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## **Navigating the Challenges of Becoming a Culturally Responsive Teacher: Supportive Networking May Be the Key**

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*Abstract: Research shows graduates of teacher education programs do not always transfer, or apply, the best practices they learn to instructional practice due to factors related to course features, the student, and workplace environment (e.g., Brown & Bentley, 2004; de Jong et al., 2010). This study examined the challenges a secondary-level English teacher in the United States encountered when she attempted to implement culturally responsive teaching practices she learned from a graduate course to her class with ELLs. Findings indicate she faced strategy- and language-related challenges due to student culture and school environment factors (“external challenges”), as well as her own uncertainties as a novice ELL teacher (“internal challenges”). Supportive networking with others outside the workplace facilitated beginning changes in the teacher’s instructional practice when support at her school was not available. Communications between the teacher and professors occurred regularly throughout an entire school year via emails, face-to-face meetings, phone calls, and class visits with feedback. Based on analyses of data (e.g., teacher reflective journal, observation field notes, email correspondence, interview data), the authors conclude, though not easy or automatic, the transfer of culturally responsive practices learned from a university course to classroom practice is possible, but supportive networking may be helpful, or even necessary.*

### **Introduction**

An area of great concern for teachers in the United States is the growing number and low performance of English language learners (ELLs) in schools today. For example, public school enrollment of ELLs grew by 56% from 1995-2005, nearly seven times total school enrollment (Batalova, Fix, & Murray, 2007; NCELA, 2006). While the number of ELL students in public schools continues to grow (U.S. Dept. of Ed., 2015), ELL students are falling further and further behind their classmates. From 2005 to 2011, the gap between eighth-grade ELLs’ and non-ELLs’ reading scores on the National Assessment of Educational Progress (NAEP) increased from 26% to 31% (U.S. Dept. of Ed., 2015). Even more alarming is the fact that more than 59% of all

Latino ELLs, the largest group of immigrant youth in the United States, drop out of school before graduating (Fry, 2003).

To address these concerns, state departments of education across the United States are mandating that teacher education programs require candidates to take course work addressing the needs of ELLs. For example, in the authors' home state where this study was conducted, as of Jan. 1, 2011, the PA Dept. of Ed. requires all teacher certification programs in the state to include 3 credits or 90 additional hours, or an equivalent combination, addressing the needs of ELLs (The PA Code, n.d., p. 13).

Despite the rationale behind these new requirements, researchers suggest graduates of teacher education programs do not always transfer, or apply, the best practices they learn in their university courses to their teaching practice (Brown & Bentley, 2004; de Jong, Cullity, Sharp, Spiers, & Wren, 2010; Gainsburg, 2012; Lloyd, 2013; Pepper, Blackwell, Monroe, & Coskey, 2012; Scott & Baker, 2003). Researchers attribute the lack of learning transfer to a variety of factors, including factors related to course features (e.g., course length, if students had the opportunity to apply the tools learned in a variety of contexts during the course), to the student (e.g., ability, personality, motivation), and to the workplace (e.g., how much support is available, if there is an opportunity to use what was learned (Gainsburg, 2012; Prebble et al., 2005; Van den Bossche & Segers, 2013).

To date, researchers have examined learning transfer from education courses addressing a variety of content areas (Brown & Bentley, 2004; de Jong et al., 2010; Gainsburg, 2012; Lloyd, 2013; Pepper et al., 2012; Scott & Baker, 2003). However, no studies were found examining learning transfer from courses focused on culturally responsive teaching practices despite the growing numbers of these courses in higher education nationally. Gay (2002) defined culturally responsive teaching as "using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively" (p.106). The literacy, language and culture course the high school teacher in this study took was designed using Gay's culturally responsive teaching (CRT) framework, and it aimed to help teacher candidates develop their knowledge and skills for working with diverse learners. The course readings and assignments created opportunities for students to explore and develop their knowledge base about cultural diversity and their awareness and skills to incorporate cultural diversity content into curriculum, and to reach out to diverse families and communicate with them more effectively. Most importantly, students engaged in discussing why and how to provide instruction that values the cultural and linguistic knowledge and experiences of their diverse learners and that creates learning opportunities to allow the students to make personal connections and to develop new learnings in personally meaningful ways. The intent was for the course to prepare students to better understand and adopt the CRT approach in teaching diverse learners and to empower students "intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (Ladson-Billings, 2009, p. 20).

In addition, researchers have studied networking with others through supportive, collaborative relationships inside and outside of the workplace and found networking in these contexts facilitates learning transfer (Van den Bossche & Segers, 2013). However, no studies retrieved to date explored the role of supportive networking in helping teachers apply culturally responsive teaching approaches in their teaching practice. The goal of this study was to fill these gaps in the research.

Specifically, our study focused on the following guiding research questions: 1) What challenges does a secondary-level teacher encounter as she attempts to apply what she learned

from a literacy, language and culture course by integrating the cultural and linguistic background knowledge of her ELL students into instruction?; 2) What aspects of professor/teacher collaborations following the course play a role in mediating the challenges encountered?; and 3) What new understandings do the teacher and her students develop when the teacher integrates her ELL students' cultural and linguistic background knowledge into instruction?

## Method

The idea for this study came about when a former graduate student who had completed a literacy, language and culture course with the first author, her professor, accepted a new class assignment teaching "ELL Advanced Language and Literature" to high school English language learners who ranged in their native language (L1) backgrounds. From research we read, we knew of the potential challenges of implementing methods students learned from their course work in a new context (Brown & Bentley, 2004). We also read about the potentially facilitative role of supportive networking with others inside or outside of the workplace (Van den Bossche & Segers, 2013). As a result, we decided to form a collaborative team. Our collaborative team consisted of Susan, a high school teacher/recent graduate, and two professors, myself (Nina) and another professor (Ailing), who taught courses for the ESL program in the Teacher Education Department. Together, we decided to explore the challenges and successes the teacher experienced as she attempted to implement strategies learned from her literacy, language and culture course.

## Setting and Participants

Our research began in the fall of one school year when Susan stopped by my office and asked for advice on how to work with English language learners. Susan had completed a 14-week, online literacy, language and culture course required of all Teacher Education candidates at the university the semester before. This was Susan's second year as an English teacher at a suburban high school in a major metropolitan area and her first time teaching "ELL Advanced Language and Literature" to a class of English language learners with a variety of native language (L1) backgrounds (i.e., German, Mandarin Chinese, Spanish, Vietnamese). The ELL program at Susan's school varies from year to year, but generally has fewer than 30 ELL students who vary in socioeconomic level and cultural background, as well as in English-proficiency. Susan's class of 12 ELL freshman and sophomore students at the time of this study were mostly at the high-intermediate level in English-proficiency based on their TOEFL, TOEFL Jr., or IELTS scores obtained at the time of the registration/ admissions process, with a few at the basic or low English-proficiency levels.

As Susan explained to Nina, she was surprised, but also flattered, when she was asked if she would like to teach this class at her school. At the prospect of teaching this group of advanced ELL students, Susan thought, "What a great opportunity to implement some of the culturally responsive practices I learned in the course!" But as the first day of class neared, Susan felt unsure how to approach the course, and stopped by to get some suggestions from Nina, her former professor. As Susan later shared:

*I'm challenged how to incorporate the students' cultural and linguistic background knowledge into the curriculum. For example, I think my school now is more "English-only." When I have observations, the pressure is on and expected that this is an English language class. We're improving our English. Students should be speaking English. However, in our literacy, language and culture course, there were many articles addressing the fact that students shouldn't always feel that their native language is less valuable than the new language they are acquiring. So I understand it, and I believe in it, and I've seen it work in other contexts. However, I still have conflicts about how to make it a part of the curriculum (Interview, 2/17/14).*

When Susan asked Nina for suggestions on how to approach the course, Nina thought working with Susan would be a good opportunity to gain insights into obstacles her students face when they begin teaching and try to implement the research-based practices they learned in their course work. In discussing the course and Susan's goals for her students, Nina learned the class, which meets 4 days per week for a total of 3.5 hours per week, aims to prepare mostly high-intermediate/advanced ELLs for academic study and communication through language, literature and composition. The ELL students are required to read a range of fictional short stories and novels that span the early nineteenth century to more contemporary works. For example, students read *To Kill a Mockingbird* (Lee, 1960) and *The Absolutely True Diary of a Part-Time Indian* (Alexie & Forney, 2007). Students also examine non-fictional texts, including biographies and other informational works. Students engage in discussion, oral presentation, analysis, vocabulary development and journal reflection, responding to literature response prompts. Susan also shared the textbook she planned to use in the class, *Discovering Fiction Level 1 Student's Book: A Reader of North American Short Stories* (Kay & Gelshenen, 2012). Across all projects and activities in the course, Susan explained there is a major focus on critical thinking, as well as on correct use of grammatical structures for transfer into the writing component of the course.

After discussing the new ELL course, Susan and Nina decided to consult with Ailing, another professor in the department who teaches courses on culturally responsive teaching practices, to see what ideas Ailing might have regarding the course. In this way, the current study began to take shape. Specifically, we (Nina and Ailing) became interested in exploring ways to support Susan as she applied the knowledge gained from her college course work to classroom practice. In our work with Susan over the course of the next several months, the three of us engaged in face-to-face meetings, email exchanges, phone conversations, and class visits at Susan's school. After further discussion and negotiation with Susan, we decided to focus more specifically on facilitating Susan's implementation of two instructional practices, contrastive analysis (CA) and use of culture-based literature response prompts. We chose these instructional practices because they targeted two of Susan's major goals for her students in terms of helping them improve their grammar and overall use of the English language, and also, their responses to literary works read, with the goal of moving students beyond a "literalist" approach (Applegate, Quinn, & Applegate, 2006, p. 50) to text where they view the author as the ultimate authority on all issues discussed in the text at the expense of valuing their own thoughts, perspectives, and personal reactions. These two practices also reflected a key concept from the literacy, language and culture course in terms of integrating students' cultural and linguistic background knowledge as a resource for learning.

Thus, a central purpose of this study was to gain insights into the challenges encountered when Susan tried to apply what she learned from the course on culturally responsive practices by

integrating her ELL students' cultural and linguistic background knowledge into instruction. Another aim was to discover what aspects of our collaboration with Susan played a role in mediating the challenges, as well as what new teacher and student understandings emerged with the integration into instruction of students' cultural and linguistic background knowledge.

### **Implementation and Procedures**

At one of our meetings, Susan shared her ELLs' literature responses posted online in the school's Learning Management System (LMS). We noticed some error patterns in the students' writing, such as misused prepositions, plurals, subject-verb agreements, and tenses, among others. We also noticed that although Susan hoped to engage her ELL students in thinking critically about what they were reading, the students mostly retold what happened in their books without analyzing and evaluating the characters and events. Based on what we learned from the students' writing, we recommended that Susan implement two new instructional practices, CA and use of culture-based literature response prompts. We hoped these instructional practices would create opportunities for the ELLs to make connections to their cultural and linguistic prior knowledge and improve their literature responses and writing. Also, both strategies incorporated Susan's teaching goals for her students: to develop their language proficiency, critical thinking, as well as understanding of key literary concepts. A description of each instructional practice follows.

**Contrastive Analysis.** Contrastive analysis is used when two dialects or languages are being compared and contrasted (Lado, 1957; Wheeler and Swords, 2005). For language learners, their prior knowledge of language(s) serves as an important source for them in making sense of the target language, and they tend to fall back on the rules of the language(s) they are fluent with when their knowledge of the target language is still developing and not yet well established (Truscott, 2006; Amaral & Roeper, 2014). Gass, Behney, and Plonsky (2013) reviewed recent perspectives on the role of native language (NL) (i.e., L1) in L2 learning and found language learners apply what they already know about other languages in learning the target language. In fact, the authors concluded, "Clearly, the NL is pervasive in all areas of learning ... as is seen in all domains of L2 study" (p.154). In the literacy, language and culture course, students read Wheeler and Swords' (2005) article, in which the authors discussed how they engaged Ebonics-speaking children in comparing and contrasting Ebonics and the standard American English. Fu (2003) also wrote about using CA to help Chinese L1 English language learners and suggested that "showing the differences in sentence structure between their first language and English is like giving our ESL students a map they urgently need when they have to move across the territory of the languages" (p.148). To assist students in comparing English with their L1, we created a T-chart worksheet for them to list grammatically incorrect sentences from their writing assignments on one side, and write the word-to-word translations in their L1 on the other side. Then they compared the sentences on the two sides in order to see if there was any connection between the error in the English sentence and the rules in their L1. Engaging the English language learners in comparing and contrasting the sentence structures and expressions in both their L1 and English helped make students more aware of the potential L1 influence on their learning of English. Here is an example from a student (See Figure 1).

Sentence	Vietnamese
... we are using weapons of mass destruction	... chúng ta đang sử dụng vũ khí có sức hủy diệt lớn.
Correction: ... We are using weapons of mass destruction	
Comparing: In Vietnamese, there is no rule for singular or plural words.	
Rule: plural and singular	

Figure 1 Contrastive Analysis Worksheet

In this example, the student whose L1 is Vietnamese missed the plural morpheme for the word “weapon” in writing the phrase “weapons of mass destruction”. After analyzing the error in the sentence and translating it into the Vietnamese language, she realized that the error in the English sentence could be traced to her L1 influence, as she said that “in Vietnamese, there is no specific rule for singular and plural words”; however, English requires a unique morpheme to indicate plurality for countable nouns.

**Culture-based literature response prompts.** In Term 1, students responded to a generic prompt that required them to summarize the book for their independent reading and then predict what would happen next in the book. See Table 1 for the generic prompt used during Term 1.

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Provide a summary of your story so far. Include a prediction of what you think will happen next supported with evidence and citations, and tell what else you would like to learn. Use at least 2 literary terms, and at least 3 new vocabulary words. The post should be at least 350 words long.

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Table 1 Generic Literature Response Prompt Used in Terms 1

We noticed that students’ literature responses to this generic prompt were literal and did not demonstrate much critical thinking. One tenet of culturally responsive teaching is to incorporate the culturally and linguistically diverse students’ home experience and cultural knowledge in all aspects of their learning (Ladson-Billings, 2009; Gay, 2002). For this reason, in Term 3, we crafted response prompts that asked students explicitly to make connections to their cultural backgrounds in discussing the books they were reading. (During Term 2, Susan did not have students respond to literature response prompts, as they were engaged in other assignments that term.) Table 2 shows an example of a culture-based literature response prompt introduced in Term 3.

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First, briefly explain what is meant by *external* and *internal conflict* [literary terms]. Next, give at least two examples for each type of conflict experienced by the main character in your book so far. Now imagine the character lives in a different culture than the one portrayed in the book (perhaps the culture in which you grew up or a different culture with which you are familiar). Would the character experience the same external/internal conflicts? Why or why not? If not, what other potential conflicts would this character encounter due to cultural differences?

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**Table 2 Culture-Based Literature Response Prompt Used in Term 3**

## Data Collection

We gathered data from six sources for our 10-month study to help us answer our research questions. One source consisted of an interview. With Susan's agreement and consent, we conducted one 30-minute, semi-structured and open-ended, audio-recorded interview with Susan, which was later transcribed for purposes of analysis. During the interview, some of the questions we asked Susan were: "How would you say the literacy, language and culture course affected your thinking about teaching?"; "How would you say the course affects the way you actually teach?"; "What things did you learn from the course that you feel you are unable to implement in your classroom teaching that you would have liked to?"; "What prevents you?".

Susan's Reflective Journal, maintained throughout the school year, served as a second data source. We asked Susan to use the journal to record what went well while implementing CA and using the culture-based literature prompts we developed, any challenges encountered, insights she gained along the way, and her observations on how her students responded to her instruction. Susan chose to audio-record her reflections. We asked her to send us the audio files as she recorded them so that we could transcribe and analyze them throughout the study for insights along the way rather than waiting until the end. We also asked Susan to save student artifacts (e.g., literature discussion posts, artifacts from her CA instruction) to document her work with students and support her reflections. We hoped these reflections would provide us with further insights into the obstacles encountered in applying these new practices with her students, aspects of our collaborative work together that appeared to facilitate the implementation, and new teacher and student understandings developing along with the introduction of the two new instructional approaches.

In addition, we jotted down our own observation field notes during all of our collaborative meetings (face-to-face and by phone) and class visits. Since some of our communications were in the form of email, our electronic correspondence became another data source.

A final source of data consisted of the written literature responses posted in the school's LMS system by three students in Susan's literature class. The three students were identified by Susan as being *struggling*, *average*, and *high performing*, respectively, based on her evaluation of the students' oral and written language performance in her class, including participation in class discussions, oral presentations, and other writing assignments. Susan chose these students because they represented the range of ELL students in her class. Susan saved the students' posts from Term 1 and Term 3, the two terms when Susan required students to respond in writing to literature response prompts based on literary works read. (See Tables 1 and 2 for examples of the literature response prompt used during Term 1 and the culture-based literature response prompts we developed and that were used during Term 3.)



## Data Analysis

**Interview, reflective journal and artifacts, students' literature response posts, observation field notes, and email correspondence.** We (two professors) independently read, reread, and coded the data, following Miles and Huberman's (1994) guidelines. Afterwards, we discussed our findings and generated pattern-based themes related to our initial research questions. More specifically, we looked for themes related to: 1) challenges Susan encountered as she attempted to apply culturally responsive practices by integrating her students' cultural and linguistic background knowledge into instruction; 2) factors that appeared to play a role in supporting or constraining the implementation of instructional approaches integrating students' cultural and linguistic background knowledge and important aspects of our collaborations linked to facilitating these instructional practices; and also, 3) new understandings Susan and her ELL students developed with the implementation of the two new instructional practices, contrastive analysis and use of culture-based literature response prompts. Any differences of opinion with regard to codes and themes were resolved through discussion.

**Students' literature response posts.** As noted earlier, we collected and analyzed the initial literature responses posted in the school's LMS system by three students (*struggling, average,* and *high performing*) during Terms 1 and 3. The posts during these terms were of particular interest in determining if students' written responses to literature exhibited greater evidence of in-depth thinking when students responded to prompts requiring them to draw on their cultural background knowledge during Term 3 since the culture-based prompts were introduced at that time.

In order to analyze students' posts, we used an adapted form of Cheung and Hew's (2005) framework for evaluating thinking skills in online discussions. We chose this framework because it drew from the theoretical ideas of experts in thinking (e.g., Henri, 1992; Newman et al., 1997; Swartz & Parks, 1994), and it has been used to evaluate the quality of thinking evident in students' online discussion posts for other studies (Cheong & Cheung, 2008; Lim, Cheung, & Hew, 2011). For these reasons, we felt the model was a good fit for our study.

**Framework for evaluating thinking skills.** Cheung and Hew's (2005) model classifies thinking into *surface* and *in-depth* levels of thinking. However, since literature response posts often include comments that do not fit into either of these categories, we adapted the framework by adding 5 categories, drawing from the work of Chafe (1980; 1994). The seven categories of the adapted thinking framework we used were as follows: *Surface, In-Depth, Interactional, Cognitive, Validational, and Evaluative Idea Statements, and Questions*. For greater clarity, we chose to parse each sentence into smaller units, or idea statements, prior to our analysis using the framework, since a single sentence (e.g., a compound sentence, sentences with clauses) can contain more than one category of thinking. For the purposes of this study, we adopted Leslie and Caldwell's (2006) definition of an idea statement as a proposition made up of a verb and accompanying noun. See Table 3 for definitions and examples of each category on the adapted thinking framework (Cheung & Hew, 2005) we used for this study.

Idea statement <sup>a</sup> type	Definition	Example
Surface	<ul style="list-style-type: none"> <li>- States facts from/about the book</li> <li>- Does not justify conclusions or judgments made<sup>b</sup></li> <li>-Does not spell out the advantages or disadvantages of a suggestion, conclusion, or judgment<sup>b</sup></li> <li>-Draws from background knowledge or experiences, but without text support<sup>c</sup></li> </ul>	“He grew up in Celia’s house.”
In-Depth	<ul style="list-style-type: none"> <li>-Justifies conclusions or judgments<sup>b</sup></li> <li>-Identifies advantages or disadvantages of a suggestion, conclusion, or judgment<sup>b</sup></li> <li>-Makes valid assumptions based on the available indicators<sup>b</sup></li> <li>-Brings outside knowledge or experiences to bear on the issue discussed<sup>c</sup></li> </ul>	<p>“Verdi’s life would be different in my culture (China)...” [Student goes on to explain.]</p> <p>[“Hawking was lucky to receive a lot of money and support from the British government so he could continue working.”] “In Vietnam, the government would not spend a lot of money on any scientist, no matter how talented.”</p>
Question	<ul style="list-style-type: none"> <li>-Raises questions</li> <li>-Expresses wonderings</li> </ul>	<p>“Will Él Patron die?”</p> <p>“I wonder”</p> <p>“I would like to learn”</p>
Interactional	<ul style="list-style-type: none"> <li>-Indicates awareness of audience through use of pronouns<sup>d</sup></li> </ul>	<p>“You know”</p> <p>“Let me tell you”</p>
Cognitive	<p>Expresses mental processes; often, but not always, utilizes first-person pronoun in referring to oneself<sup>d</sup></p>	<p>“I learned”</p> <p>“I just read”</p>
Validational	<p>Expresses judgment on the validity of information conveyed, usually, with self-referring pronouns<sup>d</sup></p>	<p>“I think?”</p> <p>“I’m not sure”</p>
Evaluative	<p>Expresses a judgment or attitude toward elements of the narrative or its context; repeats information<sup>d</sup></p>	<p>“What a magical story!”</p> <p>“I did not like”</p> <p>“They have a weird name”</p>

<sup>a</sup>Defined as a proposition made up of a verb and its accompanying noun/s (Leslie & Caldwell, 2006). <sup>b</sup>Henri, 1992;

<sup>c</sup>Newman et al., 1997; <sup>d</sup>Chafe, 1980.

**Table 3 Categories of the Adapted Thinking Framework (Cheung & Hew, 2005)**

After we parsed the sentences, we coded the idea statements and compiled them onto a list. The next step involved classifying the idea statements according to the seven categories of the adapted thinking framework (Cheung & Hew, 2005). To illustrate the process we used in analyzing students' posts, first, we provide an excerpt from a student's online literature response post (see Table 4).

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Excerpt from a student's post:

*The House of the Scorpion* is written by Nancy Farmer. I discovered the story is told from the third-person point-of-view because the narrator does not show up, but the narrator tells the story as if there. This is such a magical story! The clone is really cool. The implanted people are really cool. I like that! I must tell you though, I am confused by a few things. Why were the servants implanted? Why were Matt's teachers implanted?

How did Matt find that out? Also, I think the author omits the time period of the story.

---

**Table 4 Excerpt from Student's Literature Response Post**

Next, we show how the sentences (e.g., S1, S2, etc.) in the student literature response post example were parsed into idea statements (e.g., 1), 2), etc.) prior to classifying the idea statements using the thinking framework (Cheung & Hew, 2005). See Table 5 for the list of sentences from the student post parsed into idea statements with the verb and accompanying noun, as defined earlier, along with some additional words (e.g., prepositions) in some cases.

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S1	1)	<i>The House of the Scorpion</i> is written by Nancy Farmer
S2	1)	I discovered
	2)	The story is told from the third-person point-of-view
	3)	Because the narrator does not show up
	4)	But the narrator tells the story as if there
S3	1)	This is such a magical story
S4	1)	The clone is really cool
S5	1)	The implanted people are really cool
S6	1)	I like that
S7	1)	I must tell you though
	2)	I am confused by a few things
S8	1)	Why were the servants implanted
S9	1)	Why were Matt's teachers implanted
S10	1)	How did Matt find that out
S11	1)	Also, I'm pretty sure
	2)	the author omits the time period of the story

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**Table 5 Parsed Idea Statements from Sentences in Student's Literature Response Post**

In Table 6, we show how we classified each idea statement from the student example, according to the seven categories of the adapted thinking framework (Cheung & Hew, 2005) used for this study. For example, S1, in Table 5 is classified as a “Surface” idea statement because it fits the definition of this type of idea statement listed in Table 3: “States facts from/about the book.” As another example, the idea statement, S11 (“Also, I’m pretty sure”), from Table 5 is categorized as a “Validational” idea statement because it “expresses judgment on the validity of information conveyed, usually, with self-referring pronouns,” as defined in Table 5.

Surface	In-Depth	Questions	Interactional	Cognitive	Validational	Evaluative
S1 S11 (2)	S2 (2-4)	S8 (1) S9 (1) S10 (1)	S7 (1)	S2 (1) S7 (2)	S11 (1)	S3 (1) S4 (1) S5 (1) S6 (1)

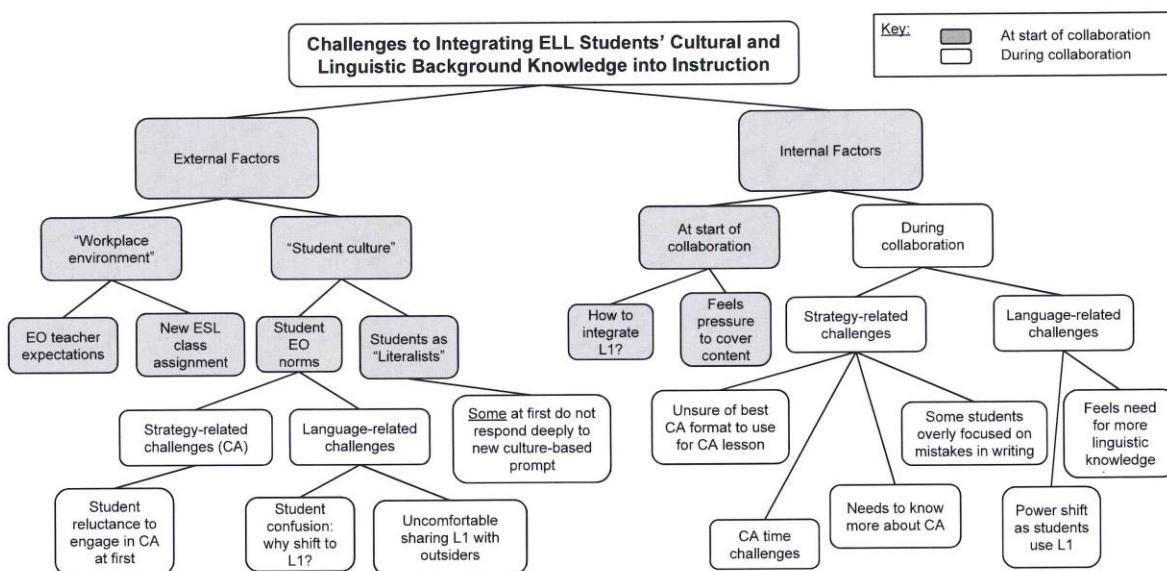
Table 6 Idea Statements Classified According to a Thinking Framework (Cheung & Hew, 2005, adapted)

A graduate assistant in the Teacher Education Department who was preparing to become an English teacher independently parsed and classified the idea statements in the students’ posts. As a check on accuracy, afterwards, one of us reviewed all of her analyses. We noted any discrepancies and resolved the differences by discussion.

## Findings and Discussion

**Challenges to integrating the linguistic and cultural background knowledge of ELL students.** Our first research question asked what challenges the teacher encountered as she attempted to integrate her ELL students’ cultural and linguistic background knowledge into her instruction, a key concept highlighted in the literacy, language and culture course. Figure 2 displays the themes regarding the challenges emerging from our data analysis.

Figure 2. Challenges to Integrating ELL Students' Cultural and Linguistic Background Knowledge into Instruction



**Challenges at the start of the collaboration.** As Figure 2 illustrates, Susan encountered “external” and “internal” challenges when she attempted to apply what she had learned in her teacher education program, a theme found in prior research at the higher education level. For example, in Knight’s (2006) study, the researcher found teachers in higher education faced both internal and external barriers when they tried to apply what they learned after completing postgraduate certificates in teaching and learning. Although the specific obstacles Susan faced changed over time, both internal and external challenges were evident throughout our entire collaboration and academic year.

*External challenges.* At the start of our collaboration, Susan reported aspects of her “workplace environment,” or *external challenges*, that she felt interfered with applying new concepts learned in her literacy, language and culture course (e.g., her new class assignment and a common expectation among teachers that students need to speak English-only in class in preparation for the standard classes; Observation Field Notes; Interview, 2/17/14). In fact, some scholars (Blume, Ford, Baldwin, & Huang, 2010; Holton, Cheng, & Naquin, 2003) argue the work environment (e.g., social support of peers and supervisors) is one of the most powerful predictors of learning transfer. Investigators researching teachers in higher education have identified a variety of workplace-related factors interfering with learning transfer, such as heavy workloads, little opportunity to apply new learnings, and lack of support from colleagues. Apparently, workplace factors also play an important role in learning transfer for teachers at the secondary level.

Susan also identified specific aspects of the “student culture” presenting additional *external challenges* later on when she introduced CA and the culture-based response prompts (Reflective Journal; observation field notes, email correspondence). For example, as Susan noted in her Reflective Journal, her ELL students began the year in her classroom with expectations for English-only. As a result, later on when she tried to engage her students in CA, as she observed: “Their norms for English-only were already established, and I could sense some were not comfortable sharing their native language, particularly with others of different native language backgrounds” (Reflective Journal).

The student culture presented another external challenge to Susan during Term 3 when she first introduced the literature response prompts that required her students to incorporate their cultural background knowledge into their literature responses (Reflective Journal; Observation Field Notes; email correspondence, students’ written literature responses during Term 1 and at the beginning of Term 3). In her Reflective Journal, describing her students’ literal approach to reading literature during Term 1, Susan commented:

*Ahh, I can tell I have some literalists, and well actually, many literalists. Some of the students explained that in their home country, meaning China, they weren’t taught to think outside of the box, meaning that whatever they read, that was exactly what they had to reproduce. So to ask them to think more deeply and interpret what a character is saying or what the implications of an action are, this seems to be quite challenging because it’s very literal in the classroom.*  
(Reflective Journal, 9/5/13)

These findings suggest student culture, a factor Hockings (2005) found to be relevant to teacher change in higher education, has applicability to teacher change at the secondary level, as well. Hockings defined *student culture* as “the experiences, beliefs and expectations of learning, teaching and assessment that students share and which influence their approach to learning” (p. 316).

*Internal challenges.* As evident in the earlier excerpt from an interview with Susan (Interview, 2/17/14), Susan knew from various readings for the literacy, language and culture course the value of incorporating students' native language (L1) into classroom instruction, but she also indicated she wasn't sure just how to go about making this happen. In addition to this uncertainty, or *internal challenge*, Susan identified other internal pressures she felt related to assuming a new teaching position, and realized the pressures distracted her attention away from embracing students' cultural and linguistic background knowledge, at first. Reflecting back on the beginning of the school year, Susan reported:

*I definitely feel I neglected, at first, what the students already brought with them into the classroom. I was completely focused on being a new teacher and teaching the students what they needed to learn for the next grade level.*

*(Reflective Journal)*

**Challenges during the collaboration.** Susan encountered other types of external and internal challenges *during* our collaboration when she attempted to implement the two new practices incorporating her ELL students' cultural and linguistic background knowledge, CA and use of culture-based literature response prompts (Reflective Journal, Observation Field Notes, Email Correspondence, students' written literature responses). An explanation of each of these types of challenges follows.

*External challenges related to implementing CA.* With respect to *external challenges*, after an early CA lesson, Susan commented on specific *strategy-* and *language-related* obstacles she faced when she asked students to examine grammatical "errors" made, as a pattern, in their written work (Reflective Journal, Observation Field Notes, Email Correspondence). For example, noting a *strategy-related* challenge, in her Reflective Journal, Susan commented, "I could sense from their moans and groans that some were not willing to give their complete effort to the lesson. This strategy was something new and different."

With regard to a *language-related* challenge, Susan noted in her reflections when students were asked to compare the grammatical features they wrote in English, often incorrectly, with the comparable grammatical features of their L1, some students seemed confused, given their English-only norms. They did not seem to understand how comparing English grammatical structures to their L1 could be helpful. For example, Susan noted one student responded to contrastive analysis initially by asking, "Huh? Why do you want us to do that?" Also, referring to another language-related challenge, Susan observed: "I can see students are not 100% comfortable sharing their L1 with those who have different native language backgrounds." (Reflective Journal)

*External challenges related to using culture-based prompts.* Susan also encountered external challenges when she introduced the culture-based prompts during Term 3, as some of her "literalist" students, at first, did not respond as deeply as Susan had hoped (Reflective Journal, Observation Field Notes, student written literature responses). For example, one prompt asked students to discuss how the conflicts the characters encountered in a story read for class would be different in the student's home culture (or a different culture with which the student is familiar), one student simply responded, "This would not happen in Colombia." Thus, these two aspects of "student culture," the ELL students' English-only norms and expectations, as well as their literal approach to reading and responding to literature, created external challenges to Susan when she first introduced CA and the culture-based prompts.

*Internal challenges.* New to using CA as an instructional approach, Susan experienced internal discomfort, as well, when thinking about how to introduce the strategy and integrate her

ELL students' L1. Based on our observation field notes, email correspondence, as well as Susan's Reflective Journal, we noticed Susan had some self-doubts on how she had handled various aspects of the instructional approach in the beginning with her students. For example, Susan commented at one of our face-to-face meetings:

*I could have done a much better job with instructing students on a format to use for comparing the grammatical structures in L1 and English...The lesson today took much longer than I expected...I'm not convinced I am equipped with all I need to know to make this lesson effective...I noticed some students became overly concerned with making writing errors.*

In addition to these *strategy-related* concerns, Susan also reported *language-related* concerns in connection with CA. For example, Susan's reflections and discussions during our conversations suggest she felt uncomfortable with the power shift she sensed as students began discussing how grammatical structures are handled in their L1. In her Reflective Journal, she also expressed feeling a need for more linguistic knowledge when she commented, "It is hard to give up control. I like to know I understand what is going on. I feel I should have some basic understanding of every language spoken in my class for the full effect to be realized."

**Aspects of the collaboration that played a role in learning transfer.** Our second research question asked what aspects of the professor/teacher collaborations played a role in mediating the challenges encountered as the teacher attempted to integrate her students' cultural and linguistic background knowledge. Our findings map well onto three aspects of the social environment posited by social network theory as facilitating or hindering learning transfer (Van den Bossche & Segers, 2013). In particular, social network theory asserts *structural*, *relational*, and *behavioral* aspects of the social environment, falling within or outside of organizations, facilitate or hinder learning transfer. Below, we report our findings regarding aspects of the teacher's collaborations with professors outside of the school where she worked that appeared to facilitate her beginning applications of culturally responsive practices she learned at the university.

***Structural aspects of our support network.*** When support at the workplace is not available, outside support may be necessary for the learning from a training or course context to be transferred. When we collaborated for the entire school year, we served as outside support for the teacher to apply what she learned from the literacy, language and culture course to her classroom and build on her diverse students' cultural and linguistic backgrounds.

***Relational aspects of the support network.*** Another aspect of social network theory is relations. During the academic year we collaborated, we established a supportive relationship through communicating regularly in the form of face-to-face meetings, emails, and phone conversations. The college professors also visited the teacher's school, observed her teaching, and provided her with feedback upon her request. The teacher felt comfortable asking the college professors for help with regard to incorporating students' cultural and linguistic backgrounds into her teaching.

***Behavioral aspects of the support network.*** A third area of social network theory concerns how group members behave and interact with each other. In our collaboration, we, the college professors, provided support and suggestions for ways the teacher could apply her learning from her graduate course to her teaching based on her teaching objectives and her students' strengths and needs. We not only suggested the instructional practices, we also helped create the T-chart worksheet to engage students in doing the CA and assisted in drafting the culture-based literature response prompts.

**New teacher understandings.** Our data analyses suggest the teacher gained new understandings that were strategy- and language-related, as follows.

***Strategy-related understandings.*** Susan discovered sharing the rationale behind CA with students was fundamental to gaining their cooperation and played a role in helping students realize how CA was beneficial to them. As Susan observed, “When I explained to students the purpose is to help them understand ways in which L1 is interfering with L2, one of the students said, ‘Oohhh,’ as if it was an *aha* moment” (Reflective Journal).

Susan also noted our in-class observations of her implementing CA, followed up with discussion and feedback, contributed to her comfort-level with using the strategy. As Susan reported in her Reflective Journal, “I felt more confident following my visit from two of my college professors.” It should be noted that during our classroom visit, at Susan’s request, we observed a lesson where she engaged students in Contrastive Analysis. Afterwards, we reflected together on the lesson, and we were able to point out that it was okay for her to feel vulnerable when students were explaining to each other the errors they had made in English and making comparisons between the errors and their L1, because now her students were the more knowledgeable persons in her class. We also suggested that she could ask her students more specific questions to make them more aware of the potential influence on their learning of English (Observation Field Notes).

With minor adjustments made and further practice implementing CA, Susan felt her instruction led to more uniform and organized student work. For example, in her Reflective Journal, Susan noted, “Today was much smoother because I was prepared with more of a uniform template for students to use in comparing grammatical structures they were confusing.” The uniform template Susan refers to here was the T-chart (see Figure 1) which she felt helped to organize and structure her students’ CA work. We helped come up with the T-chart idea in an earlier face-to-face meeting following Susan’s initial use of Contrastive Analysis when Susan shared that she thought her lesson didn’t go as well as she had expected, and she was not sure if she knew how to “make this lesson effective”.

Over time, Susan found the CA lessons required less time to implement, and students assumed a more active role. As Susan also reported in her Reflective Journal, “Students were so interactive [during CA], they did not really need me to be there. I was there as a probe and facilitator.”

Susan also discovered the culture-based prompts she introduced during Term 3 played an important role in moving students beyond their literal responses to texts so characteristic during Terms 1 (Reflective Journal, Observation Field Notes, students’ written literature response prompts). Susan commented in her Reflective Journal, “My students seemed to think more deeply, as they had to reflect more on their cultural background in relation to the biographical texts they read.”

As noted earlier, some students were challenged, at first, to find cultural connections between the characters and events in stories read and their own lives. However, with prompt options to choose from and further practice, over time, students showed evidence in their written literature response posts they were thinking more deeply about their readings (Reflective Journal, Observation Field Notes, Email Correspondence, Student Literature Responses).

***Language-related understandings.*** Susan discovered positioning her students as experts by integrating their L1 into instruction as a resource for learning created a shift in her role to one more facilitative. However, giving more control to her students also created some feelings of discomfort. As Susan shared:



*This was the first time I felt my students had most of the control. Each student was working on an assignment differentiated to his or her native language. All I could do was instruct and answer questions when needed. It's still hard to give up control (Reflective Journal).*

However, experiencing this discomfort also elicited in Susan new feelings of empathy. As Susan noted in her Reflective Journal, "I felt exactly what my students may have felt while being in a new culture and surrounded by many who do not speak the same native language as I do."

**New Student Understandings.** Our data analyses suggest CA and use of culture-based literature response prompts also played important roles in helping students gain new insights into their written grammatical errors, and also, in thinking more deeply about the literary works they read (Reflective Journal, Observation Field Notes, written student literature responses).

**New insights into L1 interference.** In her Reflective Journal, Susan noted, over time, students seemed to appreciate the inclusion of their L1 in instruction, and provided a number of examples where her ELL students gained valuable insights into ways in which their L1 interfered and contributed to their grammatical errors in English. For example, Susan reported:

*One student, referring to a written grammatical error he was making in his writing, as a pattern, smiled and said, 'Oh, why did I not know this? Oh, I know why. In Spanish, on and in can be used interchangeably. However, in English, that is not the case.'*

*My student from Vietnam recognized there is no rule for singular and plural in Vietnamese. However, when speaking or writing about one or many things, singular and plural are very important in English.*

*My student from China noted that there are no specific rules for verb tenses in Chinese. However, rules are specific in the English language. Also, in Chinese, he and she are used interchangeably.*

**More in-depth thinking.** Our analyses using the adapted thinking framework based on the work of Cheung and Hew (2005) indicate each student included a greater percentage of In-Depth idea statements in their literature response posts during Term 3 when they were required to make connections to their cultural background knowledge. While all three students showed growth in this area, the *struggling reader* made the greatest gains, including only 1% of in-depth idea statements when generic prompts were used during Term 1 compared with 52% during Term 3 when culture-based response prompts were used. These results suggest all three students (*struggling, average, and high performing*) engaged in more in-depth thinking when asked to make connections with their home cultures in their literature responses. See Table 7 for a summary of the students' surface and in-depth idea statements in their literature posts during Term 1 compared to Term 3.

Student	Term 1	Term 3
	In-Depth/Surface <sup>b</sup> (%)	In-Depth/Surface <sup>c</sup> (%)
Struggling	7/665 (1%)	117/225 (52%)
Average	107/442 (24%)	157/434 (36%)
High performing	69/385 (18%)	49/172 (28%)

<sup>a</sup>An idea statement is defined as a proposition made up of a verb and its accompanying noun/s (Leslie & Caldwell, 2006). <sup>b</sup>These idea statements came from the literature response posts written using the generic prompt (see example in Table 1). <sup>c</sup>These idea statements came from the literature response posts written using culture-based prompts (see example in Table 2).

**Table 7 In-Depth vs. Surface Idea Statements<sup>a</sup> in the Literature Response Posts for Students in Terms 1 and 3**

In addition, the *struggling*, *average*, and *high performing* students included more evaluative and validational idea statements in their literature response posts during Term 3 when they responded to the culture-based prompts as compared with their response posts during Term 1 when they responded to the generic prompt, while two of the three students (i.e., the struggling and average students) included more cognitive idea statements during Term 3. The high performing student included the same number of cognitive idea statements in literature response posts each term. See Table 8 for comparisons of the total number of idea statements in all three categories for the three students during Term 1 vs. Term 3.

Idea Statement <sup>a</sup>	Student		
	Struggling Term 1 / Term 3	Average Term 1 / Term 3	High Performing Term 1 / Term 3
Cognitive	0/17	11/29	7/7
Evaluative	13/47	30/36	45/46
Validational	6/12	5/9	8/9
Questions	6/0	14/0	20/0

<sup>a</sup>Interactional idea statements are not included since there were only 3 across all literature response posts during Terms 1 and 3.

**Table 8 Cognitive, Validational, and Evaluative Idea Statements in Literature Response Posts in Terms 1 and 3**

As noted earlier (see Table 3), validational idea statements express judgments on the validity of information (e.g., “I’m not sure,” “I think”); evaluative idea statements express a judgment or attitude toward elements of a narrative or its context (e.g., “I did not like,” “what a magical story”); and cognitive idea statements express mental processes, such as “I learned” or “I just read.” The increases in these types of idea statements provide possible evidence of students’ greater awareness of their cognitive and affective processes and states when required to draw from their cultural background knowledge. By asking students to pull from prior experiences and concepts rooted in their cultures using the culture-based prompts, Susan helped her students construct their own personal interpretations, evaluate and consider alternative interpretations, and engage in more complex interactions with text, as good readers do (Anderson, Osborn, & Tierney, 1984; Rosenblatt, 1983; Tierney & Shanahan, 1991).

With regard to “questions” in students’ posts during Term 1 vs. 3, interestingly, all three students included questions in their literature posts during Term 1, but no questions in their posts during Term 3 when responding to the culture-based prompts. Across all 21 posts during Term 1 (7 posts per student), the struggling, average and high performing students asked a total of 40 questions (6, 20, and 14 questions, respectively). It seems likely the difference in the number of questions in students’ posts during Term 1 vs. Term 3 is due to the fact the generic prompt used in Term 1 explicitly asked students to predict and tell what else they would like to learn as they read on in their texts. Given the importance of generating questions to reading comprehension, the cognitive and language processes it supports, as well as the interest and motivation it stimulates for students, including ELL students (Eunice Kennedy Shriver National Institute of Child Health and Human Development, 2001; Taboada, Bianco & Bowerman, 2012; Taboada & Guthrie, 2006), in the future, it is important to supplement the culture-based prompts by asking students to predict and include questions they would like answered as they read further in their texts.

### **Educational and Research Implications, and Limitations**

The findings from this study shed light on some of the unique types of external and internal, language- and strategy-related challenges teachers may encounter in similar contexts when they attempt to apply what they have learned from their course work at the university with their ELL students in class. The findings also suggest the value of continuing supportive networking for teachers after their course work is completed. In the current study, the teacher networked with former professors outside of the school context. However, other types of supportive networks may be beneficial, such as networking with other teachers inside or outside of the workplace, in face-to-face or even online contexts. Further research is needed to explore these other types of supportive networks for helping teachers apply the best practices they learn for using with the ELL students, along with the structural, relational, and behavioral features of the supportive networks that appear to play a role in mediating the challenges teachers encounter.

It is also important to note, this study is limited by the small number of participants (i.e., a couple of professors and one teacher working in a school context where it is taken for granted that students need to speak English in class in preparation for the standard classes) and the initial literature response posts from three ELL students. Teachers working in other school contexts and at other grade levels with ELLs who are less proficient in English than those in this study may find their experiences are somewhat different from those reported here. Clearly, further research

in these areas would add to the knowledge base by identifying other types of challenges encountered and new teacher and student understandings possible with supportive networks in place, allowing the teacher to use students' cultural and linguistic background knowledge as important resources for learning.

## References

- Alexie, S. & Forney, E. (2007). *The absolutely true diary of a part-time Indian*. New York, NY: Little, Brown and Company.
- Anderson, R. C., Osborn, J., & Tierney, R. J. (1984). *Learning to read in American schools: Basal readers and content texts*. Hillsdale, NJ: Erlbaum.
- Amaral, L., & Roeper, T. (2014). Multiple grammars and second language representation. *Second Language Research*, 30(1), 1-36.
- Applegate, M. D., Quinn, K. B., & Applegate, A. J. (2006). Profiles in comprehension. *The Reading Teacher*, 60, 48-57.
- Batalova, J., Fix, M., & Murray, J. (2007). *Measures of change: The demography and literacy of adolescent English learners: A Report to Carnegie Corporation of New York*. Washington, C. C.: Migration Policy Institute.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta-analytic review. *Journal of Management*, 36, 1065-1105.
- Brown, C. L., & Bentley, M. (2004). ELLs: Children left behind in science class. *Academic Exchange Quarterly*, 8, 1-8.
- Chafe, W. L. (1980). *The pear stories: Cognitive, cultural, and linguistic aspects of narrative production*. Norwood, NJ: Ablex Publishing Company.
- Chafe, W. (1994). *Discourse, consciousness, and time*. Chicago, IL: The University of Chicago Press.
- Cheong, C. M., & Cheung, W. S. (2008). Online discussion and critical thinking skills: A case study in a Singapore secondary school. *Australasian Journal of Educational Technology*, 24, 556-573.
- Cheung, W. S., & Hew, K. F. (2005). How can we facilitate students' in-depth thinking and interaction in an asynchronous online discussion environment? A case study. *Proceedings of the AECT International Convention*, Orlando, FL, 28, 114-121.
- de Jong, T., Cullity, M., Sharp, S., Spiers, S., & Wren, J. (2010). Proposed principles for promoting pre-service teacher transfer of group-based learning to the classroom: A discussion paper. *Australian Journal of Teacher Education*, 35, 49-59.
- Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS. (2001). *Put Reading First: The Research Building Blocks for Teaching Children to Read*. Washington, DC: U.S. Government Printing Office.
- Fry, R. (2003). *Hispanic youth dropping out of U. S. schools: Measuring the challenge*. Washington, D. C.: Pew Hispanic Center.
- Fu, D. (2003). *An island of English: Teaching ESL in Chinatown*. Portsmouth, NH: Heinemann.
- Gainsburg, J. (2012). Why new mathematics teachers do or don't use practices emphasized in their credential program. *Journal of Mathematics Teacher Education*, 15, 1-21.
- Gass, S. M., with Behney, J., & Plonsky, L. (2013). *Second language acquisition: An introductory course* (4 ed.): London: Routledge.

- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53, 106-116.
- Henri, F. (1992). Computer conferencing and content analysis. In A. R. Kaye (Ed.). *Collaborative learning through computer conferencing: The Najaden papers*, 117-136. Berlin: Springer-Verlag.
- Hockings, C. (2005). Removing the barriers? A study of the conditions affecting teaching innovation. *Teaching in Higher Education*, 10, 313-326.
- Holton, E., III, Cheng, H., & Naquin, S. (2003). An examination of learning transfer system characteristics across organizational settings. *Human Resource Development Quarterly*, 14, 459-482.
- Kay, J., & Gelshenen, R. (2012). *Discovering fiction level I student's book: A reader of North American short stories* (2<sup>nd</sup> ed.). New York, NY: Cambridge University Press.
- Knight, P. (2006). *The effects of postgraduate certificates in teaching and learning in higher education: A report to the project sponsor and partners*. Retrieved April 12, 2015, from <http://kn.open.ac.uk/public/document.cfm?docid=8640>.
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. Ann Arbor: University of Michigan Press.
- Ladson-Billings, G. (2009). *The dreamkeepers: Successful teaching for African-American children* (2<sup>nd</sup> ed.). San Francisco, CA: Jossey-Bass.
- Lee, N. H. (1960). *To kill a mockingbird*. New York, NY: Grand Central Publishing.
- Leslie, L., & Caldwell, J. (2006). *Qualitative Reading Inventory-4*. Boston, MA: Pearson.
- Lim, S. C., Cheung, W. S., & Hew, K. F. (2011). Critical thinking in asynchronous online discussions: An investigation of student facilitation techniques. *New Horizons in Education*, 59, 52-65
- Lloyd, M. E. R. (2013). Transfer of practices and conceptions of teaching and learning mathematics. *Action in Teacher Education*, 35, 103-124.
- Miles, M.B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Beverly Hills, CA: Sage.
- National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA). (2006). Frequently asked questions. Retrieved from <http://www.ncela.gwu.edu/faqs/>
- Newman, D. R., Johnson, K. C., Webb, B., & Cochrane, C. (1997). Evaluating the quality of learning in computer supported cooperative learning. *Journal of the American Society of Information Science*, 48, 484-495.
- PA Department of Education (n.d.). *The framework for K-12: Program guidelines, PA Department of Education*. Retrieved January 23, 2016, from <http://www.education.pa.gov/Documents/Teachers-Administrators/Certification%20Preparation%20Programs/Framework%20Guidelines%20and%20Rubrics/K-12%20Program%20Framework%20Guidelines.pdf>
- Pepper, K., Blackwell, S., Monroe, A., & Coskey, S. (2012). Transfer of active learning strategies from the teacher education classroom to PreK-12<sup>th</sup> grade classrooms. *Current Issues in Education*, 15, 1-21.
- Prebble, T., Hargraves, H., Leach, L., Naidoo, K., Suddaby, G., & Zepke, N. (2005). *Impact of student support services and academic development programmes on student outcomes in undergraduate tertiary study: A synthesis of the research*. Retrieved April 14, 2015, from [http://www.educationcounts.govt.nz/publications/tertiary\\_education/5519](http://www.educationcounts.govt.nz/publications/tertiary_education/5519)

- Rosenblatt, L. M. (1983). *Literature as exploration*. (4<sup>th</sup> ed.). New York, NY: Modern Language Association of America.
- Scott, S., & Baker, R. G. (2003). Determining the effectiveness of a teacher preparation course by exploring the transfer of complex teaching models by graduates. *Asia-Pacific Journal of Teacher Education*, 31, 67-85.
- Swartz, R. J., & Parks, S. (1994). *Infusing the teaching of critical and creative thinking into content instruction. A lesson design handbook for the elementary grades*. Pacific Grove, CA: Critical Thinking Press & Software.
- Taboada, A., Bianco, S., & Bowerman, V. (2012). Text-based questioning: A comprehension strategy to build English language learners' content knowledge. *Literacy, Research and Instruction*, 51, 87-109.
- Taboada, A., & Guthrie, J. T. (2006). Contributions of student questioning and prior knowledge to construction of knowledge from reading information text. *Journal of Literacy Research*, 38, 1-35.
- The Pennsylvania Code. (n.d.). Retrieved February 7, 2015, from <http://www.pacode.com/secure/data/022/chapter49/s49.13.html>
- Tierney, R. J., & Shanahan, T. (1991). Research on the reading-writing relationship: Interactions, transactions and outcomes. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.). *Handbook of reading research* (Vol. 2, pp. 246-280). White Plains, NY: Longman.
- Truscott, J. (2006). Optionality in second language acquisition: A generative, processing-oriented account. *International Review of Applied Linguistics in Language Teaching (IRAL)*, 44(3), 311-330.
- United States Department of Education. (2015). Racial/Ethnic Enrollment in Public Schools. *National Center for Education Statistics*. Retrieved from [http://nces.ed.gov/programs/coe/indicator\\_cge.asp](http://nces.ed.gov/programs/coe/indicator_cge.asp)
- Van den Bossche, P., & Segers, M. (2013). Transfer of training: Adding insight through social network analysis. *Educational Research Review*, 8, 37-47.
- Wheeler, R. S., & Swords, R. (2005). Code-switch to teach Standard English. *English Journal*, 94, 108-111.