internship experience.

## Researcher's Role

I identify as a White female from the Midwest region of the U.S, who relocated to Southeastern University as a literacy educator. At the beginning of the study, I taught an elementary language methods course required for initial teaching licensure, in which all participants were enrolled. Teaching from a social justice perspective and designing my section of the course to center on literacy as a social process, critical texts, such as *Girls, Social Class, and Literacy* (Jones, 2006), were required reading. The course included a 15-hour field placement in an elementary classroom for students to practice literacy pedagogy with children. The field experience was designed to occur in kindergarten classrooms at a local elementary with a diverse student population. Classroom teachers were selected based on prior relationships and their willingness to mentor pre-service teachers. Classroom teachers enacted differing pedagogical practices not necessarily in line with teaching for social justice; however, all classroom teachers allowed students to attempt critical pedagogy in their classrooms. I observed each teaching session and provided oral and written feedback to my students.

Course assignments were practical applications of course topics and included a series of written lesson plans with reflections after implementation in the field experience. In-class discussions connected professional readings with attempts to enact critical literacy pedagogies with elementary aged students, critical reflection of these experiences, and social justice and diversity topics in relation to literacy instruction. My goal as instructor was to provide space for students to wrestle with complex issues related to literacy, social justice centered pedagogies, and implementing social justice theories into practice. These conversations continued after the course ended and students became participants in my larger study focused on pre-service teacher identity.

## Participant

One participant, Tammy (all names are pseudonyms), is highlighted in this article. Tammy attended Southeastern University directly after completing high school and identified as White and female. Tammy's home community was a suburb of a mid-size city in the southeast approximately 5 hours from the university. After graduation, Tammy returned to her home community for a full-time elementary teaching position.

Tammy was a student in my language arts methods course in the Fall 2011 semester and completed all field experiences in rural communities near Southeastern University. The following semester, Tammy was placed in a third

grade classroom with Jim, a teacher with more than 3 years of classroom experience, to complete 15 hours of practicum for her social studies methods course. Jim was a traditional teacher in the sense that he used test-taking strategies, such as reading a passage and highlighting key information, in each of his lessons and did not encourage students to openly share their knowledge. Tammy described their interactions as positive but also limited. Jim offered Tammy guidance by modeling his routines and teaching practices and offered little feedback about lesson ideas or implementation. The following academic year (August 2012-May 2013) Tammy was a student teacher in a fourth grade classroom with Joan as her clinical teacher. Joan served as Tammy's daily mentor, as well as observed and evaluated Tammy's day-to-day interactions. Tammy described her relationship with Joan as positive and collaborative. Tammy was also observed and evaluated by a university supervisor and an instructional coach from the school district. Each evaluator was to provide written and verbal feedback after each observation, and act as a mentor to Tammy by offering suggestions and recommendations for future instruction during the student teaching internship experience.

Tammy became a participant in the larger study, which investigates how pre-service teachers use language to mediate professional identities in teacher education experiences, after the language arts course ended and continued her participation until she graduated. All participants for the larger study, including Tammy, were selected based on my anticipation that data would be particularly generative since I had already built rapport with these individuals, and their in-class contributions were rich with reflective sharing. After the course ended participants met monthly with me in a small group to talk about their teacher education experiences. Conversations were participant directed and I acted as a facilitator and a resource.

### **Data Sources and Analysis**

Since I was interested in language use in the larger study, all data sources were language based. My primary data source was 11 in-depth small group interviews over three academic semesters. My goal in each 60-90 minute monthly interview was to encourage participant sharing with a focus on participant experiences in the teacher education program and field experiences and develop a safe and trusting community. All participant interviews were audio-recorded and transcribed.

Using a process of continual rereading of the corpus of interview data (Erickson, 1985), I assigned codes based on the emerging themes and patterns in the data. The conversation transcripts were coded and assigned categories based on the emerging themes and patterns in the data. I recorded reflective ethnographic field notes about emerging themes and patterns then followed-up with participants in later interviews. Secondary data sources were also language based and included participant generated written documents, such as course assignments, and my reflective field notes. Secondary data sources were used to triangulate findings. I continually looked for contradictions and tensions that did not fit the categories in the data sets by reviewing the entire data corpus with constant comparison methods (Glaser & Strauss, 1975). Final categories included changes in professional identity confidence, changes in learning relationships, changes in Discourses of “good” teachers, and changes in expected teacher education curricula.

Next, I began a discourse analysis within each category to further investigate how identities, significance, and Discourse models were (re)built in the language data (Gee, 2005). Specifically, I used Gee’s building task of identities and significance and the Discourse model inquiry tool to examine excerpts of language with specific questions to analyze how pre-service teachers built professional identities, assigned significance to literacy events and activities, and invoked Discourse models of effective literacy teaching stances over time. Gee (2011) states that discourse analysis studies “language at use in the world, not just to say things, but to do things” (p. IV, emphasis added). It was the doing of social justice that was of particular interest in examining in the language for this analysis. Next, I organized exemplary episodes, or series of conversational turns representing the same topic or theme (Lewis & Ketter, 2004) to illustrate how social justice topics such as race and culture were talked about in the language data and to investigate what actions the speakers were attempting to convey with her talk.

For this article I conducted another layer of discourse analysis to closely examine the say and do in a written document, an email Tammy sent to me. To conduct this analysis, episodes were organized into stanzas to highlight the say and do of participant language on a given topic, such as social justice pedagogies, or event, a conversation between educators, at one time or place. Gee (2005) states that stanzas are used to signify a group of lines, from transcribed language, devoted to a signal topic or event “at one time or place, or it focuses on a specific character, theme, image, topic, or perspective” (p. 128). When one of these factors



changes, a new stanza is created. Stanzas were named with headers to serve as organizers of the larger text, or the macrostructure, of the topic. The microstructure of the text, or smaller topics, is composed of the individual lines within each stanza.

## **Findings**

This section presents two analyses of Tammy's language. The first is from the in-depth interviews during the first three months of the study and highlights Tammy's developing social justice identity and resistance to conforming to existing literacy practices in her social studies field experience classroom. The second analysis is a close examination of an email Tammy sent to me about an event in her student teaching classroom. The email example illustrates how Tammy actively upheld an identity as a social justice literacy educator when confronted with an evaluator who did not support her stance. For each analysis I offer contextual information of the teaching setting. In the second analysis, I provide an example of language organized into stanzas with headers to organize the microstructure.

### **Tammy: Resisting Limiting Pedagogy**

Tammy often hesitated to speak first in our small group meetings. She seemed to listen and wait for the right opportunity to ask a question, share an experience, or offer her perspectives. When she did speak, she often offered a critical perspective on the topic or introduced a topic worthy of critical consideration. The other members of the group would often agree and ask her questions; however, they did not typically offer critical perspectives. One instance was during the second interview. Participants were discussing upcoming course registration and what concentration courses, or courses outside of the elementary education degree program of study, were deemed the best. Tammy shared that her favorite concentration course was a course about ethics and cultural psychology. Tammy deemed the course her favorite because "I guess I'm just really into that stuff." Tammy went on to explain that she enjoyed the in-class discussions and described the course meetings as "all we do is talk about issues and race and all kinds of stuff. I love it. It's my favorite class." Tammy's interest in "all kinds of stuff," meaning her interest in social justice issues about power and oppression, translated into how she approached teaching, her professional identity, and the kinds of pedagogical practices she hoped to implement in her field experiences.

Tammy was placed in a local third grade classroom with Jim for her social studies methods field experience. During her hours in Jim's classroom, Tammy



observed his language arts and social studies teaching. In small group interviews Tammy described him as “the Smart Board guy” because each time she observed Jim teach he used the Smart Board to project a written document and model using a highlighter to identify important textual information. For example, after observing a recent language arts lesson she stated, “he’ll put this passage up on his Smart Board and have [the students] highlight key points and answer the questions below...It’s boring.” Instead, Tammy wanted to plan instruction that would engage students through active participation and said, “If I see more highlighting, I’m going to quit. Like, I know that’s what you do in high school, but...[it’s 3rd grade and] really boring.” Tammy also shared that when she asked Jim if his instructional choices were based on test preparation he replied, “Yep. Pretty much” and if he ever “switched [his instruction] up” and had students read independently or discuss the text, he responded, “Nope.” Tammy was disappointed about his limited responses and reflection to her inquiry into his literacy practices as well as limiting student learning opportunities and conversations about text.

Tammy was excited that she would be planning a series of lessons for her social studies methods course centered on the state social studies standard for culture. At the time, the state had yet to fully implement the newly adopted social studies standards; however, the university social studies methods instructors had spent much time and energy into familiarizing their students with the standards. Social studies students were expected to use the standards in their instructional planning whether or not their field placement school district utilized them. Tammy stated that Jim, her practicum classroom teacher, “didn’t even know [culture] was [a social studies standard], because [the school district is] just now switching over [to the state standards] in science and social studies.” Tammy also saw the assignment as a way to try out more engaging pedagogy with Jim’s third grade students. Tammy decided to incorporate music into her lesson in the way of a “tribal song” to “liven it up a little bit” and engage students in learning about local Native American culture.

When Tammy shared her lesson plan with Jim, he responded with surprise and commented, “You’re going to be using songs? I don’t ever sing in the classroom.” Nonetheless, Tammy taught the social studies lessons as planned. Although Tammy was disappointed that she did not receive encouragement about her lesson plans or pedagogical choices, Jim did not impede her planning and allowed her to implement alternative literacy practices that encouraged student participation in his classroom. In this way, Jim acted as neither an advocate nor

an impediment while providing opportunities for Tammy to approximate alternative pedagogies more closely aligned with her identity as a social justice educator. Additionally, as Tammy resisted Jim's limiting literacy pedagogy, she built her confidence as an educator and laid the groundwork for more inclusive literacy practices.

### **Tammy: Preserving a Social Justice Identity**

The following year Tammy began her student teaching in a rural community near Southeastern University. Tammy enjoyed her first semester as a student teacher intern in a fourth grade classroom and looked forward to her second semester experiences. Tammy often described her excitement as related to the positive relationship with her clinical teacher, Joan. Tammy and Joan worked well together and Joan encouraged Tammy to ask questions and plan literacy lessons reflective of her professional stance. Tammy felt supported and encouraged in Joan's classroom to approximate critical pedagogy.

In addition to daily mentoring and encouragement from Joan throughout the year, Tammy was assigned both a university supervisor and a local instructional coach to provide evaluative feedback in the second semester of her internship. Both the supervisor and instructional coach individually observed Tammy teach, then met with her to offer written feedback using university approved rubrics. In addition Jenny, the local instructional coach, acted as a resource for district specific support and guidance. Tammy spoke very little about either her university supervisor or Jenny except when noting that she was assigned an instructional coach to observe lessons and offer feedback. Six weeks into Tammy's second semester of her internship, Jenny observed a shared reading lesson Tammy planned and taught. The shared reading lesson was part of a literacy-based unit Tammy developed about Mexico and Mexican culture. The unit included many interactive literacy activities that encouraged students to engage with multiple texts, create texts based on prior knowledge, share individual knowledge with their peers, and build collective knowledge about the unit topic. Tammy purposefully designed the shared reading lesson to utilize the same whole group format Joan used. Then she built on the structure to include additional meaning-making activities, such as a T-chart of prior knowledge, to create space for students to share individual knowledge and experiences of the unit topic.

In the post-observation conference, Jenny offered Tammy two critiques. The first critique was about the format of the lesson. Jenny recommended that Tammy should have planned a small group format for the shared reading lesson. The

second critique was about student involvement and understanding of student prior cultural knowledge. Jenny recommended that one Hispanic student should act as “the leader,” or expert on the unit topic, for each small group. Tammy did not agree with either of Jenny’s suggestions and actively preserved her identity as a social justice educator.

The following stanzas are from an email Tammy sent me after Jenny’s observation. Tammy recounts the post-observation conference with Jenny and signals resistance to a conflicting perspective on socially just pedagogical practices. Tammy describes her resistance to stereotypical misconceptions about Hispanic students and actively maintains a social justice identity by explaining her inclusive literacy stance. The first stanza recounts Jenny’s advice to assign a Hispanic student to act as a leader for small group conversations about Mexico. The second and third stanzas explain why Tammy viewed this as stereotypical of Hispanic students, and outlined more inclusive and equitable pedagogical practices Tammy used to encourage students to share knowledge about Mexico. The fourth stanza signals Tammy’s social justice identity. The final stanza illustrates Tammy’s uncertainty about her resistance to a perceived authority.

**She suggested**

She suggested that  
because it was a unit on Mexico  
that I should have had one Hispanic student in my class  
act as “the leader” of each small group.

**I calmly explained**

I calmly explained to her  
that not every Hispanic student in my class  
knows about Mexico. Some of the students do  
but just because a student is Hispanic  
doesn’t mean they are knowledgeable about Mexico and Mexican culture.

**I told her**

I told her  
I allowed students  
who had background knowledge on Mexico to share openly  
in the beginning when I did a T-chart  
on what they already know  
about Mexico and Mexican culture

**But I wasn't going to force**

But I wasn't going to force the Hispanic kids  
to take a more active role in this lesson  
just because of the fact that they are Hispanic.

**I think she got a little offended**

I think she got a little offended when I said this  
but I was just saying how I felt.

In this example Tammy calls attention to competing conceptualizations of socially just pedagogy (i.e. Cochran-Smith et al., 2009; Cochran-Smith, 2010) in describing how she navigated the event and signals the tensions associated with resistance when enacting socially just pedagogy. Tammy invokes a social justice identity when she critiques Jenny's suggestions and implied stereotypes of Hispanic students. She outlines how her social justice identity translates into literacy pedagogical decisions when she explains her decision making related to accessing knowledge of individual students.

Resisting Jenny's limited view of Hispanic students was not difficult for Tammy; however, resisting instructional practices deemed effective by an evaluator and receiving unjust critique was. Tammy signals this tension in the last stanza. Although Tammy valued Jenny's insight into literacy instruction and was eager to learn from practicing teachers, she did not agree with Jenny's recommendations. Furthermore, Jenny's written evaluation, which was submitted to the university, included unsatisfactory ratings in all categories including each category associated with culture. Tammy was concerned that she may be perceived as an ineffective literacy teacher with little regard for students' culture and cultural experiences. She was also concerned that the evaluation could translate into a poor grade for the entire student teaching internship. Furthermore, since Jenny was an instructional coach for the local school district, Tammy feared that she would not receive a positive recommendation for a future teaching position in the district. Tammy reported that she felt "totally defeated because I don't know how to please everyone."

Tammy was surprised, confused, and frustrated by the evaluation, and she quickly consulted Joan. According to Tammy's email, Joan complimented her on "how well I incorporated not only Mexican culture but African culture as well into my lesson." Additionally, Tammy reported that Joan was "blaming herself for me being scored badly because of the fact that I did exactly what she normally

does for shared reading.” Tammy also sought my support and guidance. Joan and I both agreed that the evaluation was not reflective of Tammy’s teaching or stance as an educator. Nonetheless, resisting Jenny’s advice and pedagogical recommendations came at a high price for Tammy: a negative evaluation and self-doubt as an effective literacy educator.

## **Discussion and Implications**

As noted, the analyses reported in this article are part of a larger effort to examine over time how pre-service teachers use language to mediate professional identities in teacher education experiences. I conclude this article by connecting my analyses of Tammy’s preservation of a social justice identity to the larger conversation of possible roles teacher educators can take on to cultivate social justice perspectives and pedagogies in their students.

Findings indicate that maintaining a social justice identity is complex with power relations. Pre-service teacher identities are in a constant state of motion and fraught with tensions. As pre-service teachers negotiate competing discourses of “teacher” in their course work and field experiences, they encounter productive tension needed to construct identities (Ticknor, 2014-b). Tammy did not abandon her identity as a social justice educator even though resisting evaluator recommendations resulted in an unsatisfactory evaluation and a possible low grade and/or a poor professional recommendation. Instead, Tammy quickly sought advice to bolster her literacy instructional decisions that aligned with her identity as a social justice educator. The risk of negative feedback and evaluations calls into question whether protecting a social justice identity is possible, or even advised, for novice teachers. Cochran-Smith et al. (2009) suggest that it may be unrealistic for teacher educators to expect pre-service teachers who are “guests in other people’s classrooms” (p. 372) to resist larger institutional systems of power. Perhaps without easy access to supportive mentors, Tammy may have succumbed to Jenny’s misinformed recommendations about assumed student knowledge and changed her pedagogical decisions when questioning her identity as a “good” teacher.

Findings also suggest that educators may misinterpret socially just teaching practices and continue to perpetuate damaging stereotypes of students and ineffective teaching practices in elementary classrooms. Misinterpreted understandings of socially just practices can lead pre-service teachers to replicate limited perspectives of future students and encourage deficit models of students if not interrupted. Fortunately, Tammy was encouraged to wrestle with complex

educational issues to disrupt cultural assumptions and question pedagogical decisions that did not value students' diverse perspectives and experiences (Lynn & Smith-Maddox, 2007; Ticknor, in press). By disrupting stereotypes about student cultural knowledge, Tammy was able to position students as knowledgeable in more equitable ways providing students with learning opportunities not possible through other instructional practices.

Findings remind teacher educators that pre-service teachers, such as Tammy, yearn for social justice mentors throughout teacher education programs (Ticknor, 2012, in press). When a conflicting view of social justice was encountered, Tammy actively sought supportive educators to preserve a social justice professional identity in her student teaching setting. Tammy resisted abandoning her identity when confronted with an evaluator who did not agree with her pedagogical decisions nor share her understanding of socially just practices. Instead, Tammy found support and guidance from mentors she trusted and whom she knew held similar perspectives about literacy instruction and students and used the support to enact social justice pedagogy.

Although this report examined language from a single pre-service teacher and generalizations to all pre-service teachers cannot be made, teacher educators and teacher education programs interested in encouraging a social justice perspective in future teachers can learn from this study. First, social justice perspectives can be fostered and maintained in teacher education programs. Cochran-Smith (2010) advocates that teacher education programs should work toward a theory of social justice to inform a theory of practice that leads to teaching for social justice, which in turn informs the theory of the teacher education program. By working together, faculty can ensure a congruent message to students. Second, protecting a social justice identity is fraught with complexities and requires support from educators. The productive tension generated by intersecting multiple identities should not be avoided, but facilitated by teacher educators (Ticknor, 2014-b) and with supportive peer groups (Ticknor, in press). Third, social justice mentors need to be easily accessible. McNerney (2007) reminds teacher educators of the importance of selecting social justice resources and strategies to "mediate the relationships between the curriculum and students in the classroom, and it is their efforts that are likely to make the most immediate difference for students" (p. 270). Pre-service teachers need experienced educators to scaffold and provide opportunities to develop these skills (Mosely, 2010). Fourth, spaces for open and honest conversations about field experience events should be encouraged. Teacher educators can provide space for pre-service teachers

to engage in critical reflection and scaffold developing social justice stances (Lynn & Smith-Maddox, 2007; Ticknor, 2012, in press). Fifth, agency to use social justice pedagogies can be fostered in field experiences with support from encouraging educators. If teacher educators are committed to enacting socially just pedagogies in an age of reform, we must begin by educating pre-service teachers in our programs to be agents of change (Cochran-Smith, 2010). To ensure that novice teachers are prepared to exercise agency when enacting social justice pedagogies teacher educators need to provide a consistent thread of critical pedagogy (Han, 2013) and mentoring by social justice educators (Ticknor, 2012a, in 2014-b).

## Conclusions

Preserving a social justice identity is fraught with complexities for novice teachers. With support from and access to encouraging mentors, pre-service teachers can and do uphold social justice identities. Teacher educators can encourage pre-service teachers to incorporate and sustain a social justice stance in their professional identities to ensure pre-service teachers enter classrooms prepared to teach *all* students.



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### **About the Author**

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## A FORMATIVE STUDY: INQUIRY AND INFORMATIONAL TEXT WITH FIFTH-GRADE BILINGUALS

Lindsey Moses, Arizona State University at the Tempe Campus

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### Abstract

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This article includes the findings from a formative experiment implementing inquiry with informational texts in a fifth-grade bilingual classroom after the completion of state assessments. The pedagogical goals were focused on facilitating engaged reading and writing for native Spanish-speakers and building content knowledge and related academic vocabulary in English. The intervention was designed to emphasize modeling of research, strategies of the inquiry process, self-selected reading, informational text-creation and peer interactions, discussions and feedback regarding inquiry. In this article, the author shares initial instructional plans for implementation as well as modifications that were made based on factors inhibiting and advancing the pedagogical goals throughout the six-week study.

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## A Formative Study: Inquiry and Informational Text with Fifth-Grade Bilinguals

Katie, a fifth-grade teacher at a local bilingual elementary school, requested assistance in promoting engagement with reading and writing informational texts in her classroom. As with every classroom, there are varying amounts of flexibility allowed in terms of instructional approaches as well as student outcomes and products. This particular school followed a strictly paced curriculum leading up to state assessments in the spring, but allowed for academic freedom the final six weeks with the only requirement being a research presentation during the last week of school. Katie was aware of my research on inquiry with younger bilinguals and requested support for integrating more experiences with reading and writing informational texts utilizing an inquiry approach.

*Katie: I really want to reward my kids with meaningful and engaging projects after the state assessments. They have been working so hard, and it seems like everything we have been doing this semester has been focused on test prep. After the tests are done, we don't have any required curriculum to cover for the rest of the year except they have to have a final research project. But, it can be about anything- maybe we could do the solar system this year. They seemed pretty interested in that.*

*Researcher: Do they all have to research on the same general topic and theme, or could they individually select an inquiry project that interests them?*

*Katie: Well, I guess they could do whatever they wanted, but I only have so many informational books at their reading level that are not textbooks. And, they have to have something to present because all the fifth graders will be presenting reports the last week of school. I don't know...it seems like any topic would be a little chaotic, but I want them to engage with texts to answer their own curiosities, not ideas that I mandate (Initial planning conversation).*

I offered to gather resources before and during the inquiry project process to alleviate the limited access to texts. We brainstormed our goals and ideas for this project. Katie had attempted to follow instructional guidelines for facilitating inquiry and research in previous years with frustration and little success, so she invited me to team teach the lessons with constant reflection and revision of our

instructional approach in order to best support the students and simultaneously address new informational text demands found in the Common Core State Standards (CCSS). We agreed we wanted to use a formative experiment (Bradley et al., 2012) design to facilitate engaged reading and writing and build content knowledge and related academic vocabulary in English for native Spanish-speakers who were assigned to the “ESL/bilingual” classroom.

A formative experiment focuses on what is required to reach a pedagogical goal and factors that enhance or hinder the effectiveness of the intervention (Reinking & Bradley, 2004b). While there are many available commercial interventions to support language and literacy development, our goal was to facilitate engagement with informational texts and research on self-selected topics, and this required an intervention that could not be standardized or replicated with a commercial intervention. We selected inquiry projects as our intervention. Reinking and Bradley (2004a) explain, “Formative experiments, unlike experimental or naturalistic studies of instructional interventions, accommodate both the variation inherent in classrooms and the need to adapt interventions in response to relevant variation” (p. 153). The purpose of this study was to examine the effectiveness of literacy interventions based on teacher-designed, pedagogical goals in a Title 1, fifth-grade classroom with emerging bilinguals. The formative experiment allowed for us to adjust our instruction accordingly as we analyzed instruction and engagement based on student monitoring, student surveys and teacher reflection during the six-week study. We continually revisited three research questions to guide our modification of instruction:

1. What factors enhance and inhibit the effectiveness of the intervention in achieving the pedagogical goals?
2. How can the intervention be modified to achieve the pedagogical goals more effectively?
3. Has the instructional environment changed as a result of the intervention?

### **Setting and Participants**

Katie taught fifth grade in a bilingual elementary school in the Western United States with 65 percent of the students receiving free or reduced lunch. This Spanish and English speaking bilingual school was modeled after an early exit transitional approach that included first-language instruction in Spanish with increasing amounts of English instruction. All literacy and content instruction was provided in Spanish when students first entered the school, but the instruction

was increasingly provided in English over time. Native Spanish-speakers remained in bilingual classrooms until they demonstrated proficiency on the state English language assessment, at which time they transitioned into English-only speaking classrooms. There were no English as a Second Language (ESL) supports once a student entered an English-only classroom. All students were required to take the state assessments in English by third grade, and most students were transitioned into an English-only classroom after two years in a bilingual classroom.

Katie's classroom was supposed to provide the majority of instruction in English with minimal bilingual supports. All students in the classroom spoke Spanish as their first language. The students in Katie's classroom of 25 consisted of three new immigrants from Mexico, four transfer students from other schools, and 18 students who have attended this school and received bilingual instruction since kindergarten. These students were required to be assessed in English on the state assessments, but were not yet demonstrating proficiency on the state English language assessment. While these test scores provide useful information regarding English language proficiency, it is important to note that all 25 students were able to read, write, speak and comprehend Spanish.

Katie's end-of-year curricular freedom provided an opportunity to engage students in learning about content and the research/inquiry process in English. The only requirement included having her students present a research project in English during the last week of school. During this time, peers, teachers, and family members would be invited to walk around the classroom as students explained their project and answered any questions posed by the guests. This provided a perfect opportunity for Katie to engage her students in meaningful reading and writing guided by their interests.

## Methodology

### Formative Experiment

As previously mentioned, this study utilized a formative experiment approach in order to address pedagogical goals and answer the research questions. We began the study by identifying two pedagogical goals: (1) Facilitate engaged reading and writing for native Spanish-speakers who were assigned to the "ESL/bilingual" classroom for the entire year; and (2) build content knowledge and related academic vocabulary in English. The initial intervention was designed to facilitate (a) modeling of research strategies/inquiry process; (b) self-selected reading, research and informational text-creation; and, (c) peer interactions,

discussions and feedback regarding inquiry (interventions are addressed in greater detail in subsequent sections). Utilizing the framework for formative experiments (Reinking & Watkins, 2000), this study is based on the six recommended components of designing, conducting and reporting a formative experiment:

1. Identifying a pedagogical goal and offering a theoretical justification for its value.
2. Determining an instructional intervention that has the potential to meet the pedagogical goal.
3. Identifying factors that inhibit or advance the effectiveness of the intervention toward reading the pedagogical goal.
4. Modifying the intervention and implementation to more efficiently address the pedagogical goal.
5. Noting changes in the instructional environment resulting from the intervention.
6. Considering unanticipated positive or negative effects of the intervention (p.388).

### **Data Collection and Analysis**

Data collection included the following: daily classroom observations (including instruction, student interactions, student work); teacher reflections; pre-, mid-, and post-unit student surveys; and student documents (inquiry notebooks, sticky notes, note taking, initial drafts, informational text feature creations for research posters, and research posters). We analyzed the instructional intervention on a weekly basis when we met to review the data collected, student progress, and discuss the research questions:

1. What factors enhance and inhibit the effectiveness of the intervention in achieving the pedagogical goals?
2. How can the intervention be modified to achieve the pedagogical goals more effectively?
3. Has the instructional environment changed as a result of the intervention?

This weekly review of data collection and ongoing analysis provided us the opportunity to modify instructional supports, adapt the process, and to provide additional scaffolds and support to students as needed to ensure that they were reaching the pedagogical goals. These modifications are outlined in the findings below.



### **Theoretical Justification**

The theoretical justification for our pedagogical goals and interventions include sociocultural theories of learning that support inquiry-based instruction and the use of informational texts for effective instruction with bilinguals.

Sociocultural theorists and researchers report the most effective means of constructing knowledge is through dialogue arising from cooperative inquiry (Beach & Myers, 2001; Gutierrez, Baquedano-Lopez, & Tejada, 1999; Rosebery, Warren, & Conant, 1992). In many traditional classrooms, students have minimal opportunities for these types of interactions. For example, the classroom in this study had limited opportunities for collaboration and inquiry throughout the year. Dyson (2008) reports children negotiate meaning with one another in classrooms that encourage talk. Wells (1999) claims that shifting from a highly structured, teacher-directed model to creating a collaborative community causes students to learn with and from each other as they engage in dialogic inquiry. There is an additional need for this type of dialogic inquiry in the instruction of bilinguals because discourse plays an essential social role as a semiotic mediator in the construction of knowledge (Haneda & Wells, 2008). Drawing on this work, we selected pedagogical goals that aligned with sociocultural theory.

### **Pedagogical Goals: Inquiry**

Inquiry instruction has been reported to increase student motivation and attitudes toward learning (Mansfield, 1989) in addition to enhancing content knowledge and reading comprehension (Romance & Vitale, 2005). Researchers have documented the significant cognitive and social benefits that arise from the engaging, interactive and meaningful learning found in inquiry-based classrooms (Guccione, 2011; Schweinhart & Weikart, 1997; Schweinhart & Weikart, 1998). Because of this, we adopted an inquiry stance to our formative study with the bilingual students.

The inquiry stance gives student more agency with curriculum and instruction as it is guided by students' interests and changing needs (Ray, 2006). Self-selected inquiry was the focus of students' research projects. In order to support students' independent inquiry, we provided the modeling and guided practice of literacy and research skills. Reflection on student inquiry, student surveys and instructional practice guided our curriculum and pedagogical planning for modifications to instructional approaches, lessons, and how we facilitated peer interactions. This approach to inquiry with students, teachers and researchers provides opportunities for reflection and change as teachers are

experiencing the new demands and increased expectations with the Common Core State Standards (CCSS).

### **Addressing the CCSS with Informational text**

The CCSS highlight the importance of increasing meaningful experiences with informational texts and deepening students' thinking and responses to literature. In the CCSS, there is also an emphasis on preparing students for college and career expectations by focusing on text complexity, rigor and preparing students to construct meaning with complex texts. With this shift in instruction and performance expectations, teachers are attempting to increase engagement and rigor in their instruction with informational text.

Researchers have documented the benefits of providing increased exposure, access and knowledge about informational texts (Pappas, 1991; Purcell-Gates, Duke & Martineau, 2007). In addition to the new requirements with CCSS, informational text can motivate learners and encourage overall literacy development (Caswell & Duke, 1998). Multiple studies examining teachers' and students' work with informational text "suggest the importance of providing students multiple opportunities for engagement with informational text within literature-rich and instructionally supportive environments" (Maloch & Zapata, 2012, p.308). Drawing on this solid research base supporting the use of informational texts and motivating learners, we identified the pedagogical goals of facilitating engaged reading and writing for native Spanish-speakers and building content knowledge and related academic vocabulary in English.

### **Supporting Bilinguals**

Historically, many English learners receive decontextualized, rote-based instruction focused on skill acquisition (Allington, 1991; Darling-Hammond, 1995) and are more frequently placed in lower ability groups than native English speakers (Ruiz-de-Velasco & Fix, 2000). This emphasis on language as a form robs English learners of the opportunity to draw on the variety of potential resources they already possess, such as background knowledge related to the reading topic, reading comprehension strategies, interests and motivation (Bernhardt, 2011). English learners may be learning English in school, but they already possess linguistic resources that enable them to participate in a range of communicative settings in at least one language (MacSwan, Rolstad, & Glass, 2002; Valdés, Bunch, Snow, Lee, & Matos, , 2005) and have knowledge of conventions and discourses used in their own communities (Gutiérrez, Morales, & Martinez, 2009; Gutiérrez & Orellana, 2006; Orellana & Gutiérrez, 2006). Drawing on their conceptual

knowledge in their first language will help support the acquisition of their second language (Cummins, 1991).

Self-selected inquiry allows students to select topics of interest. This provides an opportunity for them to build on background knowledge in meaningful ways. Inquiry-based approaches in primary classrooms with Spanish-speaking students have been reported to facilitate progress in second-language acquisition, an increase in student participation in content-related discussions, and an increase in the use of comprehension strategies (Varelas & Pappas, 2006). The academic benefits of inquiry for bilinguals are vast because of the rich experiences with language and content. “ELLs learn language as they engage in meaningful content-rich activities (projects, presentations, investigations) that encourage language growth through perception, interaction, planning, research, discussion, argument, and co-construction of academic products” (Hakuta & Santos, 2012, p. iii). These meaningful content-rich activities are the foundation for self-selected inquiry.

### **Instructional Intervention**

The insights from the previous research conducted on inquiry-based instruction, informational texts, and effective pedagogy for bilinguals provided a general framework for the instructional intervention. The classroom teacher and I decided that our intervention would consist of three basic components: (1) Teacher-initiated strategy instruction for inquiry with informational texts (reading, writing and general research skills); (2) Self-selected inquiry (reading, research and research poster creation); and (3) Peer-interactions, discussions and feedback surrounding their inquiry. First I describe the plan for teacher-directed instruction. Then, initial goals, expectations and plans for self-selected inquiry and peer interactions are shared. After weekly analysis and reflection, the intervention was modified with adaptations and additional scaffolds and support, as we deemed appropriate for reaching the pedagogical goals. These modifications will be addressed in subsequent sections (Modifications: What We Changed Along the Way).

### **Plan for Teacher-Initiated Instruction**

Our goals to facilitate engaged reading and writing were guided by the three-component intervention previously mentioned that began with teacher-initiated instruction. We wanted to focus on integrated instruction by teaching skills for engaging with informational text and conducting research on a self-selected topic. Based on students’ language and literacy proficiency performance in English and

their lack of prior instruction engaging with informational texts, we decided to focus on teaching informational text features, inquiry research strategies, and text creation for sharing research (this ranged from informational text features to summaries to completed projects and research posters). This instruction would be modeled by the researcher and supported by both the teacher and researcher as the students worked on their self-selected inquiry projects. I selected a topic for my inquiry project to model the process and progression throughout the six-week period. As seen in Table 1, I introduced a new strategy and mini-lessons by modeling with my project before asking the students to apply the strategy with their self-selected topic every week.

**Table 1: Schedule and Instructional Plan**

Schedule	Instructional Plan
Week 1: Informational Text Features	Modeling and book exploration with the following informational text features as tools to support comprehension: Headings, bold words, glossary, images, captions, labels, diagrams, cutaways, charts, maps, graphs
Week 2: Inquiry Strategies	Modeling and guided practice with the following inquiry research strategies to support research process: Questions; Answers; Documenting Information; Sources (finding books, articles, website, etc. and citations)
Week 3: Continued Inquiry Modeling	Modeling and guided practice with the following inquiry research strategies to support research process: Synthesize and Summarize; Fascinating Facts; Visual Representations
Week 4: Text Organization and Creation	Modeling and guided practice of the integration of inquiry process/collected research and informational text features to create a research "text" (poster, report, etc)
Week 5: Text Organization, Creation and Presentation	Guided practice with revisions, editing and initial presentation rehearsals of text creation.
Week 6: Rehearsal and Presentation	Presentation rehearsal with peer and teacher feedback  Formal presentation to teachers, adults and invited community members

### **Goals, Expectations and Plans for Self-Selected Inquiry**

The goals and expectations for student self-selected inquiry were straightforward. We expected students would observe modeled strategies and implement them into their self-selected inquiry projects. We anticipated topic selection would take one to two days while exploring and learning about informational texts, reading books of interest at the library or online until they decided on a topic of interest. At that point, students would focus their guided inquiry of the strategies and research on their selected topic. This would include utilizing books from the classroom, independently collecting books during their 30 minute library time, gaining information from various articles or websites online, taking turns on the two classroom computers or during their 60 minutes a week in the computer lab.

We expected all students to utilize each of the strategies to support comprehension and document their understanding through the guided practice. However, we wanted students to have choice in research skills and how they documented and shared their information in a way that was meaningful to their project and learning style. We envisioned this including multiple kinds of text creation such as note taking, summaries, reports, research posters, and informational text features (captions, labels, diagrams, bold words, glossary, etc.). Because of this, we did not create a formal rubric or requirements for the research or text creation. We anticipated continued research during weeks two through three focused mostly on documenting important information gained from their inquiry research. This would be followed by two weeks of continued research, inquiry project creation (a poster, report, representation of their learning) and revision utilizing informational text features. The final week would be focused on rehearsals and presentations of their projects. We believed these opportunities for self-selected inquiry would facilitate engaged reading and writing and build content knowledge and related academic vocabulary in English.

### **Goals, Expectations and Plans for Peer Interactions**

To expand students' engagement and understanding, we wanted extensive opportunities for peer interactions, discussions and feedback. Understanding the benefits of dialogue for bilingual students, we encouraged conferring with peers and teachers without structured guidance other than sharing their work and soliciting feedback. We set aside 10 minutes for sharing their "thinking and research in progress" in small groups every day. We planned for this time to include student questions that would further enhance the research in progress. We

anticipated that students would be actively engaged in conversations, debate and critical feedback about important topics, so other than carving out time, we did minimal planning for scaffolding their interactions. Needless to say, we had to modify our plans to support these interactions along the way.

## **Findings**

### **Modifications: What We Changed Along the Way**

Following the initial pedagogical goal setting and identification of instructional interventions grounded in research literature, we began to implement the inquiry interventions. The data analysis was ongoing and included assessing the first two research questions:

1. What factors enhance and inhibit the effectiveness of the intervention in achieving the pedagogical goals?
2. How can the intervention be modified to achieve the pedagogical goals more effectively?

As we identified factors that were inhibiting the effectiveness, we modified the instructional to reach the pedagogical goals more effectively. In the following findings sections, the hindrances, modifications and enhancements to the intervention are reported in the following areas: Teacher-initiated instruction, self-selected inquiry, and peer interactions. We addressed each identified hindrance during Part One (the initial intervention) with an instructional modification that took place in Part Two (altering intervention from part one) in order to enhance the intervention and student learning.

### **Teacher-Directed Instruction: Hindrances, Modifications and Enhancements**

In Part One of the intervention, the teacher-initiated instruction progressed with the planned instructional mini-lessons followed by guided practice and support. However, we also made modifications after initial observations of factors hindering progress toward the pedagogical goals. We observed students attempting to only read, write, and speak in English; this appeared to be hindering their access to information and discussion about information. Because of this, we encouraged students to read, write, and speak in Spanish when it assisted in their independent inquiry during Part Two. We reminded them their research final project would ultimately be written in English, but that using two languages and resources in two languages could greatly assist their research process of

questioning, researching, reporting, and sharing. In addition to this broad change/reminder, there were some specific lessons that required additional modification.

The two particular mini-lessons from Part One that had to be revisited and modified were asking questions, and synthesizing and summarizing. The progress of new learning was hindered when many students asked questions about information they already knew or read in the text. They were not asking questions to guide their research. Instead, they were reading information and creating questions that corresponded with the reading. For example, Julio was researching about the *Negro National League* baseball. He included the following questions and answers (nearly direct quotes) all found on the first two pages of the text, *We are the Ship: The Story of Negro League Baseball* (Nelson, 2008): 1). “Who was the first Negro to play professional baseball? Answer- Bud Fowler was the first Negro to play professional baseball.”; 2). “How did he protect his legs from being spiked by base runners? Answer- He attached wooden staves from a barrel to his legs for protection.” After reviewing his questions and answers, it was clear by his vocabulary (wooden staves from a barrel), language use (the repeated use of the word Negro, as used in the book), and specific questioning and answers found on the first two pages that his questions were not stemming from his curiosities and research. Instead, he was using a format similar to test preparation and state assessments, where he was creating a question based on information that could be quoted and found directly in the text. We observed multiple examples of this type of reading, comprehension question creation, and text-based answers among the students during their independent inquiry. While these strategies had served students well in the recent assessments, in Part Two we had to reteach asking questions with specific and explicit instruction that the questions were *their* curiosities and some questions would remain unanswered. Based on observations, the re-teaching of the mini-lesson with explicit focus addressed the previous issue of asking questions that they already knew the answer to.

An additional challenge and re-teaching modification came with synthesizing and summarizing, when we observed multiple students copying information straight from the text. Their research progress was being hindered by an inaccurate view of summarizing and synthesizing. In Part One, Malia had created two beautiful illustrations with labels, captions and an accompanying paragraph-length summary that included a page number citation. Katie asked her to talk about her work, but Malia had difficulty pronouncing many of the words and seemed frustrated and embarrassed. Katie suggested going back to the text to revisit the ideas, but then realized Malia had copied the images, labels, captions,



and summary. When she reminded Malia she needed to put her learning in her own words, Malia said she didn't think she needed to because she cited the page number. It was clear we needed to revisit synthesizing, summarizing, and citations.

We had a small group of students who had grasped the concept of putting the information they were learning into their own words, but they were basically rewording every sentence on the page and including many details that were not relevant to their questions. During Part Two, we returned to the model lesson and practiced oral retelling without looking at the book, as well as identified the difference between "Fascinating Facts" and essential information to be included in a summary. The re-teaching and explicit instruction about the difference between copying and summarizing provided a solution to the previously observed copying.

**Unanticipated enhancement.** We noticed students were utilizing additional research strategies that were not introduced by the teacher or researcher. Two students were creating their own glossaries that included vocabulary words, definitions, and accompanying visual representations (see Image 1). These students were keeping track of the words they encountered that they did not know and thought they might need to reference at a later time during the project. Another student wanted to conduct an interview with an expert as a way to gather information. A third student wanted to present their information in a mobile to scale of the animal they were researching (see Image 2). We felt all students could benefit from a mini-lesson on the new strategies these students were utilizing, so we asked the students to teach a mini-lesson on what they were doing and what purpose it served their project. Other classmates began utilizing the strategies presented by their peers to enhance their understanding and research presentation.

**Image 1**

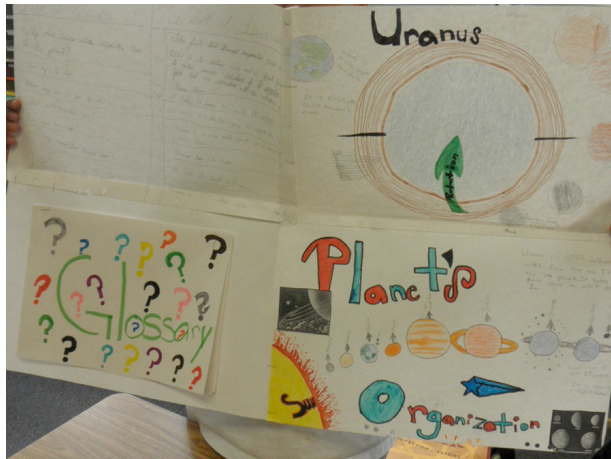
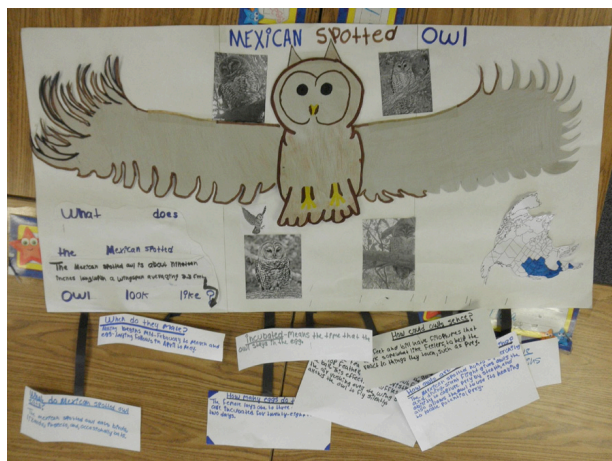




Image 2



### Self-Selected Inquiry: Hindrances, Modifications and Enhancements

Most students were highly engaged in reading, researching and documenting information on their self-selected topic. Nevertheless, some students would participate in the guided practice lesson, but were not documenting additional research or understanding. They were not seeking out new texts or discussing their topic with teachers or peers. When asked what they were working on, one student responded with a shrug of their shoulders and said, “I think I am done. I don’t know what to do next.” Katie, the teacher, was feeling frustrated with some students’ lack of output and initiative on their inquiry project. She worried they would not collect enough information to create an informational text for their final research presentation. The lack of structure and accountability seemed to paralyze these students who appeared to be looking for more support and direction.

In Part Two, we implemented two instructional scaffolds/modifications to support this challenge: goal setting and a menu. Each day after the mini-lesson, we asked students to write their personal goal for productivity on a small sheet of paper and share it with their neighbor. The following are some examples of student goals: “ask two new questions and read for information”; “find answers to my questions”; “draw a map and highlight where my animal lives”; “summarize all of my facts.” Students would set goals and then self-assess their goals at the end of the period with their neighbors before turning them in to the teacher. To help remind students of the strategies, mini-lessons and options for representing their understanding, we created a class chart documenting the information text features, research skills, and text creation options. As a new strategy was presented, we

added it to the list. Then, students each had an individual “menu” from which they could choose what strategies they wanted to use (see Image 3). We asked students to place tallies on their menus as a visual reference to self-assess their strategy and text creation variety. These two alterations assisted in supporting students with setting goals, staying on-task, and making progress on their projects.

**Image 3**

## Inquiry project menus

- **Sample Checklist/Menu:**

Questions	I Learned	Presentation Plan
I Think	Connections	Written feedback
Illustrations	Captions	Author Info
Labels	Diagrams	Maps
Models	Cutaways	Editing Checklist
Summaries	Report	Key Terms
Sources	Glossary	Headings
Bibliography	Charts	Annotated Bibliography

### **Peer Interactions: Hindrances, Modifications and Enhancements**

In similar fashion as the teacher-initiated instruction and self-selected inquiry, we modified our supports for peer interaction in order to meet our pedagogical goals of facilitating engaged reading and writing, and building content knowledge and related academic vocabulary in English. In addition to giving students time to discuss their self-selected inquiry, we realized we needed to model ways to interact and respond to students “thinking and research in progress.” We wanted students to build content knowledge and academic vocabulary related to their peers’ topics, but we also wanted students to provide comments and questions that would enhance the presenter’s research. Students listened to sharing of inquiry projects and read the work of their partners and group mates. This was followed by written and orally shared responses.

Initially, we heard a lot of, “I like your research,” but these surface level responses were hindering deeper learning and discussion about important topics. To address this, I created an additional scaffold for soliciting and receiving helpful feedback for enhancing their research presentations during Part Two. I asked the presenter to seek feedback by asking their group to provide specific feedback of their choice. For example, one student said, “Tell me what needs more

information.” Another student said, “What part do you like the best? And, what part do you think needs the most work?” The group was only allowed to respond to the feedback requested by the presenter. They would write down their feedback and give it to the presenter when they shared it orally. Students could then continue to discuss the research and presentation. This provided more specific and critical feedback that supported the revision and rehearsal process for the presenter.

I observed that many of the less proficient English speakers were not contributing to the discussion. I believed that language proficiency was hindering some of the students’ participation surrounding both their research and the research of their peers. As a modification, I encouraged students to write feedback, questions, comments and facilitate discussions in Spanish when they felt it would enhance the conversation and eventually their research. These discussions also helped guide students’ goals and work during the following days as they revised their inquiry project.

### **Changing Environment and Students’ Perceptions**

In this section, I address the findings related to the third and final research question: Has the instructional environment changed as a result of the intervention? The instructional environment changed in multiple ways. There was a shift from a focus on test preparation and narrative texts to self-selected research projects. The initial shift appeared to be a change in focus on text structures from narrative to informational. However, the informational text (and instruction of text structures) was utilized in conjunction with research skills as tools to seek out information on a topic of students’ choice. This information seeking was based on their own self-selected inquiry and was presented to peers, adults and other community members. The teacher reported that the shift in audience from teacher/test assessor to peers and community members sparked a great deal of commitment and pride in their presentations. Choice and access to informational texts allowed students to build on their background knowledge as they became experts on their topics (ranging from African Americans in Negro League Baseball, to bull terriers and breeding, to the solar system, to the Mexican Spotted Owl). This also created a change from teacher-directed and teacher-selected instruction to student-centered co-construction of knowledge. Students built on the foundation of skills to create a meaningful informational text and presentation. Students worked together to model helpful research strategies, provide feedback, revise their work, and eventually present a polished product.

Students' perceptions of the Language Arts period, their competencies, and enjoyment during this time also shifted. Students were surveyed at the beginning, middle, and end of the research unit with the following questions:

- What is your favorite subject in school (Math, Science, Social Studies, Language Arts?) Why?
- What do you like most about the Language Arts period?
- What do you like least about the Language Arts period?
- Share one or two things that you do well during Language Arts.
- Share one or two things that are difficult for you during Language Arts.

In the pre-survey, only six students selected Language Arts as their favorite subject. However, this number increased to eight by the mid-unit survey and to 13 by the post-unit survey. Additionally students' responses to what they like most and least during Language Arts changed. The most prevalent pre-unit responses were that they liked reading groups the most and taking tests the least (this could be due to the fact that they just finished the state assessment window). However, by the post-unit assessment the most prevalent student responses were that they liked research the most. The responses of liking taking tests the least were still the most common during the post-unit survey.

Finally, we also saw a shift in students' perceived strengths and weaknesses during Language Arts. The most prevalent strength during the pre-survey was reading fast, and the most prevalent reported difficulty was reading long books (also referred to as long chapter books, books with a lot of words, books with too many pages, etc.). During the post-unit survey, the most prevalent strengths were related to research and presenting their research (i.e. "I am really good at research;" "Finding information and putting it in my own words to share with my parents;" "Asking questions, finding answers, summarizing and synthesizing."). The most prevalently reported difficulty during Language Arts was the strategy of summarizing and synthesizing. Students' shifting perspectives about Language Arts, their competencies and challenges demonstrated a change in focus from test-taking skills and strategies to content, research and knowledge dissemination.

## **Discussion**

The growing role of informational texts in today's language arts classrooms provides opportunities to build on curiosities and background knowledge. The shift is not simply about understanding alternative text structures and additional

exposure to informational texts. The shift should be altered to focus on the facilitation of content understanding, critical thinking, and text creations in the informational genre. This can be accomplished when the pedagogical philosophy is grounded not only skill acquisition, but also exploration and engagement with texts of interest. Through these experiences students' motivation is enhanced as is their content knowledge, language acquisition and literacy skills.

We began the study by identifying the two most important pedagogical goals we wanted to investigate: (1) Facilitate engaged reading and writing for native Spanish-speakers who were assigned to the "ESL/bilingual" classroom for the entire year; and (2) build content knowledge and related academic vocabulary in English. The initial intervention was designed to emphasize (a) modeling of research strategies/inquiry process; (b) self-selected reading, research and informational text-creation; and (c) peer interactions, discussions and feedback regarding inquiry. Throughout the course of the six weeks, we constantly altered our instruction to move closer toward our pedagogical goals by consistently revisiting the first two research questions: What factors enhance and inhibit the effectiveness of the intervention in achieving the pedagogical goals?; How can the intervention be modified to achieve the pedagogical goals more effectively?

We did not anticipate the student-created resources and skills for enhancing their projects, nor did we foresee the need for modeling and scaffolding student interactions. Yet, these student-directed alterations to the unit of inquiry strengthened the self-selected inquiry projects and presentations.

One student who had recently moved from Mexico wanted to research a Mexican animal and include relevant information about his home country. He utilized texts in English and Spanish to support his inquiry about the Mexican Spotted Owl and took pride in citing his bilingual resources. During the final presentations with the community members, he presented in both English and Spanish, depending on the current audience. He referenced the map he created to document where the owls lived, but he also pointed out to audience members where he had lived. His interactions with informational texts and choice of research and text creation provided an opportunity to draw on his background knowledge, first language, cultural connections, literacy and research skills.

So, what opportunities do informational texts afford? I believe they provide occasions for introducing and supporting an inquiry stance- not just understanding text structures or writing a research report. Teaching and testing text structures or analyzing report writing is easier and much more linear than facilitating inquiry, but inquiry facilitated engaged reading and writing while

simultaneously supporting content knowledge and related academic vocabulary during a short six-week period. Katie reported that her fifth-grade bilinguals consumed and produced more text in this unit of inquiry than they did in the previous two science units combined. I would argue that even more important than academic performance, students enjoyed their engagement with and creation of text. When asked to reflect on their self-selected inquiry projects, one student said, “It was so cool because we got to learn about whatever we wanted. Then, we got to tell our friends and adults and everybody about stuff that only we knew because no one read as much about it as us.” As students took ownership and pride in their research with informational texts, their motivation, engagement and quality of work increased.

Here are some practical suggestions for getting started with integrating informational texts and inquiry in your classroom:

- Survey students about possible topics of interest for self selected inquiry.
- Collect informational texts and additional resources to support student inquiry.
- Give students time to explore informational texts and identify text features.
- Discuss informational text features and their purposes (create a list of essential features based on your grade level and point out any features students do not identify in the book exploration).
- Model the inquiry process with mini-lessons based on need and developmental appropriateness.
- Document mini-lessons and strategies so that students can easily refer back to them.
- Provided guided practice following mini-lessons on self-selected topics.
- Model peer feedback and interactions for critiquing the inquiry projects- I have heard some teachers say, “Hard on content, soft on people” as a guiding thought for critical feedback. Students should be sharing and getting feedback from the very initial stages.
- Support students in small-groups and one-on-one based on needs and interests.
- Be flexible with your instruction...You may have thought everyone would need a mini- lesson on captions today, but your use of observations and informal assessments might suggest you really need to go back and re-teach questioning.
- Model presenting and discuss presentation skills.
- Celebrate their hard work and the culmination of the inquiry process.



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## **ADDRESSING THE 'SHIFT': PREPARING PRESERVICE SECONDARY TEACHERS FOR THE COMMON CORE**

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### **Abstract**

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Common Core represents a shift in content-area literacy instruction, broadening from a narrow focus on generalizable skills to also include a disciplinary perspective of literacies specific to the specialized language and habits of thinking within particular subjects. This requires teachers to be knowledgeable in their content and possess competence in pedagogical practices that allow them to scaffold their students' literacy development within these disciplines. We examined how the implementation of a Disciplinary Literacy Project into a content-area literacy course influenced preservice secondary teachers' disciplinary literacy practice. The findings suggest structured inquiry into disciplinary communities enhances preservice teachers' understanding of disciplinary literacy, but this knowledge is not easily transferred into classroom instruction. Implications for future research on disciplinary literacy models and preservice teacher preparation are discussed.

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## **Addressing the 'Shift': Preparing Preservice Secondary Teachers for the Common Core**

### **Introduction**

The Common Core State Standards for English/Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects [CCSS] (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) represents a significant shift in the expectations for both the teaching and learning of literacy related to specific subject areas. Traditionally content literacy instruction has emphasized infusing generic reading comprehension, vocabulary, and writing strategies into content classes as tools to facilitate information acquisition (Fang & Coatoam, 2013; Heller & Greenleaf, 2007; Moore, Readence, & Rickelman, 1983; O'Brien, Stewart, & Moje, 1995). The new paradigm posed by the Common Core shift expands the traditional approach to also include reading and writing instruction embedded within and part of a specific discipline (Draper & Siebert, 2010; Fang & Coatoam, 2013; Heller & Greenleaf, 2007; Shanahan & Shanahan, 2012). This shift is designed to address adolescents' persistent struggles with the unique texts encountered in content-area courses and aligns with views that unique reading and writing skills are necessary for students to investigate, understand, and debate the meaning of content studied in various subject area classes (Draper, Broomhead, Jensen, Nokes, & Siebert, 2010; Moje, 2008a; Shanahan & Shanahan, 2008).

Researchers have discovered what disciplinary experts and novices do when reading a text (see Shanahan & Shanahan, 2008; Wineburg, 1991). For example, Wineburg (1991) found that historians' source, contextualize, and corroborate sources. Shanahan and Shanahan (2008) noted chemists focused on the different representations of the text when reading and mathematicians paid close attention to function words (e.g., a, and, the).

Not all researchers support the use of disciplinary literacy in the secondary classroom. Heller (2010/2011) posited many secondary content-area teachers do not have a disciplinary background, so disciplinary literacy instruction should be left to college professors. Ehren, Murza, and Malani (2012) and Faggella-Luby, Graner, Deshler, and Drew (2012) argued struggling readers and writers might not benefit from disciplinary literacy instruction due to a lack of foundational reading skills. We share the view of other literary scholars that a divisive literacy-content dichotomy is not productive for understanding the practices that will help

teachers and students succeed (Brozo, Moorman, Meyer, & Stewart, 2013; Draper & Siebert, 2010; Massey & Riley, 2013).

The CCSS includes standards that address general literacy competencies across disciplines as well as distinct discipline-specific literacy standards nuanced for particular discipline areas. As school districts enter the early phases of CCSS implementation, current pre-service secondary teachers will be expected to possess the competence to help students meet all of the literacy expectations outlined in the standards. Due to this shift, secondary teacher preparation programs have been called on to transform traditional models of content literacy courses to adequately prepare future teachers to meet the additional demands of disciplinary literacy instruction (Conley, 2008; Fang, 2014; Moje, 2008a; Shanahan & Shanahan, 2008). However, there are few examples of content literacy courses that have made this shift toward including disciplinary literacy perspectives (Conley, 2012; Draper, et al., 2010; Moje, 2008b). To address this gap, we sought to examine how infusing an inquiry-based Disciplinary Literacy Project (DLP) into a content literacy course impacted pre-service secondary teachers' beliefs about disciplinary literacies and how their beliefs influenced their classroom instruction.

## **Theoretical Framework**

Our study was framed by the convergence of a sociocultural theory of human development (Lave & Wenger, 1991; Wenger, 1998) and a Discourse theory of identity development (Gee, 1996). This framework holds that literacy never exists in isolation; it is always a part of the languages, practices and cultural values of a situated community (Barton & Hamilton, 2000; Gee, 1996). What makes communities unique is their specific practices or ways of living and viewing the world. Communities are denoted by a shared repertoire, which includes language, tools, routines, gestures, symbols, actions, and ways of doing things that a community has established in its existence (Wenger, 1998). Thus, individuals have social identities according to the different communities in which they belong.

In relation to educational subject areas, Dewey (2009) posited such communities of practice actually consist of two sub-communities of practice: one of professional disciplinary experts constructing and disseminating knowledge and another of content-area classroom teachers transferring the disciplinary knowledge to students. This elaboration on situated identities raises an important issue for literacy educators working with pre-service secondary teachers. On one hand, future teachers are shaped by the Discourse and practices of their respective discipline areas, with some functions and purposes of literacy valued more than

others. For example, Wineburg (1991) found historians contextualize, source, and corroborate. Shanahan & Shanahan (2008) reaffirmed Wineburg's findings. They also found mathematicians engaged in close reading and rereading, paying specific attention to function words, and chemists employed unique reading processes that included visualization, note-taking, and corroborating between visual images presented on the page.

On the other hand, future teachers are also engaged in a process of being shaped by the Discourses of the community of secondary educators. Thus, pre-service teachers with a bachelor's degree in a disciplinary field, may struggle with negotiating their disciplinary practices with those associated with secondary content classrooms. As a result, future secondary teachers could have conflicting feelings about their professional identity.

## Methods

We conducted an exploratory study that aimed to add to the knowledge base on *how to facilitate teachers' development of disciplinary literacy pedagogy*. Specifically, we investigated secondary pre-service teachers' understandings of disciplinary literacy practices and how they applied this disciplinary knowledge in their instruction. We were guided by the following research questions: 1) How does engagement in a Disciplinary Literacy Project (DLP) influence pre-service secondary teachers' perspectives on literacy practices in their disciplines? 2) How does engagement in a DLP influence pre-service secondary teachers' instructional practices in the classroom?

## Participants

Fourteen secondary pre-service teachers, who were enrolled in a cross-disciplinary content literacy course taught by the second author, participated in our overarching study. All the participants were candidates in the single subject teaching credential program and had successfully completed a Bachelor's degree in their respective fields. Majors included mathematics, science, and history. This study focuses on data from seven of the participants (see Table 1), who were purposefully selected to represent the diverse range of ethnicities, genders, and disciplines in the course and because of the differences they exhibited in their disciplinary literacy beliefs and instruction.

**Table 1:** *Participant Demographics*

Participant	Discipline	Gender	Ethnicity- (self-identified)
Michael	history	Male	White
Lindsay	mathematics	Female	Hmong
Francine	mathematics	Female	Chinese-American
George	mathematics	Male	Mexican-American
Frank	science	Male	Latino
Ashley	science	Female	White
Samuel	science	Male	Latino

## Context

The content literacy course that grounds this research is the only literacy methods course offered to students in the program. Students also participated in a concurrent field experience, teaching lessons under the guidance of an in-service mentor. For the purpose of this study, this course included a DLP that engaged students in the exploration of how general literacy strategies could be applied across disciplines, how reading, writing, and habits of thinking are valued by specific disciplines, and the implications these practices hold for classroom instruction.

Throughout the semester, the students collaborated in discipline specific groups to complete the various components of the project. Using protocols developed from previous research (Moje, 2007; Shanahan & Shanahan, 2008), groups interviewed professors to investigate how they used language within their work, the types of texts they used and produced, the purposes for these texts, and essential literacy skills students should develop for future work within the fields. Content-area teachers and high school students were asked about their perceptions of literacy processes and practices required for their subject areas, the texts used and produced in their classes, and the purposes for these texts. The disciplinary groups synthesized interview responses to determine how literacies were used and valued among the fields. Next, groups analyzed current textbooks and classroom texts for the degree to which they matched the expectations the students had developed during their inquiry. As a culmination of the project, groups constructed a report and presentation regarding their experiences and discoveries.

The first segment of the course concentrated on analyzing the CCSS and general literacy strategies and instructional practices –“the strategies, routines, skills, language, and practices that can be applied universally to content area learning” (Faggella-Luby, Graner, Deshler, & Drew, 2012, p. 69). Examples of the strategies discussed during this segment included: anticipation/prediction guides (Wood & Mateja, 1983), K-W-L charts (Ogle, 1986), and structured note-taking (Smith & Tompkins, 1988). Students read about these strategies, and the instructor modeled the strategies for various content-areas. In addition, students examined the standards for the grade level and subject area of their assigned field experience and discussed how specific standards could be addressed through various strategies.

During the second phase of the course, the students began teaching lessons in their classroom field experiences, and the discipline-specific groups completed the various components of the DLP. Each class session focused on a particular component of the project. The discussions of the findings were linked with the course readings on disciplinary literacy, and the disciplinary groups collaborated to adapt the general literacy strategies from previous sessions based on their inquiry discoveries.

For example, during one class session the science students noted distinct differences between a biologist’s emphasis on using writing to communicate ideas to colleagues and a classroom teacher’s emphasis on using writing to facilitate students’ learning. The instructor guided the students to analyze the processes each respondent used to accomplish their particular goals. Students discovered that both the biologist and the classroom teacher reported note-taking and drawing comparisons as key processes. The instructor then directed the conversation to examine the specific differences between these similar processes as a way to emphasize the distinction between content area literacy practices and disciplinary literacy practices, with regards to intention and multiple sources. The general literacy practices of structured note-taking and compare-contrast were reviewed, and the discussion concluded with potential ways to transform the instructional use of these strategies into disciplinary processes.

In the final phase of the course, students continued teaching lessons in their classroom field experiences, and discipline groups synthesized the findings from the DLP in reports and made presentations to the class. Similar to the second phase, this segment of the course emphasized connections between students’ teaching experiences, project results, CCSS, and course materials. Each class session had one of the discipline groups present their projects, followed by a

time for questions, discussion, and connections. Table 2 below describes the DLP project and the course. The first segment represents the first part of the semester, roughly the first five weeks, the second segment embodies the second five weeks of the semester, and the third segment symbolizes the last five weeks of the semester.

**Table 2:** *Brief Description of the Content Literacy Course*

Segment One	Segment Two	Segment Three
<p>I. Analysis of CCSS and general literacy strategies (GLS):</p> <p>--Anticipation/prediction guides (Wood &amp; Mateja, 1983)</p> <p>--KWL (Ogle, 1986)</p> <p>--Structured note-taking (Smith &amp; Tompkins, 1988)</p> <p>II. Instructor modeled GLS's and introduced disciplinary strategies via DL readings.</p> <p>III. Students explored how mentor teachers used GLS's in field experience.</p>	<p>I. Students taught lessons in field experience.</p> <p>II. Students completed the DLP:</p> <p>--Interviewed professors, about language used, types and purposes of text used and produced, and essential literacy skills needed for discipline.</p> <p>--Interviewed content-area teachers and students about perceptions of literacy practices and processes required for their subject area, the purposes of text used and produced.</p> <p>--Analyzed textbooks for the degree to which they matched the expectations the students had developed during their inquiry.</p> <p>III. Discipline groups created text sets that included 5 different types of texts for a disciplinary topic.</p> <p>IV. Collaborative discussions linked course readings on DL, CCSS, and field experience.</p> <p>V. Instructor reviewed GLS's; class discussed ways to transform GLS's into disciplinary processes.</p>	<p>I. Students continued to teach lessons in field experience.</p> <p>II. Discipline groups synthesized findings from DLP in reports and presented to class.</p> <p>III. Collaborative discussions emphasized connections to students' field experiences, project results, CCSS, and other course readings.</p>



**Data Source and Analysis**

The multiple sources of data collected included specific components of the DLP, which included copies of final reports from each group, presentation materials, and transcripts of the presentations. We also collected data from other course assignments, such as copies of reflective online threaded discussions in which the students were given a prompt and reflected on the prompt in light of their course readings and field experiences, student field experience reflections in which the students reflected on their classroom observations and teaching experiences, and individual reflective essays where the students reflected on their notion of literacy in their discipline (see Table 3 for the number of data collected per source).

**Table 3:** *Data Sources*

DLP Data Sources	Other Data Sources
I. final reports (N=3) II. presentation materials (N=3) III. transcripts of the presentations (N=3)	I. reflective online threaded discussions (3 times throughout the semester; N= 21 discussion posts) II. student field experience reflections (N=7) III. individual reflective essays (N=7)

Data collection occurred throughout the semester and each participant was assigned a pseudonym. We did not start analyzing the data until the semester was completed and final grades had been submitted. Analysis proceeded in a systematic fashion, and focused on how the students’ literacy instructional beliefs and practices meshed with disciplinary literacy perspectives. We initially coded the data using Shanahan and Shanahan’s (2008) levels of literacy (e.g., basic, intermediate, disciplinary). We conducted the first iteration of analysis independently. Inter-rater reliability checks were conducted through an iterative process to establish coherence in coding procedures (Merriam, 2009). Two iterations were required to reach a high degree of agreement.

We identified patterns of students’ literacy instructional beliefs and practices for each case (Creswell, 2007; Merriam, 2009). Cross-case analysis (Miles & Huberman, 1994) compared students within and across disciplines to seek convergent views across cases as well as divergent views among cases (Creswell, 2007). These beliefs and practices were layered over the College and Career Readiness Anchor Standards for Reading & Writing [CCR] (NGA & CCSSO,

2010). The students were being prepared to teach across multiple grade levels, and were assigned field experiences across sixth through twelfth grade. Rather than analyze specific grade-level standards, we chose to use the anchor standards because they were designed to represent the broad expectations of student outcomes across school levels. Once the analysis was complete, we compiled the data into tables (see Table 4) and into narratives, which helped organize the data and provided a picture for the reader (Miles & Huberman, 1994).

**Table 4:** *Example of Beliefs and Practices and CCSS Analysis Matrix*

Data	Participant	Literacy Level	Belief/Practice	CCSS Domain
First and foremost, while reading mathematics a person must be able to decipher two languages at the same time.	Lindsay	DL	belief	Craft and Structure
Showed movie clips to help reinforce science content.	Frank	IL	practice	Multiple Texts

We used a variety of strategies to maximize validity and reliability of the discoveries. We triangulated across multiple data sources. In addition, we employed an inside-outside legitimization method (Onwuegbuzie & Johnson, 2006). The first author had no interaction with the students within the course and provided an outside perspective for data analysis. The outside perspective also provided a balance to the second author's role of course instructor during the data analysis.

## Discoveries

We identified three themes regarding the ways these secondary pre-service teachers' disciplinary literacy pedagogical beliefs and instructional practices related to the CCR. In the cross-case analysis, we did not find specific patterns by discipline. The table below illustrates the secondary pre-service teachers' beliefs and practices related to the CCR.

**Table 5:** *Participants' Beliefs and Enactment of Disciplinary Literacy*

DL Beliefs & Practices	Michael	Lindsay	Francine	George	Frank	Ashley	Samuel
Vocab Beliefs	X	X	X	X	X	X	X
Vocab Practice				X			X
Multiple Texts Beliefs	X						X
Multiple Texts Practice	X						
Writing Beliefs	X					X	X
Writing Practice							

### Emphasis of Disciplinary Vocabulary

The Craft and Structure domain is constructed of interrelated reading anchor standards that emphasize students' competence in analyzing and interpreting the structures of written text at multiple levels, from individual words to extensive sections of text (Calkins, Ehrenworth, & Lehman, 2012). Although vocabulary knowledge is embedded within this domain, teaching expectations shift from helping students learn the meanings of new words to teaching students to interpret words and phrases in context and understand how authors' word choices and text structures impact tone and meaning. Discipline-specific terminology is one of the tenets of disciplinary literacy pedagogy, recognizing that each discipline has a specialized vocabulary. However, disciplinary literacy pedagogy contextualizes word knowledge in the construction and deconstruction of disciplinary knowledge, linking vocabulary with the discourse practices of the discipline (Fang & Schleppegrell, 2010; Moje, 2010, 2008a).

Vocabulary knowledge was the most prevalent area discussed by the pre-service teachers, and vocabulary development activities accounted for the majority of their literacy instructional practices. Many of the pre-service teachers' beliefs

resonated with a disciplinary literacy perspective aligned with the expectations of the Craft and Structure domain; however, a majority of their instructional practices focused on isolated rote memorization of content terminology. For example, Michael emphasized the importance of students learning discipline-specific vocabulary in history through text-based instruction. Specifically, he noted, "Reading [in context] is the best way to gain quality vocabulary skills." However, Michael's instruction contradicted his pedagogical beliefs. His instruction treated vocabulary knowledge as a separate entity from the text and relied solely on weekly word study guides, worksheets, and term-definition matching quizzes.

Similarly, Lindsay and Francine held disciplinary literacy beliefs about vocabulary knowledge that also contradicted their classroom instruction. They identified the importance for students to understand the specialized "language of math" to facilitate deep learning. Lindsay noted,

First and foremost, while reading mathematics a person must be able to decipher two languages at the same time. Not only do students have to be able to read and understand English, but they must also have the ability to read and understand math symbols, syntax, and concepts.

In addition to recognizing that mathematics has its own unique multi-semiotic system of language, both Lindsay and Francine maintained a disciplinary literacy view that teaching discipline-specific vocabulary required teachers to construct opportunities for students to use this language as they discussed the text. Francine noted, "When one is learning a new language, there is no way one can fully learn the language unless they keep speaking it. The same goes for mathematics." However, like Michael, most of their instruction focused on rote memorization of mathematics terminology through activities that included students copying definitions.

George discussed the multi-semiotic nature of mathematics and the important role vocabulary knowledge plays in developing students' understanding of mathematical concepts. He explained his stance,

Students will need to become more familiar with some math terminology in order to get a better understanding of the content...[They must] translate the English language into mathematical terms in order to get an equation. They need to have a good understanding of the mathematical terminology in order to write down the correct formula.

In contrast to his colleagues, George had some instructional lessons that demonstrated his disciplinary literacy beliefs. He adapted the GIST strategy (Cunningham, 1982) based on his knowledge of the discipline. Following his pedagogical stance, he used this strategy to scaffold his students through deconstructing a math word problem. This provided an opportunity to guide students through the process of identifying terminology, determining meaning, and then applying the meaning to determine the mathematical symbols that would reconstruct the problem. Through this approach, George created an opportunity for students to discuss discipline-specific vocabulary within the specific disciplinary discourse practices—transferring the written language of words into symbolic language.

Samuel also recognized the importance of teaching students the proper scientific terminology. He equated learning scientific words to “learning another language” and discussed how scientific terms can have multiple meanings in different science disciplines. Like George, Samuel’s disciplinary literacy beliefs transferred into classroom practice. Specifically, he engaged in morphemic analysis utilizing an interactive vocabulary notebook and graphic organizers in his classroom instruction.

### **Emphasis on Multiple Texts**

The Integration of Knowledge and Ideas domain is centered on three interrelated reading anchor standards that require students to examine texts through various lenses, to evaluate the argument presented, and corroborate across texts (Calkins et al., 2012). The use of multiple texts provides different perspectives found in primary, secondary, and tertiary sources in a given discipline. Examining various non-traditional texts, such as multimodal and other diverse formats is a tenet of disciplinary literacy pedagogy. Draper, et al. (2010) and Cope and Kalantzis (2000) argued that the definition of text must expand to encompass all objects that are considered text by disciplinary members.

Several pre-service teachers discussed the importance of having students examine and analyze information presented in a variety of formats, including diagrams, movies, and podcasts. However, the instruction focused on developing content knowledge rather than corroboration of evidence or evaluation of the multiple texts. These texts all existed in isolation. For example, Ashley and Frank valued the ways video and diagrams could provide concrete models to help their students learn complex scientific terminology. Frank also thought visual

representations of various scientific processes and terms would help his students make sense of difficult disciplinary knowledge. He explained:

The advantage of science is that it is a tactile subject. I think my teaching strategy will be illustrating ideas through photographs, drawings, graphic organizers, animations, videos, samples, demonstrations, and lab experiments.

In his field experience, Frank saw his mentor teacher frequently use video clips to introduce a science concept. Frank emulated this practice in his own teaching. During one class period, he utilized a video clip that corresponded to the concept “pollination” in his instruction. Throughout the semester, he employed movie clips to help reinforced the content covered in the text but did not engage in analysis of the multiple perspectives presented.

Ashley and Frank recognized using various types of texts in the classroom to go deeper in their instruction. However, they did not transform their practice to include disciplinary literacy pedagogy. They could have had students examine multiple perspectives of a given topic.

On the other hand, Michael focused a good portion of his instruction on corroboration. He explained:

I will assign readings from the history textbook and expect them to read them. I also want to assign critical readings outside of state mandated textbook to get a more substantial perspective on historical subjects. After these readings, I would like the students to reflect on the differences between the standardized text, and a more critical text. They can do this through writing or discussion.

Throughout the semester, Michael continued to make connections to the Integration of Knowledge and Ideas domain and disciplinary literacy pedagogy. He noted,

It is extremely important for students to interact with the text. This means being critical of information being discussed. In my class, students will be taught to attempt to understand the motivation of the author, their message, and why he/she is writing what they are. The point of this is so students do not get into the habit of believing everything they read. In the age of information that we live, this skill is very crucial because there is an abundance of inaccurate and uncritical literature.

As evidenced by his language, Michael held very strong beliefs about disciplinary literacy in the history classroom, which translated over to his practice.

For example, he had students compare the textbook's treatment of a historical topic with Zinn's (2005) *A People's History of the United States* and Loewen's (2007) *Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong*. The students discussed the different perspectives presented and examined "the motivation of the writers." In this lesson, Michael had his students engage in two crucial discipline-specific literacies in history/social studies—corroboration and sourcing of a text (Wineburg, 1991).

### Privileging of Reading in Classroom Instruction

The pre-service teachers' disciplinary literacy beliefs and practices were more reflective of the instructional expectations aligned with the reading than the writing anchor standards. While the pre-service teachers emphasized the importance of having their students examine multiple types of texts, the majority of them did not encourage their students to create their own complex, varied texts in the classroom. Four of the pre-service teachers briefly mentioned writing instruction. However, most of the writing practices and beliefs were focused on summarizing texts or note-taking for recall of factual information, as opposed to discipline-specific writing.

Ashley was one of the pre-service teachers who talked about and implemented writing pedagogy. She noted,

My students will be asked to write Cornell notes during most units, and I will be providing them with a framework to write these notes as well as plenty of examples so they will know what I expect out of their writing. This style of note-taking requires the students to write their own summary so they will have opportunities to express their ideas about something in writing.

In one of her lessons, she taught her students how to develop effective summaries.

Samuel identified and discussed discipline-specific writing; however, these beliefs did not transfer into classroom practice. He noted,

Science offers students to experience reading and writing in a non-traditional way. For example, the way to properly phrase an experimental hypothesis is much different than phrasing a thesis statement. There are sets of rules and guidelines that come along with scientific literacy.

While the students learned about the CCSS Writing anchor standards, which emphasize explanatory and argumentative writing, these practices were

absent from the students' instruction. In order to include disciplinary writing in their instruction, the pre-service teachers might have had students compose scientific lab reports, craft their own historical interpretations, or had the students write their explanations as to how they solved a mathematical problem.

## **Discussion**

Our purpose was to examine how pre-service teachers develop an understanding of disciplinary literacy practices and how this pedagogical stance is transferred into classroom practice. Specifically, we focused on how the implementation of a DLP into a secondary content-area literacy course facilitated the students' understanding of the interrelationships between CCR and disciplinary literacy pedagogy and how they applied this knowledge in classroom instruction. As this study focuses on a small sample of secondary pre-service content-area literacy teachers from a limited number of disciplines, caution must be exercised in overgeneralizing the findings to pre-service teachers in other contexts and other disciplines.

The pre-service teachers displayed a meshing of disciplinary and content literacy tenets in their stated pedagogical beliefs over the duration of the course. These beliefs mainly aligned with components within the Craft and Structure and Integration of Knowledge and Ideas domains of the CCR. All the pre-service teachers emphasized the value for their students to understand the 'language' of the discipline. Our interpretation of this emphasis is that a discipline's unique terminology is the most recognizable feature that distinguishes it from other fields. This may be especially true for fields that have multi-semiotic texts, which draw on "natural language, symbolic language, and visual display... in discipline-specific, synergist ways" (Fang & Schleppegrell, 2010, p. 591).

The pre-service teachers emphasized a value for using multiple texts or diverse media formats to analyze themes or content. Faggella-Luby et al. (2012) found that some generic content literacy strategies, used when examining multiple texts, do not bode well in all of the disciplines and need to be modified for disciplinary practice. For example, the generic literacy strategy of compare and contrast requires students to look for similarities and differences between two sources. When this strategy is modified for a historical literacy purpose, students are now required to reconcile the differences between two primary sources in a history classroom (Faggella-Luby et al., 2012).

There was a notable discrepancy between the pre-service teachers' disciplinary literacy beliefs and their literacy instructional practices in the



classroom. Although the pre-service teachers identified the unique discourse of their discipline, much of their instruction focused on developing isolated word knowledge and lacked a connection to the discursive practices associated with the discipline. Likewise, the use of multiple texts was focused on developing content knowledge and lacked explicit analysis, comparison and evaluation across the texts. The ability to transfer espoused disciplinary literacy beliefs into practice may have been limited by several factors. Some studies have linked similar discrepancies with secondary school structures and student teaching field experiences (Bean & Zulich, 1991; Moje, 1996). There may have been a conflict between the disciplinary literacy perspective presented in the course and the content development perspective the participants experienced in their student teaching contexts. It may be that the instructional models provided by the classroom mentors or the lack of materials, beyond the textbook, inhibited the pre-service teachers' use of disciplinary literacy practices.

While for the most part the pre-service teachers disciplinary literacy beliefs did not transfer into disciplinary literacy instructional practices, there were a few instances where the pre-service teachers took a generic literacy strategy and transformed it to fit a given discipline. This indicates that disciplinary literacy and content literacy approaches should not be viewed as an "either/or" rather a "both/and" in regards to literacy instruction. This finding reiterates Johnson, Watson, Delahunty, McSwiggen, & Smith's (2011) notion that some generic literacy strategies can be used for discipline-specific purposes.

The pre-service teachers privileged reading instruction over writing instruction in the secondary classroom. This might have been because their learning contexts emphasized the importance of comprehending texts and exposure to multiple texts, as opposed to text creation. The pre-service teachers were encouraged to implement such practices in their own teaching in the field experience. Perhaps the instructor of the course should have included a specific emphasis on writing instruction. Research shows teachers tend to devote little time to writing instruction in upper elementary through secondary school and students do not engage in much academic writing at home (Gilbert & Graham, 2010; Graham & Harris, 2013). As a result, writing is the neglected 'r' in literacy instruction (The National Commission on Writing, 2003). This study reiterates such a notion.

Another potential influence may be the issue of time. The students in this study were able to appropriate the language of disciplinary literacy but were still developing an understanding of what these concepts mean for teaching practice.

Developing disciplinary literacy pedagogy requires complex meta-knowledge. Preservice teachers must develop a deep understanding of the knowledge, discourses, and linguistic practices of their respective discipline areas. Further, pre-service teachers must develop competence in applying the disciplinary knowledge and practices themselves. This personal expertise is necessary but insufficient. A tertiary level of expertise must be developed, which requires a deep understanding of disciplinary knowledge and practices from a pedagogical perspective; that is, how to support their students’ understanding of disciplinary knowledge and competence with disciplinary practices. Such development may require more than one semester of exploration and application practice.

In addition, we believe that the instructor’s lack of expertise in specific disciplinary practices limited the potential for this project. There were moments when the instructor was able to use his literacy expertise to guide the pre-service teachers to make connections between their discoveries and practical applications. However, the instructor was solely relying on the information gathered by the disciplinary teams. This potentially created gaps in the identification of key disciplinary literacy practices and subsequently missed opportunities to make connections to classroom instructional practices.

## **Implications**

The concept of preparing teachers for the ‘instructional shifts’ is a dominant aspect of the national discourse around the CCSS. A quick glance at state and local education department documentation across the United States reveals the emphasis on initiatives and professional development sessions devoted to addressing the ‘key instructional shifts’ expected to meet the demands of the new standards (Florida Association of District School Superintendents, n.d.; New York Department of Education, n.d.; Oregon Department of Education, 2011). One of these shifts is toward an emphasis on disciplinary literacy instruction.

The DLP presented in this paper may serve as a model to educators who work with professional and pre-service teachers regarding the learning conditions and experiences that support the development of disciplinary literacy pedagogy and practice. To effectively implement the CCSS and prepare youth for future college and career success, teachers must be prepared to provide advanced literacy instruction that embeds disciplinary literacy practices in their respective content-area classes. This project engaged future teachers in a focused exploration of the ways literacy is valued and used within their disciplines and facilitated their knowledge of disciplinary literacy practices. Similar experiences might support

professional teachers' disciplinary knowledge. Although developing knowledge about disciplinary literacy practices is a good start, future research needs to examine more closely how teachers can transfer this knowledge into instructional practice.

In line with previous research (Conley, 2012; Draper, Broomhead, Jensen, & Nokes, 2012; Fang, 2014), we believe it is important for literacy educators to collaborate with discipline-specific educators and content-area teacher educators to construct disciplinary literacy courses. Such collaborative courses should aim to deepen teachers' understanding of the language and discourse practices used to construct and communicate knowledge, and provide models of the pedagogical application of these disciplinary practices. Developing these courses is a challenging endeavor. Many content literacy courses include students from several disciplines. Addressing all of the disciplines in one course will require literacy educators to collaborate with multiple discipline experts and content area teacher educators. Research on the process and structures of such collaborative courses could provide needed guidance to the field.

In addition, extensive exploration and supported instructional application of disciplinary literacy pedagogical practices may facilitate pre-service teachers' development. Strong disciplinary literacy teachers, with expertise in the literacy practices of their discipline and the pedagogical knowledge to help students learn these skills, can serve as models to demonstrate the disciplinary practices presented in the methods course. This will allow the pre-service teachers to observe how disciplinary literacy pedagogy is enacted in actual classroom contexts. Field experience supervisors knowledgeable in disciplinary literacy pedagogy can serve as mentors, guiding the pre-service teachers in the classroom. These innovative structures are challenging to design: expert teachers will need to be identified, and supervisors will need professional development. Future research into different models linking content literacy courses and disciplinary clinical field experiences is needed.



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## **“DO YOU HAVE A BROTHER? I HAVE TWO!”: THE NATURE OF QUESTIONS ASKED AND ANSWERED IN TEXT FOCUSED PEN PAL EXCHANGES**

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### **Abstract**

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Authentic learning experiences are those in which students engage with texts as well as the behaviors of reading and writing within contexts of real-world use beyond traditional academic use. This study provides quantitative analysis of how students (n=200) engaged with an adult pen pal in a shared literacy experience. Findings indicate that students actively participated with their adult pen pals asking and answering more personal questions than literature-based questions. Data were disaggregated for reading ability and gender. Students who were considered above-grade level readers asked and answered significantly more questions than students considered below grade level in reading. Girls asked significantly more questions, both personal and literature-based, than boys, however there were no significant differences in the number of questions answered. Implications and need for future research are discussed.

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## **“Do you have a brother? I have two!”: The Nature of Questions Asked and Answered in Text Focused Pen Pal Exchanges**

*Maria, a fourth grader, eagerly opens the letter from her adult pen pal (APP). This is the second letter she has received and she is already getting to know her APP; where she lives, her job, and what books she likes to read. She asked her APP several questions in her last letter and can't wait to find out if her APP answered them. Maria likes having an APP she can write to about the books they are reading. Maria considers her APP a friend who likes her for who she is. Her APP doesn't judge her based on how she looks and doesn't grade her writing.*

Students in Maria's class (pseudonym) are participating in a learning experience that is both authentic and purposeful. Maria's teacher can meet grade-level standards by providing students with the opportunity to connect school-based learning to real world experiences. Rather than writing a book report or taking a test, Maria and her peers are involved in a class-wide pen pal project, where students are authentically interacting with quality literature and engaging in written conversations with APPs. Both the literature and conversational aspects of this pen pal experience required students to comprehend texts and use the language necessary to reflect social purposes beyond the brick-and-mortar walls of the school, thus allowing students to engage in meaningful learning experiences.

### **Conceptualizing Reading Comprehension**

The RAND Study Group published a series of reports on education research and development, including literacy (Snow, 2002). They conceptualized reading comprehension as a “process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (p. 11). This notion that meaning is not within the text, but rather in how the reader engages with the text, was described by Rosenblatt (1978) as a *transactional* relationship between a reader and a text - a dynamic give-and-take with the words on the page. Rosenblatt (1995) defined the process of simultaneously bringing meaning to and taking meaning from a text as a poem, where meaning does not reside within the reader nor within the text, but occurs when the two come together, literally, during the context in which the piece is read (Eeds & Wells,

1989). Essentially, transactional theory focuses on the personal meaning the reader takes away from the text, which allows for multiple perspectives and aesthetic interpretations of the text. Rosenblatt (1995) contends that we too often ask students efferent responses only, focusing on extracting facts instead of allowing for creation of personal meaning.

The RAND group (Snow, 2002) further developed the notion of comprehension by identifying three contributing elements: the reader, the text, and the activity or purpose for reading. The interaction of these three elements is nested within a larger sociocultural setting, including race, community and neighborhood discourse, cultural values, income, and language; all which have profound impact on student learning (Vygotsky, 1978).

### **The Reader**

Students bring unique qualities that influence the poem, including motivation or interest, background knowledge and lived experiences, academic skills and cognitive capacity, as well as their gender. These qualities provide variability among readers (e.g., gender) and, at times, within readers (e.g., motivation and interest) based on topic or task.

Self-perceived competence and task value are major determinants of motivation and task engagement (Eccles et al., 1983; Pintrich & DeGroot, 1990; Wigfield, 1994) and motivation is a predicting factor for literacy development (Netten, Droop, & Verhoeven, 2010; Taboada, Tonks, Wigfield, & Guthrie, 2009). Students who believe they are competent readers and appreciate the value of reading are more likely to outperform those who do not hold such beliefs (Chapman & Tunmer, 2003; Eccles et al., 1983; Hughes, Brooker, Gambrell, & Foster, 2011; Paris & Oka, 1986) and task relevance is an important factor that could influence a student's value of what is learned in school (Brophy, 2008). Proficient and less proficient readers alike tend to exhibit increasingly negative attitudes toward in-school reading, where the purposes for reading often lack authenticity and personal value (McKenna, Kear, & Ellsworth, 1995). Juxtaposed to this, Chohan (2011) found that children engaged in a pen pal letter-writing project expressed enjoyment in writing and increased self-perceptions as writers.

Research demonstrates that gender is a powerful variable associated with literacy achievement and motivation (Kush & Watkins, 1996; Merisuo-Strom, 2006; Twist, Gnaldi, & Schagen, 2004). Girls tend to be more proficient and motivated readers (Chiu & McBride-Chang, 2006; Lynn & Mikk, 2009; Marinak & Gambrell, 2010), and there is evidence that boys' motivation to read decreases over time

(McKenna et al., 1995; Mohr, 2006; Pecjak & Peklaj, 2006; Smith & Wilhelm, 2002; Wigfield & Guthrie, 1997). For example, McKenna et al. (1995) reported significant erosion in the attitude of fourth-grade boys for both academic and recreational reading. Smith and Wilhelm (2002) also identified gender differences related to motivation and reading achievement in pre-adolescent and adolescent students. Their findings indicate that girls learn to read earlier, comprehend narrative and expository texts better, and have higher estimates of their reading abilities than boys.

### **The Text**

Embedded within texts are a multitude of components, including but not limited to, difficulty level (e.g., vocabulary, sentence complexity), intended audience, purpose of communication (e.g., informative or conversational), and overt and hidden messages (albeit, not meanings, because those do not occur until the interaction with the reader). Parsons and Ward (2011) and Guthrie and Ozgungor (2002) suggest that authentic tasks increase opportunities for students to engage with and practice academic vocabulary through meaningful experiences. Beyond vocabulary development, Teale and Gambrell (2007) documented that elementary students who were engaged in an authentic pen pal experience scored significantly higher on SAT-9 reading measures than peers not participating in the program, while Chohan (2011) reported that students in a pen pal letter writing project improved their writing skills. LeVine (2002) anecdotally shared the benefits of authentic writing for her kindergarten students as they learned to share and express their own thoughts. Similarly, Moore and Seeger (2009) shared the benefits to elementary students' writing when paired with older, more experienced writers who modeled good writing. Therefore, the complexities of texts can be mediated through instruction that connects with students, providing an impetus to both engage with text and persist when the text is difficult.

### **The Activity**

From the educator's perspective, literacy activities often aim to meet required educational goals and standards. We posit that purposeful, well-designed instruction promises to not only meet these required educational goals and standards, but to do so in ways that allow students and educators alike to set and reach personal, social, and academic goals.

Authentic learning experiences are those in which students engage with texts as well as the behaviors of reading and writing within contexts of real-world use beyond traditional academic use (e.g., Duke, Purcell-Gates, Hall, & Tower, 2006;

Purcell-Gates, 2002). Authentic tasks allow students to learn academic skills through real world application. By engaging student learning in authentic ways, students learn to “do life” instead of just learning to “do school” (Pearson, Raphael, Benson, & Madda, 2007, p. 36). Authentic tasks anchor learning to student’s lives by providing a relevant and practical application of academic tasks. As Purcell-Gates (2002) points out, it is challenging to provide authentic tasks in the classroom. McKenna et al. (1995) noted that proficient and less proficient readers alike tend to exhibit increased negative attitudes toward in-school reading, where the purposes for reading often lack authenticity and personal value. Chohan (2011) evaluated student engagement in a pen pal letter-writing project and found that children reported that they enjoyed the letter writing process, and their self-perceptions as proficient writers increased. Authentic learning allows students to integrally derive meaning from activities that connect content standards with a real world purpose, rather than being an arbitrary activity for which the sole purpose is to meet a standard.

## **The Context**

The process of making meaning from the text occurs within the reader, but is situated within a larger influential and societal context. Although formal instruction takes place within a school or classroom setting, sociocultural theory asserts that learning does not happen in isolation, but rather is embedded within a social context (Vygotsky, 1978) as children interact with people (e.g., pen pals), objects (e.g., literature), and the environment (e.g., supportive and authentic classroom learning). In this study, the cultural component is an essential element of the instruction as students learn through their interactions that surround the reading of the text, such as teacher-facilitated group discussions in the classroom regarding the text, and their letters with an APP. There is a socially mediated enterprise of understanding the text so that ideas can be communicated with another through the pen pal exchange. Both the student and the adult in the pen pal dyad contribute interpretations of text based on a shared experience (i.e., reading the text), but letters that are exchanged are framed by social context, such as personal experiences and background knowledge. Many of the APPs were professionals from an urban setting, distinctively different from the rural setting where the students lived. By pairing each child with an adult, students were naturally exposed to new information from individuals who resided in a different geographical region, and who had novel perspectives based on distinctive life experiences. During the written conversation, students were required to make

sense of the information shared by the pen pal and thoughtfully respond in written text. The social aspect of the communication exchange is an important aspect of the learning process.

### **Analyzing the Nature of Dialogue**

The current study extends the work of a larger year-long investigation that served to describe the learning and motivational effects of a pen pal project in elementary classrooms. Findings from the larger investigation revealed that the reading motivation of student pen pals increased while participating in the pen pal activity (see Gambrell, Hughes, Calvert, Malloy, & Igo, 2011). Additionally, findings from the larger study suggest students who wrote letters to adult pen pals demonstrated academic accountability to community, content, and critical thinking. These findings piqued our interest, specifically with regard to the content of the letters. In the current study, we sought to capture what students prioritized in their letter exchanges with the adult pen pals. Following this initial analysis, we sought to explore the nature of the dialogue between pen pals during the letter exchange, as well as delve into what students prioritized in the exchange.

We analyzed the content of the student and APP letters, paying special attention to the inquiries posed by the participants, in order to describe the transactional aspects of the exchange. Focusing on the two main types of questions posed as a result of the pen pal task, the questions that guided this investigation are: (1) What was the balance of book and personal questions that were asked and responded to by the student/adult dyads?; (2) Does the question balance differ according to gender?; and (3) Does the question balance differ according to reading ability?

### **Context of the Exploration and Methods**

This study investigated the elements of inquiry present within written interactions between students and their APPs regarding a commonly read text. We elected to focus specifically on the balance of two types of questions and answers, namely book and personal questions and responses, because while book related exchanges share information and interpretations of that purposefully ask the pen pal to engage with the text, personal exchanges demonstrate engagement with the pen pal. The balance of personal and book related exchanges is relevant in that the relationship-building that occurs across the series of pen pal exchanges within dyads may provide a clue to the relevance and quality of the activity for the

participants. This quantitative perspective of the question and answer engagement provides an important view of student choice in his or her initiative to engage with the pen pal in a learning community.

### **The Readers and Setting**

Data from 200 student/adult dyads were analyzed in the study. This number reflects 10% attrition due to students moving out of district, incomplete data sets, and one student who elected not to participate. All participating schools are categorized as Title I and are located in a southeastern state. The student population in this study reflected 65% Caucasian, 26% African-American, 4% Hispanic, and 3% identified as multiracial.

Seven teachers who taught third, fourth, or fifth grade from three school districts participated in the study. The project was implemented class wide, as the principals and teachers agreed that the books to be read and the writing and discussion components complemented the existing reading and language arts curriculum. Participants exchanged letters about the books with APPs and took part in small peer-discussion groups about the content of the books and the content of the letters written by the APPs.

APPs were recruited from businesses, nonprofit organizations, and educational or governmental agencies and were randomly assigned to student pen pals. All APPs passed background checks prior to being paired with a student and, although pen pals only knew each other's first names, the teachers and researchers monitored all letters to ensure that no identity-revealing or inappropriate information was shared. No inappropriate exchanges occurred during the study. APPs received guidance and suggestions to aid in composing the letters to support an educational forum and engagement with the students. For example, APPs were reminded to use age-appropriate language and include content the students might enjoy, such as jokes. APPs were instructed to balance personal and book questions, and encouraged to ask questions that required higher-level thinking skills.

### **Selected Literature**

The selection of texts was important because it needed to be aligned with grade level standards and provide engaging literature for readers. A committee of nationally recognized experts in children's literature selected the books to ensure age appropriateness, compelling stories, and elements of problem solving and resilience. The books the students read were also determined by grade level. Reading ability was considered when multiple books were available in a genre.

Narrative books for Grades 3, 4, and 5 (respectfully) included: *Julian's Glorious Summer?* (Cameron, 1987); *Justin and the Best Biscuits in the World* (Walter, 1986); and *Class President* (Hurwitz, 1990). Informational texts for Grades 3 (one book) Grades 4 (three book options) and 5 (two book options) included: *Washington D.C.- A Scrapbook* (Benson, n.d.); *If You Lived in Colonial Times* (McGovern, 1964); *Colonial Life* (January, 2000); *The New Americans- Colonial Times (1620-1689)* (Maestro, 1998); *If You Traveled West in a Covered Wagon* (Levine, 1986); and *The Oregon Trail* (Landau, 2006).

### **The Authentic Literacy Activity**

Participants interacted in a structured literature pen pal exchange that included three letter cycles: an introductory letter, a letter about a narrative book, and a letter about an informational book. Across the series of letter-writing cycles, students like Maria read the same books as an APP and exchanged letters to (a) get to know each other, (b) share information about the books, and (c) learn more about the other person's perspective of the shared books. In the process of exchanging a series of letters with the same pen pal, a literary relationship was established that provided an authentic reason for reading and writing and for developing literacy skills through these interactions.

Each student had his or her own APP; thus, the relationship between the student and the pen pal was distinctively different than the already existing classroom relationships with peers and the teacher. While the APP and the teacher both serve as more capable and competent models of reading and writing for the student, the APP was not in a position to grade or evaluate the student's writing or interpretation. In the letter exchanges, pen pals wrote about vocations and avocations, likes and dislikes, and interests and ideas.

The letter-writing activities were supported through scaffolded lessons and activities within the classroom. Teachers participated in professional development sessions through an affiliated university program designed to support their use of core books and related read-aloud books, to promote the writing of high-quality pen pal letters, and assist in the classroom use of a range of discussion strategies. During these sessions, the teachers engaged in reflective practices such as group discussions, artifact analysis, and journal writing that focused on the implementation of discussion, authentic literacy tasks, and accountable classroom talk (e.g., Michaels, O'Connor, & Resnick, 2007). Using the pen pal program as a base, the professional development centered on the following principles: improving literacy through the strategic reading of books, writing to a real pen pal



in response to literature, and discussion to foster critical thinking skills. Using a gradual release of responsibility model, teachers provided instruction and modeling for all the discussion strategies. Discussion strategies implemented in the classrooms included the use of Thinkmarks, Pair-share, 4-share, and peer-led discussion. See Figure 1 for details regarding these discussion strategies.

**Figure 1:** The discussion strategies focused on writing activities to support discussion (i.e., Thinkmarks, and three discussion strategies that moved from simple to complex.)

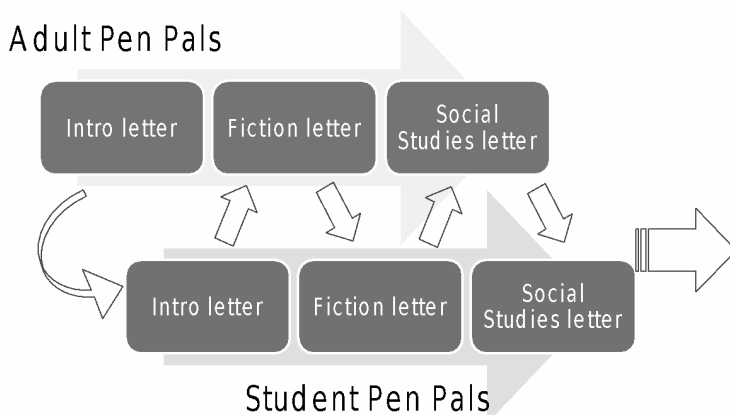
Activity	Description	Time required
1. Thinkmarks	Students have a bookmark to use while reading that serves as a graphic organizer to write down ideas while reading, including page number for reference.	Less than 5 minutes
2. Pair-share	Students read their books and letters from pen pals and then share ideas and information with a partner.	Approximately 5 minutes
3. 4-Share	Students are organized into groups of four to discuss the book. Also refereed to as Reader Reaction Circles, it is a structured discussion designed to assure that every child participates. Students are given task cards with established roles: Share a bit from your book, Talk about what you liked best, Talk about what you'd like to know more about, and Talk about something this book reminded you of. Students are encouraged to comment on each response and pass their card to the right until all students had an opportunity to share each response.	Approximately 15 minutes
4. Peer-led discussion circles	Students participate in peer-led discussion groups. To support students in participation, they are provided with instruction and guidelines for How to Have a Good Discussion, Discussions Self-evaluation Checklist, Ideas for Entering the Discussion, Fiction: Points to Ponder, Non-Fiction: Points to Ponder. The focus of the peer-led discussion circles is to encourage student ownership of discussions, however teachers are available to serve as coach and support.	Approximately 15 minutes

Students engaged in small group discussions of the books, and the teachers taught mini-lessons, modeled strategies, and held formal and informal conferences with students to scaffold their writing. Students wrote their letters (i.e., introductory, fiction, informational) after they received the letter from their pen pal. By having the adult pen pal initiate the letter exchange sequence, the



proposition was put forth that books are interesting to others outside of the school context, and students were able to benefit from having an authentic mentor text in which good writing was modeled (Gallagher, 2011). Each book reading and letter writing cycle took students approximately two weeks to complete (See Figure 2 for a conceptual flow of the letter-writing series.). Letter analysis focused on the balance of both personal and book-focused questions as these indicated personal choice and inquiry in the conversational nature of the letter exchange. The questions indicated how the students chose to engage with the APP as they inquired about the personal life and perspectives of the pen pal.

**Figure 2:** *Conceptual flow of pen pal exchange.*



While the teacher scaffolded the letter writing, the students created the letter content, including what information was shared through inquiry and inquiry responses. Adult and student letters were analyzed to determine the number of personal and book questions each posed and for the type of questions to which participants responded (i.e., personal, book). Three undergraduate research assistants were taught to identify and extract the questions and responses. Questions were then categorized as personal or book related. Ten percent of the letters were used for calculating rater agreement (agreement/ agreement + disagreement), yielding 99% agreement. Rater agreement for book responses was 99%, and for personal responses was 97%. For identification purposes, personal questions were those that inquired about the individual (e.g., looks, pets), while book questions inquired about the shared book (e.g., Do you agree with the main character?) or reading in general (e.g., favorite book). Specific examples of book and personal questions from varying grade levels are provided in Table 1.

**Table 1: Book and Personal Questions**

Book Questions	Personal Questions
Why did Julian want to work all summer long? (3 <sup>rd</sup> grade)	When is your birthday (3 <sup>rd</sup> grade)
Do you like how the story ended? (4 <sup>th</sup> grade)	Do you know where you are going during the summer? (4 <sup>th</sup> grade)
What do you think Julio learned in the new teacher's class? (5 <sup>th</sup> grade)	Did it snow at all in Georgia? (5 <sup>th</sup> grade)

To ensure the accuracy of labeling the types of questions and responses, the undergraduate research team and authors read the books shared between the pen pals and were well-versed in the texts. Figure 3 provides an example of the flow of inquiry in a pen pal letter exchange and indicates questions to which the student and adult selected to respond.

**Figure 3:** Questions extracted from a pen pal letter series. Questions that were answered by the pen pal in the following letter are noted (\*indicates questions that were answered by the pen pal)

<p>A LETTER SERIES IN THEIR OWN WORDS</p> <p><u>Adult pen pal intro letter:</u>            "Do you have any pets?"*            "What do you enjoy doing when you are out of school?"*            "What kind of books do you like?"            "What are your favorite subjects?"</p> <p><u>Student pen pal intro letter:</u>            "Do you live with your mom or dad?"*            "Who is your best friend?"*</p> <p><u>Adult pen pal narrative series letter:</u>            "Who is your best friend?"*            "Do you know how to ride a bike?"*            "How did you spend your birthday last year?"*</p> <p><u>Student pen pal narrative series letter:</u>            "Why did Julian want to work all summer long?"            "When is your birthday?"            "Do you have a boyfriend?"</p> <p><u>Adult pen pal informational series letter:</u>            "How is the weather where you are?"*            "Did you enjoy reading Washington, D.C.: A Scrapbook?"            "How many of the places have you visited?"*            "Do you have a favorite statue in Washington?"*            "If so, what about it do you like?"*</p>
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Quantitative analyses that focused on the measurable aspects of the interactions in the pen pal letter exchanges were conducted. A *t*-test was performed to assess differences between the number of questions and responses. Additionally, a series of ANOVAs were conducted to determine any group differences for the numbers of questions and responses by gender and by reading ability.

### Results of the Analysis of the Student and APP Letters

Table 2 displays the average number of questions and responses per letter for both students and APPs. The means and standard deviations provided in the table may appear to go against common logic, as APPs responded to fewer questions than the students; however, it should be noted that students posed fewer questions to the APPs, resulting in fewer opportunities for APPs to respond.

**Table 2:** *Numbers of Questions and Answers*

		<u>Questions</u>		<u>Answers</u>	
		Personal	Book	Personal	Book
Pen Pals	n	M(SD)	M(SD)	M(SD)	M(SD)
Students	(200)	3.08 (2.70)	1.08 (1.47)	3.08 (2.38)	3.45 (2.55)
Adults	(200)	5.92 (3.36)	7.96 (3.35)	1.97 (1.92)	0.57 (0.93)

Results from a paired-sample *t*-test  $t(199) = 10.01, p < .000$ , determined the students asked significantly more personal questions than book questions. Seventy-four percent of the questions posed by students were personal compared to 43% of those posed by the APPS. Although 53% of student responses to APP questions were related to book questions, this number may be a reflection of the number of opportunities for students to respond to questions, as the adults asked more book questions than personal questions. Students responded to approximately 52% of personal questions and only 43% of book questions posed by the APPs. APPs responded to 64% of the personal questions and 52% of the book questions. Means and standard deviations are provided in Table 3.

**Table 3:** Number of Student Questions and Answers by Reading Level

		<u>Questions</u>		<u>Answers</u>	
		Personal	Book	Personal	Book
Reading level	n	M(SD)	M(SD)	M(SD)	M(SD)
Below	(59)	2.64 (2.99)	0.64 (1.19)	2.68 (2.21)	3.17 (2.72)
On	(76)	3.25 (2.37)	1.17 (1.46)	2.93 (2.18)	3.50 (2.51)
Above	(65)	3.29 (2.76)	1.36 (1.64)	3.62 (2.66)	3.64 (2.47)

## Gender

In this study, the sample was comprised of 98 boys and 102 girls. An ANOVA was performed to determine if there were differences in gender for the number of questions and responses. Girls asked an average of 1.33 book and 3.57 personal questions, totaling 4.90 questions across the three letter series. Boys, on the other hand asked a total of .83 book questions and 2.59 personal questions, totaling 3.42 questions across the letter series. At .05 level of significance, there were gender differences in the number of book ( $F(1,199) = 5.70, p = .018$ ), personal ( $F(1,199) = 6.86, p = .010$ ), and total *questions* asked ( $F(1,199) = 10.45, p = .001$ ), with girls asking significantly more questions. Analyses indicate there were no statistical differences by gender for the number of book, personal, or total *responses* given across the letter series.

## Reading Ability

Reading levels were determined by academic performance on school assessments (e.g., DIBELS) and teacher judgment, such that the teacher used formal and informal data and professional judgment to determine the most accurate performance grouping of the students. For the purpose of this study, students were designated as reading above grade level, on grade level, or below grade level. Results of an ANOVA indicate there were significant group differences among students in the three reading levels (i.e., above, on, below reading level) pertaining to the number of book questions posed ( $F(2,198) = 4.07, p = .019$ ), but not the number of personal questions posed ( $F(2,198) = 1.12, p = .328$ ). A post hoc analysis assessing least significant differences (LSD) revealed that at the .05 level of significance, there was a statistically significant difference between the number of book questions posed by students reading below-grade level and

above-grade level ( $p = .017$ ) as well as the total number of questions posed by the students reading at-grade-level and students reading above-grade-level.

An ANOVA, followed by a post-hoc test assessing LSD, determined there were significant differences between the total number of responses, book and personal, provided by the students in the below- and above-grade level ( $p = .025$ ) but not between students below- and at-grade level ( $p = .355$ ) or between students at- and above-grade level ( $p = .149$ ). According to results from the post hoc LSD, at the .05 level of significance, the only statistically significant difference observed between groups was on the number of personal responses by students reading below-grade level and their peers reading above-grade level ( $p = .027$ ). There were no statistically significant differences between reading ability levels with regard to the number of book questions responded to by the students.

## Discussion and Implications

This study explored the nature of the written exchange about commonly read books between elementary students and their APPs. For students, the task of responding to letters from an APP required them to read and understand the message, consider the questions posed, and compose an appropriate reply. Students were required to evaluate the formality of the letter's code in order to compose a meaningful and similarly structured written response. The multi-faceted nature of the activity required the student to use multiple strategies for reading and text expression, and it provided a platform through which students could discover and share what they thought about the texts.

We defined an authentic task as one where the purpose of reading and writing occurs within real-world contexts; however, *authenticity* is not always interchangeable with *meaningful*, especially with children (Purcell-Gates, 2002). Herein lies the heart of this descriptive study. By interacting with an authentic audience, students had a real-world purpose for reading and writing about literature (e.g., Brophy, 2008); however, it was the *participants* who determined the meaning in the task by including personal exchanges. The primary purpose of this investigation was to examine the questions and responses exchanged in the pen pal dyads and to determine whether the question and response dialogue differed according to students' reading level or gender, and what that revealed about the conversational aspects of the experience for the students.

This study revealed several interesting insights about the types of questions and responses (i.e., personal and book related) posed by pen pals, and the

question-response dialogue that developed according to students' gender and reading ability. Adults and students were fairly similar with respect to the conversational nature of the letter exchange, as both groups posed and responded to more personal questions than book questions. This finding can be interpreted in a number of ways. Expressed through the choice of what to share in the letters, one of the most meaningful aspects of the pen pal project for the students was getting to know their APP. Aligning with Vygotsky's theory on the social nature of learning, the task afforded opportunities for personal and cultural exchanges that differed from typical school-based tasks.

A number of studies have revealed that girls are more motivated and more proficient readers than boys (e.g., Chiu & McBride-Chang, 2006). In the present study, girls asked significantly more questions than boys (both book and personal), suggesting greater engagement in the social element of the literacy tasks. This finding is consistent with prior research on gender differences in reading and suggests the need for further research on gender differences and authentic learning experiences, particularly focusing on engaging boys in interacting about the books they read.

While there were no differences across reading levels with respect to personal questions, there were differences in the number of book questions asked. As might be expected, above-grade level readers more frequently responded to book questions than at-grade level and below-grade level readers. Students who were identified as reading below-grade level posed fewer book questions and averaged less than one book question across the three letter series. Considering that participants completed two literature cycles (i.e., fictional text, informational text), many of the students who were identified as reading below-grade level asked less than one book question per book read, and several students asked less than one book question across all three letter cycles. Table 4 provides a comparative example of a high-achieving fifth grader's book question exchange with their pen pal with that of a lower-achieving peer. This representative sample of dialogue pertaining to book questions and responses demonstrates the more advanced interactions made by the higher-achieving student.

Above-grade readers averaged approximately two personal questions for every book question asked, providing almost five questions across the three cycles. Students identified as reading at-grade level performed similarly to students reading above-grade level. However, below-grade level readers averaged just over three questions across the three letter cycles asking approximately four times more personal than book questions.

**Table 4:** *Book Question Exchanges of Higher and Lower Achieving Fifth Graders*

High Achieving 5th Grader	Lower Achieving 5th Grader
Adult: Do you have a favorite book?	Adult: What do you think was the worst part of the election? Have you ever run for class president?
Student: One of my favorite books is “Out of the Dust”. Do you like that book?	Student: I thought the election was boring because it didn’t have that boom. I wouldn’t want to be class president because it seems to be too much responsibility.
Adult: I don’t believe that I have read “out of the Dust”, so I will have to look for it so I can read it. I just finished reading “Class President”. I thought that it was a pretty neat story. What did you think?	[no book questions for adult]
Student: I thought Class President was a pretty good book. I liked the part when they made the brownies!	
Adult: If you were a pioneer, what do you think you would have enjoyed most?	
Student: I think I would have liked to ride the horses. Did you enjoy Oregon Trail? How do you think the butter would have made itself in the wagon without going over the bumps? What you have liked to do? Which one would you have liked to travel in?	

Findings suggest that responding to the book questions was either more challenging or less desirable for students. In a pen pal exchange between an adult and student, the personal exchange appears to be most salient among all students, especially less-proficient readers. The presence of more personal questions by below-grade level readers may communicate a greater facility or self-efficacy with the social interchange than with the literary one. Perhaps below-grade level learners tended to gravitate toward strengths in making personal connections to compensate for a lack of academic dexterity. Although students who were considered to be below reading level answered on average one book question across the letter exchange, they averaged over three book answers across the exchange. This suggests that students who may have had difficulty initiating discussions about the text, as indicated by the questions posed, were still able to engage in discussion about the text by answering questions from the pen pal.

Perhaps the mentor text and prompting to engage in discussion initiated by the APPs provided both a real-world enticement to engage in text discussion while also scaffolding the discussion through the question/answer modeling provided in the exchange. Additionally, some students may need improved scaffolds to initiate purposeful written interactions with a pen pal. Consequently, the challenge for teachers may be to provide academic scaffolds while simultaneously honoring the authentic nature of the activity, thus allowing for true student expression.

The personal connection of the letter exchange provided opportunity and authenticity, not only in the task of reading a book, but also in the exchange of ideas. As indicated by the types of questions posed, students pursued a personal interaction with an adult and sought to establish that unique relationship. The personal relationship formed between the student and the APP through the letter exchange created an environment where each was willing and able to share unique connections to the book to collaborate in developing a new meaning.

In a standards-driven educational system, it may be easy to focus on the end product and final assessment, thus minimalizing respect to the student and overlooking qualities and interests that influence student learning and classroom performance.

Research supports the use of authentic literacy tasks to motivate and engage students and to ground student learning (e.g., Purcell-Gates et al., 2007) and findings from this research explored how students elected to interact and engage with a pen pal in an authentic task. These results support the idea that students value personal relationships within the authentic learning task. As teachers elect to incorporate a pen pal system in their instruction, it is important to identify how students connect to the activity. These findings indicate that it is through choice and ownership of the writing that students developed a personal relationship that supported them in communicating about commonly read books. These findings focused on the purposeful interactions that were initiated (through questions) and continued (through answers) between the students and their pen pals. The presence of both personal and book-related questions and answers cautiously support that academic standards and skills can be addressed in a way that honors the relationships that students value in a learning community.

Our caution derives from the finding that students were most inclined to respond to the personal dialogue as opposed to the book dialogue and, when given freedom, in written expression. Students more frequently elected to ask and answer questions that supported personal connections with the adult, although many students did ask and answer book-related questions as well. It is also



possible that if the pen pal series was extended to more cycles, the balance of personal and book related exchanges would change. Within a pen pal learning community, we believe there is potential to scaffold and develop students' literacy skills concurrently while students develop a personal relationship with the pen pal; however, more research is needed to explore this delicate balance.

## **Limitations and Future Research**

While analyzing the content of letter writing may often be researched qualitatively, we elected to tell the story primarily quantitatively, and in doing so provided a different perspective of student engagement. Recognizing limitations of quantitative analysis to derive meaning from students' work, we propose the findings from this study complement qualitative research that explores meaningful literacy experiences.

The purpose of this study was not to determine causality, but rather to describe the communicative aspects of the letter exchanges. More research is needed to explore students' meaning-making processes in depth, particularly concerning trends in personal and book questions across a larger number of book cycles. Would the interpersonal 'history' that develops between the student and adult present opportunities for the participants to engage in higher-level discussions of text? With time, would the number of personal questions decrease and the number of book questions increase as students maintained the relationships with their APP? How do teachers support academic growth within an authentic pen pal experience?

Gender differences are also worth exploring in greater depth. Previous research suggests motivation to read for boys and girls increased while participating in an authentic pen pal experience; however, girls demonstrated a significantly higher value of reading and motivation-to-write than boys. This motivation may provide insight to why girls asked more questions to their pen pal. Future research might address potential gender differences regarding the perceptions of authenticity, engaging with an adult reader, and the value and means of building personal relationships.

## **Conclusion**

Maria has potentially much to gain from an APP whose reading and writing skills serve to mentor her and expand her interactions with literacy events. She

also benefits from involvement in an activity that allows her to read in order to share ideas, to write in order to engage in a meaningful interaction with someone in the *real world*, and to practice the skill of getting to know someone during an intellectual exchange of ideas. Having an adult with whom to write about a shared text can be meaningful to students because it embodies real world reasons for writing with the final outcome of a developed relationship rather than a grade.

As educators, we can create the context, but we cannot create the meaning; that has to develop within the learner as they come to see themselves as meaning-makers with others. The results of this study suggest that students pursued a personal relationship with the pen pals, creating a context where authentic and engaging tasks *could* exist. Teachers provided academic scaffolding regarding reading comprehension and overall letter writing, but it was the students who ultimately decided what they wanted to share with and ask their pen pal. It was through this give and take of inquiry and responses that we were able to explore what students elected to share with their pen pals. When children take ownership in their writing within an authentic, yet supported setting, they may choose to engage for personal reasons in a relevant literacy event. It is the personal connection, after all, that makes a pen pal learning experience an authentic one and brings meaning and purpose to learning.

The pen pal exchange has the potential to help students, like Maria, develop the skills necessary to attend to the ideas of others, assume responsibility for understanding others' arguments, ask for clarification, and demonstrate a willingness to explore new ideas. Peterson and Eeds (1990) suggest that rather than relying on comprehension questions or essays, teachers should facilitate students' freedom in choosing how to express their interpretations of texts. When the teacher's role shifts from a didactic approach to a more student-centered, inquiry-based approach, students have the opportunity to transact more fully with the text (Barnes, 1976). Meaningful transactions occur when students are given time and contexts to engage in exploratory talk with teachers, peers, and pen pals.

*I look forward to your next letter! From, Maria*



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